

# **Psychology and Human development**

## **Lecture 13. Late Adulthood**

### **Physical , Cognitive and Social Development**



# Physical Development

## Can We Help Each Other?



# Late Adulthood

## Gains

Wisdom  
Growth with the Lord  
Experience  
Integrity  
Becoming  
    grandparents  
Inner strength

## Losses

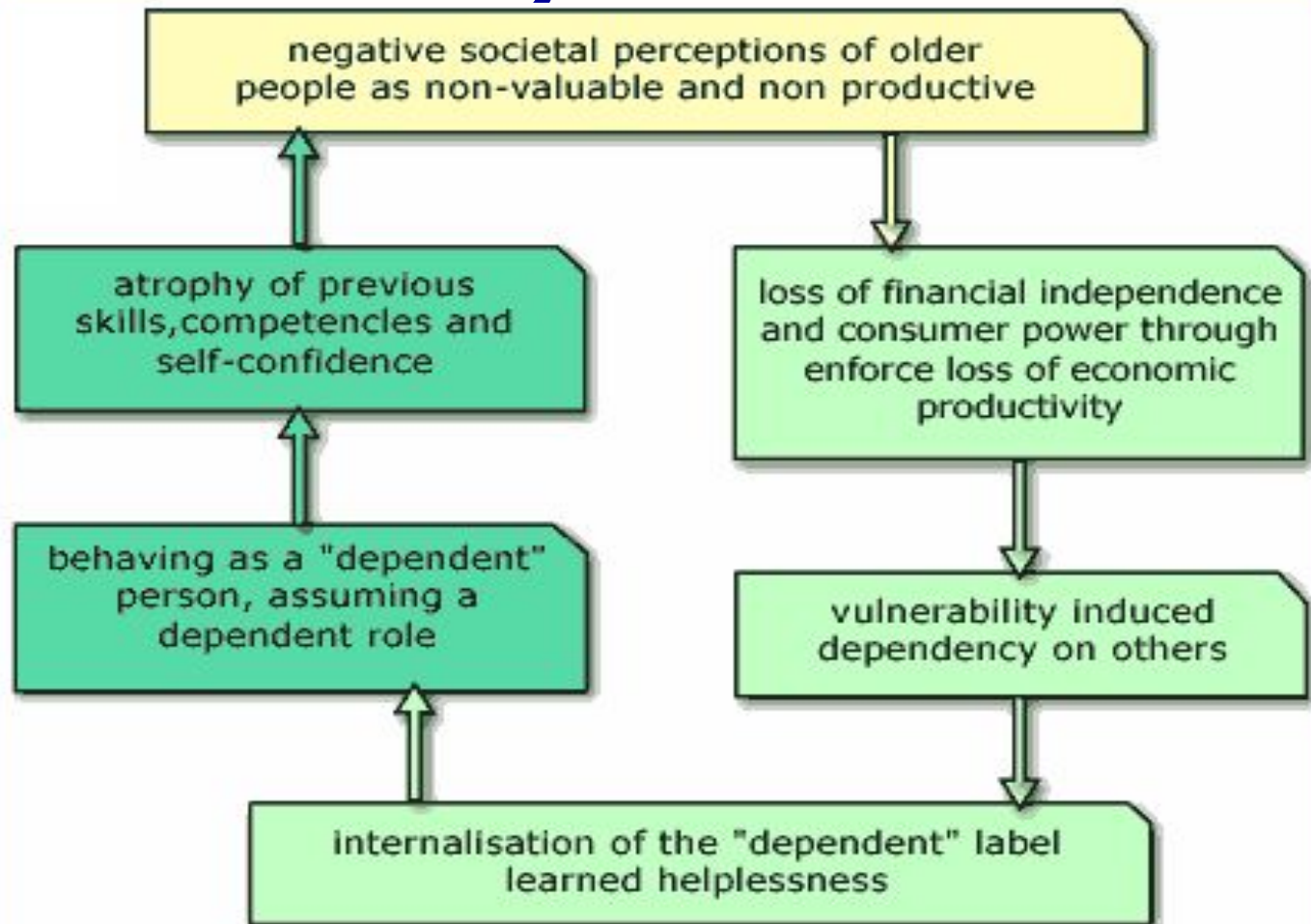
Loss of brain cells  
Loss of intellectual  
    capabilities  
Loss of energy  
Loss of sex drive  
Loss of friends &  
    family

# Ageism

## Prejudice Against Older People

- 1- Negative attitudes about older people regarding competence & attractiveness
- 2- Identical behavior by an older person and a younger one is interpreted differently.
- 3- People use baby talk to address older people in nursing homes
- 4- Job discrimination
- 5- Misinformation

# Society influence



The cycle of structurally induced dependence (source: adapted from Kuypers JA, Bengston VL Perspectives on the olderfamily. In: Quinn WH, Hugston GA, eds Independent ageing. Rockville: Aspen Publications, 1984).

## **Wrinkles**

- ❑ The skin loses its elasticity and collagen , the protein that forms the basic fibers of body tissue.

## **Osteoporosis**

- ❑ Bones become brittle and fragile
- ❑ Brought about by lack of calcium
- ❑ 25% of women over 60 have osteoporosis
- ❑ It is the primary cause of broken bones
- ❑ It is preventable with sufficient calcium and exercise.

# The Brain

- A reduction of the blood flow to the brain
- The space between the skull and the brain doubles
- The number of neurons declines in some parts of the brain, though not as much as was once thought

## Digestive System

- Produces less digestive juice
- Is less efficient in pushing food through the system
- The result is constipation

# The Heart

- The arteries harden
- The blood vessels shrink
- Reduction in the capacity of the heart to pump blood through out the circulatory system
- A 75-year-old's heart pumps less than three-quarters of the blood it pumped during early adulthood



# 1- The Peripheral Slowing Hypothesis

- The overall processing speed declines in the peripheral nervous system.
- It takes longer for information to reach the brain.
- It takes longer for commands from the brain to be transmitted to the body muscles

## 2- The Generalized Slowing Process

- ❑ Processing in all parts of the nervous system is less efficient due to loss of neurons
- ❑ They are unable to receive efficiently information from the environment to indicate a dangerous situation
- ❑ Their decision process may be slower and their ability to remove themselves from harm is impaired

# Vision

- ❑ Lens becomes less transparent and the pupils shrink
- ❑ The optic nerve becomes less efficient
- ❑ Distant object becomes less acute
- ❑ More light is needed to see
- ❑ It take longer to adjust to a change from light to darkness and vice versa.
- ❑ Driving at night becomes difficult
- ❑ Reading becomes more of a strain

# Hearing

- ▣ 50% of adults over 75 have hearing loss
- ▣ High frequencies are the hardest to hear
- ▣ Hearing aids would be helpful 75% of the time, but only 20% of people wear them
- ▣ Hearing aids amplify all sounds so it is difficult to discern conversations
- ▣ Some people withdraw from society because they feel left out and lonely

# Alzheimer's Disease

- Progressive brain disorder that produces loss of memory and confusion
- Drugs only help about 20%
- Symptoms:
  - Unusual forgetfulness
  - Trouble recalling certain words
  - First recent memory goes, then older ones
  - Confusion and inability to recognize family members
  - Loss of muscle control

# Cognitive Development

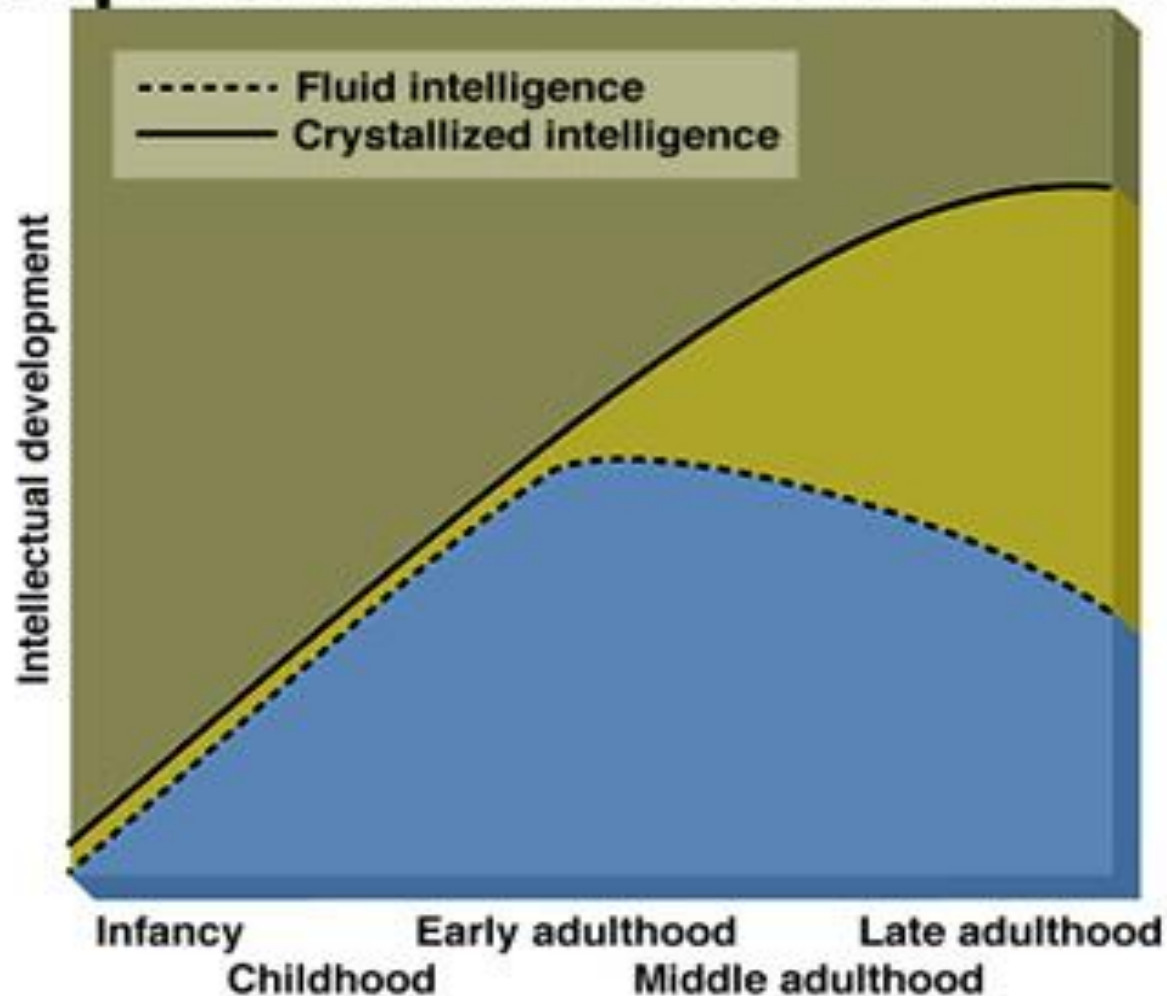
## Schaie's Studies

- ▣ Results show no uniform pattern of adulthood age-related changes across all intellectual abilities
- ▣ **Fluid intelligence** decline starting age 25
- ▣ **Crystallized intelligence** stay steady or increase
- ▣ Training can improve reasoning and spatial skills

# Intelligence

Santrock, Life-Span, 8e. Copyright © 1997. McGraw-Hill Companies, Inc. All Rights Reserved.

## Fluid and Crystallized Intellectual Development Across the Life Span



# Lesser Declines in Intellectual Abilities Are Due to:

- Good health
- High SES
- Involvement in an intellectually stimulating environment
- A flexible personality
- Being married to bright spouse
- Feeling self-satisfied with one's accomplishments in middle and early old age



# Memory

- ❑ People are less likely to experience memory loss in societies where older people are held in high esteem
- ❑ Memory losses occur primarily to **episodic memory**
- ❑ **Semantic memories** and **implicit memories** are largely unaffected by age
- ❑ **Short-term memory** declines gradually until age 70

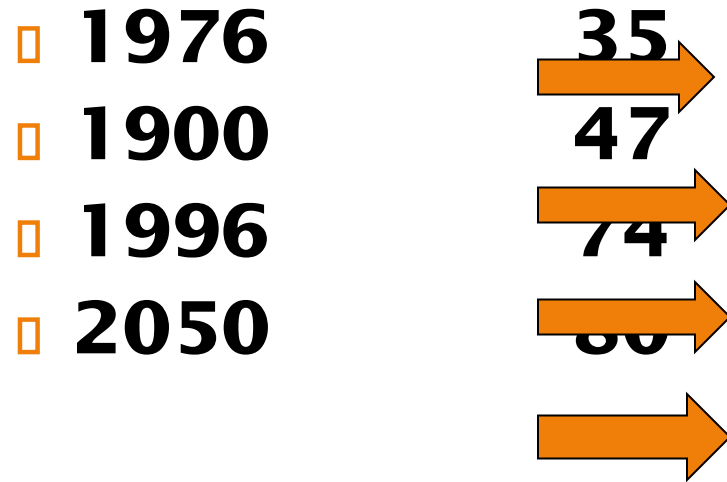
# Memory

- Information presented quickly and verbally is forgotten sooner
- New information is more difficult to remember because it is not processed as efficiently
- **Autographical memories** follow the **Pollyanna Principle**, in which pleasant memories are more likely to be recalled

# Wisdom

- An expert knowledge system focusing on the pragmatics of life that involves excellent judgment and advice on critical life issues , including the meaning of life and the human condition; wisdom represents the capstone of human intelligence.

# Life Expectancy



# Life Expectancy

