



SIXTH EDITION

Childhood & Adolescence

VOYAGES IN DEVELOPMENT

SPENCER A. RATHUS

Want to turn C's into A's?

Obviously, right?

But the right way to go about it isn't always so obvious. Go digital to get the grades. MindTap's customizable study tools and eTextbook give you everything you need all in one place.

Engage with your course content, enjoy the flexibility of studying anytime and anywhere, stay connected to assignment due dates and instructor notifications with the MindTap Mobile app...

and most of all...EARN BETTER GRADES.



TO GET STARTED VISIT
WWW.CENGAGE.COM/STUDENTS/MINDTAP

 CENGAGE
Learning®

MindTap®

SIXTH EDITION

Childhood and Adolescence

VOYAGES IN DEVELOPMENT

SPENCER A. RATHUS

THE COLLEGE OF NEW JERSEY



Australia • Brazil • Mexico • Singapore • United Kingdom • United States

This is an electronic version of the print textbook. Due to electronic rights restrictions, some third party content may be suppressed. Editorial review has deemed that any suppressed content does not materially affect the overall learning experience. The publisher reserves the right to remove content from this title at any time if subsequent rights restrictions require it. For valuable information on pricing, previous editions, changes to current editions, and alternate formats, please visit www.cengage.com/highered to search by ISBN#, author, title, or keyword for materials in your areas of interest.

Important Notice: Media content referenced within the product description or the product text may not be available in the eBook version.

Childhood and Adolescence: Voyages in Development, Sixth Edition

Spencer A. Rathus

Product Director: Jon-David Hague

Product Manager: Melissa Gena

Associate Content Developers: Sean Cronin and
Adrienne McCrory

Marketing Manager: James Finlay

Senior Content Project Manager: Christy Frame

Senior Art Director: Vernon Boes

Senior Manufacturing Planner: Karen Hunt

Production and Composition: Graphic
World Inc

Photo Researcher: Manojkiran Chander, Lumina
Datamatics

Text Researcher: Venkatasubramanian
Ramakrishnan, Lumina Datamatics

Copy Editor: Graphic World Inc

Text and Cover Designer: Lisa Delgado

Cover Image: Diego Cervo/Shutterstock

© 2017, 2014 Cengage Learning

WCN: 02-200-203

ALL RIGHTS RESERVED. No part of this work covered by the copyright herein may be reproduced or distributed in any form or by any means, except as permitted by U.S. copyright law, without the prior written permission of the copyright owner.

For product information and technology assistance, contact us at
Cengage Learning Customer & Sales Support, 1-800-354-9706

For permission to use material from this text or product,
submit all requests online at www.cengage.com/permissions

Further permissions questions can be e-mailed to
permissionrequest@cengage.com

Library of Congress Control Number: 2015957655

Student Edition:

ISBN: 978-1-305-50459-2

Loose-leaf Edition:

ISBN: 978-1-305-86188-6

Cengage Learning

20 Channel Center Street
Boston, MA 02210
USA

Cengage Learning is a leading provider of customized learning solutions with employees residing in nearly 40 different countries and sales in more than 125 countries around the world. Find your local representative at www.cengage.com.

Cengage Learning products are represented in Canada by Nelson Education, Ltd.

To learn more about Cengage Learning Solutions, visit www.cengage.com.

Purchase any of our products at your local college store or at our preferred online store www.cengagebrain.com.

*To Allyn, Jordan,
Taylor, and March
(the child, not the month)*

About the Author



The author is shown at various stages of development in these four photographs

Spencer A. Rathus

Numerous personal experiences enter into Rathus's textbooks. For example, he was the first member of his family to go to college, and he found college textbooks to be cold and intimidating. Therefore, when his opportunity came to write college textbooks, he wanted them to be different—warm and encouraging, especially to students who were also the first generation in their families to be entering college. Rathus's first professional experience was in teaching high school English. Part of the task of the high school teacher is to motivate students and make learning fun. Through this experience he learned the importance of using humor and personal stories, which later became part of his textbook approach. Rathus wrote poetry and novels while he was an English teacher, and some of the poetry was published in poetry journals. The novels never saw the light of day (which is just as well, Rathus now admits in mock horror).

Rathus earned his Ph.D. in psychology and he entered clinical practice and teaching. He went on to publish research articles in journals such as *Adolescence*, *Behavior Therapy*, *Journal of Clinical Psychology*, *Behaviour Research and Therapy*, *Journal of Behavior Therapy and Experimental Psychiatry*, and *Criminology*. His research interests lie in the areas of human growth and development, psychological disorders, methods of therapy, and psychological assessment. Foremost among his research publications is the Rathus Assertiveness Schedule, which remains widely used in research and clinical practice. Rathus has since poured his energies into writing his textbooks, while teaching at Northeastern University, New York University, and currently at The College of New Jersey. His introductory psychology textbook, *Psychology: Concepts and Connections*, is soon to be in its eleventh edition.

Rathus is proud of his family. His wife, Lois, is a successful author and a professor of art at The College of New Jersey. Their daughter, Allyn, obtained her M.A. from NYU's Steinhardt School, and is teaching in New York City. Their daughter, Jordan, completed her MFA in fine arts at Columbia University and is launching her career as a video artist. Their youngest daughter, Taylor, can dance the pants off both of them. Taylor completed her BFA at NYU's Tisch program in musical theatre and is lighting up the stage. Rathus's eldest daughter, Jill, has become a psychologist and teaches at C. W. Post College of Long Island University.

1 What Is Child Development?

Chapter 1 History, Theories, and Methods 2

2 Beginnings

Chapter 2 Heredity and Conception 46

Chapter 3 Prenatal Development 76

Chapter 4 Birth and the Newborn Baby: In the New World 110

3 Infancy

Chapter 5 Infancy: Physical Development 148

Chapter 6 Infancy: Cognitive Development 182

Chapter 7 Infancy: Social and Emotional Development 214

4 Early Childhood

Chapter 8 Early Childhood: Physical Development 250

Chapter 9 Early Childhood: Cognitive Development 276

Chapter 10 Early Childhood: Social and Emotional Development 308

5 Middle Childhood

Chapter 11 Middle Childhood: Physical Development 344

Chapter 12 Middle Childhood: Cognitive Development 370

Chapter 13 Middle Childhood: Social and Emotional
Development 414

6 Adolescence

Chapter 14 Adolescence: Physical Development 448

Chapter 15 Adolescence: Cognitive Development 488

Chapter 16 Adolescence: Social and Emotional Development 514

Answers to Active Reviews A-1

Glossary G-1

References R-1

Name Index 1-1

Subject Index I-12

Part 1 What Is Child Development?

1 History, Theories, and Methods 2

Truth or Fiction? 3

1.1 What Is Child Development? Coming to Terms with Terms 4

Why Do Researchers Study Child Development? 5

What Views of Children Do We Find Throughout History? 6

1.2 Theories of Child Development 7

What Are Theories of Child Development? 8

What Is the Psychoanalytic Perspective on Child Development? 8

Concept Review 1.1: Comparison of Freud's and Erikson's Stages of Development 10

What Are the Learning Perspectives on Child Development? 13

A CLOSER LOOK: Research The Bell-and-Pad Method for Treating Bedwetting 14

A CLOSER LOOK: Research Operant Conditioning of Vocalizations in Infants 16

What Is the Cognitive Perspective on Child Development? 18

Concept Review 1.2: Jean Piaget's Stages of Cognitive Development 20

What Is the Biological Perspective on Development? 21

What Is the Ecological Systems Theory of Child Development? 22

What Is the Sociocultural Perspective on Development? 24

Concept Review 1.3: Perspectives on Child Development 28

1.3 Controversies in Child Development 31

Which Exerts the Greater Influence on Children: Nature or Nurture? 31

Is Development Continuous or Discontinuous? 31

Are Children Active (Prewired to Act on the World) or Passive (Shaped by Experience)? 32

1.4 How Do We Study Child Development? 33

What Is the Scientific Method? 33

What Methods of Observation Do Researchers Use to Gather Information About Children? 34



Correlation: What Does It Mean to Correlate Information? 35

A CLOSER LOOK: Research Surveying High School Seniors' Attitudes toward Living Together before Getting Married 36

What Is an Experiment? What Are an Experiment's Advantages Over Correlation? 37

How Do Researchers Study Developments That Take Place Over the Years? 38

Concept Review 1.4: Comparison of Cross-Sectional, Longitudinal, and Cross-Sequential Research 41

1.5 Ethical Considerations 42

A CLOSER LOOK: Research The Conditioning of "Little Albert": A Case Study in Ethics 42

Chapter Review 44

Key Terms 45

Part 2 Beginnings

2 Heredity and Conception 46

Truth or Fiction? 47

2.1 The Influence of Heredity on Development: The Nature of Nature 48

What Are Chromosomes and Genes? 48

What Are Mitosis and Meiosis? 49

What Are Identical and Fraternal Twins? 50

What Are Dominant and Recessive Traits? 50

2.2 Chromosomal and Genetic Abnormalities 52

What Kinds of Problems Are Caused by Chromosomal Abnormalities? 53

What Kinds of Problems Are Caused by Genetic Abnormalities? 54

How Do Health Professionals Determine Whether Children Will Have Genetic or Chromosomal Abnormalities? 57

2.3 Heredity and the Environment: Nature versus Nurture 61

Reaction Range: What Is the Difference Between Our Genotypes and Our Phenotypes? 61

What Is Canalization? 61

What Is Meant by Genetic–Environmental Correlation? 61

How Do Researchers Sort Out the Effects of Genetics and Environmental Influences on Development? (Are the Traits of Relatives Related?) 63

Twin Studies: Looking in the Genetic Mirror 63

Adoption Studies 64

2.4 Conception: Against All Odds 65

Ova 65

Sperm Cells 66



A CLOSER LOOK: **Diversity** Where Are the Missing Chinese Girls? 67

2.5 Infertility and Assisted Reproductive Technology 68

What Are the Causes of Infertility? 68

How Are Couples with Fertility Problems Assisted in Becoming Parents? 69

A CLOSER LOOK: **Diversity** LGBT Family Building 70

A CLOSER LOOK: **Research** Selecting the Sex of Your Child: Fantasy or Reality? 72

Chapter Review 74

Key Terms 75

3 Prenatal Development 76

Truth or Fiction? 77

3.1 The Germinal Stage: Wanderings 78

Without Visible Means of Support? 78

3.2 The Embryonic Stage 79

A CLOSER LOOK: **Real Life** Selecting an Obstetrician 81

Sexual Differentiation: How Do Some Babies Develop into Girls and Others into Boys? 82

Why Is the Amniotic Sac Called a “Shock Absorber”? 84

What Are the Functions of the Placenta? 84

3.3 The Fetal Stage 85

A CLOSER LOOK: **Research** On Fetal Perception—Bach at Breakfast and Beethoven at Brunch? 88

Concept Review 3.1: Highlights of Prenatal Development 89

A CLOSER LOOK: **Diversity** Birth Rates around the World 91

3.4 Environmental Influences on Prenatal Development 91

How Does Maternal Nutrition Affect Prenatal Development? 91

What Are Teratogens? Does It Matter When, During Pregnancy, a Woman Is Exposed to Them? 94

A CLOSER LOOK: **Real Life** Advice for Expectant Fathers 95

A CLOSER LOOK: **Real Life** Preventing One’s Baby from Being Infected with HIV 98

What Are the Effects of Drugs Taken by the Mother on Prenatal Development? 98

What Are the Effects of Environmental Hazards During Pregnancy? 103



What Are the Apparent Effects of Maternal Stress on the Child? 104

A CLOSER LOOK: Diversity The Effects of Parents' Age on Children—Do Men Really Have All the Time in the World? 105

Concept Review 3.2: Risks of Various Agents to the Embryo and Fetus 106

Chapter Review 108

Key Terms 109

4

Birth and the Newborn Baby: In the New World 110

Truth or Fiction? 111

4.1 Countdown... 112

4.2 The Stages of Childbirth 112

What Happens During the First Stage of Childbirth? 113

What Happens During the Second Stage of Childbirth? 113

What Happens During the Third Stage of Childbirth? 115

4.3 Methods of Childbirth 116

How Is Anesthesia Used in Childbirth? 116

What About Hypnosis and Biofeedback? 117

What Is Meant by Prepared Childbirth? 117

Why Are Cesarean Sections Used So Widely? What Are Their Pluses and Minuses? 119

Is Home Birth Too Risky, or Is It Something to Consider? 120

4.4 Birth Problems 121

What Are the Effects of Oxygen Deprivation at Birth? 121

What Are the Risks in Being Born Preterm or Low in Birth Weight? 121

A CLOSER LOOK: Diversity Maternal and Infant Mortality around the World 125

4.5 The Postpartum Period 127

What Kinds of Psychological Problems Do Women Encounter During the Postpartum Period? 127

How Critical Is Parental Interaction with Neonates in the Formation of Bonds of Attachment? 129

A CLOSER LOOK: Research Have We Found the Daddy Hormones? 130

4.6 Characteristics of Neonates 131

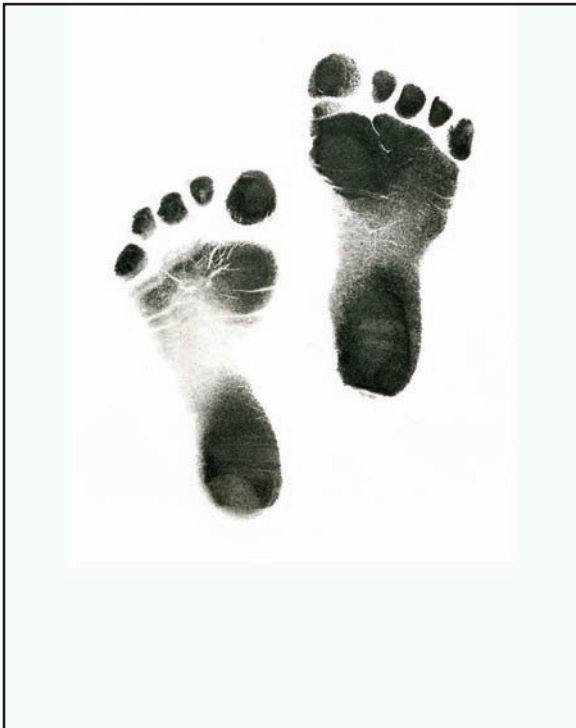
How Do Health Professionals Assess the Health of Neonates? 131

What Are Reflexes? What Reflexes Are Shown by Newborns? 133

How Well Do Neonates Sense the World Around Them? 134

A CLOSER LOOK: Research Studying Visual Acuity in Neonates—How Well Can They See? 135

On Really Early Childhood “Education”—Can Neonates Learn? 139



What Patterns of Sleep and Waking Are Found Among Neonates? 140

Why Do Babies Cry? What Can Be Done to Soothe Them? 142

4.7 Sudden Infant Death Syndrome (SIDS) 144

Chapter Review 146

Key Terms 147

Part 3 Infancy

5 Infancy: Physical Development 148

Truth or Fiction? 149

5.1 Physical Growth and Development 150

What Are the Sequences of Physical Development? Head First? 150

Concept Review 5.1: Sequences of Physical Development 151

What Patterns of Growth Occur in Infancy? 152

5.2 Nutrition: Fueling Development 155

A CLOSER LOOK: Real Life Food Timeline for the First Two Years 157

What Are the Pros and Cons of Breastfeeding vs. Bottle Feeding? 157

A CLOSER LOOK: Diversity Wasting Away from Hunger 159

5.3 Development of the Brain and Nervous System 162

What Are Neurons? How Do They Develop? 162

How Does the Brain Develop? 164

How Do Nature and Nurture Interact to Affect the Development of the Brain? 165

5.4 Motor Development: How Moving 166

Lifting and Holding the Torso and Head: Heads Up? 167

Control of the Hands: Getting a Grip on Things? 167

Locomotion: Getting a Move On? 168

How Do Nature and Nurture Interact to Affect Motor Development? 169

5.5 Sensory and Perceptual Development: Taking In the World 171

Development of Vision: The Better to See You With 171

Visual Preferences: How Do You Capture an Infant's Attention? 172

A CLOSER LOOK: Research Strategies for Studying the Development of Shape Constancy 175

Development of Hearing: The Better to Hear You With? 175



Development of Coordination of the Senses: If I See It,
Can I Touch It? 177

Do Children Play an Active or a Passive Role in Perceptual
Development? 177

A CLOSER LOOK: Real Life Effects of Early Exposure to Garlic,
Alcohol, and—Gulp—Veggies 178

What Is the Evidence for the Roles of Nature and Nurture in
Perceptual Development? 179

Chapter Review 180

Key Terms 181

6 **Infancy: Cognitive Development** 182

Truth or Fiction? 183

6.1 Cognitive Development: Jean Piaget 184

What Is the Sensorimotor Stage of Cognitive Development? 184

What Is Object Permanence? How Does It Develop? 187

What Are the Strengths and Limitations of Piaget's Theory of
Sensorimotor Development? 189

Concept Review 6.1: The Six Substages of the Sensorimotor Stage, According to Piaget 190

A CLOSER LOOK: Research Orangutans, Chimps, Magpies, and
Object Permanence 191

6.2 Information Processing 192

What Is the Capacity of the Memory of Infants? 192

Imitation: Infant See, Infant Do 192

A CLOSER LOOK: Research On Mirror Neurons and Really
Early Childhood Imitation 193

6.3 Social Influences on Early Cognitive Development 194

6.4 Individual Differences in Cognitive Functioning Among Infants 195

Testing Infants: Why and with What? 196

How Well Do Infant Scales Predict Later Intellectual
Performance? 196

What Is Visual Recognition Memory? How Is It Used to
Enhance Predictability of Infant Intelligence? 196

6.5 Language Development 198

What Are Prelinguistic Vocalizations? 198

How Does the Child Develop Vocabulary? 200

A CLOSER LOOK: Diversity Babbling Here, There, and
Everywhere 201

How Do Infants Create Sentences? On Telegraphing Ideas 202

6.6 Theories of Language Development: Can You Make a Houseplant Talk? 203

How Do Learning Theorists Account for Language
Development? 203



A CLOSER LOOK: **Diversity** Two-Word Sentences Here,
There, and... 204

A CLOSER LOOK: **Real Life** Infant-Directed Speech—Of “Yummy
Yummy” and “Kitty Cats” 206

How Can Adults Enhance Language Development in Children? 207

How Does Psycholinguistic Theory Explain Language
Development? 207

A CLOSER LOOK: **Research** Brain Structures Involved
in Language 209

What Is the Emergentist Theory of Language Development? 210

Chapter Review 212

Key Terms 213

7 **Infancy: Social and Emotional Development** 214

Truth or Fiction? 215

7.1 Attachments: Bonds That Endure 216

Patterns of Attachment: What Does It Mean for a Child to Be
“Secure” or “Insecure”? 216

What Are the Roles of the Caregivers in the Formation of Bonds
of Attachment? 217

How Stable Are Bonds of Attachment? 219

Are There Stages of Attachment? What Are They? 219

What Are the Various Theories of Attachment? How Does
Each Emphasize Nature or Nurture in Its Explanation of the
Development of Attachment? 220

Concept Review 7.1: Theories of
Attachment 224

7.2 When Attachment Fails 225

What Are the Effects of Social Deprivation on
Child Development? 225

How Common Are Child Abuse and Neglect?
What Are Their Effects? 227

A CLOSER LOOK: **Real Life** Prevention of
Sexual Abuse of Children 232

What Are Autism Spectrum Disorders? On Being
Alone Among the Crowd 233

7.3 Day Care 236

A CLOSER LOOK: **Real Life** Finding Child Care
You (and Your Child) Can Live With 238

7.4 Emotional Development 239

Is Emotional Development Linked to Patterns of
Attachment? 239

What is Meant by Fear of Strangers? Is It
Something to Worry About? 240

Social Referencing: What Should I Do Now? 240

How Do Infants Regulate Their Emotions? 241



7.5 Personality Development 242

What Is the Self-Concept? How Does It Develop? 242
Temperament: Easy, Difficult, or Slow to Warm Up 242

7.6 Gender Differences 245

What Are the Differences in Behavior Between Infant Girls and Boys? 246
Do Adults Behave Differently in Their Interactions with Infant Girls and Boys? 246
Do Parents Treat Their Infant Sons and Daughters Differently? 246

Chapter Review 248

Key Terms 249

Part 4 Early Childhood

8 Early Childhood: Physical Development 250

Truth or Fiction? 251

8.1 Growth Patterns 252

What Changes Occur in Height and Weight During Early Childhood? 252
How Does the Brain Develop During Early Childhood? 253
Are Some Children Right-Brained and Others Left-Brained? 253
What Is Meant by Plasticity of the Brain? 254

8.2 Motor Development 254

How Do Gross Motor Skills Develop in Early Childhood? 254

A CLOSER LOOK: Diversity Gender Differences in Motor Activity 257

How Do Fine Motor Skills Develop in Early Childhood? 257
When Does Handedness Emerge? Are There Any Advantages or Disadvantages to Being Left-Handed? 258

8.3 Nutrition 260

What Are Children's Nutritional Needs in Early Childhood? 260
What Are Children's Patterns of Eating? 260

8.4 Health and Illness 262

What Minor Illnesses Do Children Develop in Early Childhood? 262
What Major Illnesses Do Children Encounter? 262

A CLOSER LOOK: Real Life Ten Things You Need to Know about Childhood Immunizations 263

What Is the Role of Accidents as a Cause of Death in Early Childhood? 266

A CLOSER LOOK: Real Life Protecting Children from Lead Poisoning 267

8.5 Sleep 268

What Sleep Disorders Affect Children? 269



A CLOSER LOOK: **Research** Cross-Cultural Differences in Sleeping Arrangements 270

8.6 Elimination Disorders 271

What Is Enuresis? 271

What Is Encopresis? 272

A CLOSER LOOK: **Real Life** What to Do about Bedwetting 273

Chapter Review 275

Key Terms 275

9

Early Childhood: Cognitive Development 276

Truth or Fiction? 277

9.1 Jean Piaget's Preoperational Stage 278

How Do Children in the Preoperational Stage Think and Behave? 278

What Is Symbolic or Pretend Play? 278

What Are "Operations"? 279

Egocentrism: Why Do Young Children Think "It's All About Me"? 279

Causality: Why? Because! 280

How Do Young Children Confuse Mental and Physical Events? On "Galaprocks" and Dreams That Are Real 281

How Many Dimensions of a Problem Do Young Children Focus on at Once? On Mental Blinders 282

What Is Meant By Conservation? (Hint: We're Not Talking About the Environment) 282

What Do Young Children Put in Their Classes? On Class Inclusion 283

Concept Review 9.1: Features of Preoperational Cognition According to Piaget 284

A CLOSER LOOK: **Diversity** Development of Concepts of Ethnicity and Race 285

How Accurately Do Piaget's Views Represent Cognitive Development in Early Childhood? 286

9.2 Vygotsky's Views on Early Childhood Cognitive Development 287

What Are Scaffolding and the Zone of Proximal Development? 287

A CLOSER LOOK: **Research** Effects of Scaffolding on Children's Abilities to Recall and Retell Stories 287

9.3 Other Factors in Early Childhood Cognitive Development: The Home Environment, Preschool, and Television 288

How Does the Home Environment Affect the Cognitive Development of Children? 288



How Do Preschool Educational Programs Affect Children's Cognitive Development? 290
Is Television a Window on the World for Young Children, or a Prison within a False World? 291
What Are the Effects of Educational Television on Cognitive Development? 291
A CLOSER LOOK: Real Life Helping Children Use Television Wisely 293

9.4 Theory of Mind: What Is the Mind? How Does It Work? 294

What Are Young Children's Ideas About How the Mind Works? 294
On False Beliefs: Just Where Did Those Crayons Go? 294
On the Origins of Knowledge: Where Does It Come From? 295
The Appearance–Reality Distinction: Are Appearances at Some Ages More Deceiving Than at Others? 295

9.5 Development of Memory: Creating Documents, Storing Them, Retrieving Them 296

What Memory Skills Do Children Have in Early Childhood? How Do We Know? 296
How Competent Are Young Children's Memories? 297
What Factors Influence Memory Skills in Early Childhood? 298
Memory Strategies: How Do Children Remember to Remember? 299

9.6 Language Development: Why “Daddy Goed Away” 300

Words, Words, and More Words—How Does Vocabulary Develop in Early Childhood? 300
Putting Words Together—How Does Grammar Develop in Early Childhood? 301
Pragmatics: Can Preschoolers Be Practical? 304
What Are the Connections Between Language and Cognition? Which Comes First: The Concept or the Word? 304

Chapter Review 306

Key Terms 307

10 Early Childhood: Social and Emotional Development 308

Truth or Fiction? 309

10.1 Influences on Development: Parents, Siblings, and Peers 310

What Are the Dimensions of Child Rearing? 310
How Do Parents Enforce Restrictions? 311
What Parenting Styles Are Involved in the Transmission of Values and Standards? 312
How Do the Situation and the Child, Herself, Influence Parenting Styles? 314
How Do Siblings Influence Social and Emotional Development in Early Childhood? 314

A CLOSER LOOK: Diversity Individualism, Collectivism, and Patterns of Child Rearing 316

Birth Order: Just Where Is the Child in the Family? 317

How Do Peers Influence Social and Emotional Development in Early Childhood? 319

10.2 Social Behavior: In the World, Among Others 320

What Are the Characteristics of Play? How Does Play Affect Children's Development? 320

What Is Prosocial Behavior? How Does It Develop? 323

Aggression—The Dark Side of Social Interaction: How Does It Develop? 325

What Are the Causes of Aggression in Children? 325

A CLOSER LOOK: Research Do You Have to Be Taught to Hate? 326

10.3 Personality and Emotional Development 331

How Does the Self Develop During Early Childhood? 331

Initiative versus Guilt 332

The Horrors of Early Childhood: What Sorts of Fears Do Children Have During the Preschool Years? 332

A CLOSER LOOK: Real Life Helping Children Cope with Fears 333

10.4 Development of Gender Roles and Gender Differences 334

What Are Stereotypes and Gender Roles? How Do They Develop? 335

Gender Differences: How Do Females and Males Differ in Their Cognitive, Social, and Emotional Development? 336

What Are the Origins of Gender Differences? 337

Concept Review 10.1: Theories of the Development of Gender Differences 341

Chapter Review 342

Key Terms 343



Part 5 Middle Childhood

11 Middle Childhood: Physical Development 344

Truth or Fiction? 345

11.1 Growth Patterns 346

What Patterns of Growth Occur in Middle Childhood? 346

How Does the Brain Develop in Middle Childhood? 347

What Are the Connections Between Nutrition and Growth in Middle Childhood? 347



What Are the Gender Similarities and Differences in Physical Growth During Middle Childhood? 348
 How Do Vision and Hearing Develop During Middle Childhood? 348

11.2 Overweight Children 348

How Many Children in the United States Are Overweight? Why Are They Overweight? 348
 What Are the Causes of Being Overweight? 350

11.3 Childhood Asthma 351

What Is the Prevalence of Asthma? 351

A CLOSER LOOK: Real Life Helping Overweight Children Manage Their Weight 352

What Factors Increase the Risk of Developing Asthma? 354
 How Is Asthma Treated? 354

11.4 Motor Development 354

How Do Gross Motor Skills Develop During Middle Childhood? 354
 How Do Fine Motor Skills Develop During Middle Childhood? 355
 What Are the Gender Similarities and Differences in Motor Development During Middle Childhood? 355

Concept Review 11.1: Development of Motor Skills During Middle Childhood 356

Are Children in the United States Physically Fit? If Not, Why Not? 357
 What Can Be Done During Middle Childhood to Improve Physical Fitness? 357

11.5 Disorders That Affect Learning 358

What Is Attention-Deficit/Hyperactivity Disorder (ADHD)? 358
 How Does Run-of-the-Mill Failure (or Refusal!) to “Listen” to Adults Differ from Attention-Deficit/Hyperactivity Disorder? 359
 Is ADHD Overdiagnosed? 360
 What Are the Causes of ADHD? 360
 How Do Health Professionals Treat ADHD? How Can It Be Possible That Children with ADHD Are Commonly Treated with Stimulants? 361

A CLOSER LOOK: Diversity African American Youth and ADHD 362

What Are Learning Disabilities? 363

Concept Review 11.2: Kinds of Learning Disabilities 363

Should Children with Learning Disabilities Be Placed in Regular Classrooms (That Is, Should They Be “Mainstreamed”)? 366

Chapter Review 368

Key Terms 369

Middle Childhood: Cognitive Development 370

Truth or Fiction? 371

12.1 Jean Piaget: The Concrete-Operational Stage 372

What Is Meant by the Stage of Concrete Operations? 372

Can We Apply Piaget's Theory of Cognitive Development to Educational Practices? 374

Concept Review 12.1: Aspects of Concrete-Operational Thinking 375

12.2 Moral Development: The Child as Judge 376

How Does Piaget View the Development of Moral Reasoning? 376

How Does Kohlberg View the Development of Moral Reasoning? 378

12.3 Information Processing: Learning, Remembering, Problem Solving 380

How Do Children Develop Selective Attention? 381

What Developments Occur in the Storage and Retrieval of Information During Middle Childhood? 382

A CLOSER LOOK: Research The Long-Term Effects of Good Teaching 384

A CLOSER LOOK: Research Early Math Matters: Does a Child's Education in Math Need to Begin Prior to Kindergarten? 387

What Do Children Understand About the Functioning of Their Cognitive Processes and, More Particularly, Their Memory? 388

A CLOSER LOOK: Research Children's Eyewitness Testimony 389

12.4 Intellectual Development, Creativity, and Achievement 390

What Is Intelligence? 390

What Are the Various Factor Theories of Intelligence? 391

What Is Sternberg's Triarchic Theory of Intelligence? 391

What Is the Theory of Multiple Intelligences? 392

What Is Meant by Emotional Intelligence and Social Intelligence? 393

How Do We Measure Intellectual Development? 393

Concept Review 12.2: Theories of Intelligence 394

Why Do So Many Psychologists and Educators Consider Standard Intelligence Tests to Be Culturally Biased? 397

What Are the Various Patterns of Intellectual Development? 400



How Do Children Differ in Their Intellectual Development? 401

A CLOSER LOOK: Diversity Socioeconomic and Ethnic Differences in IQ 402

What Is Creativity? How Does Creativity Relate to Overall Intellectual Development? 404

What Is the Relationship Between Creativity and Intelligence? 404

What Are the Roles of Nature (Heredity) and Nurture (Environmental Influences) in the Development of Intelligence? 405

12.5 Language Development 409

How Do Children's Vocabulary and Grammar Develop in Middle Childhood? 409

What Cognitive Skills Are Involved in Reading? 409

What Does Research Reveal About the Advantages and Disadvantages of Bilingualism? 410

Chapter Review 412

Key Terms 413

13 Middle Childhood: Social and Emotional Development 414

Truth or Fiction? 415

13.1 Theories of Social and Emotional Development in Middle Childhood 416

What Are Psychoanalytic Theory's Views on Middle Childhood? 416

What Is Social Cognitive Theory's View on Middle Childhood? 417

What Is Cognitive-Developmental Theory's View on Middle Childhood? 417

How Does the Self-Concept Develop During Middle Childhood? 418

13.2 The Family 421

What Issues Are Involved in Parent–Child Relationships During Middle Childhood? 421

A CLOSER LOOK: Diversity LGBT Parents and Their Families 422

What Happens to Children Whose Parents Get Divorced? 423

A CLOSER LOOK: Real Life How to Answer a 7-Year-Old's Questions about—Gulp—Sex 424

What Are the Effects of Parental Employment on Children? 427

13.3 Peer Relationships 429

What Is the Influence of Peers During Middle Childhood? 429

How Do Children's Concepts of Friendship Develop During Middle Childhood? 430

13.4 The School 432

What Are the Effects of the School on Children's Social and Emotional Development? 432

What Is It Like for Children to Enter School?—Getting to Know You 432

What Are the Characteristics of a Good School? 433



13.5 Social and Emotional Problems 437

What Are Conduct Disorders? 438

What Is Childhood Depression? What Can We Do About It? 439

What Are the Features of Anxiety During Middle Childhood? 441

Concept Review 13.1: Social and Emotional Problems That May
Emerge During Middle Childhood 442

Chapter Review 446

Key Terms 447

Part 6 Adolescence

14 **Adolescence: Physical
Development 448**

Truth or Fiction? 449

14.1 Adolescence 450

How Do We Define Adolescence? 450

14.2 Puberty: The Biological Eruption 451

What Is the Role of Hormones in Puberty? 452

What Is the Adolescent Growth Spurt? 452

What Pubertal Changes Occur in Boys? 455

Concept Review 14.1: Five Stages of Male Development
During Puberty 456

What Pubertal Changes Occur in Girls? 457

Early versus Late Maturers: Does It Matter When
You Arrive, as Long as You Do? 459

Concept Review 14.2: Five Stages of Female
Development During Puberty 460

How Do Adolescents Feel About Their Bodies? 462

14.3 Brain Development 464

**14.4 Emerging Sexuality and the
Risks of Sexually Transmitted
Infections 465**

What Kinds of STIs Are There? 466

What Factors Place Adolescents at Risk for
Contracting STIs? 467

Given the Threat of HIV/AIDS and Other STIs,
What Can Be Done to Prevent Them? 468

A CLOSER LOOK: **Real Life** Preventing
HIV/AIDS and Other STIs: It's More than
Safe(r) Sex 470

14.5 Health in Adolescence 471

How Healthy Are U.S. Adolescents? 471

What Are the Causes of Death Among
Adolescents? 471



How Much Sleep Do Adolescents Need? 472
What Are the Nutritional Needs of Adolescents? What Do Adolescents Actually Eat? 472
A CLOSER LOOK: Real Life Schools and Adolescent Nutrition 473

14.6 Eating Disorders: When Dieting Turns Deadly 473

What Is Anorexia Nervosa? 474
What Is Bulimia Nervosa? 476
What Are the Origins of Eating Disorders? 477
How Do We Treat and Prevent Eating Disorders? 478

14.7 Substance Use and Substance Use Disorders 479

What Are the Effects of Depressants? 480
What Are the Effects of Stimulants? 482
What Are the Effects of Hallucinogenics? 482
A CLOSER LOOK: Diversity Gender, College Plans, Ethnicity, and Substance Abuse 482
A CLOSER LOOK: Real Life Do You Have a Problem with Alcohol? 483
What Factors Are Associated with Substance Use and Substance Use Disorders? 483
A CLOSER LOOK: Real Life Vaping: The Advent of E-Cigarettes 484
How Do We Treat and Prevent Substance Abuse? 485
Chapter Review 486
Key Terms 487

15 Adolescence: Cognitive Development 488

Truth or Fiction? 489

15.1 The Adolescent in Thought: My, My, How “Formal” 490

What Are Formal Operations? What Happens During Jean Piaget’s Stage of Formal Operations? 490

A CLOSER LOOK: Research The Puzzle and the Pendulum 492

Are Adolescents Egocentric? How Is Adolescent Egocentrism Related to the Imaginary Audience and the Personal Fable? 493

15.2 Gender Differences in Cognitive Abilities 494

A CLOSER LOOK: Research How Parents Can Help Early Adolescents in School 497

15.3 The Adolescent in Judgment: Moral Development 499

What Are Kohlberg’s Views on Moral Reasoning in Adolescence? 499

What Is the Postconventional Level of Moral Development? 499

A CLOSER LOOK: Diversity Women in STEM Fields 500



- Are There Cross-Cultural Differences in Moral Development? What Are They? 502
- Are There Gender Differences in Moral Development? 503
- On Moral Behavior and Moral Reasoning: Is There a Relationship? 504
- How, Then, Do We Evaluate Kohlberg's Theory? 504

15.4 The Adolescent in School 505

- How Do Adolescents Make the Transition from Elementary School to Middle, Junior High, or High School? 505
- What Are the Consequences of Dropping Out of School? Why Do Adolescents Drop Out? 506

A CLOSER LOOK: Diversity Who Drops Out of School? 507

- How Can Psychologists and Educators Prevent Adolescents from Dropping Out of School? 508

15.5 The Adolescent at Work: Career Development and Work Experience 508

- How Do Adolescents Make Career Choices? 508

A CLOSER LOOK: Diversity Ethnic Identity and Gender in Career Self-Efficacy Expectancies 509

- How Many American Adolescents Hold Jobs? What Are the Pros and Cons of Adolescents Working? 511

Chapter Review 513

Key Terms 513

16 Adolescence: Social and Emotional Development 514

Truth or Fiction? 515

16.1 Development of Identity and the Self-Concept: "Who Am I?" (And Who Else?) 516

- What Does Erik Erikson Have to Say About the Development of Identity During Adolescence? 516
- What Are James Marcia's "Identity Statures"? 517

Concept Review 16.1: Marcia's Identity Statures 517

- What Are the Connections Between Ethnicity and Other Sociocultural Factors—Such as Gender—and Identity? 518
- What Are the Stages in Developing an Ethnic Identity? 520
- Does the Development of Ego Identity Differ in Males and Females? 520
- How Does the Self-Concept Develop During Adolescence? 521
- What Happens to Self-Esteem During Adolescence: Bottoming? Rising? 521

16.2 Relationships with Parents and Peers 522

- How Do Relationships with Parents Change During Adolescence? 523



How Do Relationships with Peers Change During Adolescence? 524

16.3 Sexuality: When? What? (How?) Who? Where? and Why?—Not to Mention, “Should I?” 530

How Common Is Masturbation Among Adolescents? 530

How Does One’s Sexual Orientation Develop During Adolescence? 530

A CLOSER LOOK: Real Life Sexting: One More Way for Adolescents to Stay in Touch 533

How Does Male–Female Sexual Behavior Develop During Adolescence? 533

What Are the Effects of Puberty on Adolescent Sexual Behavior? 535

How Do Relationships with Parents Influence Adolescent Sexual Behavior? 536

How Do Relationships with Peers Influence Adolescent Sexual Behavior? 536

A CLOSER LOOK: Research Do Sexy TV Shows Encourage Sexual Behavior in Teenagers and Lead to Teenage Pregnancy? 537

What Are the Causes and Effects of Teenage Pregnancy in Our Society? 538

A CLOSER LOOK: Real Life Sex Education, U.S.A. 542

16.4 Juvenile Delinquency 544

What Are the Ethnic and Gender Differences in Juvenile Delinquency? Why Do They Occur? 544

Who Are the Delinquents? What Are They Like? 545

How Can We Prevent and Treat Juvenile Delinquency? 546

16.5 Suicide: When the Adolescent Has Nothing—Except Everything—to Lose 547

How Many Adolescents Commit Suicide? 547

What Prompts Adolescents to Take Their Own Lives? Who Is Most at Risk? 547

A CLOSER LOOK: Diversity Ethnicity, Gender, and Suicide 548

A CLOSER LOOK: Real Life Warning Signs of Suicide 549

16.6 Epilogue: Emerging Adulthood—Bridge Between Adolescence and the Life Beyond 550

What Is Emerging Adulthood? 550

What Are the Features of Emerging Adulthood? 552

What Are Erik Erikson’s Views on Emerging Adulthood? 553

Chapter Review 554

Key Terms 555

Answers to Active Reviews A-1

Glossary G-1

References R-1

Name Index I-1

Subject Index I-11

My heart leaps up when I behold
A rainbow in the sky:
So was it when my life began;
So is it now I am a man;
So be it when I shall grow old,
Or let me die!
The Child is father of the Man;
And I could wish my days to be
Bound each to each by natural piety.
William Wordsworth, 1802

Yes, the child is father of the man and, no less certainly, the mother of the woman. In our children, we have the making of ourselves. In children, parents have the most impetuous, comical, ingratiating, delightful, and—at times—infuriating versions of themselves. It is hard to believe, but true, that the babies we hold in our hands at birth may someday be larger and stronger, more talented, and more insightful than we are.

Portraying the Fascination of Children: Personal and Scientific

My goal in writing this book has been to capture the wonder of child development while portraying the field of development as the rigorous science it is. My approach is designed to help motivate students by showing them the joy of observing children. How can one hope to convey a true sense of development if one is blind to its marvels?

Childhood and Adolescence: Voyages in Development evolved from my scientific interest and research in human growth and development and also from my experiences with my own developing family. While my intention is to keep the tone of this text engaging and accessible, this book is rigorous in its reporting of research methods and science. On the other hand, the book is also “hands on”; it contains many applications, which range from preventing infant malnutrition and understanding what it is important to know about immunizations to helping children overcome enuresis and handling bullying in school.

Key Features

The sixth edition of *Childhood and Adolescence: Voyages in Development* contains the following key features:

- A thorough and rigorous update.
- **Concept Reviews:** visual presentations of complex developmental concepts.
- **A Closer Look—Diversity:** interesting and timely topics that show how culture—especially diverse cultural backgrounds—influences the many aspects of child development.

- **A Closer Look—Research:** features that offer expanded coverage of important research studies and also present research issues of great timeliness and interest.
- **A Closer Look—Real Life:** applications that allow readers to “take this book home with them” to apply what they are learning with children and adults in their own lives.

A Thorough Update

This is an exciting time to be studying child development. Every day, new research and new insights help us to better understand the mysteries and marvels of many aspects of development. Several hundred new citations refer the reader to research studies and broader documents, such as the American Academy of Pediatrics’ latest recommendations on preventing sudden infant death syndrome (SIDS), the latest information on the use of C-sections, the federal government’s most recent recommendations on childhood nutrition, and the most recent “Recommended Immunization Schedule for Persons Aged 0–6.”

Chapter Previews

The sixth edition contains chapter preview sections that include *Major Topics*, *Features*, and *Truth or Fiction?* items. These previews help shape students’ expectations and enhance the effectiveness of their learning by helping them create mental templates, or “advance organizers,” into which they categorize the subject matter.

Chapter-by-Chapter Updates

Every chapter has undergone updating in terms of the coverage of topics and pedagogy. Following is a sampling of what is new:

What’s New

Chapter 1	<ul style="list-style-type: none"> • Challenge to traditional views of “feminine” and “masculine” patterns of behavior, and what it means for behavior to be “gender-appropriate” • Revised discussion of safeguards for children in terms of education, sexual exploitation, and labor • Updated discussion of the psychoanalytic perspective on development • Discussion of the research finding that a majority of Americans believe that it is sometimes necessary to discipline children with a “good, hard spanking”
Chapter 2	<ul style="list-style-type: none"> • Updated discussion of the role of genetics (nature) in personal and social development • Updated discussions of chromosomal and genetic abnormalities and their effects • Updated discussion of prenatal testing for chromosomal and genetic problems • Updated discussion of epigenetics • Updated discussion of twin studies • Updated coverage of sex selection of fetuses in China

What's New

- | | |
|------------|---|
| Chapter 3 | <ul style="list-style-type: none">• Revised discussion of the role of the nervous system in prenatal development• Updated discussion of the survival rate of preterm infants• Update on the use of Truvada to prevent HIV infection• Update on the (lack of) safety in maternal use of alcohol during pregnancy• Revision of effects of paternal smoking on prenatal development |
| Chapter 4 | <ul style="list-style-type: none">• Complete update of global infant and maternal mortality, as published by Save the Children• Update on the prevalence of use of C-sections• Revised section on methods of childbirth• Updated presentation of categories of postpartum mood problems, according to the fifth edition of the DSM of the American Psychiatric Association (DSM-5) |
| Chapter 5 | <ul style="list-style-type: none">• Update on the benefits and risks of breastfeeding versus bottle feeding• New coverage of wet nurses• Revised coverage of caregiver promotion of practice in development of infant locomotion• New coverage on preferential treatment of attractive infants |
| Chapter 6 | <ul style="list-style-type: none">• Updated coverage of infant-directed speech• New coverage of the emergentist theory of language development |
| Chapter 7 | <ul style="list-style-type: none">• New coverage of the “intergenerational transmission of attachment”• Revised coverage of the ethological view of attachment• Revised coverage of the effects of social deprivation on child development• Revised discussion of child abuse and neglect• Revised coverage of reasons that child abuse goes unreported• Revised coverage of sexual abuse of children• Updates on autism spectrum disorders, including problems with lack of pruning of unused synapses |
| Chapter 8 | <ul style="list-style-type: none">• Revised and updated coverage of handedness• Revised coverage of minor illness in children• Updated coverage of recommended immunizations |
| Chapter 9 | <ul style="list-style-type: none">• Revised and updated coverage of imaginary friends (virtual characters)• Updated coverage of the effects of educational television |
| Chapter 10 | <ul style="list-style-type: none">• Updated coverage of children’s play• Updated coverage of prosocial behavior• Updated coverage of the effects of violent video games |
| Chapter 11 | <ul style="list-style-type: none">• Updated coverage of overweight and obesity in children: causes, effects, and weight control• Updated coverage of government guidelines for childhood nutrition: “Choose My Plate”• Updated coverage of causes and treatment of ADHD |
-

What's New

Chapter 12	<ul style="list-style-type: none">• Updated coverage of ways of stimulating children's memory• Updated coverage of children's metamemory• Updated coverage of the relationships between academic ability and creativity
Chapter 13	<ul style="list-style-type: none">• Update on children's perspective-taking and the relation to social skills• Update on authoritative parenting and children's self-esteem• Update on the genetic component of self-esteem• Update on factors in children's popularity among peers• Update on the origins and treatment of conduct disorders• Update on the treatment of school phobia or school refusal
Chapter 14	<ul style="list-style-type: none">• Revision of the concept that adolescence is a time of "storm and stress"• Updates on adolescent brain development• Updated coverage of adolescents and HIV• Update on anorexia nervosa and the female athlete triad• Revised section on substance use and substance use disorders, according to DSM-5• New coverage of adolescents and "vaping"—smoking e-cigarettes
Chapter 15	<ul style="list-style-type: none">• Updated coverage of the personal fable• Updated coverage of gender differences in cognitive abilities• Updated coverage of part-time adolescent employment
Chapter 16	<ul style="list-style-type: none">• Updated coverage of adolescents and social networking• Revised coverage of development of sexual orientation• Updated coverage of adolescent sexual behavior• Revised coverage of changes in teenage pregnancy rates over the years, and ethnic differences in teenage pregnancy rates

What Carries Through from Edition to Edition

The sixth edition of *Childhood and Adolescence: Voyages in Development* continues to present cutting-edge topic coverage, emphasizing the latest findings and research in key areas. The text is organized chronologically. It begins with introductory theoretical material. It then traces the physical, cognitive, and social and emotional sequences that characterize development from infancy through early and middle childhood.

Concept Reviews

Concept Reviews are more than simple summaries. They take complex developmental concepts, such as theories of intelligence, and present them in dynamic layouts that readily communicate the key concepts and the relationships among concepts. Many of them include photographs and figures as well as text. Here is a sampling of the Concept Reviews found in *Childhood and Adolescence: Voyages in Development*:

- Concept Review 1.3: "Perspectives on Child Development"
- Concept Review 6.1: "The Six Substages of the Sensorimotor Stage, According to Piaget"

“A Closer Look—Diversity” Features

These features address the most challenging issues related to the way children are influenced by ethnic background, gender roles, socioeconomic status, and age in areas ranging from intellectual development to ethnic and racial identity. In many cases, cultural and ethnic factors affect the very survival of the child. This coverage helps students understand why parents of different backgrounds and genders rear their children in certain ways, why children from various backgrounds behave and think in different ways, and how the study of child development is enriched by addressing those differences. Here are some examples of such topics:

- Chapter 2: “LGBT Family Building”
- Chapter 3: “The Effects of Parents’ Age on Children—Do Men Really Have All the Time in the World?”
- Chapter 4: “Maternal and Infant Mortality Around the World” (the latest information from Save the Children)

“A Closer Look—Research” Features

These research-focused features expand the book’s treatment of the ways in which researchers carry out their work. Examples of topics include:

- Chapter 1: “Operant Conditioning of Vocalizations in Infants”
- Chapter 4: “Studying Visual Acuity in Neonates—How Well Can They See?”
- Chapter 5: “Strategies for Studying the Development of Shape Constancy”
- Chapter 6: “On Mirror Neurons and Really Early Childhood Imitation”

“A Closer Look—Real Life” Features

These features enable readers to “take the book home with them”—that is, to apply what they are learning to children and adults in their own lives. Examples of topics include:

- Chapter 3: “Selecting an Obstetrician”
- Chapter 8: “Ten Things You Need to Know About Childhood Immunizations”
- Chapter 9: “Helping Children Use Television Wisely” (including teaching children not to imitate the violence they observe in the media)

An Enhanced Pedagogical Package: PQ4R

PQ4R discourages students from believing that they are sponges who will automatically soak up the subject matter in the same way that sponges soak up water. The PQ4R method stimulates students to *actively* engage the subject matter. Students are encouraged to become *proactive* rather than *reactive*.

PQ4R is the acronym for *Preview, Question, Read, Reflect, Relate, and Review*. PQ4R is more than the standard built-in study guide. It goes well beyond the few pages of questions and exercises that are found at the ends of the chapters of many textbooks. It flows throughout every chapter. It begins and ends every chapter, and it accompanies the student page by page.

Preview

The first feature of the PQ4R method is Preview. Revised chapter previews include *Major Topics, Features, and Truth or Fiction?* items to help shape students’ expectations. The previews enable students to create mental templates, or “advance organizers,” into which they categorize the subject matter. The *Truth or Fiction?* items stimulate students to examine their own assumptions and prepare to delve

into the subject matter by challenging folklore and common sense (which is often common *nonsense*). *Truth or Fiction Revisited* features throughout the chapter inform students whether they were correct in their assumptions. The *Major Topics* list outlines the material in the chapter, creating mental categories that guide students' reading.

Following is a sample of challenging *Truth or Fiction?* items from various chapters:

T | F

You can carry the genes for a deadly illness and not become sick yourself.

T | F

More children die from sudden infant death syndrome (SIDS) than from cancer, heart disease, pneumonia, child abuse, HIV/AIDS, cystic fibrosis, and muscular dystrophy combined.

T | F

Infants need to have experience crawling before they develop fear of heights.

T | F

It is dangerous to awaken a sleepwalker.

T | F

Three-year-olds usually say “Daddy goed away” instead of “Daddy went away” because they *do* understand rules of grammar.

T | F

Children who watch 2–4 hours of television a day will see 8,000 murders and another 100,000 acts of violence by the time they have finished elementary school.

Question

Asking questions about the subject matter, before reading it in detail, is another feature of the PQ4R method. Reading these questions gives students goals; they attend class or read the text *in order to answer the questions*. Headings throughout the chapters are written as questions to help students use the PQ4R method most effectively. When students come to such a question, they can read the following material in order to answer it.

Read

The first R in the PQ4R method stands for Read. Although students will have to read for themselves, they are not alone. The text helps by providing:

- A *Major Topics* list that helps students organize the material in each chapter
- *Truth or Fiction?* items that stimulate students by challenging common knowledge and folklore
- Presentation of the subject matter in clear, stimulating prose
- A running glossary that defines key terms in the margin of the text, near where the terms first appear in the text
- Development of concepts in an orderly fashion so that new concepts build on previously presented concepts

I have chosen a writing style that is “personal.” It speaks directly to the student and employs humor and personal anecdotes designed to motivate and stimulate students.

Reflect and Relate

Psychologists have shown that students better understand and remember subject matter when they relate it to their own lives. The “Reflect and Relate” (the second and third R in the PQ4R method) items promote that process of learning. Reflect items are also found in each Closer Look feature, guiding students to relate the content of the Closer Look feature to their own lives, and thereby aiding understanding and reinforcing remembering.

Review

The fourth R in PQ4R stands for Review. Regular reviews of the subject matter help students learn. Therefore, reviews follow all major sections in the text. These reviews contain fill-in-the-blank questions and “Reflect and Relate” items. Fill-in-the-blank exercises ask students to participate actively in the review process, not simply recognize correct answers as with multiple-choice questions. The chapter summaries provide end-of-chapter reviews in question-and-answer format, again prompting active learning.

In sum, we believe that our integrated pedagogical system gives students all the tools they need to comprehend the material and study for tests.

MindTap for Childhood and Adolescence

MindTap for Childhood and Adolescence: Voyages in Development engages and empowers students to produce their best work—consistently. By seamlessly integrating course material with videos, activities, apps, and much more, MindTap creates a unique learning path that fosters increased comprehension and efficiency.

For students:

- MindTap delivers real-world relevance with activities and assignments that help students build critical thinking and analytic skills that will transfer to other courses and to their professional lives.
- MindTap helps students stay organized and efficient with a single destination that reflects what is important to the instructor, along with the tools students need to master the content.
- MindTap empowers and motivates students with information that shows where they stand at all times—both individually and compared to the highest performers in class.

Additionally, MindTap allows instructors to:

- Control what content students see and when they see it with a learning path that can be used as-is or matched to their syllabus exactly.
- Create a unique learning path of relevant readings and multimedia and activities that move students up the learning taxonomy from basic knowledge and comprehension to analysis, application, and critical thinking.
- Integrate their own content into the MindTap Reader using their own documents or pulling from sources like RSS feeds, YouTube videos, websites, Google Docs, and more.
- Use powerful analytics and reports that provide a snapshot of class progress, time in course, engagement, and completion.

In addition to the benefits of the platform, MindTap for Childhood and Adolescence: Voyages in Development includes:

- Investigate Development, a case-based simulation that enables students to observe, evaluate, and make decisions about human development and shows the implications of research on a personal level. Students interact with simulated case studies of milestones in a person’s development, observing and analyzing audiovisual cues, consulting research, and making decisions. Instead of rote memorization of isolated concepts, Investigate Development compels students to think critically about research and brings human development to life.
- Formative assessments at the conclusion of each chapter.

- Interactive activities drawn from text features that foster student participation.
- Illustrative video embedded in the MindTap Reader to highlight key concepts for students.

Supplementary Materials

Online Instructor's Resource Manual

The *Instructor's Resource Manual* contains resources designed to streamline and maximize the effectiveness of course preparation. The contents include chapter overviews and outlines, learning objectives, critical thinking discussion questions, instructional goals, lecture expanders, video recommendations, and handouts.

Cengage Learning Testing Powered by Cognero

Cognero is a flexible, online system that allows you to author, edit, and manage test bank content as well as create multiple test versions in an instant. You can deliver tests from your school's learning management system, your classroom, or wherever you want. The test bank contains multiple-choice, completion, true/false, and essay questions for each chapter.

Online PowerPoint

These vibrant Microsoft® PowerPoint® lecture slides for each chapter assist you with your lecture by providing concept coverage using content directly from the textbook.

Acknowledgments

Reviewers

Many thanks to the reviewers who helped shape this book through the previous editions:

Jackie L. Adamson, *California State University–Fresno*
 Laurel Anderson, *Palomar College*
 Frank R. Asbury, *Valdosta State University*
 Melissa Atkins, *Marshall University*
 Elmida Baghdaserians, *Los Angeles Valley College*
 Vivian G. Baglien, *Green River Community College*
 Daniel R. Bellack, *Trident Technical College*
 Pearl Susan Berman, *Indiana University of Pennsylvania*
 Stephen Burgess, *Southwestern Oklahoma State University*
 Kate Byerwalter, *Grand Rapids Community College*
 D. Bruce Carter, *Syracuse University*
 Elizabeth Cauffman, *Stanford Center on Adolescence*
 Constance A. Crowley, *Union College*
 Tim Croy, *Eastern Illinois University*
 Kimberly Dechman, *George Mason University*
 Roberta Dihoff, *Rowan University*
 Rosanne Dlugosz, *Scottsdale Community College*
 Ruth Doyle, *Casper College*
 Adrienne K. Edlen, *Truman College*

Margaret Sutton Edmands, *University of Massachusetts–Boston*
Ann Englert, *California State Polytechnic University*
Cecilia Wharton Erlund, *University of Mary Hardin-Baylor*
JoAnn Farver, *University of Southern California*
Lawrence A. Fehr, *Widener University*
Edward Fernandes, *Barton College*
Karen Fischer, *Finger Lakes Community College*
Kim Fordham, *North Idaho College*
Lisa Fozio-Thielk, *Waubonsee Community College*
William Franklin, *California State University–Los Angeles*
Caroline Gee, *Saddleback College*
Hulda Goddy Goodson, *Palomar College*
Tresmaine R. Grimes, *Iona College*
Jill Haasch, *Elizabeth City State University*
Marissa J. Happ, *Waubonsee Community College*
Jane Hovland, *University of Minnesota–Duluth*
Cathleen Hunt, *Pennsylvania State University*
Betsy Jennings, *Chaffey College*
Patricia Kyle, *Southern Oregon University*
Charles LaBounty, *Hamline University*
Richard Langford, *California State University–Humboldt*
Sara Lawrence, *California State University–Northridge*
Karin Levine, *Creighton University*
Dennis A. Lichty, *Wayne State College*
Rebecca K. Loehrer, *Blinn College*
Frank Manis, *University of Southern California*
Jennifer Marshall, *Raymond Walters College*
Patricia M. Martin, *Onondaga Community College*
Laura Massey, *Montana State University–Bozeman*
Ashley E. Maynard, *University of Hawaii–Manoa*
Cathleen McGreal, *Michigan State University*
Julie McIntrye, *Russell Sage College*
Michael P. Meehan, *Maryville University of St. Louis*
Martha Mendez-Baldwin, *Manhattan College*
George Meyer, *Suffolk County Community College*
Ronald Mulson, *Hudson Valley Community College*
Robin Musselman, *Lehigh Carbon Community College*
Alan Y. Oda, *Azusa Pacific University*
Judy Payne, *Murray State University*
Sandra Portko, *Grand Valley State University*
John Prange, *Irvine Valley College*
Carol D. Raupp, *California State University–Bakersfield*
Mary Ann Ringquist, *University of Massachusetts–Boston*
Lee B. Ross, *Frostburg State University*
Julia Rux, *Georgia Perimeter College*
Alice A. Scharf-Matlick, *Iona College*
Debra Schwiesow, *Creighton University*
Whitney Scott, *California State University—Northridge*
Muriel Singer, *Kean University*
Linda Sperry, *Indiana State University*
Sarasue Spielman, *Oxnard College*
Lisa Swenson, *Pennsylvania State University–Hazleton*
Kimberley Taylor, *Spokane Falls Community College*
Elayne Thompson, *Harper College*
Naomi Wagner, *San Jose State University*
Shannon Welch, *University of Idaho*

Priscilla Wright, *Colorado Christian University*
Minhnoi C. Wroble Biglan, *Pennsylvania State University*
David N. Yarbrough, *University of Louisiana at Lafayette*
Glenna Zeak, *Penn State University*

With a group like this looking over your shoulder, it's difficult to make mistakes. But if any remain, I am solely responsible.

The book you hold in your hands would not be what it is without the insights and suggestions of my academic colleagues. It also owes much to the fine editorial and production team at Cengage and assembled by Cengage: Melissa Gena, Product Manager; Christy Frame, Content Project Manager; Nick Barrows, IP Project Manager; Charles Nichols, Content Digitization Project Manager; Sean Cronin and Adrienne McCrory in content development; James Finlay in marketing; and Vernon Boes, Senior Art Director.

Finally, I acknowledge the loving assistance of my family. My wife, Lois Fichner-Rathus, continues in her joint roles as supporter and critical reviewer. As shown in experiments with the visual cliff, infants will not usually go off the deep end. As a textbook author herself, and as an academic, Lois often prevents me from going off the deep end. My children I thank as the sources of stories—and stories and more stories. But mostly I thank them for being what they are: wellsprings of delight and fancy, occasional annoyances, and perpetual goads.



1

History, Theories, and Methods

Major Topics

- 1.1 **What Is Child Development? Coming to Terms with Terms**
- 1.2 **Theories of Child Development**
- 1.3 **Controversies in Child Development**
- 1.4 **How Do We Study Child Development?**
- 1.5 **Ethical Considerations**

Features

- Concept Review 1.1:** Comparison of Freud's and Erikson's Stages of Development
A CLOSER LOOK—**Research:** The Bell-and-Pad Method for Treating Bedwetting
- A CLOSER LOOK—**Research:** Operant Conditioning of Vocalizations in Infants
- Concept Review 1.2:** Jean Piaget's Stages of Cognitive Development
- Concept Review 1.3:** Perspectives on Child Development
A CLOSER LOOK—**Research:** Surveying High School Seniors' Attitudes Toward Living Together Before Getting Married
- Concept Review 1.4:** Comparison of Cross-Sectional, Longitudinal, and Cross-Sequential Research
A CLOSER LOOK—**Research:** The Conditioning of "Little Albert": A Case Study in Ethics

Truth or Fiction?

- T | F** During the Middle Ages in Europe, children were often treated as miniature adults. **p. 6**
- T | F** Children come into the world as "blank tablets"—without inborn differences in intelligence and abilities. **p. 6**
- T | F** Nail biting and smoking cigarettes are signs of conflict experienced during early childhood. **p. 9**
- T | F** Children should not be punished. **p. 16**
- T | F** Research with monkeys has helped psychologists understand the formation of attachment in humans. **p. 38**
- T | F** To learn how people develop over a lifetime, researchers have tracked some individuals for more than 50 years. **p. 39**

This book has a story to tell. An important story. A remarkable story. It is your story. It is about the remarkable journey you have already taken through childhood. It is about the unfolding of your life today. Billions have made this journey before. You have much in common with them. Yet you are unique, and things will happen to you, and because of you, that have never happened before.

Development of children is what this book is about. In a very real sense, we cannot hope to understand ourselves as adults—we cannot catch a glimpse of the journeys we have taken to arrive at this point in our lives—without understanding children.

In this chapter, we explore some of the reasons for studying development. We take a brief tour of the history of child development. It may surprise you that until relatively recent times, people were not particularly sensitive to the ways in which children differ from adults. Next, we examine some controversies in child development, such as whether there are distinct stages of development. We see how theories help illuminate our observations and how theories help point the way toward new observations. Then



PhotoDisc/First Light

we consider methods for the study of child development. Scientists have devised sophisticated methods for studying children, and the field of ethics helps us determine what types of research are deemed proper and what types are deemed improper.

1.1

What is Child Development? Coming to Terms With Terms



PhotoDisc/First Light

Motor Development This infant has just mastered the ability to pull herself up to a standing position. Soon she will be able to stand alone, and then she will begin to walk.

child A person undergoing the period of development from infancy through puberty.

infancy The period of very early childhood, characterized by lack of complex speech; the first 2 years after birth.

development The processes by which organisms unfold features and traits, grow, and become more complex and specialized in structure and function.

growth The processes by which organisms increase in size, weight, strength, and other traits as they develop.

You have heard the word *child* all your life, so why bother to define it? We do so because words in common usage are frequently used inexactly. A **child** is a person experiencing the period of development from *infancy* to *puberty*—two other familiar words that are frequently used inexactly. The term **infancy** derives from Latin roots meaning “not speaking,” and infancy is usually defined as the first 2 years of life, or the period of life before the development of *complex* speech. We stress the word *complex* because many children have a large vocabulary and use simple sentences before their second birthday.

Researchers commonly speak of two other periods of development that lie between infancy and adolescence: early childhood and middle childhood. Early childhood encompasses the ages from 2 to 5 years. Middle childhood generally is defined as the years from 6 to 12. In Western society, the beginning of this period usually is marked by the child’s entry into first grade. To study development, we must also look further back to the origin of sperm and ova (egg cells), the process of conception, and the prenatal period. Yet we must also describe the mechanisms of heredity that give rise to traits in humans and other animals.

Development is the orderly appearance, over time, of physical structures, psychological traits, behaviors, and ways of adapting to the demands of life. The changes brought on by development are both *qualitative* and *quantitative*. Qualitative changes are changes in type or kind. Consider motor development. As we develop, we gain the abilities to lift our heads, sit up, crawl, stand, and walk. These changes are qualitative. However, within each of these qualitative changes are quantitative developments, or changes in *amount*. After babies begin to lift their heads, they lift them higher and higher. Soon after children walk, they begin to run. Then they gain the capacity to run faster.

Development occurs across many dimensions—biological, cognitive, social, emotional, and behavioral. Development is spurred by internal factors, such as genetics, and it is shaped by external factors, such as nutrition and culture.

The terms *growth* and *development* are not synonymous, although many people use them interchangeably. **Growth** is generally used to refer to changes in size or quantity, whereas development also refers to changes in quality. During the early days following conception, the fertilized egg cell develops rapidly. It divides repeatedly, and cells begin to take on specialized forms. However, it does not “grow” in that there is no gain in mass. Why? It has not yet become implanted in the uterus and is therefore without any external source of nourishment. Language development is the process by which the child’s use of language becomes progressively more sophisticated and complex. Vocabulary growth, by contrast, consists of the accumulation of new words and their meanings.

Child development, then, is a field of study that tries to understand the processes that govern the appearance and growth of children’s biological structures, psychological traits, behavior, understanding, and ways of adapting to the demands of life.

Professionals from many fields are interested in child development. They include psychologists, educators, anthropologists, sociologists, nurses, and medical researchers. Each brings his or her own brand of expertise to the quest for knowledge.

Intellectual cross-fertilization enhances the skills of researchers in the field and enriches the lives of children.

Why Do Researchers Study Child Development?

An important motive for studying child development is curiosity—the desire to learn about children. Curiosity may be driven by the desire to answer questions about development that remain unresolved. It may also be driven by the desire to have fun. (Yes, children and the study of children can be fun.) There are other motives as well:

To Gain Insight into the Nature of Human Nature

For centuries, philosophers, scientists, and educators have argued over whether children are aggressive or loving, whether children are conscious and self-aware, whether they have a natural curiosity that demands to unravel the mysteries of the universe, or whether they merely react mechanically to environmental stimulation. The quest for answers has an impact on the lives of children, parents, educators, and others who interact with children.

To Gain Insight into the Origins of Adult Behavior

How do we explain the origins of empathy in adults? Of antisocial behavior? How do we explain the development of so-called “feminine” and “masculine” patterns of behavior? (If these patterns of behavior actually exist, do they represent the natural unfolding of genetic imperatives, societal expectations, or both?) And how do we explain the origins of special talents in writing, music, athletics, and math?

To Gain Insight into the Origins of Sex Differences and Gender Roles, and into the Effects of Culture on Development

How do gender roles—that is, culturally induced expectations for stereotypical feminine and masculine behavior—develop? Are there sex or gender differences in cognition and behavior? If so, how do they develop?

To Gain Insight into the Origins, Prevention, and Treatment of Developmental Problems

Fetal alcohol syndrome, PKU (see Chapter 2), SIDS (see Chapter 5), Down syndrome, autism, hyperactivity, dyslexia, child abuse—these are but a few of the buzzwords and terms that strike fear into parents and parents-to-be. A major focus in child development research is the search for the causes of such problems so that they can be prevented or treated.

To Optimize Conditions of Development

Most parents want to provide the best in nutrition and medical care for their children so that they will develop strong and healthy bodies. Parents want their infants to feel secure with them. They want to ensure that major transitions, such as the transition from the home to the school, will be as stress-free as possible. Researchers therefore strive to learn about issues such as:

- The effects of various foods and chemicals on the development of the embryo
- The effects of parent–infant interaction immediately following birth on bonds of attachment with children
- The effects of bottle feeding versus breastfeeding on mother–infant attachment and the baby’s health

- The effects of day-care programs on parent–child bonds of attachment and on children’s social and intellectual development
- The effects of various patterns of child rearing on the development of independence, competence, and social adjustment

What Views of Children Do We Find Throughout History?

In ancient times and in the Middle Ages, children often were viewed as innately evil, and discipline was harsh. Legally, medieval children in Europe were treated as property and servants. They could be sent to the monastery, married without consultation, or convicted of crimes. Children were nurtured until they were 7 years old, which was considered the “age of reason.” Then they were expected to work alongside adults in the home and in the field. They ate, drank, and dressed as miniature adults.

TRUTH OR FICTION REVISITED: It is true that children were treated as miniature adults throughout most of the Middle Ages. (For example, for much of the Middle Ages, artists depicted children as small adults.) However, this meant only that more was expected of them, not that they were given more privileges.

The transition to the study of development in modern times is marked by the thinking of philosophers such as John Locke and Jean-Jacques Rousseau. The Englishman John Locke (1632–1704) believed that the child came into the world as a *tabula rasa*—a “blank tablet” or clean slate—that was written on by experience. Locke did not believe that inborn predispositions toward good or evil played an important role

in the conduct of the child. Instead, he focused on the role of the environment or of experience. Locke believed that social approval and disapproval are powerful shapers of behavior. Jean-Jacques Rousseau (1712–1778), a Swiss–French philosopher, reversed Locke’s stance. Rousseau argued that children are inherently good and that, if allowed to express their natural impulses, they will develop into generous and moral individuals.



Erich Lessing/Art Resource, NY

A View of Children as Perceived in the 1600s Centuries ago, children were viewed as miniature adults. In this 17th-century painting, notice how the body proportions of the young princess (in the middle) are similar to those of her adult attendants.

TRUTH OR FICTION REVISITED: John Locke believed that children come into the world as “blank tablets”—without inborn differences in intelligence and talents. However, as we will see, there is research evidence that inborn factors—one’s heredity—play a role in the development of intelligence and personality traits.

During the Industrial Revolution, there was greater awareness of childhood as a special time of life. Still, children often labored in factories from dawn to dusk through the early years of the 20th century.

In the 20th century in the United States and many other developed nations, laws were passed to protect children from strenuous labor, to require that they attend

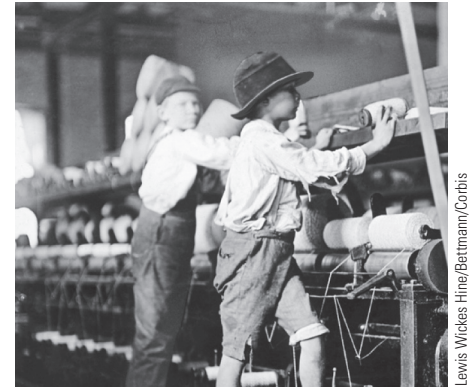
school until a certain age, and to prevent them from getting married or being sexually exploited. But these safeguards are by no means universal. Nevertheless, in the United States, where children were once considered the property of parents, who could do with them as they wished, laws now protect children from the abuse and neglect of parents and other caretakers. Juvenile courts see that children who break the law receive fair and appropriate treatment in the criminal justice system.

Pioneers in the Study of Child Development

Various thoughts about child development coalesced into a field of scientific study in the 19th and early 20th centuries. Many individuals, including Charles Darwin, G. Stanley Hall, and Alfred Binet, contributed to the emerging field.

The Englishman Charles Darwin (1809–1882) is best known as the originator of the theory of evolution. But he also was one of the first observers to keep a *baby biography*, in which he described his infant son's behaviors in great detail. The American G. Stanley Hall (1844–1924) is credited with founding child development as an academic discipline. He adapted the questionnaire method for use with large groups of children so that he could study the “contents of children's minds.” The Frenchman Alfred Binet (1857–1911), along with Theodore Simon (1872–1961), developed the first standardized intelligence test near the turn of the 20th century. The purpose of Binet's test was to identify public school children who were at risk of falling behind their peers in academic achievement.

By the beginning of the 20th century, child development had emerged as a scientific field of study. Within a short time, major theoretical views of the developing child had begun to emerge, proposed by such scientists as Arnold Gesell, Sigmund Freud, John B. Watson, and Jean Piaget. We next describe their theories of child development, as well as those of other theorists.



Lewis Wickes Hine/Bettmann/Corbis

A Young Child Laborer Children often worked long days in factories up through the early years of the 20th century. A number of cultures in the world today still use child labor.

Section Review

1. A child is a person experiencing the period of development from infancy to _____.
2. _____ is the orderly appearance, over time, of structures, traits, and behaviors.
3. The word *growth* is generally used to refer to changes in size or quantity, whereas the term _____ also refers to changes in quality.

Reflect & Relate: Do you believe that children are “wild”? That children must be “tamed”? Do you see dangers (to children) in answering yes to either question? Explain.

1.2

Theories of Child Development

“Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in, and I'll guarantee to train them to become any type of specialist I might suggest—doctor, lawyer, merchant, chief, and, yes, even beggar and thief, regardless of their talents, penchants, tendencies, abilities, vocations, and the race of their ancestors.”

Watson, 1924, p. 82

John B. Watson, the founder of American **behaviorism**, viewed development in terms of learning. He generally agreed with Locke's view that children's ideas,

behaviorism John B. Watson's view that a science or theory of development must study observable behavior only and investigate relationships between stimuli and responses.

preferences, and skills are shaped by experience. There continues to be a long-standing nature–nurture debate in the study of children. In his theoretical approach to understanding children, Watson came down on the side of nurture—the importance of the physical and social environments—found, for example, in parental training and approval. Watson’s view turned upside down the history of approaches to understanding children. Nature, or the inherited, genetic characteristics of the child, had long been the more popular explanation of how children develop into who they are.

Four years after Watson sounded his call for the behavioral view, Arnold Gesell expressed the opposing idea that biological maturation was the main principle of development: “All things considered, the inevitability and surety of maturation are the most impressive characteristics of early development. It is the hereditary ballast which conserves and stabilizes growth of each individual infant” (Gesell, 1928, p. 378). Watson was talking about the behavior patterns that children develop, whereas Gesell was focusing largely on the physical aspects of growth and development. Still, the behavioral and maturational perspectives lie at opposite ends of the continuum of theories of development. Many observers fall into the trap of overemphasizing the importance of either nature or nurture; thus they risk of overlooking the ways in which nature and nurture interact. Just as a child’s environments and experiences influence the development of his or her biological endowment, children often place themselves in environments that are harmonious with their personal characteristics. Children, for example, are influenced by teachers and by other students. Nevertheless, because of the traits they bring to school with them, some children may prefer to socialize with other children while other children may prefer to socialize with teachers. Still other children may prefer solitude.

What Are Theories of Child Development?

Child development is a scientific enterprise. Like other scientists, those who study development seek to describe, explain, predict, and influence the events they observe. When possible, descriptive terms and concepts are interwoven into **theories**. Theories are based on assumptions about behavior, such as Watson’s assumption that training outweighs talents and abilities, or Gesell’s assumption that the unfolding of maturational tendencies holds sway.

Theories enable us to derive explanations and predictions. For instance, a theory concerning the development of gender roles should allow us to predict how—and whether—children will acquire stereotypical feminine or masculine gender-typed behavior patterns. A broad theory of the development of gender roles might apply to children from different cultural and racial backgrounds and, perhaps, to children with gay male and lesbian sexual orientations as well as to children with a heterosexual orientation. If observations cannot be explained by or predicted from a theory, we may need to revise or replace the theory.

Theories also enable researchers to influence events, as in working better with parents, teachers, nurses, and children themselves to promote the welfare of children. Psychologists may summarize and interpret theory and research on the effects of day care to help day-care workers provide an optimal child-care environment. Teachers may use learning theory to help children learn to read and write. Let us consider various theoretical perspectives on child development.

What Is the Psychoanalytic Perspective on Child Development?

A number of theories fall within the psychoanalytic perspective. Each one owes its origin to Sigmund Freud and views children—and adults—as caught in conflict (Hergenhahn & Henley, 2014). Early in development, the conflict is between the child and the world outside. The expression of basic drives, such as sex and aggression, conflicts with parental expectations, social rules, moral codes, even laws.

theory A formulation of relationships underlying observed events. A theory involves assumptions and logically derived explanations and predictions.

However, the external limits—parental demands and social rules—are *internalized*; that is, they are brought inside. Once this happens, the conflict takes place between opposing *inner* forces. The child’s observable behavior, thoughts, and feelings reflect the outcomes of these hidden battles.

In this section, we explore Freud’s theory of **psychosexual development** and Erik Erikson’s theory of psychosocial development. Each is a **stage theory** that sees children as developing through distinct periods of life. Each suggests that the child’s experiences during early stages affect the child’s emotional and social life then and later on.

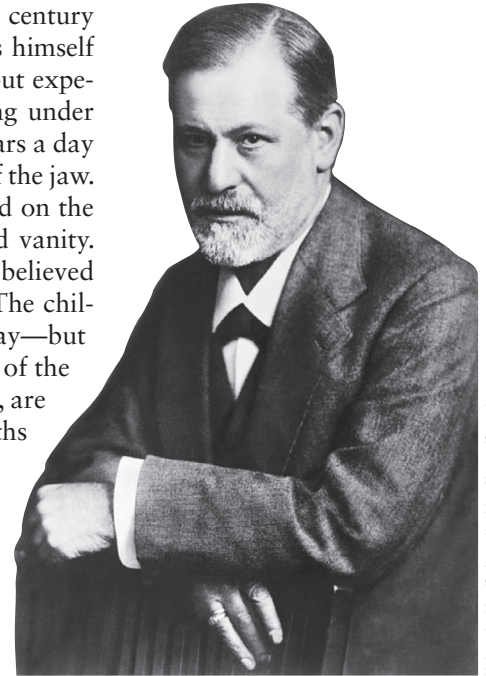
Sigmund Freud’s Theory of Psychosexual Development

Sigmund Freud (1856–1939) was a mass of contradictions. He has been both praised as the greatest thinker—or at least the greatest psychologist—of the 20th century and criticized as overrated. He preached liberal views on sexuality but was himself a model of sexual restraint. He invented a popular form of psychotherapy but experienced lifelong emotional problems, including migraine headaches, fainting under stress, hatred of the telephone, and an addiction to cigars. He smoked 20 cigars a day and could not or would not break the habit, even after he developed cancer of the jaw.

Freud focused on the emotional and social development of children and on the origins of psychological traits such as dependence, obsessive neatness, and vanity. Let us dive into Freud’s theory. *Diving* is a good metaphor because Freud believed that most of the human mind lies beneath consciousness, like an iceberg. The children you observe do and say many things—cry, crawl, run, talk, build, play—but all this is the tip of the iceberg. And the tip of an iceberg is the smallest part of the iceberg. Freud theorized that people, because of their childhood experiences, are only vaguely aware of the ideas and impulses that occupy the greater depths of their minds.

Freud theorized three parts of the personality: the *id*, *ego*, and *superego*. The *id* is present at birth and is unconscious. It represents biological drives and demands instant gratification, as suggested by a baby’s wailing. The *ego*, or the conscious sense of self, begins to develop when children learn to obtain gratification for themselves, without screaming or crying. The *ego* curbs the appetites of the *id* and makes plans that are in keeping with social conventions so that a person can find gratification yet avoid social disapproval. The *superego* develops throughout infancy and early childhood and brings inward the norms and morals of the child’s caregivers and other members of the community. If the child misbehaves, the *superego* will flood him or her with guilt and shame.

According to Freud, childhood has five stages of psychosexual development: *oral*, *anal*, *phallic*, *latency*, and *genital*. If a child receives too little or too much gratification during a stage, the child can become *fixated* in that stage. For example, in the first stage, if the child is weaned early or breastfed too long, the child may become fixated on *oral* activities such as nail biting or smoking, or even show a “sharp tongue” or “biting wit.”



Hulton Archive/Getty Images

Sigmund Freud Sigmund Freud is the originator of psychoanalytic theory. He proposed five stages of psychosexual development and emphasized the importance of biological factors in the development of personality.

TRUTH OR FICTION REVISITED: Sigmund Freud hypothesized that nail biting and smoking cigarettes are signs of conflict experienced during early childhood—in fact, during the so-called oral stage of development. However, there is actually no research evidence that nail biting and smoking cigarettes are signs of conflict experienced during early childhood, so we must—from a scientific perspective—consider Freud’s belief to be fictional.

In the second stage, the *anal stage*, gratification is obtained through control and elimination of waste products. Excessively strict or permissive toilet training can lead to the development of so-called anal-retentive traits, such as perfectionism and

psychosexual development Freud’s view that as children develop, they find sexual gratification through stimulating different parts of their bodies.

stage theory A theory of development characterized by hypothesizing the existence of distinct periods of life. Stages follow one another in an orderly sequence.

neatness, or anal-expulsive traits, such as sloppiness and carelessness. In the third stage, the *phallic stage*, parent–child conflict may develop over masturbation, which many parents treat with punishment and threats. It is normal for children to develop strong sexual attachments to the parent of the other sex during the phallic stage and to begin to view the parent of the same sex as a rival.

Freud believed that by age 5 or 6, children enter a *latency stage* during which sexual feelings remain unconscious; children turn to schoolwork and typically prefer playmates of their own sex. The final stage of psychosexual development, the *genital stage*, begins with the biological changes that usher in adolescence. Adolescents

Comparison of Freud’s and Erikson’s Stages of Development

Age	Freud’s Stages of Psychosexual Development	Erikson’s Stages of Psychosocial Development
Birth to 1 year  <small>PhotoDisc/First Light</small>	Oral Stage. Gratification derives from oral activities such as suck-ing. Fixation leads to development of oral traits such as dependence, depression, and gullibility.	Trust versus Mistrust. The developmental task is to come to trust the key caregivers, primarily the mother, and the environment. It is desirable for the infant to connect the environment with inner feelings of satisfaction and contentment.
About 1 to 3 years	Anal Stage. Gratification derives from anal activities involving elimi-nation. Fixation leads to develop-ment of anal- retentive traits (e.g., excessive neatness) or anal-expul-sive traits (e.g., sloppiness).	Autonomy versus Shame and Doubt. The de-velopmental task is to gain the desire to make choices and the self-control to regulate one’s behavior so that choices can be actualized.
About 3 to 6 years	Phallic Stage. Gratification derives from stimulation of the genital region. Fixation leads to develop-ment of phallic traits such as vanity.	Initiative versus Guilt. The developmen-tal task is to add initiative—planning and attempting to achieve that which one has chosen. The preschooler is on the move and becomes proactive.
About 6 to 12 years  <small>Brand X Photography/Veer</small>	Latency Stage. Sexual impulses are suppressed, allowing the child to focus on development of social and technological skills.	Industry versus Inferiority. The developmen-tal task is to become absorbed in the develop-ment and implementation of skills, to master the basics of technology, and to become productive.

© 2017 Cengage Learning®