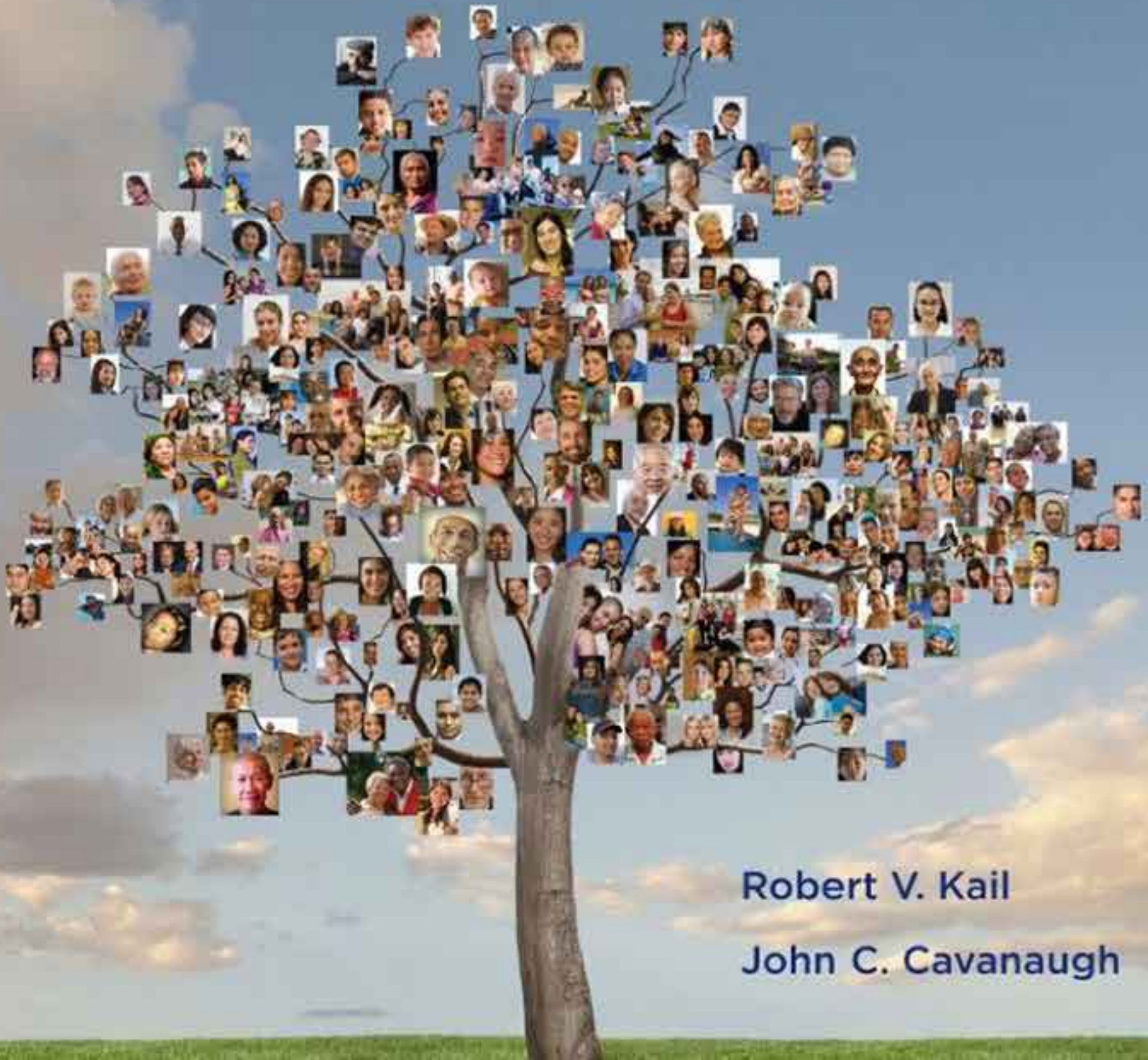


Essentials of Human Development

A Life-Span View



Robert V. Kail

John C. Cavanaugh

Buy the way you want and save

Get the best grade in the shortest time possible!

CENGAGE **brain**.com

Choice (pick your format)

Value (get free stuff*)

Savings (eBooks up to 65% off print)

Visit **CengageBrain.com** to find...

Print • Rentals • eBooks • eChapters

Best Buy Packages • Study Tools



www.cengagebrain.com

Your First Study Break

TRANSFORMING LEARNING TRANSFORMING LIVES

 CENGAGE
Learning®

*free content availability varies

Copyright 2013 Cengage Learning. All Rights Reserved. May not be copied, scanned, or duplicated, in whole or in part. Due to electronic rights, some third party content may be suppressed from the eBook and/or eChapter(s). Editorial review has deemed that any suppressed content does not materially affect the overall learning experience. Cengage Learning reserves the right to remove additional content at any time if subsequent rights restrictions require it.

ESSENTIALS OF
Human Development
A Life-Span View

ESSENTIALS OF
Human Development
A Life-Span View

Robert V. Kail

Purdue University

John C. Cavanaugh

Pennsylvania State System of Higher Education



Australia • Brazil • Japan • Korea • Mexico • Singapore • Spain • 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.

Essentials of Human Development:**A Life-Span View****Robert V. Kail and John C. Cavanaugh**

Publisher: Jon-David Hague

Executive Editor: Jaime Perkins

Senior Developmental Editor: Kristin
Makarewycz

Assistant Editor: Paige Leeds

Editorial Assistant: Audrey Espey

Senior Media Editor: Mary Noel

Senior Brand Manager: Elisabeth Rhoden

Market Development Manager: Christine Sosa

Program Manager: Adrienne Saperstein

Content Project Manager: Charlene Carpentier

Senior Art Director: Vernon T. Boes

Manufacturing Planner: Karen Hunt

Rights Acquisitions Specialist: Tom
McDonoughProduction Service and Composition:
Graphic World Inc.

Photo Researcher: Roman Barnes

Text Researcher: Isabel Saraiva

Copy Editor: Graphic World Inc.

Text Designer: Lisa Delgado

Cover Designer: Paula Goldstein

Cover Image: John Lund/Getty Images;
Shutterstock

© 2014 Wadsworth, Cengage Learning

ALL RIGHTS RESERVED. No part of this work covered by the copyright herein may be reproduced, transmitted, stored, or used in any form or by any means, graphic, electronic, or mechanical, including but not limited to photocopying, recording, scanning, digitizing, taping, Web distribution, information networks, or information storage and retrieval systems, except as permitted under Section 107 or 108 of the 1976 United States Copyright Act, without the prior written permission of the publisher.

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: 2012942042

Student Edition:

ISBN-13: 978-1-133-94344-0

ISBN-10: 1-133-94344-6

Loose-Leaf Edition:

ISBN-13: 978-1-285-08968-3

ISBN-10: 1-285-08968-5

Wadsworth20 Davis Drive
Belmont, CA 94002-3098
USA

Cengage Learning is a leading provider of customized learning solutions with office locations around the globe, including Singapore, the United Kingdom, Australia, Mexico, Brazil, and Japan. Locate your local office at **www.cengage.com/global**.

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

To learn more about Wadsworth visit **www.cengage.com/Wadsworth**Purchase any of our products at your local college store or at our preferred
online store **www.CengageBrain.com**.

Printed in Canada

1 2 3 4 5 6 7 16 15 14 13 12

To Dea and Chris

About the Authors



Courtesy of Robert V. Kail

ROBERT V. KAIL is Distinguished Professor of Psychological Sciences at Purdue University. His undergraduate degree is from Ohio Wesleyan University, and his Ph.D. is from the University of Michigan. Kail is editor of *Psychological Science*, the flagship journal of the Association for Psychological Science, and is the incoming editor of *Child Development Perspectives*. He received the McCandless Young Scientist Award from the American Psychological Association, was named the Distinguished Sesquicentennial Alumnus in Psychology by Ohio Wesleyan University, and is a fellow of the Association for Psychological Science. Kail has also written *Children and Their Development*. His research focuses on cognitive development during childhood and adolescence. Away from the office, he enjoys photography and working out.



Courtesy of John C. Cavanaugh

JOHN C. CAVANAUGH is Chancellor of the Pennsylvania State System of Higher Education. He received his undergraduate degree from the University of Delaware and his Ph.D. from the University of Notre Dame. Cavanaugh is a fellow of the American Psychological Association (APA), the Association for Psychological Science, and the Gerontological Society of America, and he has served as president of the Adult Development and Aging Division (Division 20) of the APA. Cavanaugh has also written (with the late Fredda Blanchard-Fields) *Adult Development and Aging*. His research interests in gerontology concern family caregiving as well as the role of beliefs in older adults' cognitive performance. For enjoyment, he backpacks, writes poetry, and, while eating chocolate, ponders the relative administrative abilities of James T. Kirk, Jean-Luc Picard, Kathryn Janeway, Benjamin Sisko, and Jonathan Archer.

Brief Contents

I The Study of Human Development **3**

PART 1 Prenatal Development, Infancy, and Early Childhood **31**

- 2** Biological Foundations: Heredity, Prenatal Development, and Birth **33**
3 Tools for Exploring the World: Physical, Perceptual, and Motor Development **63**
4 The Emergence of Thought and Language: Cognitive Development in Infancy and Early Childhood **93**
5 Entering the Social World: Socioemotional Development in Infancy and Early Childhood **127**

PART 2 School-Age Children and Adolescents **155**

- 6** Off to School: Cognitive and Physical Development in Middle Childhood **157**
7 Expanding Social Horizons: Socioemotional Development in Middle Childhood **189**
8 Rites of Passage: Physical and Cognitive Development During Adolescence **217**
9 Moving Into the Adult Social World: Socioemotional Development in Adolescence **239**

PART 3 Young and Middle Adulthood **261**

- 10** Becoming an Adult: Physical, Cognitive, and Personality Development in Young Adulthood **263**
11 Being With Others: Forming Relationships in Young and Middle Adulthood **291**
12 Work: Occupational and Lifestyle Issues in Young and Middle Adulthood **317**
13 Making It in Midlife: The Biopsychosocial Challenges of Middle Adulthood **345**

PART 4 Late Adulthood **375**

- 14** The Personal Context of Later Life: Physical, Cognitive, and Mental Health Issues **377**
15 Social Aspects of Later Life: Psychosocial, Retirement, Relationship, and Societal Issues **409**
16 The Final Passage: Dying and Bereavement **439**

Contents

About the Authors **vii**
Preface **xix**
To the Student **xxiii**

I The Study of Human Development **3**



© Blend Images/Alamy

1.1 Thinking About Development **4**

Recurring Issues in Human Development **5**
Basic Forces in Human Development: The Biopsychosocial Framework **6**

Real People Applying Human Development: Lena Horne **8**

Neuroscience: A Window Into Human Development **8**

1.2 Developmental Theories **9**

Psychodynamic Theory **10**
Learning Theory **10**
Cognitive-Developmental Theory **11**
Ecological and Systems Perspective **13**
Lifelong Development Perspective **14**
The Big Picture **16**

1.3 Doing Developmental Research **17**

Measurement in Human Development Research **17**
General Designs for Research **20**
Designs for Studying Development **22**

Spotlight on Research Stability and Change in Life Satisfaction **23**

Conducting Research Ethically **24**
Communicating Research Results **24**
Applying Research Results: Social Policy **25**

Linking Research to Life Stem Cell Research **26**

Problems With Using Photographs to Measure Understanding of Emotions **26**

Summary **27**
Key Terms **28**
Online Resources **29**

PART I Prenatal Development, Infancy, and Early Childhood **31**

2 Biological Foundations: Heredity, Prenatal Development, and Birth **33**

2.1 In the Beginning: 23 Pairs of Chromosomes **34**

Mechanisms of Heredity **34**
Heredity, Environment, and Development **38**

Real People Applying Human Development: Ben and Matt Pick Their Niches **40**



2.2 From Conception to Birth 41

Period of the Zygote (Weeks 1 and 2) 42

Period of the Embryo (Weeks 3–8) 43

Period of the Fetus (Weeks 9–38) 43

2.3 Influences on Prenatal Development 45

General Risk Factors 45

Teratogens: Drugs, Diseases, and Environmental Hazards 46

How Teratogens Influence Prenatal Development 49

Prenatal Diagnosis and Treatment 51

2.4 Labor and Delivery 53

Stages of Labor and Delivery 53

Approaches to Childbirth 54

Adjusting to Parenthood 55

Birth Complications 55

Infant Mortality 56

Spotlight on Research Impaired Cognitive Functions in Low Birth Weight Babies 57

Linking Research to Life Conception in the 21st Century 59

Summary 60

Key Terms 61

Online Resources 61

3 Tools for Exploring the World: Physical, Perceptual, and Motor Development 63



3.1 The Newborn 64

The Newborn's Reflexes 64

Assessing the Newborn 64

The Newborn's States 65

Temperament 67

3.2 Physical Development 69

Growth of the Body 69

The Emerging Nervous System 71

Emerging Brain Structures 73

Growth of a Specialized Brain 73

3.3 Moving and Grasping: Early Motor Skills 75

Locomotion 75

Fine Motor Skills 77

3.4 Coming to Know the World: Perception 79

Smelling, Tasting, Touching, and Hearing 79

Seeing 80

Spotlight on Research Specialized Face Processing During Infancy 84

Integrating Sensory Information 84

3.5 Becoming Self-Aware 86

Origins of Self-Concept 86

Theory of Mind 87

Real People Applying Human Development: "Seeing Is Believing" for 3-Year-Olds 89

Linking Research to Life Theory of Mind in Children With Autism 89

Summary 90

Key Terms 91

Online Resources 91

4 The Emergence of Thought and Language: Cognitive Development in Infancy and Early Childhood 93



© Anoinne Juliette/Credia Eurl/SuperStock

4.1 The Onset of Thinking: Piaget's Account 94

Basic Principles of Cognitive Development 94

Real People Applying Human Development: Learning About Butterflies: Accommodation and Assimilation in Action 95

Sensorimotor Thinking 96

Preoperational Thinking 97

Evaluating Piaget's Theory 99

Extending Piaget's Account: Children's Naive Theories 100

4.2 Information Processing During Infancy and Early Childhood 103

General Principles of Information Processing 103

Attention 103

Learning 104

Memory 105

Learning Number Skills 106

4.3 Mind and Culture: Vygotsky's Theory 108

The Zone of Proximal Development 109

Scaffolding 109

Private Speech 110

4.4 Language 111

The Road to Speech 111

First Words and Many More 113

Spotlight on Research Do Infants Learn Words From Watching Infant-Oriented Media? 117

Speaking in Sentences: Grammatical Development 117

Communicating With Others 119

Linking Research to Life Ways to Foster Children's Learning 122

Summary 122

Key Terms 124

Online Resources 124

5 Entering the Social World: Socioemotional Development in Infancy and Early Childhood 127



altrendo images/Getty Images

5.1 Beginnings: Trust and Attachment 128

Erikson's Stages of Early Psychosocial Development 128

The Growth of Attachment 129

What Determines Quality of Attachment? 131

5.2 Emerging Emotions 132

Experiencing and Expressing Emotions 133

Recognizing and Using Others' Emotions 135

Regulating Emotions 135

5.3 Interacting With Others 137

The Joys of Play 137

Helping Others 140

Real People Applying Human Development: Using Reasoning to Promote Prosocial Behavior 142

5.4 Gender Roles and Gender Identity 143

Images of Men and Women: Facts and Fantasy 144

Gender Typing 146

Spotlight on Research How Mothers Talk to Children About Gender 147

Gender Identity	148
Evolving Gender Roles	149
Linking Research to Life Attachment and Child Care	151
Summary	151
Key Terms	153
Online Resources	153

PART 2 School-Age Children and Adolescents 155

6 Off to School: Cognitive and Physical Development in Middle Childhood 157



Purestock/Getty Images

6.1 Cognitive Development	158
More Sophisticated Thinking: Piaget's Version	158
Real People Applying Human Development: Combinatorial Reasoning Goes to the Races	159
Information-Processing Strategies for Learning and Remembering	160
6.2 Aptitudes for School	161
Theories of Intelligence	162
The Development of Intelligence Testing	164
Do Tests Work?	165
Hereditary and Environmental Factors	165
The Impact of Ethnicity and Socioeconomic Status	166
6.3 Special Children, Special Needs	168
Gifted and Creative Children	168
Children With Disability	169
Spotlight on Research Phonological Representations in Children With Developmental Dyslexia	170
Attention-Deficit Hyperactivity Disorder	171
6.4 Academic Skills	173
Reading	174
Writing	176
Math Skills	177
Effective Schools, Effective Teachers	177
6.5 Physical Development	179
Growth	180
Development of Motor Skills	181
Physical Fitness	182
Participating in Sports	182
Linking Research to Life Teaching Using the Theory of Multiple Intelligences	183
Summary	184
Key Terms	186
Online Resources	186

7 Expanding Social Horizons: Socioemotional Development in Middle Childhood 189



© Juice Images/SuperStock

8 Rites of Passage: Physical and Cognitive Development During Adolescence 217



© PCN Photography/Alamy

7.1 Family Relationships 190

Dimensions and Styles of Parenting 190

Siblings 194

Divorce and Remarriage 195

Spotlight on Research Evaluation of a Program to Help Parents and Children Adjust to Life After Divorce 197

Parent–Child Relationships Gone Awry: Child Maltreatment 198

7.2 Peers 200

Friendships 200

Groups 202

Popularity and Rejection 203

Aggressive Children and Their Victims 204

7.3 Electronic Media 206

Television 206

Computers 207

7.4 Understanding Others 208

Describing Others 208

Real People Applying Human Development: Tell Me About a Girl Whom You Like a Lot 209

Understanding What Others Think 209

Prejudice 210

Linking Research to Life Preventing Child Maltreatment 212

Summary 213

Key Terms 215

Online Resources 215

8.1 Pubertal Changes 218

Signs of Physical Maturation 218

Mechanisms of Maturation 220

Psychological Impact of Puberty 221

8.2 Health 222

Nutrition 223

Physical Fitness 225

Threats to Adolescent Well-Being 225

8.3 Information Processing During Adolescence 227

Working Memory and Processing Speed 228

Content Knowledge, Strategies, and Metacognitive Skill 228

Problem Solving and Reasoning 229

Spotlight on Research Adolescents Can Identify Fallacies in Arguments 230

8.4 Reasoning About Moral Issues 231

Kohlberg's Theory of Moral Reasoning 232

Real People Applying Human Development: *Schindler's List* 233

Beyond Kohlberg's Theory 234

Linking Research to Life Promoting Moral Reasoning 235

Summary 236

Key Terms 237

Online Resources 237

9 Moving Into the Adult Social World: Socioemotional Development in Adolescence 239

Yellow Dog Productions/Getty Images



9.1 Identity and Self-Esteem 240

The Search for Identity 240
Ethnic Identity 242
Self-Esteem in Adolescence 243

9.2 Romantic Relationships and Sexuality 245

Romantic Relationships 245
Sexual Behavior 245
Sexual Orientation 247
Dating Violence 248

Spotlight on Research Why Are Some Boys More Likely to Perpetrate Dating Violence? 248

9.3 The World of Work 249

Career Development 250

Real People Applying Human Development: *The Life of Lynne: A Drama in Three Acts* 250

Part-Time Employment 252

9.4 The Dark Side 253

Drug Use 254
Depression 254
Delinquency 256

Linking Research to Life Prohibiting Capital Punishment for Adolescents 257

Summary 258

Key Terms 259

Online Resources 259

PART 3 Young and Middle Adulthood 261

10 Becoming an Adult: Physical, Cognitive, and Personality Development in Young Adulthood 263

Andreas Pollok/Getty Images



10.1 Emerging Adulthood 264

Role Transitions Marking Adulthood 264
Going to College 265
Behavioral Changes 266
Launching Financial Independence 267

Real People Applying Human Development: Does Being Famous Mean You're an Adult? 268

10.2 Physical Development and Health 269

Growth, Strength, and Physical Functioning 269
Health Status 269
Lifestyle Factors 269
Social, Gender, and Ethnic Issues in Health 273

10.3 Cognitive Development 275

How Should We View Intelligence in Adults? 275
Primary and Secondary Mental Abilities 275

Spotlight on Research The Seattle Longitudinal Study 276

Fluid and Crystallized Intelligence 277

Neuroscience Research and Intelligence in Young and Middle Adulthood 279

Going Beyond Formal Operations: Thinking in Adulthood 279

Integrating Emotion and Logic in Life Problems 280

10.4 Who Do You Want to Be? Personality in Young Adulthood 282

Creating Scenarios and Life Stories 283

Possible Selves 283

Personal Control Beliefs 284

Linking Research to Life Reducing Binge Drinking on College Campuses 286

Summary 286

Key Terms 288

Online Resources 288

11 Being With Others: Forming Relationships in Young and Middle Adulthood 291



© OJO Images/SuperStock

11.1 Relationships 292

Friendships 292

Love Relationships 293

Spotlight on Research Patterns and Universals of Romantic Attachment 295

The Dark Side of Relationships: Abuse 296

11.2 Lifestyles 298

Singlehood 299

Cohabitation 299

Gay and Lesbian Couples 300

Real People Applying Human Development: Maggie O'Carroll's Story 300

Marriage 301

11.3 The Family Life Cycle 305

Deciding Whether to Have Children 305

The Parental Role 306

11.4 Divorce and Remarriage 309

Divorce 310

Remarriage 312

Linking Research to Life Does Marriage Education Work? 313

Summary 314

Key Terms 315

Online Resources 315

12 Work: Occupational and Lifestyle Issues in Young and Middle Adulthood 317



Yellow Dog Productions/Getty Images

12.1 Occupational Selection and Development 318

The Meaning of Work 318

Occupational Choice Revisited 318

Occupational Development 319

Job Satisfaction 321

Spotlight on Research Cross-Cultural Aspects of Teachers' Job Satisfaction 322

12.2 Gender, Ethnicity, and Discrimination Issues 325

Gender Differences in Occupational Selection 325

Ethnicity and Occupational Development 327

Bias and Discrimination 328

12.3 Occupational Transitions 331

Retraining Workers 331

Occupational Insecurity 332

Real People Applying Human Development: Experiencing Layoff 333

Coping With Unemployment 333

12.4 Work and Family 335

The Dependent Care Dilemma 335

Juggling Multiple Roles 337

Linking Research to Life Unequal Pay for Equal Work **340**

Summary **340**

Key Terms **342**

Online Resources **342**

**13 Making It in Midlife:
The Biopsychosocial
Challenges of Middle
Adulthood 345**



© Cultura Limited/SuperStock

13.1 Physical Changes and Health 346

Changes in Appearance **346**

Changes in Bones and Joints **347**

Reproductive Changes **349**

Stress and Health **351**

Exercise **353**

13.2 Cognitive Development 354

Practical Intelligence **355**

Becoming an Expert **357**

Lifelong Learning **358**

13.3 Personality 359

Stability Is the Rule: The Five-Factor Model **359**

Change Is the Rule: Changing Priorities in Midlife **361**

Spotlight on Research Is Personality in Young and Middle Adulthood Set in
Plaster? **361**

13.4 Family Dynamics and Middle Age 365

Letting Go: Middle-Aged Adults and Their Children **365**

Giving Back: Middle-Aged Adults and Their Aging Parents **366**

Real People Applying Human Development: Taking Care of Mom **367**

Grandparenthood **369**

Linking Research to Life Menopausal Hormone Therapy **372**

Summary **373**

Key Terms **374**

Online Resources **374**

PART 4 Late Adulthood 375

**14 The Personal Context
of Later Life: Physical,
Cognitive, and Mental
Health Issues 377**



John Lund/Marc Romanelli/Getty Images

14.1 What Are Older Adults Like? 378

The Demographics of Aging **378**

Longevity **380**

14.2 Physical Changes and Health 383

Biological Theories of Aging **384**

Physiological Changes **385**

Health Issues **390**

14.3 Cognitive Processes 392

Information Processing **392**

Memory **394**

Creativity and Wisdom **397**

Real People Applying Human Development: Creativity Never Stops **397**

14.4 Mental Health and Intervention 399

Depression **399**

Dementia: Alzheimer's Disease **401**

Spotlight on Research Training People With Dementia to Be Group Activity
Leaders **404**

Linking Research to Life Advances and Controversies in Diagnosing Alzheimer's Disease 406

Summary 406

Key Terms 407

Online Resources 407

15 Social Aspects of Later Life: Psychosocial, Retirement, Relationship, and Societal Issues 409



moodboard/Getty Images

15.1 Theories of Psychosocial Aging 410

Continuity Theory 410

Competence and Environmental Press 411

Real People Applying Human Development: Nelson Mandela: A Heroic Leader 412

15.2 Personality, Social Cognition, and Spirituality 413

Integrity Versus Despair 413

Well-Being and Emotion 414

Spotlight on Research The Aging Emotional Brain 415

Spirituality in Later Life 417

15.3 I Used to Work at...: Living in Retirement 418

What Does Being Retired Mean? 419

Why Do People Retire? 419

Adjustment to Retirement 420

Keeping Busy in Retirement 420

15.4 Friends and Family in Late Life 421

Friends and Siblings 422

Marriage and Same-Sex Partnerships 423

Caring for a Partner 424

Widowhood 425

15.5 Social Issues and Aging 426

Frail Older Adults 426

Housing Options 428

Elder Abuse and Neglect 431

Social Security and Medicare 432

Linking Research to Life Saving Social Security 434

Summary 435

Key Terms 437

Online Resources 437

16 The Final Passage: Dying and Bereavement 439



© Ace Stock Limited/Alamy

16.1 Definitions and Ethical Issues 440

Sociocultural Definitions of Death 440

Legal and Medical Definitions 441

Ethical Issues 442

16.2 Thinking About Death: Personal Aspects 446

A Life-Course Approach to Dying 446

Dealing With One's Own Death 446

Death Anxiety 448

Creating a Final Scenario 449

The Hospice Option 450

Real People Applying Human Development: One Family's Experience With Dying 450

16.3 Surviving the Loss 453

The Grief Process **453**

Typical Grief Reactions **454**

Coping With Grief **455**

Spotlight on Research Grief Processing and Avoidance in the United States and China **456**

Complicated or Prolonged Grief Disorder **457**

16.4 Dying and Bereavement Experiences Across the Life Span 458

Childhood **458**

Adolescence **459**

Adulthood **459**

Late Adulthood **460**

Conclusion **462**

Linking Research to Life The Terri Schiavo Case **463**

Summary **463**

Key Terms **465**

Online Resources **465**

Glossary **467**

References **477**

Name Index **519**

Subject Index **535**

Preface

Human development is the most fascinating and most complex science there is. Describing how people change (and how they stay the same) over their lives requires a multidisciplinary approach to fully capture the richness of the physical, intellectual, and social dimensions of development. Instructors often find it challenging to cover human development in the typical semester-long course. Consequently, we have created a focused text that emphasizes the essential, defining features of modern research and theory in human development. Specifically, *Essentials of Human Development: A Life-Span View* fills the need for a shorter text that provides the following:

- A streamlined, readable account of human development across the life span
- Conceptual foundations that enable students to become educated and critical interpreters of developmental information
- An introduction to research and to the application of that research to important issues in life-span development

ORGANIZATION

A Modified Chronological Approach

Some human development texts take a chronological approach (focusing on functioning at specific stages of the life span, such as infancy, adolescence, and middle adulthood), but others use a topical approach (following a specific aspect of development, such as personality, throughout the life span). Both approaches have their merits, so we have combined them in a way that captures the best aspects of both. The overall organization of the text is chronological: We trace development from conception through late life in sequential order and dedicate several chapters to topical issues pertaining to particular points in the life span (infancy and early childhood, adolescence, young adulthood, middle adulthood, and late life).

But because the developmental continuity of such topics as social and cognitive development gets lost with narrowly defined, artificial age-stage divisions, we dedicate some chapters to tracing their development over larger segments of the life span. These chapters provide a more coherent description of important developmental changes, emphasize that development is not easily divided into “slices,” and provide students with understandable explanations of developmental theories.

Balanced Coverage of the Entire Life Span

A primary difference between *Essentials of Human Development: A Life-Span View* and similar texts is that this book provides a richer and more complete description of adult development and aging. Following the introductory chapter, the remaining 15 chapters of the text are evenly divided among childhood, adolescence, adulthood, and aging. This balanced treatment reflects not only the rapid emergence of adult development and aging as a major emphasis in the science of human development but also a recognition that roughly three-fourths of a person’s life occurs beyond adolescence.

As a reflection of our modified chronological approach, *Essentials of Human Development: A Life-Span View* is divided into four main parts. After an introduction

to the science of human development (Chapter 1), Part 1 includes a discussion of the biological foundations of life (Chapter 2) and development during infancy and early childhood (Chapters 3 to 5). Part 2 focuses on development during middle childhood and adolescence (Chapters 6 to 9). Part 3 (Chapters 10 to 13) focuses on young and middle adulthood. Part 4 examines late adulthood (Chapters 14 and 15) and concludes with a consideration of dying and bereavement (Chapter 16).

CONTENT AND APPROACH

Biopsychosocial Emphasis

Our text provides comprehensive, up-to-date coverage of research and theory from conception to old age and death. We explicitly adopt the biopsychosocial framework as an organizing theme, describing it in depth in Chapter 1, and then integrating it throughout the text—often in combination with other developmental theories.

An Engaging Personal Style

On several occasions, we communicate our personal involvement with the issues being discussed by providing examples from our experiences as illustrations of how human development plays itself out in people's lives. In addition, every major section of a chapter opens with a short vignette, helping personalize a concept before it is discussed. Other rich examples are integrated throughout the text narrative and showcased in the Real People feature in nearly every chapter.

Emphasis on Inclusiveness

In content coverage, in the personalized examples used, and in the photos displayed, we emphasize diversity—within the United States and around the world—in ethnicity, gender, race, age, ability, and sexual orientation.

Appreciation of the Diverse Career Goals of Students

Students often study human development because they're pursuing a career related to health and human sciences, be it as a nurse, physician, educator, psychologist, social worker, or speech–language therapist. These students are often eager to see how human development research can allow them to work more effectively with future patients, students, or clients. Consequently, *Essentials of Human Development: A Life-Span View* emphasizes the application of human development research across diverse professional settings. *Human Development in Action* features (in the margins) encourage students to imagine themselves in a specific professional setting and to apply knowledge of human development to a specific problem. Similarly, *Apply* questions at the end of every section ask students to use material presented in that section to solve a problem facing a professional in the health and human sciences. Thus, this book consistently underscores the utility of research and theory in human development for improving the human condition.

PEDAGOGICAL FEATURES

Among the most important aspects of *Essentials of Human Development: A Life-Span View* is its exceptional integration of pedagogical features, designed to help students maximize their learning. Features that are normally set apart are woven seamlessly into the narrative. This unrivaled integration is meant to help students stay focused on a seamless presentation of human development across the life span.

- **SPOTLIGHT ON RESEARCH** features emphasize a fuller understanding of the science and scope of life-span development.

- **REAL PEOPLE APPLYING HUMAN DEVELOPMENT** features illustrate the everyday applications of life-span development issues.
- **LINKING RESEARCH TO LIFE** features show how findings from research can be used to improve human development throughout the life span.
- *Learning Objectives*, followed by brief *vignettes*, open the major sections in each chapter. Each major section is numbered for easy assignment and to help students visually organize the material.
- **HUMAN DEVELOPMENT IN ACTION** questions in the margins encourage application of research to real problems in professional settings.
- *Test Yourself* questions at the end of major sections reinforce key concepts discussed in the section.
- A bulleted *Summary*, organized around the chapter's learning objectives within each major section, ends each chapter.

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

SUPPLEMENTARY MATERIALS

Instructor's Resource Manual

ISBN: 978-1-285-41739-4

Instructor's Resource Manual by Rebecca Fraser-Thill of Bates College 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.

Test Bank

ISBN: 978-1-285-41734-9

Test Bank by Jason Spiegelman of Community College of Baltimore County contains multiple-choice, completion, true-or-false, and essay questions with sample answers for each chapter.

Psychology CourseMate

Cengage Learning's Psychology CourseMate brings course concepts to life with interactive learning, study, and exam preparation tools that support the printed textbook. CourseMate contains an interactive eBook, flashcards, quizzes, videos, suggested websites, and more—as well as EngagementTracker, a first-of-its-kind tool that monitors student engagement in the course. The accompanying instructor website, available through login.cengage.com, offers access to password-protected resources such as an electronic version of the instructor's manual, test bank files, and Microsoft® PowerPoint® slides. CourseMate can be bundled with the student text. Contact your Cengage sales representative for information on getting access to CourseMate.

PowerLecture with ExamView®

This one-stop digital library and presentation tool includes preassembled Microsoft PowerPoint lecture slides. In addition to a full instructor's manual and test bank files, PowerLecture includes ExamView testing software with all test items from the printed *Test Bank* in electronic format, enabling you to create customized tests in print or online. This tool puts all of your media resources in one place, including an image library with graphics from the printed book and videos.

WebTutor™ on Blackboard and WebCT

Jump-start your course with customizable, rich, text-specific content within your Course Management System. Whether you want to Web enable your class or put an entire course online, WebTutor delivers. WebTutor offers an array of resources, such as access to the eBook, flashcards, quizzes, videos, suggested websites, and more.

ACKNOWLEDGMENTS

Textbook authors do not produce books on their own. We owe a debt of thanks to many people who helped take this project from a first draft to a bound book. Thanks to Jim Brace-Thompson, for his enthusiasm, good humor, and sage advice at the beginning of this project; to Jaime Perkins for taking the reins and guiding this first edition; to Kristin Makarewycz, for providing helpful feedback as we revised; to Mary Noel for her work on the book's media; to Paige Leeds and Jessica Alderman for their attention to a host of details; and to Charlene Carpentier for shepherding the book through production. We also thank Vernon Boes for directing the book's design and Christine Sosa and Molly Felz in marketing for their contributions to the book. We are grateful to Cassie Carey at Graphic World for keeping everything on track. We also thank Karen Hunt, Roman Barnes, Tom McDonough, Isabel Saraiva, and Lisa Delgado.

Reviewers

We also thank the many reviewers who generously gave their time and effort to help us sharpen our thinking about human development and, in doing so, shape the development of this text:

EILEEN ACHORN
University of Texas, San Antonio

ERSKINE AUSBROOKS
Dyersburg State Community College

JENNIFER BAGGERLY
University of North Texas

SONIA BELL
Prince George's Community College

JENEL CAVAZOS
Cameron University

LINDA COTE-REILLY
Marymount University

MARK EVANS
Tarrant County College, Northwest

KENNETH FOSTER
Texas Woman's University

ALLISON FROM
Spalding University

SHANNON HALE
Northwestern State University, Natchitoches

ANIKA HUNTER
Prince George's Community College

JOANNA KEY
Gwinnett Technical College

DON KNOX
Midwestern State University

NANCY LOMAN
California State University, Channel Islands

GERI LOTZE
Virginia Commonwealth University

CHRIS MACDONALD
Indiana State University

JENNIFER MUSKAT
Plymouth State University

IAN PAYTON
Bethune Cookman University

PAMELA PEREZ
Brandman University

JEAN POPPEI
The Sage Colleges

CYNTHIA REED
Tarrant County College, Northwest

ROBERT REED
Tarrant County College, Northwest

JENNIFER SHAW
Northwestern State University, Natchitoches

JAMES SNOWDEN
Midwestern State University

COURTNEY STEIN
Colby-Sawyer College

DEIRDRE THOMPSON
Howard University

TIM VANDERGAST
William Patterson University

KITTIE M. WEBER
New England College

STEVE WISECARVER
Lord Fairfax Community College

To the Student

Essentials of Human Development: A Life-Span View is written with you, the student, in mind. In the next few pages, we describe several features of the book that make it easier for you to learn. Please don't skip this material; it will save you time in the long run.

Learning and Study Aids

Each chapter includes several distinctive features to help you learn the material and organize your studying:

- Each chapter opens with a detailed outline and an overview of the main topics.
- Each major section within a chapter begins with a set of learning objectives. There is also a brief vignette introducing one of the topics to be covered in that section and providing an example of the developmental issues people face.
- When key terms are introduced in the text, they appear in bold, orange type and are defined in the margins. This should make key terms easy to find and learn.
- Key developmental theories are introduced in Chapter 1 and are referred to throughout the text.
- *Human Development in Action* questions appear in the margins. These are designed to help you apply information from the text to problems that you might encounter as a professional in health, human sciences, or education.
- The end of each section includes a feature called *Test Yourself*, which will help you check your knowledge of major ideas you just read about. The *Test Yourself* questions serve two purposes. First, they give you a chance to spot-check your understanding of the material. Second, the questions relate the material you just read to other facts, theories, or the biopsychosocial framework you read about earlier.
- Text features that expand or highlight a specific topic are integrated with the rest of the material. This book includes the following three features, each identified by a distinctive icon:
 - **SPOTLIGHT ON RESEARCH** features elaborate on specific research studies discussed in the text and provide more details on the design and methods used.
 - **REAL PEOPLE: APPLYING HUMAN DEVELOPMENT** features present case studies that illustrate how issues in human development discussed in the chapter are manifested in the lives of real people.
 - **LINKING RESEARCH TO LIFE** features show how findings from research relate directly to real issues or problems facing people at different phases in their lives.
- The end of each chapter includes two special study tools. A *Summary*, organized by learning objective within major section headings, provides a review of the key ideas in the chapter. Next is a list of *Key Terms* that appear in the chapter.

We strongly encourage you to take advantage of these learning and study aids as you read the book. We also left room in the margins for you to make notes on the material so that you can more easily integrate the text with your class and lecture material.

Tips on How to Use This Book

Your instructor will probably assign about one chapter per week. Don't try to read an entire chapter in one sitting. Instead, on the first day, preview the chapter. Read the introduction and notice how the chapter fits into the entire book; next, page through the chapter, reading the learning objectives, vignettes, and major headings. Also read the italicized sentences and the boldfaced terms. Your goal is to get a general overview of the entire chapter—a sense of what it's all about.

Now you're ready to begin reading. Go to the first major section and preview it again, reminding yourself of the topics covered. Then start to read. As you read, think about what you're reading. Every few paragraphs, stop briefly. Try to summarize the main ideas in your own words, ask yourself whether the ideas describe your experiences or those of others you know, or tell a friend about something interesting in the material. In other words, read actively—get involved in what you're reading. Don't just stare glassy-eyed at the page!

Continue this pattern—reading, summarizing, and thinking—until you finish the section. Then answer the *Test Yourself* questions to determine how well you've learned what you've read. If you've followed the read–summarize–think cycle as you worked your way through the section, you should be able to answer most of the questions.

The next time you sit down to read (preferably the next day), start by reviewing the second major section. Then complete it with the read–summarize–think cycle. Repeat this procedure for all major sections.

When you've finished the last major section, wait a day or two and then review each major section. Pay careful attention to the italicized sentences, the boldfaced terms, and the *Test Yourself* questions. Also, use the study aids at the end of the chapter to help you integrate the ideas in the chapters.

With this approach, it should take several 30- to 45-minute study sessions to complete each chapter. Don't be tempted to rush through an entire chapter in a single session. Research consistently shows that you learn more effectively by having daily (or nearly daily) study sessions devoted to both reviewing familiar material and taking on a relatively small amount of new material.

Terminology

A few words about terminology before we embark. Certain terms are used to refer to different periods of the life span. Although you may already be familiar with the terms, here we clarify how they are used in this text. The following terms refer to a specific range of ages:

Newborn: birth to 1 month

Infant: 1 month to 1 year

Toddler: 1 to 2 years

Preschooler: 2 to 6 years

School-age child: 6 to 12 years

Adolescent: 12 to 20 years

Young adult: 20 to 40 years

Middle-aged adult: 40 to 60 years

Young-older adult: 60 to 80 years

Old-old adult: 80 years and beyond

Sometimes, for variety, we use other terms that are less tied to specific ages, such as babies, youngsters, and older adults. However, you will be able to determine the specific ages from the context.

Organization

To organize the material into meaningful segments across the life span, *Essentials of Human Development: A Life-Span View* is divided into four parts: Prenatal Development, Infancy, and Early Childhood; School-Age Children and Adolescents; Young and Middle Adulthood; and Late Adulthood. We believe this organization achieves two major goals. First, it divides the life span in ways that relate to the divisions encountered in everyday life. Second, it enables us to provide a more complete account of adulthood than other books do.

Because some developmental issues pertain only to a specific point in the life span, some chapters are organized around specific ages. Overall, the text begins with conception and proceeds through childhood, adolescence, adulthood, and old age to death. But because some developmental processes unfold over longer periods, some chapters are organized around specific topics.

Part 1 covers prenatal development, infancy, and early childhood. Here we see how genetic inheritance operates and how the prenatal environment affects a person's future development. During the first 2 years of life, the rate of change in both motor and perceptual arenas is amazing. How young children acquire language and begin to think about their world is as intriguing as it is rapid. Early childhood also marks the emergence of social relationships, as well as an understanding of gender roles and identity. By the end of this period, a child is reasonably proficient as a thinker, uses language in sophisticated ways, and is ready for the major transition into formal education.

Part 2 covers the years from elementary school through high school. In middle childhood and adolescence, the cognitive skills formed earlier in life evolve to adult-like levels in many areas. Family and peer relationships expand. During adolescence, there is increased attention to work and sexuality emerges. The young person begins to learn how to face difficult issues in life. By the end of this period, a person is on the verge of legal adulthood. The typical individual uses logic and has been introduced to most issues that adults face.

Part 3 covers young adulthood and middle age. During this period, most people achieve their most advanced modes of thinking, reach peak physical performance, form intimate relationships, start families of their own, begin and advance within their occupations, balance many conflicting roles, and begin to confront aging. Over these years, many people go from breaking away from their families to having their children break away from them. Relationships with parents are redefined, and the pressures of being caught between the younger and the older generations are felt. By the end of this period, most people have shifted focus from time since birth to time until death.

Part 4 covers the last decades of life. The biological, physical, cognitive, and social changes associated with aging become apparent. Although many changes reflect decline, many other aspects of old age represent positive elements: wisdom, retirement, friendships, and family relationships. We conclude this section, and the text, with a discussion of the end of life. Through our consideration of death, you will gain additional insights into the meaning of life and human development.

We hope the organization and learning features of the text are helpful to you—making it easier for you to learn about human development. After all, this book tells the story of people's lives, and understanding the story is what it's all about.

Neuroscience Index

Note: Page numbers in *italic> type indicate figures, illustrations, or tables.*

- A**
aging
 brain efficiency, 358
 physiological change and cognition, 392–396, 401–405
 physiological change and emotion, 415–416
alcohol's effects on the brain, 270–272
Alzheimer's disease, 387, 401–404, 406
amygdala, 107, 406, 414–416, 448
amyloid, 402, 406
attention-deficit hyperactivity disorder (ADHD), 171–173
autism spectrum disorder (ASD), 89–90
axons, 72, 73
- B**
brain activity
 death anxiety, 448–449
 meditation, 418
 physiological measure, 8, 19
 spirituality, 417–418
 temperament, 68
brain circuitry
 love and, 296
 newborns' face tracking, 82–83, 84
brain death, 441
brain development
 adolescents' information processing efficiency, 227–231
 adolescents' risk-proneness, 268
 effects of teratogens, 49–51
 prenatal, 43–46, 73–74
 REM sleep in infants, 66
 sensory stimulation for small-for-date newborns, 56
brain imaging/neuroimaging, 8, 19, 281, 358, 386
 electroencephalography (EEG), 441, 442
 functional magnetic resonance imaging (fMRI), 415
brain maturation, 94–95
 adolescent, 219, 220
 adulthood, 355–358
 emerging adulthood, 269
 infancy, 71–72
 prenatal, 43–46, 73–74
brain specialization, 73–74
 environmental input influences, 74
 experience-expectant growth, 74
 plasticity, 15, 74, 275
brain structure
 creativity, 163, 397
 specialized functions, 73–74
- C**
cell body, 71
cerebral cortex, 72
cerebral vascular accident (CVA), 386–387
cognitive decline, 387
cognitive development, 94–95, 122. *see also*
 information processing
 assimilation and accommodation, 94–95
 concrete-operational period, 158, 159
 creativity, 163, 397
 deductive reasoning and, 159
 equilibration, 95
 expertise, 357–358
 formal-operational period, 158–159
 grammar development and, 119
 in middle adulthood, 355–358
 in young adulthood, 275–282
 infancy and early childhood, 103–108
 information processing, 12, 103–108, 160–161, 227–231, 228, 392–394
 language development, 111–121
 life-long learning, 358
 low-birth weight babies, 56
 memory, 105–106, 394–396
 naive theory, 101–102
 Piaget's theory, 11–12, 94–102
 practical intelligence, 355–357
 preoperational thinking, 97–99
 primary and secondary mental abilities and, 275–277
 private speech, 110
 sensorimotor period, 96
 Vygotsky's theory, 13, 108–110
 wisdom, 397–398
 word learning and, 115
corpus callosum, 72
- D**
dementia, 401–405
 Alzheimer's disease, 387, 401–404
 vascular, 387
dendrites, 72, 73
- E**
electroencephalography (EEG), 441, 442
- F**
fetal alcohol spectrum disorder (FAS), 47–48
frontal cortex, 72, 219, 220
functional magnetic resonance imaging (fMRI), 281, 415
- H**
hemispheres, brain, 72
 left, 72–74, 113, 120
 right, 72
hippocampus, 105
- I**
intelligence
 fluid intelligence decline, 277–279
 Gardner's theory of multiple intelligences, 162, 163, 183
 parietofrontal integration theory (P-FIT), 281
- L**
language learning, 116–117, 121
limbic system, 219, 220
- M**
malnutrition and attention, 71
memory, 105–106, 394–396. *See also* Alzheimer's disease
 episodic, 394
 explicit, 394, 396
 external and internal aids, 396, 397
 implicit, 394, 396
 in late adulthood, 394–396
 information processing strategies for, 160–161
 meta-, 160–161
 semantic, 394
 working, 228, 394
myelin, 73, 221, 230
- N**
neural plate, 73
neuritic plaques, 385
neurofibrillary tangles, 385, 402
neuroimaging. *See* brain imaging/neuroimaging
neurons, 71–72, 386
 axons, 72, 73
 cell body, 71
 dendrites, 72, 73
 terminal buttons, 72
neuroscience, 8–9
 aging emotional brain and, 415–416
 alcohol and, 272
 Alzheimer's disease and, 402, 403–404
 memory and, 395
 neurons and, 71–72, 386
 of aging, 385–386
 research and intelligence in young and middle adulthood, 279
 research on spirituality, 418
neurotransmitters, 72, 89, 91
 alcohol, 274
 depression, 257
- P**
parietofrontal integration theory (P-FIT), 279
Parkinson's disease, 387
prefrontal cortex, 107, 268, 415–416, 417
- S**
sensorimotor period, 96
stroke, 386–387
synaptic pruning, 73
- T**
terminal buttons, 72
transient ischemic attacks (TIAs), 387
- V**
vascular dementia, 387

Diversity Index

Note: Page numbers in *italic* type indicate figures, illustrations, or tables.

A

abusive relationships, 296–298
academic skills. *see also* education
 effective schools/teachers and, 177–179
 mathematics, 145, 169, 170–171, 177
 reading, 174–175
 test-taking, 169
 writing, 176–177
active euthanasia, 442
adopted children, 38–39, 83, 167, 309
Africa, 298, 362. *see also* Cameroon; Ghana; Kenya;
 Mali; Sierra Leone; South Africa; Tanzania
African Americans, 8
 abusive relationships and, 297
 adolescent deaths, 225–226
 birth of first child effect on marriage and, 303
 cohabitation among, 300
 division of household labor among, 338
 divorce among, 310–311
 family structure, 306
 glass ceiling and, 328
 grandparenting by, 370
 health, 273
 intelligence testing and, 166–167
 longevity, 382
 occupational development and, 328
 racism experienced by, 211–212
 sickle-cell disease and, 34, 36–37
 single parenthood among, 308
 singlehood among, 299
 sudden infant death syndrome (SIDS), 67
 teenage pregnancy, 249
age discrimination, 330
Arab/Islamic/Muslim cultures, 298, 417. *see also*
 Iran; Turkey
Argentina, 300
Asia. *see* China; India; Japan; Korea; Malaysia
Asian Americans, 242, 324
 adolescent deaths, 225–226
 familism, 307
 glass ceiling and, 328
 grandparenting by, 371
 intelligence testing and, 166–167
 older, 380
 transracial adoption and, 309
attention-deficit hyperactivity disorder (ADHD),
 171–173
Australia, 58, 166, 273, 296, 301, 302, 334. *see also*
 New Zealand
autism spectrum disorder (ASD), 89–90
autobiographical memory, 105–106

B

Belgium, 443
bias and discrimination, 328–330
bilingualism, 115–116
biracial children, 307
blended families, 196–197

body image, 221
Brazil, 6, 166, 226, 308
Britain. *see* Great Britain

C

Cameroon, 365
Canada, 58, 301, 302, 324, 326, 328, 334, 363. *see also*
 United States, the caregiving
 dependent care, 335–337
 for a partner, 424
 for aging parents, 367–368, 369
Caribbean countries, 302. *see also* Haiti
childless couples, 305–306
China, 84, 298, 341, 417
cohabitation, 299–300
college, 265–266
 returning adult students, 266, 275
Colombia, 443
Costa Rica, 365
counting, learning, 107–108
creative ability, 163, 397
cross-cultural comparisons
 cohabitation, 299–300
 identity, 242
 marital success, 301
 mate selection, 298
 rites of passage, 264
 singlehood, 299
culture. *see also* ethnicity
 abusive relationships, 298
 adoptive parents, 309
 caregiving for aging parents and, 368
 couple-forming and, 295–296
 emotional expression and, 134
 generativity, 361, 363
 identity and, 242
 job satisfaction, 321–324
 matchmaking and, 298
 menopause, 349–351
 multiple intelligences and, 164
 parenting styles, 191–192
 popular children, 203–204
 role transitions, 265
 role transitions marking adulthood and, 264–265
 sexual harassment, 329–330
 singlehood, 299
 sociocultural forces, 7
culture-fair intelligence testing, 166–167

D

dating, 294–295
 online, 294–295
death(s)
 adolescents and, 225–226, 255, 459
 alcohol-related, 271
 anxiety, 448–449
 childhood understanding of, 458–459
 clinical, 441
 contextual theory of, 448
 dealing with one's own, 446–448
 end-of-life intentions, 444–445

ethical issues with, 442–445
final scenarios and, 449–450
grief process and, 453–457
hospice and, 450–452
legal and medical definitions, 441–442
life-course approach to dying and, 446
of one's child in young and middle
 adulthood, 460
of one's child or grandchild in late life, 461
of one's parent, 460
of one's partner, 425, 454–455, 461–462
sociocultural definitions of, 440
suicide, 255, 443–444
whole-brain, 441
 young adulthood and, 459–460
dependent care dilemma, 335–337
disability
 children with, 169–171
 frailty in late life and, 426–428
discrimination and bias, 328–330
divorce, 195–197. *see also* marriage
 collaborative, 311
 effects on children, 195–197, 311–312
 effects on the couple, 311
 single parenthood and, 308
 statistics, 310–311

E

East Asian cultures. *see* China; Japan
elder abuse and neglect, 431–432
elderly. *see* late adulthood
emotions, cultural differences in expression of, 134
England. *see* Great Britain
ethnic identity, 242
ethnicity. *see also* culture
 diversity and parenting, 306–307
 diversity of older adults and, 378–380
 grandparenting and, 370–371
 household labor division and, 337–338
 identity and, 242
 intelligence tests and, 166–167
 longevity and, 382
 occupational development, 327–328
Europe/European Union, 332. *see also* Germany;
 Great Britain; Greece; Ireland; Netherlands, the;
 Norway; Spain; Sweden; Switzerland
European Americans
 adolescent deaths, 225–226
 birth of first child effect on marriage and, 303
 cohabitation among, 300
 division of household labor among, 338
 divorce among, 310–311
 family structure, 306
 grandparenting by, 370
 health, 273
 intelligence testing and, 166–167
 longevity, 382
 occupational development and, 328
 older, 378–380
 single parenthood among, 308
 singlehood among, 299