Methodological Issues in the Psychology of Lifespan Development

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Methodological Issues in the Psychology of Lifespan Development

• Introduction
• The Beginning of the American Psychology of Aging
• The Influence of Methodological Advances on the Psychology of Aging
• The Increasing Interdisciplinarity of Geropsychology
• The Role of Longitudinal Studies in Geropsychology
• Summary
Beginning of the American Psychology of Aging

• Jones and Conrad - Cross-sectional studies, 1933

• Cowdry - Problems of Aging. 1939

• J. E. Birren, *Handbook of Aging and the Individual*, 1959

• G. Stanley Hall, *Senescence the 2nd Half of Life*. 1922
The Influence of Methodological Advances on the Psychology of Aging

• Shift from predominance of cross-sectional studies of age differences to longitudinal studies and understanding of shifts within individuals across time
Sequential Design Strategies

[Diagram showing sequential design strategies with birth cohorts and age milestones]
Cross-Sectional Age Differences

![Graph showing age differences in mean T-scores for different cognitive abilities](image)
Longitudinal Age Changes

Diagram showing T-Score Means for different cognitive functions across age groups. The graph compares Inductive Reasoning, Spatial Orientation, Perceptual Speed, Numeric Facility, Verbal Comprehension, and Verbal Memory over age ranges from 25 to 95 years. The data indicates a decline in T-Score means with increasing age for all cognitive functions.
The Influence of Methodological Advances on the Psychology of Aging

• Shift from predominance of cross-sectional studies of age differences to longitudinal studies and understanding of shifts within individuals across time

• Confirmatory factor analysis as a major tool for hypothesis-testing

• Shift to assessing psychological constructs by means of multiple measures
SLS
Longitudinal Factor Structure
The Influence of Methodological Advances on the Psychology of Aging

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- Shift to assessing psychological constructs by means of multiple measures
- Consideration of chronological age as a dependent rather than as an independent variable (Wohlwill, 1973)
Hazard rate of encountering significant decrement in differences among abilities in every 7-year period

Schaie & O'Hanlon, 1990
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- Use of structural and functional MRI for direct test of relation between changes in brain structure and behavior
Areas With Significant Longitudinal Change (Total Sample)
The Increasing Interdisciplinary of Geropsychology

Examining behavioral change within the context of societal change, *Bengtson, Kaschau & Regan, 1977; Riley, Foner & Riley. 1999*


- Behavioral changes as predictors of risk of late life chronic diseases an dementia, *DeFrias, Schaie, & Willis, 2014*
The Role of Longitudinal Studies in Geropsychology

Extending early life longitudinal studies through adulthood:

• Longitudinal studies of children, who were followed into adulthood (e.g., Berkley Growth & Guidance Studies, Eichorn et al, 1981)

• Longitudinal studies of young adults in college, who were followed through adulthood (ROTC, WWI, Owens, 1966)
The Role of Longitudinal Studies in Geropsychology

2 Orientations to Longitudinal Studies of Geropsychology:

• Study of aging requires study of entire adult life span
  – Focus on mechanisms underlying individual differences

• Focus on elderly as of primary interest – Clinker approach
  – Duke Longitudinal Study, Palmore et al., 1985
Identifying factors related to individual differences in rate of aging:

- Demographic Factors – education, occupation
- Chronic disease
- Lifestyle
- Personality
- Social relations
- Life satisfaction
Effects of Education & Occupation on Ability Change

Educational Level & Age-related Change in Verbal ability

Occupational Status & Age-related Change in Verbal Ability
Antecedents of Individual Differences in Age Change

1. No cardio-vascular and other chronic diseases
2. Living in favorable environmental circumstances
3. Involvement in activities characteristic of intellectually stimulating environments
4. Flexible personality style at midlife
5. Married to an intelligent spouse
6. High levels of perceptual processing speed
7. Being satisfied with their life accomplishments.
Thank you
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