

## **2. Research Strategies and Methodology**







# **Research: Why?**

- **Developmental psychologists test theories**
- **Study behavior or trait that changes over time**
- **When does it change?**
- **How does it change?**

**2.1 Experimental**

**2.2 Correlational**

**2.3 Observational**

**2.4 Cross-Sectional**

**2.5 Longitudinal**

**2.6 Cross Sequential**

**2.7 Case Study**

## **2.1 Experimental**







# Experimental design

- **Study cause/effect**
- **Samples of population**
- **Experimental/control groups if needed**
- **Independent variable: what gets manipulated**
- **Dependent variable: what gets measured for change**



# **Experimental example**

- **Cause-effect of praise on 10-year olds' helpfulness**
- **Independent variable:  
amount of praise given  
to each child**
- **Dependent variable:  
measure of helpfulness  
after 3 days**

## **2.2 Correlational**







# Correlation

- **Relationship between 2 things or events**
- **Example: compare effects of heredity & environment on trait using mono- and dizygotic twins**
- **Look for variation in both kinds of twins**

# Correlation

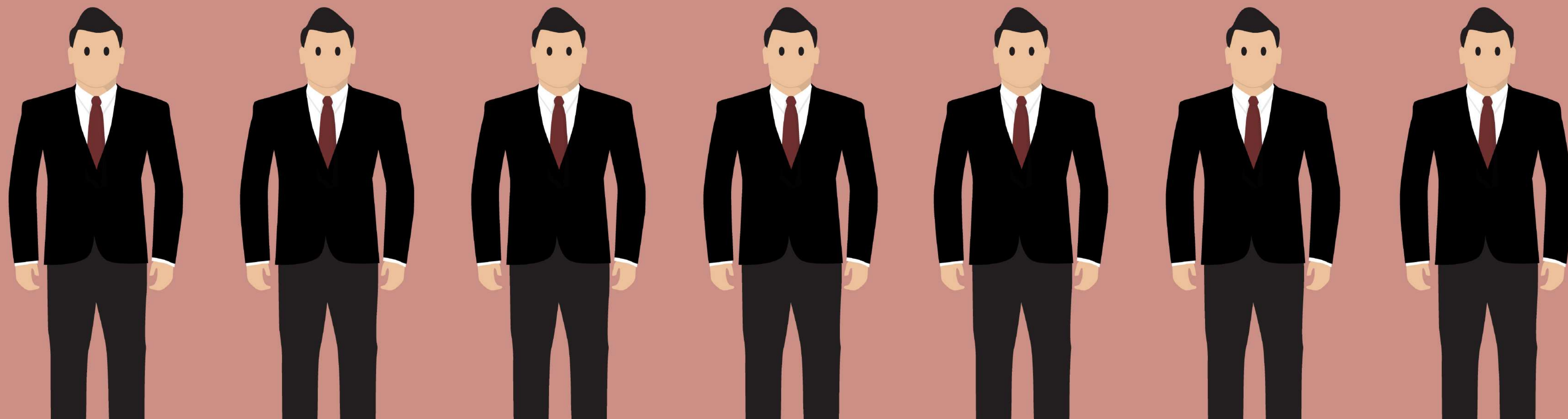
- **Result: variation in both kinds of twins**
  - **Trait affected by both environment/heredity**

# Correlation

- **Statistics of correlation**
  - **+1 perfect positive correlation**
  - **0 no correlation**
  - **-1 perfect negative correlation**



## **2.3 Observational**



# **Observational study**

- **Note behaviors or traits in a group**
- **Group might be sample of larger population**
- **Example: studying verbal behavior of children playing unsupervised**



## **2.4 Cross-Sectional**

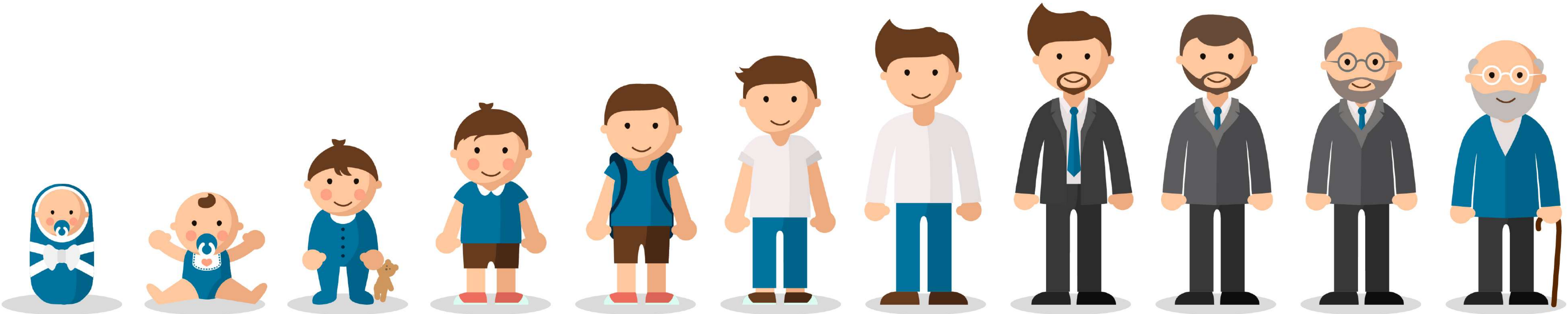


# **Cross-sectional study**

- **“Snapshot”**
- **Collect data on group at one point in time**
- **Example: ask group of teens opinions on curfew**



## **2.5 Longitudinal**

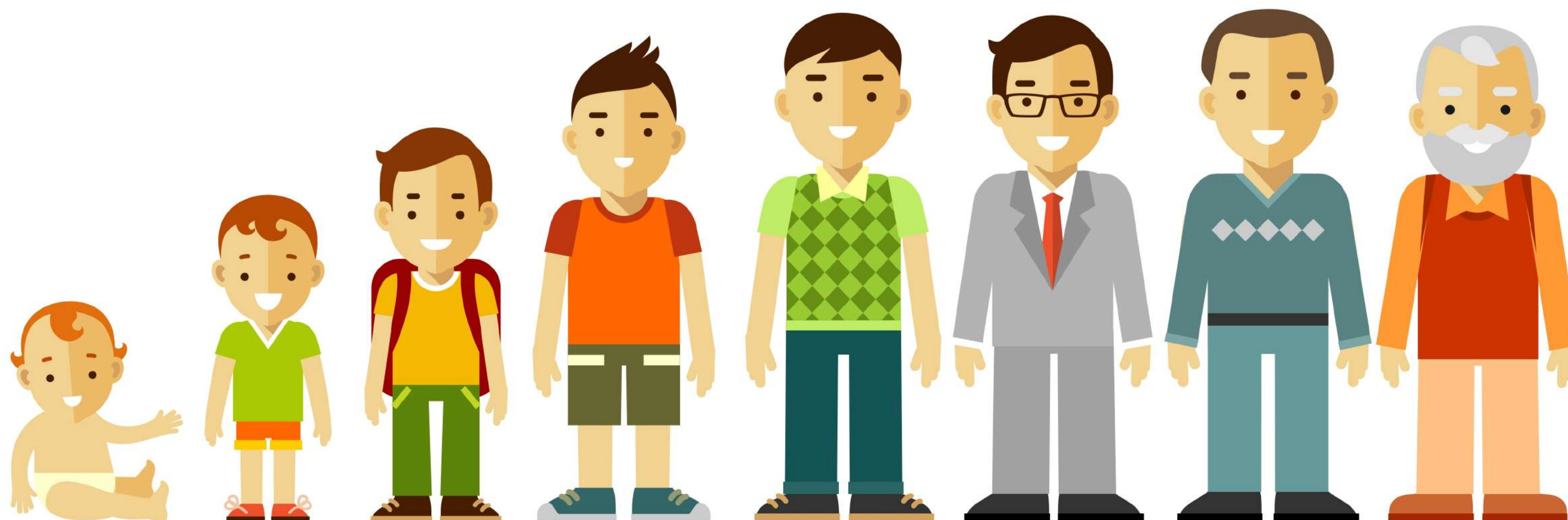
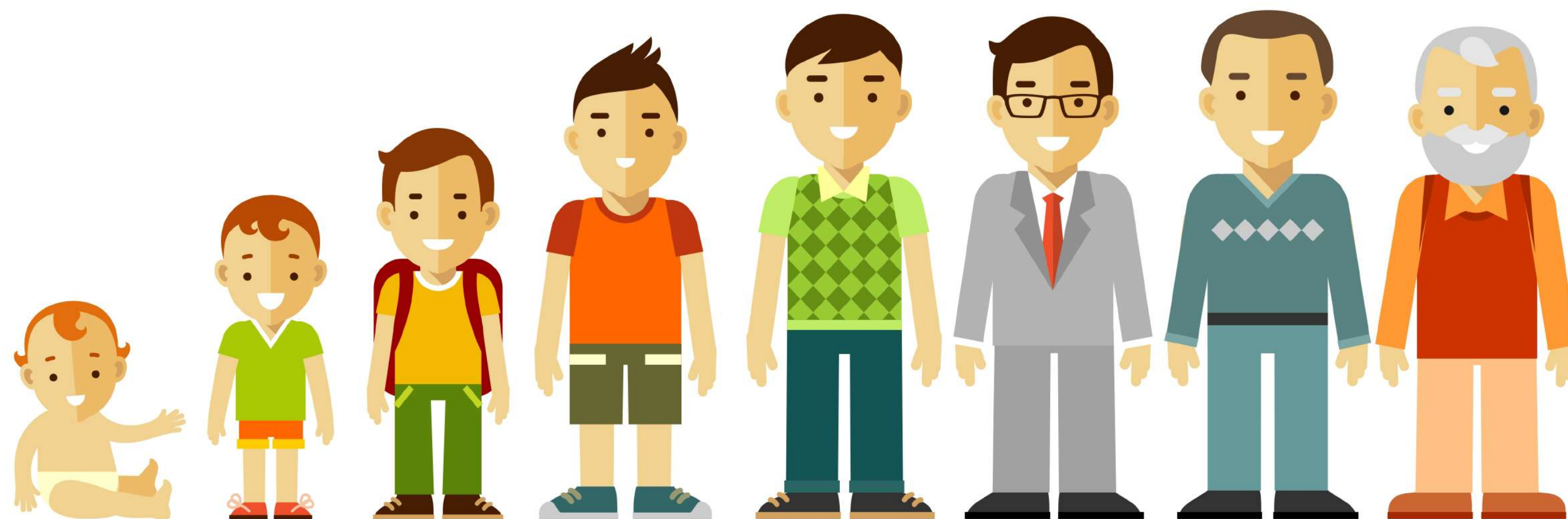


# **Longitudinal study**

- **Study cohort (same-age group) through time**
- **Example: interview group born in 2010 at one-year intervals, noting changes in attitudes toward opposite sex**



## **2.6 Cross Sequential**



# Cross-sequential

- **Combining longitudinal and cross-sectional**
- **Example: interview cohorts born in 1990, 2000, and 2010 at intervals of 5 years**
- **Study many years of life in shorter time than with just one cohort**

## **2.7 Case Study**





# **Case study**

- **Observe one individual or group**
- **Subject has unusual traits or in unusual circumstance**
- **Example: study refugee child's school adaptation**
- **Reported as narrative with analysis, supported by theory**