SUCCESSFUL AGEING

Ageing has nothing to do with wearing less colourful clothes, sitting in a chair, no longer playing a sport, being alone or unhappy, or suffering dementia. Research has shown that elderly people have a positive attitude to life and are happy in their old age, regardless of where they live or the culture they live in. The key to successful ageing is to live a healthy life, remain mentally active, be socially involved, be more interested in spirituality, religion or the meaning of life, and develop effective coping skills.

KEY KNOWLEDGE

Cognitive and psychosocial changes in the very old: successful ageing as informed by Paul Baltes’ work.

(VCE Study Design 2013)
## What do you know about ageing?

**CHAPTER OVERVIEW**

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<th>LIFESPAN PSYCHOLOGY</th>
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<td>Successful cognitive ageing—Baltes’ selective optimisation with compensation (SOC) model</td>
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<td>Senile dementia</td>
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<td>Wisdom</td>
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<td>Psychosocial changes (social and emotional)</td>
<td>Ageism</td>
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<td>Successful psychosocial ageing</td>
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What are your beliefs about old age? Before you read on, attempt the ‘true or false’ questions in 10.1 Investigate.

TRUE OR FALSE?

1. Elderly people are generally frail and sick.
2. Life expectancy in Australia has increased slightly over the last 50 years.
3. Ageism is the study of the old and frail.
4. In Australia, retirement is compulsory at 65 years of age.
5. The elderly are not as well informed as the young.
6. The elderly cannot do most tasks as well as the young.
7. Elderly people are unable to learn new skills.
8. The most common health problem for the elderly is Alzheimer’s disease.
9. People who are old are usually dissatisfied with their lives.
10. If you live long enough, you will eventually develop Alzheimer’s disease.

Answers are on page XXX.

Have you ever stopped to consider what it is like to be very old? What are the delights of being very old? What are the limitations? Have you ever wondered what you will do when you retire? Where will you live? How will you spend your days? Take a moment to think about your future.

Most likely it is very difficult to picture yourself in retirement. Indeed, for many of us it is difficult to think about life after the end of next year. You have many hurdles to jump and many inspiring and wonderful moments to experience before retirement. It is worth considering, however, especially as this will help you gain an insight into older people’s lives and explore your own directions in the future.

Throughout history, people have pondered over questions about old age. Only in recent years has psychological research addressed some of these questions; previously, developmental research was mainly concerned with developmental stages from conception to adolescence. Life goes on, however, and developmental changes do occur during adulthood—just ask your teacher or parents! There is now more emphasis on researching adulthood and beyond; we have gone from speculating about old age to scientifically studying old age.

Gerontology is the study of the biological, cognitive and psychosocial (social and emotional) aspects of ageing. The term ‘gerontology’ is derived from the Greek words geront meaning ‘old man’ and ology meaning ‘the study of’. Gerontology differs from geriatrics, which is the study of medical diseases of elderly people. Psychologists specialising in gerontology are called geropsychologists.

Growing old does not have to be gloomy; it can be an enlightening and positive experience. ‘Successful ageing’ is a term that aims to raise aspirations for the elderly.

This chapter looks at elderly adults, drawing on lifespan psychologist Paul Baltes’ theories on successful ageing, and considers the biological and physical, cognitive and psychosocial aspects of ageing.
Osborn Segerberg (1982) interviewed 1200 centenarians about many aspects of their lives. Through their eyes, life looks like this:

Mary Butler said that finding something to laugh about every day is important. She believes a good laugh is better than a dose of medicine any time.

Elza Wynn concluded that he has been able to live so long because he made up his mind to live. He was thinking about dying when he was 77, but decided he would wait a while.

Anna Marie Robertson (‘Grandma’) Moses commented that she felt older at 16 than at any time since then. Even now that she’s very old, she never thinks about being old.

Billy Red Fox believes that being active and not worrying are important keys to living to be 100. At 95, he switched jobs to become a public relations representative. Even at 100, Billy travels 11 months of the year, making public appearances and talking to civic clubs.

Rebecca Miller says that independence and self-reliance are the story of her life. Her spirit shines through her bright eyes. An avid reader throughout her life, she now reads with the aid of a magnifying glass.

Duran Baez remarried at 50 and went on to have 15 more children. At 100 years of age, he was asked, ‘Do you have any ambition you have not yet realised?’ Duran replied, ‘No.’ He said that he had lived the kind of life he expected, raising a good family, never doing any harm to anybody, staying honest all his life, and finding out that people really do like him. Duran says, ‘That’s enough for the time being.’

Source: Santrock (1999)

SECRETS TO A LONG AND HAPPY LIFE

1. Read ‘Secrets to a long and happy life—centenarians view life’ and answer the following questions:
   a. What do these people see as important for living a long life?
   b. Do these people view attitude or physical attributes as being most important to a long life?

2. What does successful ageing mean to you?

3. Think of a well-known older adult who has aged successfully. What characteristics lead you to your decision that this person has aged successfully?

4. When you are 75 years of age, how will you know if you have aged successfully? What will you be like? How will you like to live?
Lifespan psychology—Baltes’ core assumptions

German lifespan psychologist Paul Baltes (1936–2006) was well respected for his theories on lifespan psychology and his research, which focused mainly on adulthood, including the very old. He took a positive approach to growing old and considered development to be a continuous process occurring throughout life. In this chapter there are regular references to Baltes’ (1987) core assumptions, which include:

- **Development is a lifelong process**: Developmental change continues throughout life and no age period is more important than another. Developmental change involves both gains and losses in functioning across all ages.
- **Development is plastic and modifiable**: Overcoming adversity, including psychological and physiological trauma, and being productive can occur at any time throughout the lifespan.
- **Development is multidimensional**: Biological, cognitive and psychosocial aspects influence development.
- **Development is multidirectional**: Some dimensions (biological and physical, cognitive and psychosocial) are more influential than others at different ages during the lifespan.
- **Development is embedded in multiple contexts**: Lifelong development is shaped by a number of environmental contexts, including history, culture, demographics and economics.

**How old is very old?**

Some Australians live to be 100 years old and receive a letter of congratulations from the Queen. In 2008, nearly 3400 Australians were over the age of 100 years, a threefold increase in 20 years (ABS 2008). Most people, including psychologists, agree that centenarians are very old. But when does a person become very old?

Old age is defined differently between countries and cultures (and psychologists). Some consider chronological (actual) age, while others say it depends on physical, cognitive and social capabilities, and other factors including the age cohort—certain characteristics belonging to the group of people that were born around the same era.

**BABY BOOMERS**

An increase in the number of births after the Second World War resulted in a generation affectionately labelled the **baby boomers**. Following the War, many countries experienced an unusual spike in birth rates, which began to decline slowly from 1957. The Australian Bureau of Statistics defines the baby boomers as those who were born in Australia or overseas between 1946 and 1964.

The baby boomers are a dynamic age cohort and are starting to reach retirement age. They form a large group of influential and well-educated people who will create a new explosion of research, facilities and support systems for retirees. They will redefine what it is like to be old.
BALTES’ BROAD CATEGORIES
Baltes carried out extensive research on the elderly and found it difficult to define old age in terms of actual age. He breaks old age into two very broad categories (Baltes 2002):
- the third age: ages 60 to 79, or until about half of the age cohort has died
- the fourth age: from the end of the third age onwards.
These categories are only loosely based on chronological (actual) age. Baltes believed that old age (being old) is not the same as chronological (actual) age.

BALTES’ DIMENSIONS OF OLD AGE
In an attempt to dissociate old age from actual age, Baltes (2002) linked old age to the following dimensions:
- biological: being frail due to physical and biological age-related issues
- cognitive: the onset of cognitive decline that may include the first signs of senile dementia or Alzheimer’s disease
- sociological: having retired from paid employment
- institutional: moving into a nursing home
- longevity: the last 10 years of life before natural death.

HOW OLD IS VERY OLD?
Interview five people of different ages: 0 to 10 years, 11 to 20 years, 21 to 40 years, 41 to 60 years, and 61 years and over. Ask them the following questions:
→ At what age do you consider a person to be very old?
→ What is the age of the oldest person you know?
→ Describe what that person is like.
→ How long would you like to live for?
→ Use your findings to answer the following questions.

1. a) What similarities did you find in the responses to each question?
   b) What differences did you find in the responses to each question?
   c) Were any of your findings surprising? Explain your answer.

2. Outline any trends you have noticed concerning the age of the participant and their responses.

3. a) What are some strengths with this survey?
   b) What are some limitations with this survey?

4. Identify at least one idea related to this topic that would be worth studying in the future.
UNIVERSITY OF THE THIRD AGE (U3A)

'When you retire you want to keep busy. You try to do things that keep your mind going. I found out about U3A after hearing a U3A choir sing at a community event and thought, "I would like to sing like that!" So I joined the class and got to sing with the choir. This was 15 years ago. Since then I have taught classes of my own in tai chi and Italian and taken many other classes including guitar lessons, and have made many wonderful friends.'

FIGURE 10.3 Joe, a U3A student and teacher

Joe, U3A member

U3A

U3A is an international program that was founded in France. It aims to promote positive ageing in the community. Older adults can participate in educational, creative and recreational activities. Many and varied courses on offer encourage lifelong learning, physical activity and friendships. You many like to invite a U3A member from your local community to be a guest speaker.

Visit the U3A website and answer the following questions.

1. What are the main goals of U3A?
2. What are the prerequisites to enrol in a course?
3. What are the costs?
4. Who teaches the courses?
5. Locate the nearest centre to where you live.
   a. What is the name of the centre?
   b. When was this centre founded?
   c. How many members are at this centre?
   d. Find out about a course that interests you.
6. Do you think U3A will interest you when you are an older adult?
7. U3A supports Baltes’ core assumptions, including that development is a lifelong process and is plastic and modifiable. In terms of learning at U3A, explain the meaning of these two core assumptions.
‘How old is very old and why?’

Some responses to the question ‘How old is very old and why?’ are set out below. How do these responses compare to the ones you collected in 10.3 Investigate?
- Gemma (4 years old): 7. Because mummy is 7 and she is old.
- Liam (9 years old): 70, because you are probably not working.
- Abby (10 years old): 40. Dad is 40 and he is old.
- Chelsea (12 years old): 70. Most people are retired at this age.
- Matina (16 years old): 70, because there is only so much your body is physically capable of doing at the age of 70 plus. Choices become limited.
- Lucy (17 years old): 90, as this is significantly above the average age of death!
- Alisha (23 years old): 80. When one is unable to look after oneself, one’s quality of life is severely limited.
- Eric (24 years old): 85. Because you can stay active and involved in life quite easily until then, and after 85 your health declines and limits your lifestyle options.
- Justin (26 years old): 100, because you get a letter from the Queen confirming that you are old!
- Lisa (29 years old): 85, because many people become dependent on other people at this age for everyday living.
- Simon (41 years old): Somewhere between 70 and 80. It is a good age to reach and one I hope to experience.
- Genevieve (48 years old): 90. My judgment of what is old keeps continually being pushed out as I get older myself. Also, how people age is changing for my parents’ (and subsequent) generation so if you ask me in another 10 years, I’ll probably say 100!
- Ruth (90 years old): Late 80s. You are still a baby in your 70s.

1. What is gerontology?
2. How does gerontology differ from geriatrics?
3. Explain ‘successful ageing’.
4. List Baltes’ core assumptions in your own words. Why did Baltes define old age as being different to chronological (actual) age?
5. Outline the dimensions that Baltes used to separate old age from actual age.

Biological and physical changes

How long can humans live?

We are capable of living for a long time. Advances in medical health are allowing people to live longer. Forty years ago, a person in their 60s was considered very old. Now, as more and more of our population reach their 60s, many are still in the workplace, active in the community and in good health. As a result, the concept of ‘very old’ has been pushed out to the late 70s and into the 80s. In 2012, 14.2 per cent of Australians were over the age of 65 and 1.9 per cent were over 85 years (ABS 2013).
A person born today in Australia has a life expectancy (future number of years expected to live) of 80 years if they are male and 84 years if they are female. Life expectancy drops dramatically if you are an Indigenous Australian. In 2007, the life expectancy for Aboriginal Australian males was 67.2 years and for females 72.9 years (ABS 2009). Such a large difference between Australians highlights the urgent need for more support and research in order to narrow this gap.

<table>
<thead>
<tr>
<th>EXACT AGE</th>
<th>YEARS EXPECTED TO LIVE</th>
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<tbody>
<tr>
<td><strong>MALES</strong></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>79.0</td>
</tr>
<tr>
<td>1</td>
<td>78.4</td>
</tr>
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<td>15</td>
<td>64.6</td>
</tr>
<tr>
<td>25</td>
<td>55.0</td>
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<tr>
<td>45</td>
<td>36.0</td>
</tr>
<tr>
<td>50</td>
<td>31.4</td>
</tr>
<tr>
<td>65</td>
<td>18.5</td>
</tr>
<tr>
<td>85</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>FEMALES</strong></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>83.7</td>
</tr>
<tr>
<td>1</td>
<td>83.1</td>
</tr>
<tr>
<td>15</td>
<td>69.2</td>
</tr>
<tr>
<td>25</td>
<td>59.4</td>
</tr>
<tr>
<td><strong>FEMALES</strong></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>39.9</td>
</tr>
<tr>
<td>50</td>
<td>35.2</td>
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<tr>
<td>65</td>
<td>21.6</td>
</tr>
<tr>
<td>85</td>
<td>7.1</td>
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<table>
<thead>
<tr>
<th>AGE GROUP</th>
<th>POPULATION</th>
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<td>0–4</td>
<td>1,657,571</td>
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<td>5–9</td>
<td>1,372,365</td>
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<td>10–14</td>
<td>1,382,537</td>
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<tr>
<td>15–19</td>
<td>1,456,379</td>
</tr>
<tr>
<td>20–24</td>
<td>1,610,948</td>
</tr>
<tr>
<td>25–29</td>
<td>1,656,824</td>
</tr>
<tr>
<td>30–34</td>
<td>1,535,495</td>
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<tr>
<td>35–39</td>
<td>1,574,126</td>
</tr>
<tr>
<td>40–44</td>
<td>1,582,391</td>
</tr>
<tr>
<td>45–49</td>
<td>1,551,599</td>
</tr>
<tr>
<td>50–54</td>
<td>1,493,874</td>
</tr>
<tr>
<td>55–59</td>
<td>1,333,283</td>
</tr>
<tr>
<td>60–64</td>
<td>1,240,002</td>
</tr>
<tr>
<td>65–69</td>
<td>952,409</td>
</tr>
<tr>
<td>70–74</td>
<td>719,250</td>
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<td>75–79</td>
<td>557,771</td>
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<td>80–84</td>
<td>443,820</td>
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<td>272,061</td>
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<td>90–94</td>
<td>103,432</td>
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<tr>
<td>95–99</td>
<td>24,765</td>
</tr>
<tr>
<td>100 and over</td>
<td>3049</td>
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**TABLE 10.2 Population figures in Australia (ABS 2013)**

**REVIEW 10.2**

1. How many years can you expect to live from now?
2. What percentage of your estimated life have you used up?
3. Do you think you will learn more or less in the future? Discuss this with other students.
4. a. Use the information in Table 10.1 to create a histogram of the ‘Distribution of population by age group—Australia 2008’.
   b. Why is a histogram the most appropriate form of chart to display this information?
Can we live forever? While science fiction movies like to depict this, and the rapid development of technology makes it more plausible, there does appear to be an upper limit. Despite the increase in the human lifespan, the upper limit for human life is still around 120 years.

**FIGURE 10.4 Maximum lifespans for different species**

<table>
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<tr>
<th>SPECIES</th>
<th>MAXIMUM LIFESPAN</th>
<th>SPECIES</th>
<th>MAXIMUM LIFESPAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 years</td>
<td></td>
<td>70 years</td>
</tr>
<tr>
<td></td>
<td>27 years</td>
<td></td>
<td>120 years</td>
</tr>
<tr>
<td></td>
<td>39 years</td>
<td></td>
<td>190 years</td>
</tr>
</tbody>
</table>

What happens to our bodies as we age?

What effects does time have on our body? Different people physically age at different rates. You may know someone who was bald at 30 years of age or someone who is well into their 70s and whose hair has still not turned grey. Some of the biological and physical changes related to old age, such as hair loss, are outlined in Figure 10.6.

**GENETIC PREDISPOSITION**

Growing old does not necessarily mean that all these changes will happen to you. Genetics plays a large role in determining biological changes. Baldness, for example, is programmed in our genes and, unless it is related to an illness such as thyroid deficiency, is largely unavoidable.

The extent of biological ageing varies between individuals because each factor is determined by genetic predisposition and environmental influences. If you have two or more grandparents who have lived for over 80 years, you are more likely to live longer (at least five years) than the average life expectancy.

**FIGURE 10.5** More and more older people are competing in events such as fun runs. They are enjoying the benefits associated with leading a healthy and active lifestyle.
**ENVIRONMENTAL INFLUENCES**

Ageing is also influenced by our environment and this is where good food and health, parenting and education, and social contexts play important roles. For instance, a healthy lifestyle may slow down the ageing process. It is encouraging that more and more older Australians are entering fun runs, swims, triathlons and similar activities. Like all ages, many participate for pleasure, with others thriving on the competition.

Environmental factors can play negative and often fatal roles. Exposure to too much sunlight over the lifespan not only adds to the risk of skin cancer but also accelerates wrinkling of the skin. In addition, sunlight may increase the risk of cataracts, more often seen in a person over 80 years of age. Another environmental factor is the exposure to cigarette smoke. In the 1960s and 70s, it was fashionable to smoke. As a result, most people who lived during this time were exposed to smoke, either directly or passively. The risks were not as well known or advertised as they are today, and the consequences are likely to be seen for years to come.

Older people are at risk of not reporting serious medical ailments to their doctor because they believe that these are just normal signs of ageing when, in fact, they can be symptoms of life-threatening conditions that require urgent treatment. For instance, dizziness is not normal and could be an indicator of stroke or heart disease. As the baby boomers reach retirement, more health promotion targeting this age group is expected to dispel such myths.
ABKHAZIAN CENTENARIANS

There are some pockets of the world where being over 100 years old is not unusual. People from Abkhazia, an autonomous republic bordering on the Black Sea, are known to be long-lived and have one of the highest rates of centenarians in the world. The elderly people in Abkhazian communities are held in high esteem, treated with dignity and have high status. Abkhazians are motivated to live long enough to be treated with such honour.

The reasons for their longevity have been widely studied. A mixture of healthy diet and lifestyle and good genetics are important factors. There is some controversy, though; the actual ages of most individuals have been questioned. Many do not have birth records and some do not remember important events that happened at times in their lives when they were younger. Indeed, some scepticism surrounds the actual age of many people. One person claiming to be 130 years old was found to have used his father’s birth certificate to avoid the army during the First World War (Hayflick 1975). He was a mere 78 years old!

FIGURE 10.7 Elderly people in Abkhazia are held in high esteem, treated with dignity and have high status. Abkhazia has one of the highest rates of centenarians in the world.

AGEING IN ABKHAZIA

Think about the lifestyle and status of an older Abkhazian.

1. Why do you think elderly people are held in high regard in Abkhazia?
2. Would you be tempted to lie about your age if you lived in this type of community?

1. Briefly explain the interaction between genetic predisposition and environmental influences on the ageing process.
2. Elderly people often experience hearing loss. What environmental factors in their lives could have contributed to hearing loss? Do you think hearing loss will be a common experience for elderly people in 60 years’ time? Explain your answer.
3. Why are elderly people who link a physical problem to old age and not to disease at risk?
Cognitive changes

Many cultures look to older adults for words of wisdom, advice and encouragement. Others, including Western cultures, link old age with cognitive decline and often have negative stereotypes such as ‘inactive’, ‘slow’ and ‘senile’. While there are cognitive declines cross-culturally, not all cognitive functions are affected and the extent of the decline varies widely between individuals and cultures.

Various declines in cognitive processes, including perceptual speed, memory and problem-solving, have been linked to the ageing process. Most of these abilities, however, show only minor—though consistent—decline as we get older; and improvement through training and drawing on experiences can reverse some of these losses.

Cognitive mechanics and pragmatics

Baltes extensively studied cognitive ageing and found that while some aspects decline, others remain stable and can even improve. He divides these aspects into two broad mechanisms: cognitive mechanics and cognitive pragmatics.

- **Cognitive mechanics** relate to the biological or physiological aspects of thinking processes. They are often compared to a computer hard drive: they drive the thinking in terms of speed and accuracy, and carry out the basic information processing. Cognitive mechanics are strongly influenced by genetics and health, and decline during ageing.

- **Cognitive pragmatics** relate to the cultural experiences that have influenced knowledge and thinking, that is, the many environmental influences in life, including a person’s education, literacy and mathematical skills, understanding of themselves, and coping skills. Because of this foundation, cognitive pragmatics are continually influenced by a person’s experience and enable knowledge acquisition.

While cognitive mechanics may decline, cognitive pragmatics are reasonably steady and may actually improve over the lifespan.

![Graph showing cognitive mechanics and pragmatics over a lifetime](image-url)

**FIGURE 10.8** Cognitive mechanics and cognitive pragmatics over a lifetime
Memory

‘Where did I put my keys?’ Picture this: you are about to leave your house but you can’t find your keys. You search in all the usual places but still can’t find them. You are becoming frustrated and try to retrace your steps to where you used them last. Finally, a family member finds them in a place where you thought you had looked!

How do you explain losing your keys? Younger people may use excuses such as, ‘I was distracted because the phone rang as I entered the house.’ Their lapse of memory is not blamed on age or personal qualities. Compare this to an older adult. They are more likely to blame their age: ‘I must be old. My mind is going and I can no longer remember where I put my keys!’

No matter what age we are, we forget things at times; but should older adults blame forgetfulness on old age? Does your memory decline when you get older or is blaming old age a product of stereotyping?

In fact, some memory processes decline in old age while others show little, if any, decline.

EPISODIC MEMORY—SOME DECLINE

Episodic memories are long-term memories of episodes or experiences in your life. Episodic memory holds memories of events and happenings, such as what you did over the weekend or how you celebrated your last birthday.

Research has found that older people are more likely to lose episodic memories than younger adults. An older adult may report being able to remember events that occurred earlier in their life, but not what happened a week ago. When psychologists explore the facts by consulting old school documents, diaries, however, older memories are often found to be inaccurate despite what the older adult believes.

SEMANTIC MEMORY—NO CHANGE

Semantic memories are long-term memories of facts and information. If you go to a trivia night, you would be drawing on your semantic memory to answer each question. For instance, knowledge of the rules of Monopoly draws on semantic memory, while remembering the time you first played Monopoly is an example of episodic memory.

There does not appear to be a decline in semantic memory with ageing. Older adults tend to retain semantic memories, although they may take longer to actually retrieve these memories than they did when they were younger.

WORKING MEMORY—SOME DECLINE

Working memory refers to the mental work that is occurring at any one time. This may include retrieving information, problem-solving, and comprehending sounds and visions. Working memory draws on information from your sensory and long-term memories. For instance, you would use your working memory to decide what you want to do after school today. Your working memory is also helping you comprehend what you are currently reading. There appears to be some decline in working memory for older adults.
Reaction time and speed of processing

Older adults often experience an increase in reaction time: the perception and motor response time to a visual stimulus (for example, the time it takes to press a button each time a certain shape appears on a visual screen). The increase in reaction time is thought to start in the mid-20s and causes many elite athletes to retire in their mid-30s. For most people, this decline is not noticeable until their 50s, 60s or later.

Reaction time can be improved with practice. In one well-known study, a group of 70-year-olds played at least 14 hours of the video games Donkey Kong and PacMan over seven weeks (Clark, Lanphear & Riddick 1987). On average, the individuals more than trebled their scores and their reaction speeds improved significantly. Perhaps game arcades should start targeting older adults!

Older adults also often experience a decline in the speed of processing of perceptual information, and this can affect many other cognitive processes. Quite often it can account for the decline in working memory. If it takes longer to process information, then it will take longer to receive and work on the information in working memory. Relevant information may be lost in the meantime. Cognitive skills such as decision-making, problem-solving and reasoning abilities can be affected. More time is also needed to retrieve information from long-term memory.

FIGURE 10.9 Younger people may become frustrated watching an older adult learning to use a computer, especially double-clicking the mouse. It is important to remember that although older adults tend to have a slower reaction time, they can still learn new skills and become highly competent.

FIGURE 10.10 Electronic games are often promoted as a way to increase brain power.

MEMORY ABILITIES AND BELIEFS

An Australian study investigated the differences between a person’s belief about their memory capabilities and their actual memory abilities (Luszcz 1993). It compared the memory abilities and beliefs of older adults to those of younger university students.

Forty Australians—20 people over the age of 65 and 20 people under the age of 30—voluntarily took part in a questionnaire that asked them about their knowledge of memory strategies and what they thought about their own memory abilities.
They were then asked to memorise an excerpt from a Grimm Brothers fairytale and an excerpt from a science text on Antarctica. Afterwards, they completed a test on both excerpts.

It was found that both groups remembered the fairytale equally well, while the younger adults were better at remembering the scientific text.

The older adults were more likely to attribute their performance on memory tasks to poor memory function. The younger adults were more likely to attribute any memory problems to issues with the reading passage selected, not their lack of ability.

Questions
1. What was the aim of Luszcz's (1993) research study?
2. Describe the participant characteristics of the sample.
3. Which excerpt did the participants recall the best?
4. What was the difference, in terms of recall, between the two groups?
5. What was the difference, in terms of memory beliefs, between the two groups?
6. Which group of participants were more likely to be more highly educated? Could this help explain the differences in the results? Explain.
7. Research has found that children who link poor academic results to internal failure, such as lack of ability, are less likely to succeed at school than those who link it to external factors, such as problems with the task. Explain why this finding could also be true for older adults who attribute their memory lapses to old age.

Successful cognitive ageing

Older and more experienced typists tend to read the material further ahead than younger, less experienced typists. There appears to be good reason for this. While speed of processing declines as we age, compensating for this change by reading further ahead decreases the effect. More efficient reading (a developmental gain with age) reduces the effect of the decline in speed of processing (a developmental loss).

In other words, successful ageing means finding ways to reduce or compensate for cognitive ageing. For example, an older adult may get into a routine when they arrive home and consistently put the house keys in the one designated spot.

According to Baltes' core assumptions, developmental change occurs throughout the lifespan and continually involves gains and losses in functioning. Brain plasticity throughout life allows us to deal with such hurdles, although some plasticity is lost in the fourth age.

Drawing on extensive knowledge and experience, planning, and using previously accomplished skills and new strategies can turn a loss (cognitive decline) into a gain. Baltes termed this the selective optimisation with compensation (SOC) model. For example, an older person may decide to do less non-essential work in order to remain fresh and be able to concentrate on an important goal (selection), draw on what they know and do best (compensation), and learn new strategies to boost their performance (optimisation). Baltes referred to an older office worker who enjoyed running. The office worker decided to cut out some energy-draining activities in his life (selection), monitored his diet and energy levels (compensation), and rotated 10 pairs of running shoes to avoid damage to his feet and leg muscles (optimisation). In other words, the rule for older people is play to your strengths and outwit the young!
THE METHOD OF LOCI

The method of loci is a mnemonic memory technique that has been taught to older adults to improve their memories (Kliegl & Baltes 1987). Younger people also improved with training, even more so than the older adults.

Let’s see if the method of loci can improve your memory too!

Pre-test

Your teacher will read out 10 unrelated items, with a gap of about three seconds after each word. Afterwards, write them down in the order of presentation.

Method

→ Think of a familiar walk. It may be the route from your home to the local shops. On this walk, think of 10 landmarks that you pass on the way. For instance, this may include your front door, your letterbox, a fire hydrant, a billboard, a tall tree etc.
→ Your teacher will read out a list of 10 unrelated items, with a gap of about three seconds between each word.
→ For each item, visualise it with the corresponding landmark on your walk. For example, if the first word is ‘possum’, picture a large possum hanging on to the door as you open it to go for your walk. The more weird and unusual you make the image, the more likely it is that you will remember it.
→ Write down the words in order of presentation.
→ Correct both lists: the pre-test and the list using the method of loci.
→ Collect class results and present these in a table, like the one shown below.

<table>
<thead>
<tr>
<th>PRE-TEST</th>
<th>METHOD OF LOCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF ITEMS RECALLED IN CORRECT ORDER</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Questions

1. What is the importance of the pre-test?
2. Did you find a difference in the results between the pre-test and using the method of loci? Describe any differences.
3. Do your findings support the findings of Baltes? Discuss.
4. A number of other variables—such as practice, knowledge of memory tricks and a noisy environment—could have influenced the data. Outline two such variables and describe how each could have influenced the results.
Senile dementia

An older person does not lose their memories or their ability to think and reason just because they are old. Loss of mental capacities is a common misconception about ageing. Some older adults experience some memory loss, although the majority, over 80 per cent, remain as mentally sharp as when they were young.

Dementia is a progressive and largely incurable disorder that impairs the memory and other cognitive functions. It affects approximately 1 per cent of Australians. The rate of senile (old-age) dementia is growing. This is most likely due to more people reaching older ages than ever before.

Some dementias are treatable and could be caused by toxins or reduced blood supplies to the brain. Others, such as Alzheimer’s disease—which accounts for approximately 40 per cent of dementias—are incurable and progressively get worse.

Wisdom

What does it mean to be wise? A cognitive attribute related to old age is wisdom. Many cultures across the world—including Indigenous Australian, Chinese, Korean, Japanese and Russian cultures—draw on and respect the ability of older people to integrate cognitive understanding with their vast experiences.

Wisdom is the ability to draw on expert knowledge and experience in life to make well-founded and insightful judgments on important matters. According to Baltes (1993): ‘Wisdom is expertise in the fundamental pragmatics of life.’ While younger people can display wisdom, it is more common among the elderly. It includes:

- being rich in factual knowledge
- being philosophical: accepting change and tolerating uncertainty, understanding that there is no perfect solution
- being rich in procedural knowledge: knowing how to do things in a smarter fashion, weighing up risks and gains
- not being pragmatic or judgmental: understanding the situation and considering problems from all viewpoints, including age, gender, religion, culture, personality, contexts, personal experiences and values.

Consider a couple who seek advice from a person. They seem very much in love and have been together for three years. The couple really want to get married next year but are facing much opposition. The trouble is that they are both 17 years old. What advice would be considered wise? A simple ‘No, don’t be stupid, it’s only a phase!’ is not a wise response. As in a moral dilemma, it is not the yes/no answer but the reasons behind the answer that is important. A wise person will weigh up all aspects, not be judgmental, think about previous understanding and knowledge, and understand that there is no perfect solution. A longer, more involved response would be expected.

There is a link between moral reasoning, discussed in Chapter 9, and wisdom. Very wise people tend to have advanced moral reasoning (Pasupathi, Staudinger & Baltes 2001).
**WISDOM DILEMMAS**

One method used to measure wisdom is rating responses to hypothetical dilemmas. In small groups, consider the following two wisdom-related dilemmas (Baltes 1993). For each, create a response that displays wisdom. A wise response must display factual knowledge, be philosophical, weigh up risks and gains, and understand the situation from all viewpoints (not be judgmental). Justify your responses.

**1.** Michael, a 28-year-old mechanic with two pre-school children, has just learned that the factory in which he is working will close in three months. At present, there is no possibility of further employment in this area. His wife has recently returned to her well-paid nursing career. Michael is considering the following options:

move to another city to seek employment

take full responsibility for childcare and household tasks.

Formulate a plan that covers what Michael should do and consider in the next three to five years.

**2.** Joyce, a 60-year-old widow, recently completed a degree in business management and opened her own business. She has been looking forward to this new challenge. She has just heard that her son has been left with two small children to care for. Joyce is considering the following options:

give up her business and live with her son

arrange for financial assistance for her son to cover childcare costs.

Formulate a plan that covers what Joyce should do and consider in the next three to five years.

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**WISE ELDER**

Wise elders within Indigenous Australian communities are treated with respect and dignity. They are an important source of wisdom and authority. They do not automatically qualify for such a prestigious role in the community — wise elders have achieved this status due to their own intellectual, health and leadership qualities. They have passed a number of milestones during their life, including formal ceremonial passages. Their high status is earned; it is not an automatic right for all elderly people. Community members look up to wise elders, understand their value, and offer them the best foods and care.
1. What did Baltes define as cognitive mechanics? What is likely to happen to cognitive mechanics as one ages?
2. What did Baltes define as cognitive pragmatics? What is likely to happen to cognitive pragmatics as one ages?
3. Copy and complete the following table.

<table>
<thead>
<tr>
<th></th>
<th>DEFINITION</th>
<th>EFFECTS DUE TO AGEING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working memory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic memory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Episodic memory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reaction time and speed of processing perceptual information</td>
<td></td>
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</tr>
</tbody>
</table>

4. What cognitive functions are likely to be affected if there is a decrease in the speed of processing perceptual information? Explain.
5. What is Baltes’ selective optimisation with compensation (SOC) model? How can this model explain successful cognitive ageing?
6. How did Baltes define wisdom?

Psycosocial changes

There are a number of social and emotional changes in the later stages of life. Loss of a spouse and friends, retirement, physical impediments and cognitive difficulties, and even being a grandparent are some of the challenges. Dealing with negative stereotypes about the very old can also be a source of stress. Despite this, most elderly people report being happy in their old age regardless of where they live. A positive attitude towards ageing among elderly people has been found cross-culturally (Mroczek & Kolarz 1998).

Ageism

Should there be a clear age at which a person must retire? Should elderly people refrain from wearing bright colours?

Miranda, a 20-year-old student, is becoming impatient with her elderly neighbour, Elizabeth. Elizabeth just doesn’t seem to understand what Miranda is saying. Miranda wants to park in Elizabeth’s driveway to make space for her friend’s car. Finally, she points and states, ‘I park here!’ As she turns to get her car she mutters ‘silly old woman’ under her breath. Elizabeth is taken aback and stares in disbelief as Miranda moves her car.

Ageism is prejudice against others because of their age. We can all experience ageism—have you ever felt that you were poorly treated just because of your age?

Figure 10.11 Successful ageing means keeping up fitness levels.
Going grey, getting wrinkles, losing some aspects of your memory and perhaps being subject to other indignities are fears of younger adults and, most likely, contribute to negative stereotypes that can lead to ageism.

Ageism can lead to employment difficulties and condescending treatments. Elderly people can be socially ignored, thought of as being incapable of making decisions, and treated like children. In Elizabeth’s case, she is quite healthy but has a hearing problem. Miranda did not recognise that the problem is hearing loss, not loss of memory or thinking abilities. Instead of talking louder or more distinctly, she used simpler and even condescending language, and made the decision to move her car without consultation.

**Coping skills**

How does an elderly person cope with change? Coping requires effort. As mentioned in the previous chapter, older adults also have to cope with great losses. The deaths of a spouse and friends make adjusting to a new way of life difficult. Loss of a spouse means that many older people live alone, although older Australians who live alone are a minority (Peterson 1999).

Worrying about others, the environment, politics and health are often sources of stress in older adults. However, older people tend to have better coping skills than younger people. Perhaps this is because they can draw on their past experiences and problem-solving abilities (Irion & Blanchard-Fields 1987). Older adults who cope are displaying wisdom and appraising their situation in a way that helps them cope with drastic changes.

On the other hand, older adults can suffer when they feel powerless to make decisions or care for aspects of their environment. This has serious implications for the care of older adults in nursing homes. Like all of us, being part of the decision-making processes can lead to a greater sense of control and happiness.
Successful psychosocial ageing

‘Successful ageing’ is a term designed to highlight the positive aspects of ageing and raise aspirations for those entering this phase of life. On a positive note, many older adults are resilient to changes in old age. They usually cope with the biological, cognitive and psychosocial changes better than they expected. Older adults who are more likely to be satisfied with their life are ones who:
- do not suffer from a significant disease
- have high cognitive and physical functioning
- actively participate in the community with others (Rowe & Kahn 1997).

Carol Ruff (1989) found that older people are more likely to link life satisfaction to good health and the ability to accept change, while younger people tend to link it to accomplishments, awards and careers.

Older Australians are likely to engage in a number of activities when they retire. Some travel around Australia for extended periods of time and are affectionately called ‘grey nomads’. A study of older Australians and New Zealanders found that they tend to play a number of social roles, including having regular contact with their family and friends, recreation, church and community service (Feather 1998). Australians tend not to remove themselves from social environments once they retire. More social connections and valuable friendships increase feelings of happiness and support.

There are great losses in old age. Erik Erikson’s identity stage—identity versus despair—outlines many of these challenges (see Chapter 9). To overcome such crises is to accept one’s life decisions and the significance of one’s life in order to achieve integrity.

Erikson’s integrity is similar to Baltes’ idea of wisdom; both require acceptance and consideration of the meaning of life. Drawing on extensive knowledge (gains) and experience can help someone cope with adversities (losses).

Baltes’ selective optimisation with compensation (SOC) model can also explain successful ageing. Selecting meaningful goals and revaluing life’s priorities are key steps. Concentrating on fewer close friendships (selection), going to great efforts to maintain and enrich these friendships (optimisation), and using strategies and past experiences to keep these close friendships positive and satisfying (compensation) can promote psychosocial aspects of ageing. Satisfaction in the later stages of life is not only possible, but highly probable.
KEYS TO SUCCESSFUL AGEING

- **Healthy lifestyle**: Living a healthy lifestyle and having regular medical check-ups can help promote fitness and well-being. A healthy diet with regular exercise may help slow down the effects of ageing and lessen the likelihood of a significant disease. It is important to recognise this and seek medical and psychological assistance if needed.

- **Remain mentally active**: Learning new skills, acquiring new knowledge and attempting challenging games and puzzles can assist cognitive skills.

- **Social involvement**: Having positive relationships with friends and family members, including children and grandchildren, and being involved in community events are important sources of happiness. Following a healthy lifestyle and remaining mentally active are likely to increase social networks. Connecting with others reduces the likelihood of feelings of loneliness and is an important source of support and happiness.

- **Consider the meaning of life**: Reminiscence, reviewing one’s life story and being interested in the meaning of life can increase life satisfaction. This may include looking at the value of life, being more interested in religion and spirituality, and undergoing a life review. It can lead to a new sense of self and provide opportunities to share insights with important people in one’s life.

- **Effective coping skills**: Recognising the need to adjust to change and understanding that this takes effort is important. Drawing on wisdom and previous experience and developing effective coping skills will assist with successful ageing. Adjusting to cognitive declines, such as recognising the need for organisational skills, and having some control over important decisions in life (such as nursing and home care) are key factors in coping.

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**FIGURE 10.13**
Successful ageing requires a healthy lifestyle and being mentally and socially active.

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**DESIGN A PROGRAM FOR A RETIREMENT VILLAGE**
Imagine that you are the activities coordinator at a retirement village. It is your job to create a monthly program for the people who live at the village. Most people who live at the village are independent and able, although a few require greater care and support. Design a one-month program that encourages successful ageing.
1. What is ageism? Give one example of an older adult being affected by ageism.
2. What are some of the main worries for older adults?
3. What are some of the changes that elderly people need to adjust to in order to cope?
4. Why are effective coping skills important in old age?
5. What factors contribute to successful ageing?

Answers to 10.1 Investigate: Answers are all false.
CHAPTER SUMMARY

Gerontology is the study of the biological, cognitive and psychological aspects of ageing. Only in recent years has psychosocial research addressed questions about old age; previously, research had focused on the developmental stages from conception to adolescence. Changes do go on throughout life, however, and much more study is needed in this area.

Growing old can be a positive and enlightening experience; it does not have to be gloomy.

Old age differs between countries and cultures. In 2008 over 3400 Australians were over 100 years of age. But is the number of years lived a good measure of old age? Some researchers suggest it depends on physical, cognitive and social capabilities rather than years.

In 2012, 14.2 per cent of Australians were over the age of 65. A person born today has a good chance of living to 80 if they are male and 84 if they are female. If you are an Indigenous Australian, however, your life expectancy is only 67.2 for males and 72.9 for females.
→ Everybody’s body ages at a different rate. It is something unique to you. Some people will have grey hair at 30, others at 50 and some will never have grey hair! Genetics plays a very important role in ageing. If your parents have grey hair at 50, there is a strong chance you will also.

→ Your ageing is also influenced by the environment – good food and health, parenting, education, and social contexts all play a role in how long you live and how healthy your old age is.

→ Older people often claim old age is the cause of their illness or handicap when the cause is in fact a medical problem which should be, and often is, treatable.

→ Some cultures look to older adults for words of wisdom, advice and encouragement. Others, such as Western cultures, link old age with cognitive decline and negative stereotypes such as ‘inactive’, ‘slow’ and ‘senile’.

→ Not all elderly people experience cognitive decline. While cognitive mechanics may decline, cognitive pragmatics are reasonably steady and may improve over the lifetime.

→ Some memory processes decline in old age while others show little if any decline. You may find it as hard to find your keys as a teenager as you do when you are elderly!

→ Older adults experience an increase in reaction time and a decline in the speed of processing perpetual information. These may be minimised by specific actions, for example brain-training software games for older people.

→ Successful ageing means finding ways to reduce or compensate for cognitive ageing; for example, placing your keys in the same place when you come home.

→ Baltes proposed the selective optimisation with compensation (SOC) model of successful ageing.

→ Wisdom is the ability to draw on expert knowledge and experience in life to make well-founded and insightful judgments on important matters. While younger people can display wisdom, it is more common in elderly people.

→ Ageing has nothing to do with wearing less colourful clothes, not having your hair and make-up done by professionals, or no longer playing a sport. Research has shown that elderly people have a positive attitude to life and are happy in their old age regardless of where they live or the culture they live in.

→ The key to successful ageing is to live a healthy life, remain mentally active, be socially involved, be more interested in spirituality, religion or the meaning of life, and develop effective coping skills.
MULTIPLE CHOICE

1. ____________ is the study of the biological, cognitive and psychosocial aspects of ageing.
   a. ageism
   b. geriatrics
   c. elderology
   d. gerontology.

2. Which one of the following is not one of Baltes’ core assumptions on lifespan development?
   a. Development is multidirectional.
   b. Development is a lifelong process.
   c. Development is fixed and unchangeable.
   d. Development is embedded in multiple contexts.

3. Elderly people who age most successfully are more likely to be those who:
   a. remain active
   b. lead a quiet lifestyle
   c. increase time spent alone
   d. become less involved in the community.

4. As we age, cognitive ____________ may decline while cognitive ____________ may tend to remain steady or improve.
   a. episodic memory; working memory
   b. mechanics; pragmatics
   c. pragmatics; mechanics
   d. semantic memory; episodic memory

5. Problem-solving ability generally ____________ and the speed of problem-solving generally ____________ with age:
   a. increases; increases
   b. decreases; decreases
   c. remains the same; increases
   d. remains the same; decreases.

6. During old age, there is generally ____________ in the performance of episodic and working memory.
   a. no change
   b. a sharp decline
   c. a modest decline
   d. some improvement.

7. Approximately ____________ of the total Australian population suffers from dementia.
   a. 1 per cent
   b. 10 per cent
   c. 40 per cent
   d. 80 per cent.

8. Which of the following tasks would require wisdom?
   a. giving advice to a couple whose marriage is in trouble
   b. ordering breakfast at the local takeaway restaurant
   c. deciding which colour to paint a lounge room
   d. learning to tie your shoelaces.
The next three questions relate to the following information about Arthur Rubinstein, a respected concert pianist, who continued to perform at concerts throughout his 80s. As Arthur aged, he developed a number of strategies to enhance his performance; for example, he would play fewer pieces at concerts, spend more time practising, and slow down before a fast segment in order to make the faster segment appear even faster.

9 In terms of Baltes’ selective optimisation with compensation (SOC) model, playing fewer pieces at a concert is an example of:
   a selection
   b optimisation
   c compensation
   d a mnemonic.

10 In terms of Baltes’ SOC model, slowing down before a faster segment in order to make the faster segment appear even faster is an example of:
   a selection
   b optimisation
   c compensation
   d a mnemonic.

11 In terms of Baltes’ SOC model, spending more time practising is an example of:
   a selection
   b optimisation
   c compensation
   d a mnemonic.

12 Genetics and the environment play important roles in the ageing process. Using one example of a common problem associated with ageing, explain how genetics and the environment can contribute to this problem.

13 According to Baltes, what are the third and fourth ages and why are they only broad definitions?

14 According to Baltes, development is plastic throughout the lifespan. How can plasticity contribute to successful ageing?

15 Mary, a healthy 82-year-old, cuts her leg while gardening. She bandages her leg and notices some black dots in her vision for the first time. Mary decides not to worry the doctor as she is not feeling any pain and her eyesight is failing because of her age. What issues about old age does Mary’s decision highlight?

16 Are elderly people able to learn new skills and information and improve reaction time? Use a research study to support your answer.

17 Jenny, a healthy 22-year-old, volunteers in an elderly friendship program. Each week, she visits her new elderly friend for about an hour. Jenny enjoys their conversations. Why does this friendship program encourage successful ageing?

18 Why does successful ageing require effort?