LIFE SPAN

HUMAN

DEVELOPMENT

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Sigelman – De George – Cunial – Rider

LIFE SPAN

HUMAN

DEVELOPMENT

3RD
AUSTRALIAN AND NEW ZEALAND
EDITION

LIFE SPAN

HUMAN

DEVELOPMENT

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BRIEF CONTENTS

CONTENTS

GUIDE TO THE TEXT

As you read this text you will find a number of features in every chapter to enhance your study of **human development** and help you understand how the theory is applied in the real world.

CHAPTER-OPENING FEATURES

Gain insight into how psychology theories explored in the chapter relate to real life individuals through the **real-life story** at the beginning of each chapter.

The **chapter outline** signposts the main chapter heading contained in each chapter for easy reference.

CHAPTER OUTLINE

4.1 **Building blocks of growth and lifelong health**
The endocrine system
The brain and nervous system
Principles of growth
A life span developmental model of health

4.2 **The infant**
Rapid physical growth
The infant brain
Newborn capabilities
Infant motor development
Health and wellness in infancy

4.3 **The child**
Physical growth and motor capabilities
Brain lateralisation
Health and wellness in childhood

4.4 **The adolescent**
The adolescent growth spurt and puberty
The adolescent brain
Teen health and wellness

The arrow of time
On 17 June every year, the Goldberg family photographs each family member 'to stop, for a fleeting moment, the arrow of time passing by' (Goldberg, 2017). Diego Goldberg, a photographer, and his wife Susy began their family ritual in 1976. As each of their three sons, Nicolas, Matias and Sebastian, were born, they too became part of the photographic essay. Adopting the same pose year to year, the physical changes of growth and ageing are evident in the pho... skin and glasses a... they progress thro... the photographs o... growth and physic... infancy through p... Matias and Sebast... own growing fami... today spans three...

CourseMateExpress

Throughout this chapter, the CourseMate Express logo indicates an opportunity for online ... activities, videos and other online resources.

FEATURES WITHIN CHAPTERS

Identify the key concepts that the chapter will cover with the **Learning objectives** at the start of each key heading. Then test your knowledge and apply the theory you have learned with the **checking understanding** and **critical thinking** questions at the end of each key topic.

- Associate key processes of the endocrine and nervous systems with important aspects of growth and development.
- Describe and provide an example of each of the three major principles of growth.
- Articulate the main components of the life span developmental model of health, and the value of adopting this sort of approach to understanding health.

LEARNING OBJECTIVES

IN REVIEW

CHECKING UNDERSTANDING

1 How does the endocrine system support development?

2 How does myelination contribute to developmental changes that we can observe?

3 What is one example of each of the cephalocaudal, proximodistal and orthogenetic principles of development?

CRITICAL THINKING

Illustrate the aspects of the life span developmental model of health using the example of coeliac disease discussed earlier in this chapter.

CourseMateExpress
Get the answers to the *Checking understanding* questions on CourseMate Express.

Application

Application boxes examine how knowledge has been applied to optimise development in a domain of developmental psychology. These facilitate student understanding of the practical and professional applications of developmental psychology theory.

Application

SUCCESSFUL AGEING

There is tremendous variability in the health, wellness and functioning of older adults. Some are limited by health problems, but others, like Ruth Frith, the centenarian athlete who features in the chapter opening, enjoy active, healthy lives. What factors might account for differences in the functioning of older adults, and what do we know about staying healthy and ageing successfully in older adulthood?

Longitudinal studies that have followed the same participants for a decade or more have produced some consistent findings. (To learn more about longitudinal studies, see the section later in this chapter on 'Developmental research designs'.) For example, the Melbourne Collaborative Cohort study (which commenced in 1990 with over 40000 participants born in Australia, New Zealand and Europe) and the Three-City (3C) study in France (which commenced in 1999 with 9000 participants) both found that avoiding smoking, maintaining a healthy weight and engaging in physical activity are strong predictors of successful ageing in the elderly (Artaud et al., 2013; Hodge, English, Giles, & Flicker, 2013). In the 3C

Source: Steve Liss/Getty Images

Sister Esther, shown here at age 106, interacting with Nun Study researcher Dr David Snowdon

study, those older people who smoked and were overweight and sedentary had a 2.5-fold increased hazard of disability.

\>\>\>

Diversity

Explore the diverse cultural issues, research and practices in relation to developmental science by reading the **Diversity** boxes.

Diversity

CULTURALLY SENSITIVE RESEARCHERS

Both Bronfenbrenner's bioecological model and Baltes' life span perspective emphasise that development is shaped by its cultural context. This implies that we need to study development in a variety of contexts using culturally sensitive methods to understand both what is universal and what is culturally specific about human development (Cole & Packer, 2011).

Culturally sensitive researchers must first be prepared to consult, negotiate and research *with* participants and representatives (such as elders) of other cultural and subcultural groups before, during and after research and when planning, implementing and

in New Zealand and Australia (see *On the internet: Guidelines for research with Indigenous peoples*) require consultation at all stages of research with Indigenous people, not only for protecting research participants but also to ensure Māori and Aboriginal and Torres Strait Islander people have a voice and are meaningfully engaged in research about issues for their people and communities (Health Research Council of New Zealand, 2010; National Health and Medical Research Council, 2003).

Second, it can be extremely challenging to ensure that data collection procedures are culturally appropriate, and that they mean

method (Māori approaches to research), which involved engaging Māori *iwi* (tribes) and health providers to assist with recruitment and conduct of the research and the use of Māori language in interviews (Dyall et al., 2013; Walker, Eketone, & Gibbs, 2006). With this approach the researchers successfully recruited large, equal numbers of Māori and non-Māori participants (600 in each group).

Third, researchers who study cultural influences on development, or racial, ethnic and socioeconomic differences in development, must work hard to keep their own cultural values from biasing their perceptions

Engagement

Engagement boxes in each chapter provide real-life or hypothetical situations that will help students to engage personally with the material and assess their own knowledge, beliefs, traits and attitudes by completing personality scales, test items, surveys and short quizzes.

Engagement

HOW DO YOU RELATE TO OLDER ADULTS?

Below are 20 statements that may or may not apply to you. Write a number from 0 to 2 next to each statement that indicates how often you relate to older people, aged 60 and over, in these ways.

0 = Never
1 = Sometimes
2 = Often

How often do you:

___ 1 Compliment older people on how well they look, despite their age.

___ 2 Send birthday cards to older people that joke about their age.

___ 10 When an older person has an ailment, I may say, 'That's normal at your age'.

___ 11 When an older person can't remember something, I may say, 'That's what they call a "Senior Moment".'

___ 12 Talk louder or slower to older people because of their age.

___ 13 Use simple words when talking to older people.

___ 14 Ignore older people because of their age.

___ 15 Vote for an older person because of their age.

___ 16 Vote against an older person because of their age.

endorsed when compared to the highest possible total score for all the positive items.

B Add together the ratings for items 2, 4, 6, 8, 10, 11, 12, 13, 14, 16, 17, 18, 19 & 20 then divide that total by 28. This is the proportion of negative ageist behaviours you endorsed when compared to the highest possible total score for all the negative items.

C To help you see roughly where you stand, compare your positive and negative scores to the average age and gender scores in Table 1.2. The values in the table were found by Cherry and Palmore (2008) in

Exploration

Exploration boxes provide in-depth investigation of local and international research on various high interest topics.

Exploration

AUSTRALIAN AND NEW ZEALAND LONGITUDINAL STUDIES OF DEVELOPMENT

As you have learned, longitudinal research studies have clear advantages over cross-sectional designs for answering questions about how we develop and grow as we age. In Table 1.5 we highlight some of the largest ongoing Australian and New Zealand longitudinal studies – some studies are in early stages; others have been gathering data on participants for over 40 years!

Throughout this book we will draw on the results of these and many other Australian, New Zealand and international longitudinal studies as we seek to understand the influences on

life span – for example (and this is by no means an exhaustive list of the featured longitudinal studies or of chapters that refer to the findings of longitudinal studies): the Australian Temperament Project (ATP; Chapter 9); the Auckland Birthweight Collaborative (ABC) Study (Chapters 3, 4 and 7); the Christchurch Health and Development Study (CHDS; Chapters 7 and 8); the Gudaga Longitudinal Birth Cohort Study of Urban Australian Indigenous Infants (Chapter 7); the Australian Mater-University Study of Pregnancy (MUSP; Chapter 10); the Minnesota Twin Family Study (MTFS; Chapter 3);

LINKAGES

Chapter 2 Theories of human development
Chapter 3 Genes, environment and the beginnings of life
Chapter 4 Body, brain and health
Chapter 7 Intelligence and creativity
Chapter 8 Language, literacy and learning
Chapter 9 Self, personality, gender and sexuality
Chapter 10 Social cognition and moral development

Values Study (NZAVS; Chapter 9); and the Seattle Longitudinal Study

Professional Practice

Meet real professionals in the **Professional practice** boxes and gain insights into how theory relates to, and informs day-to-day practice for psychologists, social workers and educators.

Professional practice

MEET AN EDUCATIONAL AND DEVELOPMENTAL PSYCHOLOGIST

What does your role as an educational and developmental psychologist involve, and why did you decide to become one?
The Australian Psychological Society recognises educational and developmental psychologists as those practitioners with specialised training and experience in providing assessment, intervention and counselling services to help children and adults with learning as well as developmental issues. I personally believe this definition accurately captures the nature of this specialisation. Yet the specific roles within this specialisation can be quite diverse.

I decided to become an educational and developmental psychologist because as a former teacher I had a passion for nurturing children's strengths and supporting their weaknesses, particularly those children with special learning or developmental needs, in order to help them achieve their full potential and succeed in a way that is meaningful for them. Thus, in my psychology practice I work with children, adolescents and their families. This means I really work with all stages of the life span, including even the prenatal stage if I am providing pregnancy support counselling.

Kimberley Cunial BA(Hons), MEdPsych, MAPS, CEDP, PGDipEd, Educational and Developmental Psychologist, Queensland, Australia

Statistics Snapshot

Statistics snapshot boxes highlight important data relating to this region.

Statistics snapshot

SOCIAL TRENDS

In Australia …
- In 1976, 21 per cent of 18- to 34-year-olds lived at home with their parents; in 2011 this had increased to 29 per cent.
- In 1976, the median age of first marriage was 24 years for males and 21 years for females; in 2015 this had increased to 32 years for males and 30 years for females.
- In 1976, 14 per cent of 18- to 34-year olds attended a higher education institution compared to 26 per cent in 2011.

- In 1971 the median age of first motherhood was 25.4 years; in 2014 this had increased to 29 years.
- In 1974 the median age for first fatherhood was around 29 years; in 2010 this had increased to 33.1 years.

In New Zealand …
- From 1986 to 2006, the number of 20- to 24 year olds living at home has remained relatively stable at around 30 per cent, although there was a peak in 1991 at 38.7 per cent.

- In 1971, the median age of first marriage was 23 years for males and 21 years for females; in 1966 it was 28 years for males and 26 years for females; and in 2015 it was 30 years for males and 29 years for females.
- In 1996, 30 per cent of 18- to 24 year olds were studying, compared to 40 per cent in 2006.
- in 1976 the median age for first motherhood was 25 years; this had increased to 28 years in 2011.

Sources: AIHW (2016); Australian Bureau of Statistics (1997, 2009, 2010, 2013, 2015); New Zealand Families Commission (2008); Statistics New Zealand (2012, 2015, 2017).

ICONS

As you read, keep an eye out for these icons.

NEW Linkages icons in the margin direct students to make connections between important topics covered elsewhere in the text.

Think about how developmental science theory connects with you by considering the **Making connections** margin questions throughout the chapters.

Take your learning further by considering the **On the Internet** activities throughout the chapters.

Explore the online resources by following the **NEW CourseMate Express** margin icons throughout the text. Find answers, activities and more.

END-OF-CHAPTER FEATURES

At the end of each chapter you will find several tools to help you to review, practise and extend your knowledge of the key learning objectives.

• Review your understanding of the key chapter topics with the **Summary**.
• Test your knowledge and consolidate your learning through the **Self-test, Review questions and Discussion questions. Answers to the self-test** can be found at the end of each chapter.
• Expand your knowledge by conducting further research in the **Search me! Psychology** database with the suggested key terms.

SUMMARY

1.1   How should we think about development?
- Development is systematic changes and continuities over the life span in the areas of physical, cognitive and psychosocial functioning, involving gains, losses and neutral changes in physical, cognitive and psychosocial functioning; it is more than just growth in childhood and biological ageing in adulthood.
- Development takes place in a historical, cultural and subcultural context and is influenced by age grades, age norms and social clocks.
- Understanding nature and nurture influences on development means understanding the interaction of heredity, biology and maturation with environment, experiences and learning. The complexities of transactions between people and their environment are captured in Bronfenbrenner's

REVIEW QUESTIONS

Develop your understanding of the chapter content by preparing short answer or essay responses to the following questions – or you might like to try developing a concept map or thinking map for these questions.

1   Explain the difference between maturation and learning and how each contributes to development across the life span.
2   Discuss why emerging adulthood is proposed as a distinct developmental stage.
6   Explain the difference between naturalistic observation and structured observation and the reasons you would select one over the other to study development.
7   Evaluate the strengths and weaknesses of the case

END-OF-CHAPTER ACTIVITIES

SELF-TEST

Answer these questions to self-test your knowledge of the chapter content. The answers are at the end of the chapter.

1   Systematic changes and continuities in a person occurring from conce
   a   ageing.
   b   development.

FOR DISCUSSION

Discuss and debate your point of view on the following developmental issues, dilemmas and controversies related to topics in this chapter.

1   In this chapter we presented one view of the periods of the life span (see Table 1.1). Do you agree with this view? What life periods would you break the life span into? What characteristics would you use to describe the life periods in your model? What are the best and worst stages of the life span from your perspective?
2   Many observers believe that age norms for transitions in adult development, such as marriage, parenthood, peak career achievement and retirement, are weakening in our society. Do you think such age norms could ever disappear entirely? Why or why not?

COURSEMATE EXPRESS

The CourseMate Express website contains a range of resources and study tools for this chapter, including:

→   Revision quizzes
→   Solutions to the *Checking understanding* questions
→   Glossary
→   and more!

SEARCH ME! PSYCHOLOGY

Explore *Search me! Psychology* for articles relevant to this chapter. Fast and convenient, *Search me! Psychology* is updated daily and provides you with 24-hour access to full text articles from hundreds of scholarly and popular journals, eBooks and newspapers, including *The Australian* and *The New York Times*. Log in to the *Search me! Psychology* database via http://login.cengagebrain.com and try searching for the following keywords:

ANSWERS TO THE SELF-TEST

1: (b); 2: (a) social clock, (b) age norms; 3: (a) 4, (b) 1, (c) 5, (d) 2, (e) 3; 4: False; 5: (a) internally consistent, (b) falsifiable, (c) supported by data; 6: (b); 7: (a) research ethics, (b) informed consent, (c) confidential

GUIDE TO THE ONLINE RESOURCES

FOR THE INSTRUCTOR

Cengage is pleased to provide you with a selection of resources that will help you prepare your lectures and assessments. These teaching tools are accessible via cengage.com.au/instructors for Australia or cengage.co.nz/instructors for New Zealand.

COURSEMATE EXPRESS

CourseMate Express is your one-stop shop for learning tools and activities that help students succeed. As they read and study the chapters, students can access revision quizzes, data activities, solutions to in-text questions and key weblinks. CourseMate Express also features the Engagement Tracker, a first-of-its-kind tool that monitors student engagement in the content. Ask your Learning Consultant for more details.

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INSTRUCTOR'S MANUAL

The **Instructor's manual** includes:

- chapter outlines
- learning objectives
- review questions with suggested answers
- suggested class discussions and projects
- suggested audio-visual material to aid learning
- websites and readings, and
- Search me! activities

WORD-BASED TEST BANK

This bank of questions has been developed in conjunction with the text for creating quizzes, tests and exams for your students. Deliver these through your LMS and in your classroom.

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Add the digital files of graphs, pictures and flowcharts into your course management system, use them in student handouts, or copy them into your lecture presentations.
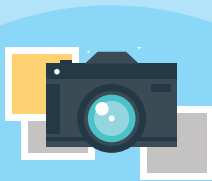
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- data activities
- solutions to in-text questions
- key weblinks
- and more!

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A new approach to highly personalised online learning, **MindTap** is designed to match your learning style and provides you with an engaging interface to interact with the course content, multimedia resources as well as your peers, lecturers and tutors. In the **MindTap Reader**, you can make notes, highlight text and even find a definition directly from the page. To purchase your MindTap experience for *Life Span Human Development*, please contact your instructor.

PREFACE

This book is about the development of human beings – from their days as fertilised eggs to their dying days. It highlights regularities as well as differences in development, and it asks fundamental questions about why we humans develop as we do.

This third Australian and New Zealand edition of *Life Span Human Development* incorporates many exciting changes to ensure the book is relevant to students studying in the Australian and New Zealand context, yet it retains four core features of the original text that have been valued by students and instructors over the years: (1) the unique integrated topical–chronological approach, (2) a presentation that is both research-based and applied, (3) an emphasis on the different theoretical perspectives that guide thinking about human development and research; and (4) an in-depth exploration throughout of nature and nurture contributions to development as well as the universality and diversity surrounding human development.

TOPICAL AND CHRONOLOGICAL APPROACH

The most distinctive feature of this book is its unique integrated topical–chronological approach. Most other life span development textbooks adopt a chronological or 'age–stage' approach, carving the life span into age ranges and describing the prominent characteristics of individuals within each age range. In contrast, we adopt a topical approach for the overall organisation of the book and after three introductory chapters we blend a topical approach with a chronological approach within chapters. Each blended chapter focuses on a domain of development, such as physical growth, cognition or psychosocial development, and then incorporates major sections on infancy, childhood, adolescence and adulthood to trace the developmental trends and influences throughout the life span.

Why topical?

Like many other instructors, we have typically favoured topically organised textbooks when teaching child-, adolescent- or adult-development courses. As a result, it seemed natural to use that same topical approach in introducing students to the whole life span. Besides, chronologically organised texts often have to repeat themselves as they remind readers of where development left off in an earlier age period that was covered in a previous chapter.

More important, a topic-by-topic organisation conveys the flow of development in each area – the systematic, and often dramatic, transformations that take place as well as the developmental continuities. The topical approach also helps us emphasise the processes behind development.

Finally, a predominantly topical approach is more compatible with a life span perspective, which views each period of life in relation to what comes before and what is yet to come. In chronologically organised textbooks, many topics are described only in connection with the age group to which they seem most relevant – for example, attachment in relation to infancy, or sexuality in relation to adolescence and adulthood. A topical organisation stimulates us to ask intriguing questions we might otherwise not ask, such as these about attachment relationships as explored in Chapter 11 Emotions, attachment and social relationships:

- What do infants' attachments to their parents have in common with, and how do they differ from, attachments between childhood friends or between adult romantic partners?
- Do securely attached infants later have a greater capacity to form and sustain friendships or romantic partnerships than infants whose early social experiences are less favourable?
- What are the consequences at different points in the life span of lacking a close relationship?

Attachments are important throughout the life span, and a topical organisation helps make that clear.

Why chronological?

We also appreciate the strengths of the chronological approach, particularly its ability to portray the whole person in each period of the life span. For this reason, we integrated the age–stage approach with the topical organisation, aiming to have the best of both worlds.

Each topical chapter contains major sections on infancy, childhood, adolescence and adulthood. The existence of these sections is proof that the chapters consider development in each of the domains covered across the whole life span. These age–stage sections call attention to the distinctive qualities of each phase of life and make it easier for students to find material on an age period of particular interest to them. In short, we believe that our integrated topical–chronological approach allows us to convey the flow of life span development in particular areas and the factors influencing it while highlighting the major physical, cognitive and psychosocial developments within each particular developmental period.

Adaptability of the integrated topical– chronological approach

Even though links among chapters have been clearly identified throughout the book, instructors who are teaching short courses or who are otherwise pressed for time can omit a chapter without fear of rendering other chapters incomprehensible. For example:

- A cognitively oriented course might omit one or more of the socially-oriented chapters (i.e. omit any of Chapters 9 to 13).
- A socially oriented course might omit one or more of the cognitively-oriented chapters (i.e. omit any of Chapters 5 to 8).

Moreover, the topical–chronological approach of the text gives instructors the flexibility to cover infancy, childhood and adolescence in a course, if they prefer, and to save the material in each chapter on adulthood for another course.

RESEARCH-ORIENTED AND RELEVANT COVERAGE

We have worked hard to create a text that is rigorous yet readable – research-oriented yet 'real' to students. *Life Span Human Development* tackles complex theoretical concepts and controversies and presents the best of both classic and contemporary research from multiple disciplines in a way that is accessible and relevant to students' life experiences and career development.

We believe that it is critical for students to understand how we know what we know about development – to appreciate the research process. With that in mind, we describe illustrative studies and present their data in graphs and tables, and we cite the authors and dates of publication for a large number of books and articles, all fully referenced in the reference section at the end of each chapter. Some students may wonder why they are there. It is because we are committed to the value of systematic research, because we are bound to give credit where credit is due and because we want students and their instructors to have the resources they need to pursue their interests in human development during and after the course.

We also appreciate that solid scholarship is of little good to students unless they want to read it, can understand it and see its relevance. We maintain that even the most complex issues in human development can be made understandable through clear and organised writing. To make the material more 'real', we clarify developmental concepts through examples and analogies, connect topics in

the text to topics in the news, and highlight the practical implications of research findings. We also incorporate applied material relevant to students' current and future roles as parents, teachers, psychologists, educators, social workers, occupational therapists and other allied health and human service professionals. And we help students see that major theories of human development do not just guide researchers but can help anyone analyse issues that we all face – including such practical matters as raising and educating children, working with troubled adolescents or coping with Alzheimer's disease or death in the family.

THEORETICAL GROUNDING

Theories are critical in any science, telling scientists what to study, how to study it and how to interpret their findings. We want students to leave the study of life span human development with more than facts alone; we want them to appreciate the major issues of interest to developmental scientists and how the leading theories in the field have shaped our thinking about development. Most important, we want students to learn to use these theoretical perspectives to guide their thinking and action when they encounter a question about human development outside the course.

With this in mind, we have devoted Chapter 2 to laying out in broad strokes the psychoanalytic, learning, humanistic, cognitive and systems perspectives on human development, showing what they say, where they stand on key developmental issues and how they would explain developmental phenomena such as school refusal and teenage pregnancy. We delve deeper into these and other perspectives and show how they have been applied to the study of specific aspects of development in later chapters; see, for example, a treatment of the dynamic systems view of motor development in Chapter 4; a comparison of Jean Piaget's cognitive developmental and Lev Vygotsky's sociocultural perspectives in Chapter 5; an application of the information-processing perspective in Chapter 6; alternative views of intelligence in Chapter 7; nativist, learning and interactionist theories of language development in Chapter 8; alternative theories of personality and gender role development in Chapter 9; theories of moral development in Chapter 10; attachment theory in Chapter 11; models and theories relating to various disorders in Chapter 12; and perspectives on dying and bereavement in Chapter 13.

NATURE–NURTURE AND UNIVERSALITY–CONTEXT SPECIFICITY THEMES

Finally, we want students to gain a deeper understanding of the influence of nature and nurture and of the many interacting forces affecting the developing person that contribute to both similarities (universalities) and differences (context specificity) in human development. We want students to appreciate that human development is an incredibly complex process that grows out of transactions between a changing person and a changing world and out of dynamic relationships among biological, psychological and social influences. No contributor to development – a gene, a temperament, a parent, a culture – acts alone and is unaffected by other influences on development.

We introduce nature and nurture and (by implication) the universality and context specificity of development in Chapter 1, and we give these concepts extended treatment in Chapter 2, where we explore the developmental issues that underpin theories; and also in Chapter 3, where we focus on genes and environment. Each subsequent chapter includes many examples of the intertwined contributions of nature and nurture to development and the ways in which human development is both similar from person to person and culture to culture, but also diverse from person to person

and culture to culture. Along the way, we describe some exciting studies that compare individuals with and without particular genes and with and without particular life experiences to bring home what it means to say that genes and environment interact to influence development – as when genes predisposing an individual to depression combine with stressful life events to produce depression. We also illustrate the many ways in which genes and environment are intertwined and affect one another – for instance, ways in which genetic makeup influences the experiences an individual has, and ways in which experience influences which of an individual's genes are activated or expressed. In this book we provide coverage not only of genes, hormones, brain functions and other biological forces in development but also of ways in which ethnicity, social class, community and the larger cultural context modify development. Most important, we illuminate the complex interrelationships between biological and environmental influences that are at the heart of the developmental process.

ABOUT THE AUTHORS

Carol K Sigelman is Professor of Psychology and, until recently, Associate Vice President for Research and Graduate Studies and then Graduate Studies and Academic Affairs at The George Washington University. She earned her bachelor's degree from Carleton College and a double-major doctorate in English and Psychology from George Peabody College for Teachers. She has also been on the faculty at Texas Tech University, Eastern Kentucky University (where she won her college's Outstanding Teacher Award) and the University of Arizona. She has taught courses in child, adolescent, adult and life span development and has published research on such topics as the communication skills of individuals with developmental disabilities, the development of stigmatising reactions to children and adolescents who are different, and children's emerging understandings of diseases and psychological disorders. Through a grant from the National Institute of Child Health and Human Development, she and her colleagues studied children's intuitive theories of AIDS and developed and evaluated a curriculum to correct their misconceptions and convey the facts of HIV infection. With a similar grant from the National Institute on Drug Abuse, she explored children's and adolescents' understandings of the effects of alcohol and drugs on body, brain and behaviour. For fun, she enjoys hiking, biking, discovering good movies and communing with her cats.

Linda De George has, in recent years, focused her career on leading social innovation, having recently held senior government and university positions in this area as well as in stakeholder, community and consumer engagement. She earned an undergraduate degree in psychology and a Master of Educational Psychology from the University of Queensland, and a PhD from Griffith University. She has worked as a psychology practitioner and has considerable experience as a university academic, teaching courses in life span development, educational psychology, developmental disabilities, special education and psychological assessment. Linda's research interests are broadly themed around capacity building of individuals, groups and communities. Outside of work, Linda loves to cook, camp and hike, spend time with amazing family and friends, and be owned by two cats.

Kimberley Cunial is a practising Educational and Developmental Psychologist with experience working in school, university, community, hospital and private practice settings. She is also an approved Supervisor with the Australian Board of Psychology. She earned a Bachelor and a Master of Educational Psychology from the University of Queensland, and a Postgraduate Diploma of Education from the Queensland University of Technology. At the time of writing, Kimberley was in the final stages of completing her PhD in Clinical Psychology at Griffith University. Kimberley has particular research interests, and is published, in the area of attention deficit hyperactivity disorder (ADHD). For leisure, Kimberley enjoys spending time with her three children, family, friends, and beloved cats, as well as getting outdoors cycling, hiking and visiting the beach.

Elizabeth A Rider is Professor of Psychology and Associate Academic Dean at Elizabethtown College in Pennsylvania. She has also been on the faculty at the University of North Carolina at Asheville. She earned her undergraduate degree from Gettysburg College and her doctorate from Vanderbilt University. She has taught courses on child and life span development, women's and gender issues, applied developmental psychology and genetic and environmental influences on development. She has published research on children's and adults' spatial perception, orientation and ability to find their way. Through a grant from the Pennsylvania State System for Higher Education, she studied factors associated with academic success. The second edition of her text on the psychology of women, *Our Voices*, was published by John Wiley & Sons in 2005. When she is not working, her life revolves around her son and a fun-loving springer spaniel.

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Justine Dandy, Edith Cowan University

Laynie Hall-Pullin, Western Sydney University

Prudence Millear, University of the Sunshine Coast

Sandra Goetz, Griffith University.

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UNDERSTANDING LIFE SPAN HUMAN DEVELOPMENT

CHAPTER OUTLINE

The centenarian athlete

Ruth Frith, born in 1909, was one of the world's oldest competing field athletes, taking up the sport in her 70s and competing until she died in 2014 aged 104. The Australian great-grandmother held Masters Games medals and world records in shotput, javelin and hammer-throw. Ruth had a regular physical training regime, including bench-pressing, and was coached by her daughter, Helen Searle – herself a dual Olympic and Commonwealth Games athlete in the 1960s who also continues to compete as a veteran athlete. Ruth had pacemaker surgery at age 103 for heart problems, which temporarily interrupted her athletics training. In her later years, she was not able to cook as much as she would have liked because of eyesight problems related to macular degeneration. But overall, Ruth maintained a healthy lifestyle, did not drink or smoke and generally enjoyed good health – even though she didn't eat vegetables as an adult, as she didn't like them! Ruth trained to be a solicitor but gave this away when she married in 1933: despite living through the women's liberation and feminism movements, Ruth thought a woman's place is in the home: 'I think that's half the problem with children; there is no one to come home to when they come home from school' (Jerga, 2009; McKimmie, 2010; SBS Insight, 2013; Stephens, 2014). Although her parents died when she was at high school, Ruth's sisters lived long lives too, reaching 80 and 97 years of age.

Source: Getty Images/Heather Faulkner/AFP

Ruth Frith, centenarian athlete

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ON THE INTERNET

The 100+ club

http://www.flickchicks.com.au/100+clubdoco/media

Enter this website to find out more about membership of one of the most exclusive clubs in the world, the 100+ club – where you don't have to be rich and famous, just extremely old! At this website you can view a clip from the 100+ club documentary, which features Ruth Frith from our chapter opening, and you will also find links to more information about the club and centenarians.

This book is about the development of humans like Ruth Frith – and you – from conception to death. Like any life, the life of Ruth Frith, a centenarian (an individual who lives to 100 years or older; see *On the Internet: The 100+ club*), raises many questions: Was her extraordinary physical fitness in her 100s, and that of her daughter, now in her 70s, mainly a matter of good genes, or the result of physical training? What changes in functioning and fitness does ageing entail, and are conditions like heart and eye disease inevitable as we age? How important are lifestyle factors such as smoking and diet for health and longevity? Going in a different direction, how were Ruth and others of her generation affected by growing up in a society in which women often had to make the choice between marriage, family and a career? And what allows some people to cope better than others with negative life events such as the death of a partner, parent or siblings?

We address questions like these and more in this book. Among other things, we'll ask how infants perceive the world; how preschool children think; how life events such as the loss of a parent affect a child's adjustment and later romantic relationships; why some young people engage in riskier pursuits than others; whether most adults eventually experience declines in their capacities; and how people typically change physically, mentally and emotionally as they age. We will also take on even more fundamental questions: How does a single fertilised egg cell turn into a unique human being like Ruth Frith? And how can we use knowledge of the genetic and environmental forces that shape development to optimise it?

Do any of these questions intrigue you? Probably so, because we are all developing people interested in ourselves and other developing people around us. Many of us want to understand how we and those we know have been affected by our experiences, how we have changed over the years and where we may be headed. Throughout this book there will be opportunities for you to reflect on your own developmental experiences and views about development. For example, in the chapter *Engagement* boxes there are questionnaires and quizzes to complete, and in the *For discussion* activities at the end of chapter you can explore your beliefs and attitudes about topical issues and debates in human development. In the *Making connections* activities, you are invited to engage personally with specific theories and concepts you are learning about.

Many who read this book have practical motivations for learning about human development – for example, a desire to be a good parent or to pursue a career as a psychologist, educator, nurse, occupational therapist, counsellor, speech and language pathologist, social worker or other human services or allied health professional. So, in this edition of the book we are delighted to introduce you to five Australian and New Zealand professionals who are practitioners, researchers and educators in some of these fields. In *Professional practice* boxes throughout the book, they will share their professional experiences with you, including how they use developmental theories, concepts and research to inform their work of optimising human development. Look out, too, for a range of other boxed features and activities throughout the text: *Exploration* boxes, *Application* boxes and *Search me!* activities are all designed to enhance your study of human development by helping you engage with the research and theory behind developmental sciences and the real-world applications (refer to the *Resources guide* at the front of this book for a description of these and more features).

This introductory chapter will now lay the groundwork for the remainder of the book by addressing some basic questions: How should we think about development and the influences on it? What is the science of life span development? How is development studied? And what are some of the special challenges in studying human development?

1.1 | HOW SHOULD WE THINK ABOUT DEVELOPMENT?

- Define development and ageing, and their relationship to each other.
- Explain and illustrate the role played by age grades, age norms and the social clock in making human development different in various historical, cultural and subcultural contexts.
- Summarise the positions one can take on the 'nature–nurture' issue and the position most developmental scientists today take.

We begin by asking what it means to say that humans 'develop' or 'age' over the life span, how we can conceptualise the life span and its cultural and historical diversity, and how nature and nurture influence developing humans in their ever-changing environments.

Defining development

Development can be defined as systematic changes and continuities in the individual that occur between conception and death, or from 'womb to tomb'. Development entails many changes; by describing these changes as systematic, we imply that they are orderly, patterned and relatively enduring – not fleeting and unpredictable like mood swings. Development also involves continuities, ways in which we remain the same or continue to reflect our past selves.

The systematic changes and continuities of interest to those who study human development fall into three broad domains or areas of development:

1 **Physical development** is concerned with physical and biological processes, such as genetic inheritance; the growth of the body and its organs; the functioning of physiological systems, including the brain; health and wellness; the physical signs of ageing and changes in motor abilities; and so on.

2 **Cognitive development** is concerned with thought and other mental and intellectual processes, such as perception, attention, language, learning, memory, intelligence, creativity and problem solving.

3 **Psychosocial development** is concerned with aspects of the self, and social and interpersonal interactions, such as motives, emotions, personality traits, morality, social skills and relationships, and roles played in the family and in the larger society.

Developmentalists appreciate that humans are whole beings and that these developmental areas are interwoven and overlap, with changes in one area often affecting the others throughout the life span (Figure 1.1). The baby who develops the ability to crawl (physical), for example, has new opportunities to develop her mind (cognitive) by exploring kitchen cabinets, and can hone her social skills (psychosocial) by following her parents from room to room and observing and interacting with them. And for Ruth Frith, introduced at the start of the chapter, daily training and exercise (physical) may have helped her retain her intellectual abilities (cognitive) and enriched her social interactions (psychosocial).

How would you portray, in a graph, typical changes from birth to old age in these three domains? Many people picture tremendous positive gains in capacity from infancy to young adulthood, little change during early adulthood and middle age, and loss of capacities in the later years. This stereotypical view of the life span is largely false, but it also has some truth in it, especially with respect to physical development. Traditionally, biologists have defined growth as the physical changes that occur from conception to maturity. We indeed become biologically mature and physically

development Orderly patterns of change, as well as continuities, that occur in an individual throughout their life span.

physical development A component of development concerned with physical and biological processes.

cognitive development A component of development concerned with thought and other mental and intellectual processes.

psychosocial development A component of development concerned with aspects of the self, and social and interpersonal interactions.

growth The physical changes that occur from conception to maturity.

FIGURE 1.1 The interwoven and overlapping nature of the three main domains that influence human development
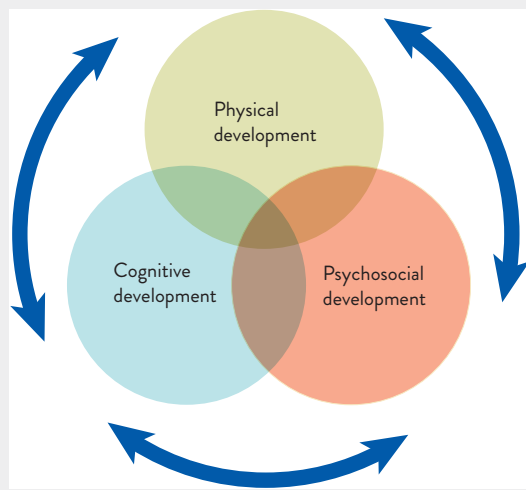
Source: Adapted from Santrock (2014).

biological ageing
The biological and physical deterioration of organisms that leads inevitably to their death.

competent during the early part of the life span. And biological ageing is the deterioration of all organisms, including humans, that leads inevitably to their death. Biologically, then, development *does* involve growth in early life, stability in early and middle adulthood, and declines associated with the cumulative effects of ageing in later life.

Many aspects of development do not follow this 'gain–stability–loss' model as we age, however. Developmental scientists have come to appreciate that developmental change at any age involves both gains and losses. For example, we should not assume that child development is all about gain; children gain many cognitive abilities as they get older, but they also become less flexible in their thinking and less open to considering unusual solutions (Gopnik, Griffiths, & Lucas, 2015). They may also lose self-esteem and become more prone to depression (Wasserman, 2011; Manning, Bear, & Minke, 2006).

Nor should we associate ageing only with loss. Some cognitive abilities do decline over the adult years. However, adults aged 50 and older typically score higher on vocabulary tests and on tests of mental ability that draw on a person's accumulated knowledge than young adults do (Hartshorne & Germine, 2015; Salthouse, 2012). They also sometimes show more wisdom when given social problems to ponder (Grossmann et al., 2010). Gerontologist Margaret Cruikshank (2009, p. 207) conveyed the gains associated with ageing this way: 'Decline is thought to be the main theme of ageing, and yet for many, old age is a time of ripening, of becoming most ourselves.'

In addition, people do not always improve or worsen but instead just become different than they were (as when a child who once feared loud noises comes to fear hairy monsters under the bed instead, or an adult who was worried about career success becomes more concerned about her children's futures). Development clearly means more than positive growth during infancy, childhood and adolescence, and decline during adulthood and old age. In short, development involves gains, losses, neutral changes, and continuities in each phase of the life span, and ageing is part of it.

Conceptualising the life span

If you were to divide the human life span into periods, how would you do it? Table 1.1 lists the periods that are typically referred to by professionals and researchers. Notice that the book's inside back cover provides a table summarising key developments in these different periods of the life span; this is a preview of the aspects of physical, cognitive and psychosocial development we will be exploring throughout the chapters of this book. Note, however, that the given ages are approximate and age is only a rough indicator of developmental status. Improvements in the standard of living and health, for example, have meant that today's 65-year-olds are not as 'old' physically, cognitively or psychosocially as 65-year-olds decades ago were. There are also huge differences in functioning and personality among individuals of the same age; while some adults are bedridden at age 90, others, like Ruth Frith, are involved in athletic competition and display the physical abilities of much younger people.

TABLE 1.1 An overview of periods of the life span

Period of Life	Age Range
Prenatal period	Conception to birth
Infancy	First 2 years of life (the first month is referred to as the *neonatal* or *newborn* period)
Early childhood	2 to 5 or 6 years (some refer to children aged 1 to 3 who have begun to walk as *toddlers*)
Middle childhood	6 to about 12 years (or the onset of puberty)
Adolescence	Approximately 12 to 18 or 20 years (or when the individual becomes relatively independent of parents and begins to assume adult roles)
Emerging adulthood	18 to 25 or even 29 years (transitional period between adolescence and adulthood)
Early adulthood	20 to 40 years
Middle adulthood	40 to 65 years
Late adulthood	65 years and older (some refer to subcategories within this period, such as the *young old*, *old old*, and *very old*, based on age ranges or differences in functioning)

The most recent addition to this list of periods of the life span – the one you may not have heard of – is emerging adulthood, a transitional period between adolescence and full-fledged adulthood that extends from about age 18–25 and maybe as late as 29. According to psychologist Jeffrey Arnett and others, this is a distinct phase of life in which post-school youth spend years getting educated and saving money in order to launch their adult lives (Arnett, 2000, 2015). Emerging adulthood is a distinct developmental period primarily in developed countries, but the phenomenon is spreading to developing ones, especially in urban areas (Arnett, 2015). According to Arnett and colleagues (Arnett & Tanner, 2006), emerging adults (maybe you?):

- explore their identities
- lead unstable lives filled with job changes, new relationships, and moves
- are self-focused, relatively free of obligations to others, and therefore free to focus on their own psychological needs
- feel in between – adult-like in some ways but not others; and
- believe they have limitless possibilities ahead.

Not everyone agrees that emerging adulthood is a distinct period of development (Epstein, 2013). Do you believe individuals in their late teens or early 20s are truly an adult rather than an 'emerging' adult? Why or why not? There are many ways to define adulthood, but sociologist Frank Furstenberg and his colleagues (2004) looked at five traditional, objective markers of adulthood and found that adolescents and young adults in our society are taking longer to achieve some of these, such as completing an education, being financially independent, leaving home, marrying and having children – patterns evident in the *Statistics snapshot* box. Granted, many people today no longer consider marriage and parenthood to be markers of adulthood (Nelson et al., 2007), and the statistics may be misleading due to other changes in family structures. For example, in Australia, while the marriage rate has been decreasing, there has been a two-fold increase in cohabitation (two single adults living together as an unmarried couple), with 22 per cent of people aged 20–29 living in a de facto relationship in 2009–2010 compared to 10 per cent in 1992 (Australian Bureau of Statistics, 2012). Still, progress toward adulthood is changing, lending some support to the concept of a period of emerging adulthood between adolescence and adulthood. Note too, that there are different social, cultural and historical views about the periods of the life span as shown in Table 1.1.

emerging adulthood A period of the life span from about 18–25 years, when young people are neither adolescents nor adults and are exploring their identities, careers and relationships.

Statistics snapshot

SOCIAL TRENDS

In Australia …

- In 1976, 21 per cent of 18- to 34-year-olds lived at home with their parents; in 2011 this had increased to 29 per cent.
- In 1976, the median age of first marriage was 24 years for males and 21 years for females; in 2015 this had increased to 32 years for males and 30 years for females.
- In 1976, 14 per cent of 18- to 34-year olds attended a higher education institution compared to 26 per cent in 2011.

- In 1971 the median age of first motherhood was 25.4 years; in 2014 this had increased to 29 years.
- In 1974 the median age for first fatherhood was around 29 years; in 2010 this had increased to 33.1 years.

In New Zealand …

- From 1986 to 2006, the number of 20- to 24 year olds living at home has remained relatively stable at around 30 per cent, although there was a peak in 1991 at 38.7 per cent.

- In 1971, the median age of first marriage was 23 years for males and 21 years for females; in 1966 it was 28 years for males and 26 years for females; and in 2015 it was 30 years for males and 29 years for females.
- In 1996, 30 per cent of 18- to 24 year olds were studying, compared to 40 per cent in 2006.
- in 1976 the median age for first motherhood was 25 years; this had increased to 28 years in 2011.

Sources: AIHW (2016); Australian Bureau of Statistics (1997, 2009, 2010, 2013, 2015); New Zealand Families Commission (2008); Statistics New Zealand (2012, 2015, 2017).

Age and development: Sociocultural perspectives

Table 1.1 represents only one view of the periods of the life span; age, like gender, race and other significant human characteristics, means different things in different societies and cultures (Fry, 2009). Culture is often defined as the shared understandings and way of life of a people (see Mistry & Dutta, 2015; Packer & Cole, 2015). It includes beliefs, values and practices concerning the nature of humans in different phases of the life span, what children need to be taught to function in their society, and how people should lead their lives as adults. Different cultures can lead us along different developmental pathways, but we all participate in a culture. That culture becomes part of us, influencing how we live and how we experience our lives (Packer & Cole, 2015).

Each culture has its own ways of dividing the life span and of treating the people in different age groups. And each socially-defined age group in a culture – called an age grade or age stratum – is assigned different statuses, roles, privileges and responsibilities. Segregating children into grades in school based on age is one form of age grading, but whole societies are layered into age grades and privilege certain ages. For example, in Australia and New Zealand, it has been determined that 'adults' (18-year-olds by law) can legally consume alcohol and are extended a voting privilege not granted to children. But even legal definitions of the boundaries between adolescence and adulthood vary. The legal age for marriage in Australia and New Zealand is 18 years; however, the age of consent for sexual activity ranges from 16–17 years (Lamont, 2010). Similarly, although many of us define age 65 as the boundary between middle age and old age, the ages at which people become eligible for the age pension and 'senior discounts' differ.

And age boundaries change over time as well: for example, the age of eligibility for age pension benefits for people born after 1 July 1952 in Australia will rise gradually from 65 years currently to 67 years by 2023 (Australian Government Department of Human Services, 2014). Note, however, that not all cultures and societies define age grades by years since birth. The !Kung San of Botswana often don't know people's chronological ages and instead define age grades in terms of functioning (Rosenberg, 2009). In relation to old age, they distinguish between the 'old' (*na*, meaning 'big and

culture A system of meanings shared by a population of people and transmitted from one generation to the next.

age grade Socially-defined age group or stratum, with distinct statuses, roles, privileges and responsibilities in society.

great', is an honorary title granted to all older people starting at around age 50); the 'old/dead' (older but still able to function); and the 'old to the point of helplessness', who are ailing and need care.

Once a culture has established age grades, this tends to define what people should and should not do at different points in the life span – referred to as age norms (Elder & Shanahan, 2006). In Western culture, for example, most people agree that 6-year-olds are too young to date or drink beer but are old enough to attend school. We also tend to agree that adults should think about marrying in their late 20s or early 30s (although in some segments of society earlier or later is considered better) and should retire around age 65 (Parker & Vassallo, 2009; Settersten & Trauten, 2009). In developing countries, age norms often call for having children in one's teens and stopping work earlier than 65 in response to illness and disability (Shanahan, 2000).

Why is understanding a society's or culture's age norms important? First, they influence the decisions people within that society or culture make about how to lead their lives and how easily they adjust to life transitions. They are the basis for what pioneering gerontologist Bernice Neugarten (1968) called the social clock – a concept that still seems to apply today and refers to a person's sense of when things should be done and when he or she is ahead of or behind the schedule dictated by age norms. Prompted by the social clock, for example, an unmarried 30-year-old may feel that he should propose to his girlfriend before she gives up on him, or a childless 35-year-old might fear that she will miss her chance at parenthood unless she has a baby soon. Further, normal life events tend to affect us more negatively when they occur 'off time' than when they occur 'on time' at socially accepted ages (McLanahan & Sorensen, 1985). It can be challenging to experience puberty at either age 8 or age 18, or to become a new parent at 13 or 48. However, age norms in Western societies have been weakening for some time; it is less clear now what one should be doing at what age and so people do things like marry, have children and retire across a wider range of ages (Settersten & Trauten, 2009).

Social age norms may also be associated with age-related stereotypes and ageism. For example, misunderstandings about older adults abound – that they are sickly, frail, forgetful, cranky, unattractive, dependent or otherwise incompetent. Such stereotypes about older adults can lead to prejudicial and discriminatory attitudes and practices toward the elderly in employment and education, and prevent them from accessing opportunities and services. Yet stereotypes and ageist behaviours are not always negative. Ageism toward older adults can also be positive in nature, for example, seeking out advice from someone who is older because of a stereotypical view that all older people are wise (see Chapter 7 for more on the topic of wisdom) (Cherry & Palmore, 2008). Either way, positive or negative ageism portrays older people in an unrealistic way – despite the stereotypes that suggest that all old people are alike, elderly adults are in fact the most diverse of all age groups in terms of physiological and psychological functioning (Andrews, Clark, & Luszcz, 2002). You might like to explore your own ways of relating to older people by completing the activity in the chapter *Engagement* box.

Ageist attitudes and practices are unfortunately not limited to the elderly. Stereotypical views of children and adolescents as being 'too young' and unable to speak for themselves may lead to their opinions not being sought or being ignored in family and medical decision-making contexts (Scherer et al., 2013). Steps toward combating stereotypical and ageist attitudes and behaviours involve developing an accurate understanding of ageing and capabilities at various stages of the life span, while also appreciating the considerable developmental diversity within various life span periods.

age norms
Expectations about what people should be doing or how they should behave at different points in the life span.

social clock A personal sense of when things should be done in life and when the individual is ahead of or behind the schedule dictated by age norms.

MAKING CONNECTIONS

Have you ever felt ahead of or behind schedule according to the social clock? What impacts has being 'on time' or 'off time' had for you?

stereotypes
Generalisations about the attributes of a group which are assumed to be true of all members regardless of individual variation among the group members.

ageism Prejudice or discrimination against individuals or groups on the basis of age.

LINKAGES

Chapter 7 Intelligence and creativity

Engagement

HOW DO YOU RELATE TO OLDER ADULTS?

Below are 20 statements that may or may not apply to you. Write a number from 0 to 2 next to each statement that indicates how often you relate to older people, aged 60 and over, in these ways.

0 = Never
1 = Sometimes
2 = Often

How often do you:

___ **1** Compliment older people on how well they look, despite their age.

___ **2** Send birthday cards to older people that joke about their age.

___ **3** Enjoy conversations with older people because of their age.

___ **4** Tell older people jokes about old age.

___ **5** Hold doors open for older people because of their age.

___ **6** Tell an older person, 'You're too old for that'.

___ **7** Offer to help an older person across the street because of their age.

___ **8** When I find out an older person's age, I may say, 'You don't look that old'.

___ **9** Ask an older person for advice because of their age.

___ **10** When an older person has an ailment, I may say, 'That's normal at your age'.

___ **11** When an older person can't remember something, I may say, 'That's what they call a "Senior Moment".'

___ **12** Talk louder or slower to older people because of their age.

___ **13** Use simple words when talking to older people.

___ **14** Ignore older people because of their age.

___ **15** Vote for an older person because of their age.

___ **16** Vote against an older person because of their age.

___ **17** Avoid older people because of their age.

___ **18** Avoid older people because they are cranky.

___ **19** When a slow driver is in front of me, I may think, 'It must be an old person'.

___ **20** Call an older woman, 'young lady', or call an older man, 'young man'.

To score and interpret your responses:

A Add together the ratings for items 1, 3, 5, 7, 9 and 10, then divide that total by 12. This is the proportion of positive ageist behaviours you endorsed when compared to the highest possible total score for all the positive items.

B Add together the ratings for items 2, 4, 6, 8, 10, 11, 12, 13, 14, 16, 17, 18, 19 & 20 then divide that total by 28. This is the proportion of negative ageist behaviours you endorsed when compared to the highest possible total score for all the negative items.

C To help you see roughly where you stand, compare your positive and negative scores to the average age and gender scores in Table 1.2. The values in the table were found by Cherry and Palmore (2008) in a sample of 162 participants. As indicated by the results in the table, they found all age groups readily admitted to positive ageist behaviours. Any differences in the endorsement of positive or negative ageist items between age groups was not significant, meaning the younger and older adults endorsed similar numbers of items. Females endorsed positive ageist items significantly more often than males, but there were no gender differences for the endorsement of negative items.

TABLE 1.2 Average age and gender scores

Group	Positive items	Negative items
Younger adults (18–29 years)	0.54	0.24
Middle-aged adults (40–57 years)	0.51	0.15
Older adults (60+ years)	0.54	0.26
Males	0.49	0.23
Females	0.55	0.24
Total sample	**0.53**	**0.23**

Source: Reprinted from Cherry & Palmore (2008), with permission from Taylor & Francis Ltd, http://www.tandfonline.com, © 2008.

ethnicity A person's classification in or affiliation with a group based on common heritage or traditions.

SUBCULTURAL DIFFERENCES

Age grades, age norms and social clocks differ not only from culture to culture but also from subculture to subculture. Our own society is diverse with respect to race and ethnicity, or affiliation with a group based on common heritage or traditions. It is also diverse with respect

to socioeconomic status (SES), or standing in society based on such indicators as occupational prestige, education and income. As you will learn throughout this book, Australia and New Zealand's Indigenous people, and individuals of high versus low SES, sometimes have very different developmental experiences. Within these broad groups, of course, there are immense variations associated with a host of other factors. We must be careful not to overgeneralise.

Perhaps the most important message about socioeconomic status is that, regardless of race and ethnicity, poverty can be very damaging to human development. In 2016, almost 1 in 5 Australian children (17 per cent, over 700 000 children) lived in poverty, defined as living in a household with income below the poverty line (50 per cent of median income), which equates to $895.22 per week for a couple with two children (Australian Council of Social Service, 2016). In New Zealand almost 1 in 3 children (28 per cent, almost 300 000 children) were living in poverty in 2016 (Simpson, Duncanson, Oben, Wicken, & Gallagher, 2016). Parents and children living in poverty experience more stress than higher-SES parents and children owing to noise, crowding, family disruption, hunger, exposure to violence, and other factors (Evans & Kim, 2012). Under these conditions, parents may have difficulty providing a safe, stable, stimulating and supportive home environment for their children (Duncan, Magnuson, & Votruba-Drzal, 2015; and see Chapter 11). As a result, the developmental experiences and trajectories of children who grow up in poverty and children who grow up in affluence are significantly different. The damaging effects of poverty can be seen in measurable differences in brain development between high- and low-SES children that grow wider over the critical periods of infancy and early childhood (Hanson et al., 2013) and that are linked to lower school achievement in adolescence (Mackey et al., 2015). Indeed, the negative impacts of poverty show themselves in a host of ways: not only in lower average academic achievement but in poorer mental health and wellbeing and even poorer physical health in adulthood (Aber, Morris, & Raver, 2012; Conger & Dogan, 2007; Evans & Kim, 2012).

Age and development: Sociohistorical perspectives

The meanings of childhood, adolescence and adulthood also change from historical period to historical period. In the Western context, they have changed along the following lines:

- *Childhood*. Although it is not quite this simple (Stearns, 2015), it has been claimed that in Western cultures it was not until the seventeenth century that children came to be viewed as distinctly different from adults, as innocents to be protected and nurtured. In medieval Europe (AD 500–1500), for example, 6-year-olds were dressed in miniature versions of adult clothing, treated much like adults under the law, and expected to contribute to the family's survival as soon as possible (Hanawalt, 2003). Today the goal in Western families is for children to be happy and self-fulfilled rather than economically useful (Stearns, 2015).

- *Adolescence*. Not until the late nineteenth century and early twentieth century was adolescence recognised as a distinct phase of the life span (Hine, 1999). As industrialisation advanced, an educated labour force was needed, so laws were passed restricting child labour and making schooling compulsory. By the middle of the twentieth century, adolescence had become a distinct life stage in which youths spent their days in school, separated from the adult world and living in their own peer culture (Furstenberg, 2000).

- *Emerging adulthood*. As you saw earlier, the transition period from adolescence to adulthood has become so long in modern societies that a new period of the life span, *emerging adulthood*, has been defined in the late twentieth and early twenty-first centuries.

- *Middle age*. This distinct life phase emerged in the twentieth century as parents began to bear fewer children and live long enough to see their children grow up and leave home (Moen & Wethington, 1999). Sometimes characterised as a time of 'crisis', sometimes as a time of hardly any psychological change, middle age is now understood to be a time of good health, peak

socioeconomic status (SES) The position people hold in society based on such factors as income, education, occupational status and the prestige of their neighbourhood.

LINKAGES 🔗

Chapter 11 Emotions, attachment and social relationships

Search Me!

Search me! and Discover an example of a study focused on the emerging adulthood stage:

Lane, J. A. (2015). Counseling emerging adults in transition: Practical applications of attachment and social support research. *The Professional Counselor*, 5, 30–42.