
PSY1102

Introduction to Applied Psychology

Class 6

The developing person (continued)

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Agenda for today

1. Adulthood
 - a. Physical development
 - b. Cognitive development
 - c. Social development
2. Reflections on two major developmental issues
 - a. Continuity and stages
 - b. Stability and change

1. Adulthood

- a. Physical development
- b. Cognitive development
- c. Social development

1a. Physical development: middle adulthood

- We become adults around age 20, so we spend most of our lives as adults.
- Although we use the word “adult” to describe this stage, in fact the use of one word masks the many changes that occur.
- Physical performance is generally thought to peak in the early- to mid-20s, after which there is a slow decline in which change may be imperceptible for several years unless one is a competitive athlete.

1a. Physical development: middle adulthood (cont'd.)

- Just as the onset of the menstrual cycle marks the beginning of puberty, and its regular occurrence is like a metronome that keeps time during adulthood, the end of this phase of a woman's life is marked by a significant event: menopause.
- Menopause usually occurs around age 50, after a woman has experienced about 500 menstrual periods (depending on how many children she has borne).
- Although society talks about the “biological clock” as a way of advising women to have children before it is too late, rather than being a trigger for sadness menopause may be perceived as freedom from “the curse” and from worry about having an unplanned pregnancy.
- However, menopause – somewhat like puberty – is marked by mood swings, hot flashes, and other physical discomforts.

1a. Physical development: middle adulthood (cont'd.)

- Although the term “andropause” exists, there is no good evidence for a male equivalent of menopause.
- Despite gradual reduction in sperm count with age, men remain fertile until death, except in cases of disease or surgery (such as a vasectomy).
- The sex drive persists in both men and women well into older adulthood, with many reporting a satisfactory sex life into their 80s.
- Occasionally, some compensation for age may be used:
 - As many people know from advertisements, older men may make use of prescription drugs for erectile dysfunction (ED);
 - Likewise, women may use artificial lubricants to compensate for lower levels of natural lubrication during sex.

1a. Physical changes in later life

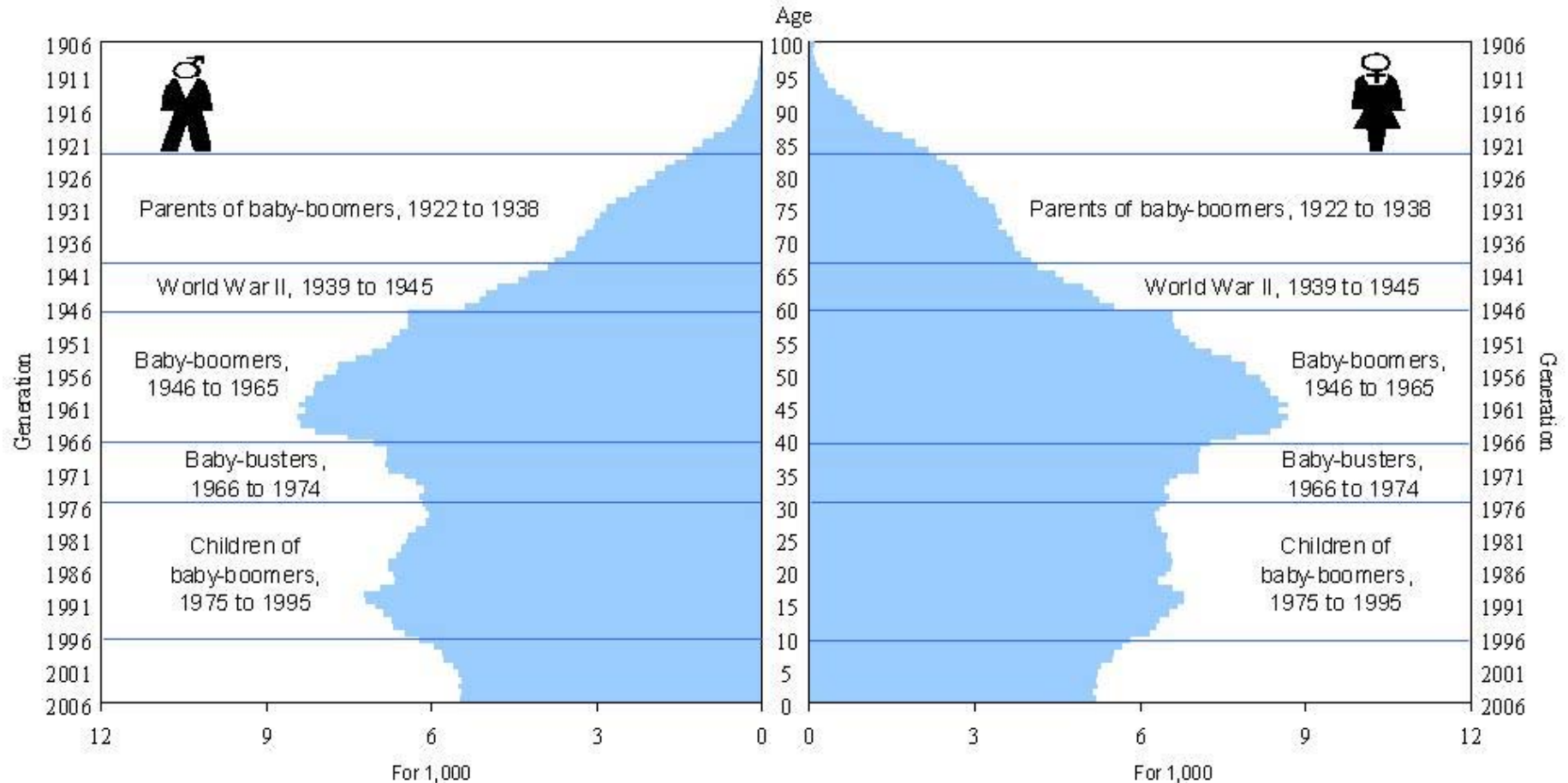
- Life expectancy for Canadians is around 80 years of age, an all-time high.
- After conception, there are about 126 male embryos for every 100 female embryos. At birth, this ratio has dropped to 105 male births for every 100 female births. (Note: This figure is from a society that does not practice gender-specific abortion.)
- Starting in the first year of life, more males die than females.
- On average, women live longer than men by about 5 years in Canada, the US, and Australia, and by about 4 years worldwide.
- In older years, females outnumber men by a large margin.

1a. Physical changes in later life: baby-boomers

- Because of the post-war “baby boom”, the large “boomer” contingent is now reaching retirement years. This group is the largest population of older people that has ever existed, and its aggregate spending power helps ensure that “old age” will contain many considerations for them in terms of medicine, product design, housing, and other items.
- How real is the “baby boom”? The chart on the next slide shows the number of males (left-hand side) and females (right-hand side) born in each year from 1906 (top) to 2006 (bottom). The bulge following World War II makes it clear that more babies were born during this period than at others.
- The bulge in the 1980s is the “echo” of the baby boom, when the children of baby-boomers were born.

1a. Population pyramid and the “baby boomers”

- Canadian population pyramid (Census 2006).



Source: www12.statcan.ca/english/census06/analysis/agesex/tables.cfm#pyramids

1a. Physical changes in later life

- The mechanisms of aging are still being studied, but it appears that the *telomeres* – akin to plastic protectors on the tips of shoelaces – on the ends of chromosomes wear down, and the aging cells that suffer this fate reproduce imperfectly.
- Why do we wear out? A brutal answer – but one which may be correct – is that once we have passed our genetic material to the next generation and nurtured them to maturity, our job is largely done.

1a. Sensory changes in adulthood

- Some senses become less acute with age.
- In vision, beyond age 40 many people need reading glasses to compensate for the reduced elasticity of the lens to change shape and focus on closer objects.
 - In addition, some people suffer AMD (age-related macular degeneration, in figure below), which causes reduced detail vision in the centre of the visual field.
- Sensitivity to auditory stimuli may be reduced, especially in the higher frequencies.
- Tastes may seem duller as one ages.
- See textbook, page 210.



Source: www.allaboutvision.com/conditions/amd.htm

1a. Physical changes: overall health

- Although the immune system weakens with age, older adults have acquired a good “toolbox” of antibodies to infections, and so they are ill less often than younger people.
- However, as the immune system weakens, older adults are more susceptible to cancers and pneumonia.
- Also, reaction times are slower in older people than in younger ones, and perhaps it is related that the rate of fatal accidents per mile driven is higher at 75 than in teenagers.
- Older adults take longer to access information from memory, longer to solve puzzles, and longer to remember names.
- By age 80, the brain has lost about 5% of weight, including some deterioration of frontal lobes.

1a. Physical changes: exercise

- There is evidence that exercise among older adults helps maintain muscle tone, stimulate circulation of oxygen and nutrients through the body, and helps prevent obesity and heart disease.
- Although the older body may have experienced some wear, a sedentary lifestyle detracts from overall health, so it is good to maintain (or rejoin) an active lifestyle.

1a. Physical changes: dementia

- There are two major types of dementia, or loss of mental capacity:
 - Alzheimer's disease
 - Vascular dementia (restricted blood flow to areas of the brain)
- Also, mental capacity can be affected by strokes or by alcohol dependence, or in some cases by a brain tumour.
- Alzheimer's disease (AD) affects 3% of the world population by age 75. AD causes loss of brain cells. Over time, the patient gradually loses interest and becomes emotionally "flat". Disorientation follows. Eventually the patient becomes incontinent, and then mentally vacant.
- As described in the text (p. 212), "physically active, nonobese people are less at risk for Alzheimer's."

1b. Cognitive development

- Aging and memory
- Aging and intelligence

1b. Aging and memory

- The older brain holds many decades of memories.
- As described in the text (p. 213), older adults perform worse than younger ones on encoding names at introduction, and also perform worse when recalling words. However, recognition of words is constant across ages. Thus, whether or not memory appears to decline with age is, in part, a function of how the testing is done.
- Prospective memory – remembering to do things that one plans to do – declines with age, also. However, coping strategies, such as writing notes, can help.

1b. Aging and intelligence

- Our ability to recall new material declines as we age, but what about our overall intelligence?
- Research on aging and intelligence was conducted using two different methods:
 - Cross-sectional studies, where research is conducted at one point in time but involves people from different age groups; and
 - Longitudinal studies, where research follows people as they get older.
- We'll consider these separately.

1b. Aging and intelligence: cross-sectional research

- Suppose that you give intelligence tests to people of different ages, and then plot their performance as a function of their age.
- The red line in Figure 5.32 (page 214) of the textbook shows that the number of correct answers decreased with age.
- This result has been interpreted as showing that reasoning ability decreases with age.

1b. Aging and intelligence: longitudinal research

- Beginning in the 1920s, researchers measured intelligence in college students and began re-testing the same people over several years.
- In general, reasoning ability remains relatively constant from age 26 to age 75, after which a decline might be seen.

1b. Aging and intelligence: why the difference?

- Why are the results of cross-sectional and longitudinal studies different?
- In part, a 50-year-old in a cross-sectional study conducted in 1980 differs in many ways from a 20-year-old in the same study.
 - The 50-year-old was born at the start of the Great Depression, and likely had a poorer diet, less schooling, less disposable income, and other differences when compared to the person born in 1960.
 - These differences, rather than their ages, may account for the different scores on intelligence tests.

1b. Aging and intelligence: other considerations

- People who survive to complete the longitudinal study may be more intelligent than people who did not survive this long.
- A more tightly controlled study found a sharper decline with age, especially after age 85.
- There is a difference between intelligence and speed of recall; an intelligence test is not *Jeopardy!* Allotted time, older players are better at crossword puzzles and may be better at general knowledge tests.

1b. Crystallised vs. fluid intelligence

- Crystallised intelligence increases with age. This type of intelligence refers to vocabulary and analogies.
- Fluid intelligence refers to our ability to reason quickly and abstractly decreases up to age 75, then declines more rapidly.
- Just as individuals are complex beings with more than one trait, intelligence has more than one component, making generalisations dangerous.

1c. Social development

- Adulthood's ages and stages
- Adulthood's commitments
- Well-being across the life span
- Death and dying

1c. Adulthood's ages and stages

- As described in the textbook (p. 216), when people enter their 40s they undergo a transition into middle age, where they are half-way through life.
- The concept of a midlife crisis seems not to be supported by evidence about divorce rates, suicide, or psychological disorders.
- The social clock described in the text defines the “right time” – in terms of expectations and personal criteria – to leave home, get a job, marry, have kids, and retire.
 - In the “old days”, following this sequence was more “normal” than it is today, and helped define an accepted sequence of actions for adults.
 - In turn, this expectation could be perceived as liberating or as restrictive.

1c. Adulthood's commitments

- Different researchers have used different words to describe different aspects of our lives:
 - Erikson referred to intimacy and generativity;
 - Freud referred to love and work;
 - Others have referred to affiliation and achievement; attachment and productivity; and commitment and competence.
- The textbook considers two types of commitments: love and work. We'll consider these in turn.

1c. Adulthood's commitments: love

- Love – as differentiated from sex – is an important part of the lives of most people.
- In Western societies, the traditional sequence was to date, “go steady”, get engaged, get married, and have children.
- This sequence has changed over the past few decades, but the goal is the same: to find a life-partner with whom one can share goals, live a long and happy life, and have children.
- Biologically, the value of such pair-bonding is evident: a family unit of two people who support each other, who share duties to lighten the burden, who are sexual partners for each other, and who share parenting duties.
 - A stable, secure relationship is also adaptive (economically and emotionally) for offspring, who may consequently enjoy a greater likelihood of establishing their own relationship later.

1c. Adulthood's commitments: love (continued)

- The ability to form and maintain a stable, loving relationship clearly includes both genders, and also cuts across sexual orientation.
 - For example, many same-sex couples, especially two women, adopt children to complete the family unit.
- The “post-launch honeymoon” is experienced by couples when their children move out and they become “empty-nesters”.

1c. Adulthood's commitments: work

- For you, is “who are you” synonymous with “what do you do”?
- To what extent are we defined by our work? Previously, especially in societies with a strong class system, the work you did may indeed have defined who you were, who you would be permitted to marry, etc.
- Many years ago, a sign of success was getting a job and keeping it until retirement. Today, it is far more common to change jobs through one's working life, and perhaps to change careers.
- If you enjoy your work, then perhaps this saying applies to you: “If you enjoy your work, you won't work a day in your life.”

1c. Well-being across the life span

- There's a great line in the text (p. 220):

This moment marks the oldest you have ever been
and the youngest you will henceforth be.

- Given this demarcation between the past and the future, we can take stock of how well we have lived so far:
 - What are our accomplishments? What are our failures? What would we change, if we could.
- We can also re-evaluate how we want to live in the future:
 - In terms of personal growth, where do we want to be in 5 years? 10? 25? What specific goals do we have? What changes do we want to make from the past?

1c. Well-being across the life span (continued)

- Once we have survived the turmoil of puberty and the teenage years, development slows and people begin to become more comfortable with themselves as human individuals.
 - We acquire a stronger sense of identity;
 - We gain more self-esteem as we accomplish new things;
 - We become more confident in our capabilities and actions.
- These characteristics equip us for the challenges of “normal” life and perhaps parenthood.

1c. Well-being across the life span (concluded)

- In later years, we have a sense of the opposite happening:
 - The body ceases to improve and begins to deteriorate;
 - Memory becomes weaker in some ways;
 - Friends and family die, and one's own death is on the horizon.
- However, these changes are not associated with a global unhappiness with life; indeed, satisfaction with life remains high until (in some cases) immediately before death.
- In general, the emotional lability – that is, the tendency to experience peaks and valleys – associated with the teenage years diminishes once one is firmly in adulthood.

1c. Death and dying

- Paradoxically, death is a part of life. Typically, all of us will experience the deaths of friends and family members, and we will certainly be conscious of our own mortality.
- Although it is sad to lose a grandparent, it is sadder still to lose a parent. However, both of these are more “natural” than for a parent to lose a child.
- Because women typically outlive men, many women will suffer the death of a spouse.

1c. Death and dying: grieving

- We grieve when a loved one dies.
- When the death is untimely, we may grieve for longer than when it is “expected”, such as when a 90-year-old grandparent dies. In a sense, the grandparent’s death is seen to be “natural”.
- The loss of a child, or the loss of a spouse, friend, or family member who is still young and vibrant, is associated with the deepest and most prolonged grieving, which may last many months.
 - In some cases, this grieving may need psychiatric attention.

1c. Death and dying: facing death

- Rather than denying death or being angry at death, it is more helpful to accept death as an unavoidable part of life.
- We cannot avoid death, but in many cases we can choose how we face death. Completing life with dignity, openness, and a sense of completion can help provide the dying person with, as Erikson calls it, a sense of integrity, having lived a worthwhile and meaningful life.

2. Reflections on two major themes

- a. Continuity and stages
- b. Stability and change

2a. Continuity and stages

- Do humans change gradually or are there discrete, clear stages, where progress from one stage to another implies a discontinuous change?
- To some extent, the answer depends on perspective:
 - The biological approach often argues for discrete stages; for example, puberty is very much a discontinuity;
 - A more psychological approach sees development as a more gradual process in which behaviour, attitudes, and perhaps personality can be shaped.
 - What is clear is that we all pass through the stages in the same order.
- Psychological theorists such as Piaget (cognitive dev.) and Kohlberg (moral development) argue for stages in development. Some boundaries match growth spurts.

2a. Continuity and stages (continued)

- Psychological theorists such as Piaget (cognitive dev.) and Kohlberg (moral development) argue for stages in development.
- Some of the boundaries they propose match growth spurts during childhood and puberty, lending support to the “stage” approach.

2b. Stability and change

- Here's the big question: are our personalities constant, or do they change as we age?
- Certainly in some cases of pathology (e.g., Alzheimer's), there is a change in personality, likely associated with loss of brain function.
- Leaving aside pathology, we can rephrase the question to ask two questions:
 - At what age is someone's personality predictive of their personality at a later time, and
 - For how long is this prediction valid?

2b. Stability and change: continued

At what age is someone's personality predictive of their personality at a later time?

- Some traits, such as temperament, seem to persist even from childhood, but in general personality seems to stabilise in adulthood.
- As noted in the textbook (p. 224), infancy, childhood, and even adolescence are periods of great change in development, and so these periods seem to provide an unstable baseline for prediction in most people.

2b. Stability and change: continued

For how long is this prediction valid?

- We have all seen instances of significant changes in the lives of public figures. For example:
 - Several evangelical Christian preachers in the US have “reformed” after being caught in sexual indiscretions;
 - Some Canadian politicians have abruptly changed course after being caught (for example) shoplifting.
- Non-linearities such as these make it difficult to predict reliably. Which is the “real” person:
 - The honourable person who made a mistake and went off-course, or
 - The deceitful person who finally got caught and made a repentance that may or may not be sincere?
 - In many cases, only time will tell.

2b. Stability and change: concluded

- Although it may be difficult to predict the future development of a personality, research in this area has enormous social implications.
- Is a 15-year-old who steals a car ...
 - ... a bad person who needs to go to prison to be punished or taught a lesson, or
 - ... an average kid who acted on a bad impulse, and who needs guidance to improve his or her decision-making?

Contrast www.youtube.com/watch?v=NQoz1fxRAEI
and www.youtube.com/watch?v=et_BWcnGMyU

Summary: Class 6

1. Adulthood
 - a. Physical development
 - b. Cognitive development
 - c. Social development
2. Reflections on two major developmental issues
 - a. Continuity and stages
 - b. Stability and change