

Methodological Issues in the Psychology of Lifespan Development

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Handbook of Theories of Aging (3rd ed) New York: Springer Publishing Co.*

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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**

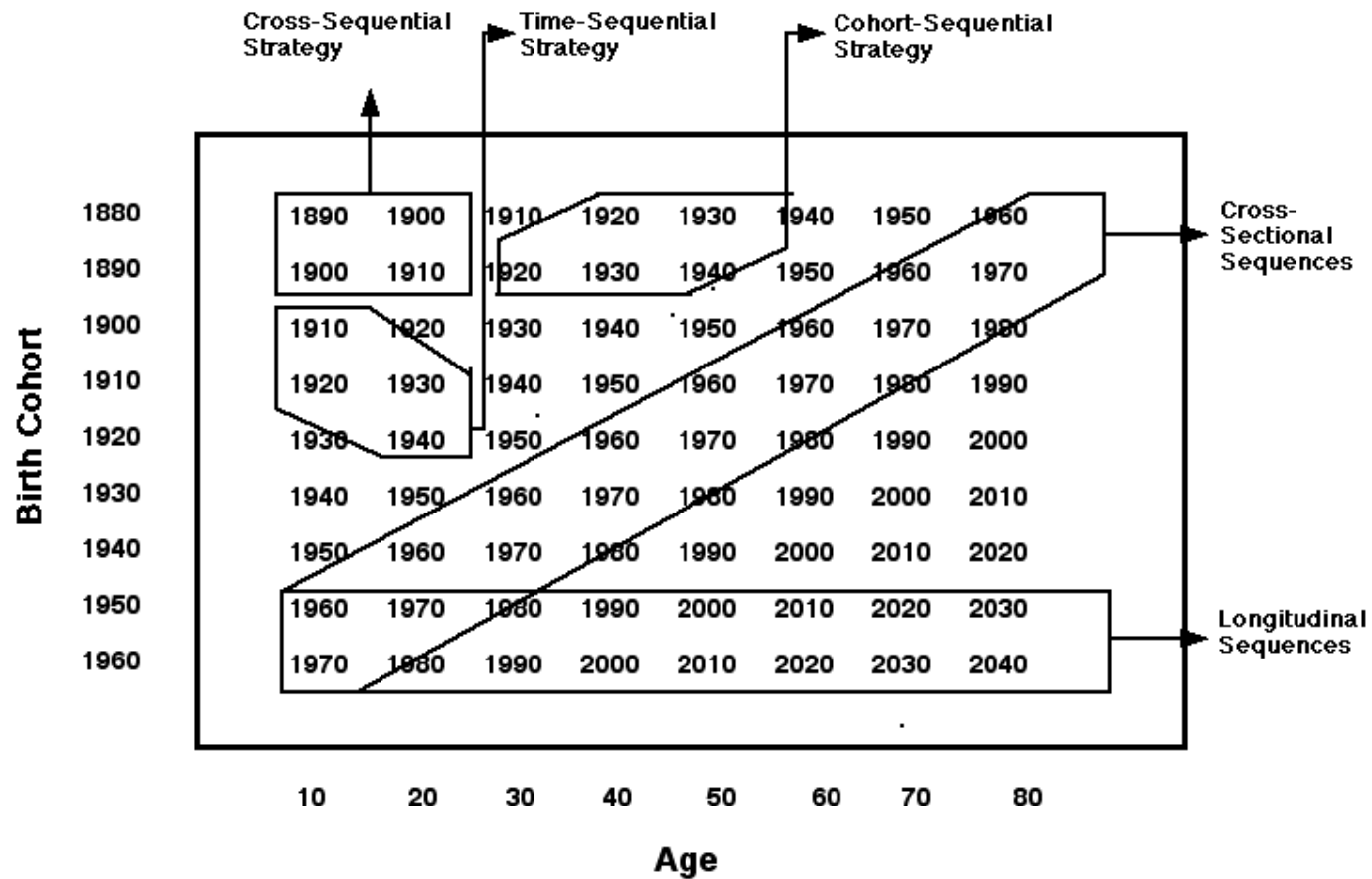
Beginning of the American Psychology of Aging

- 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

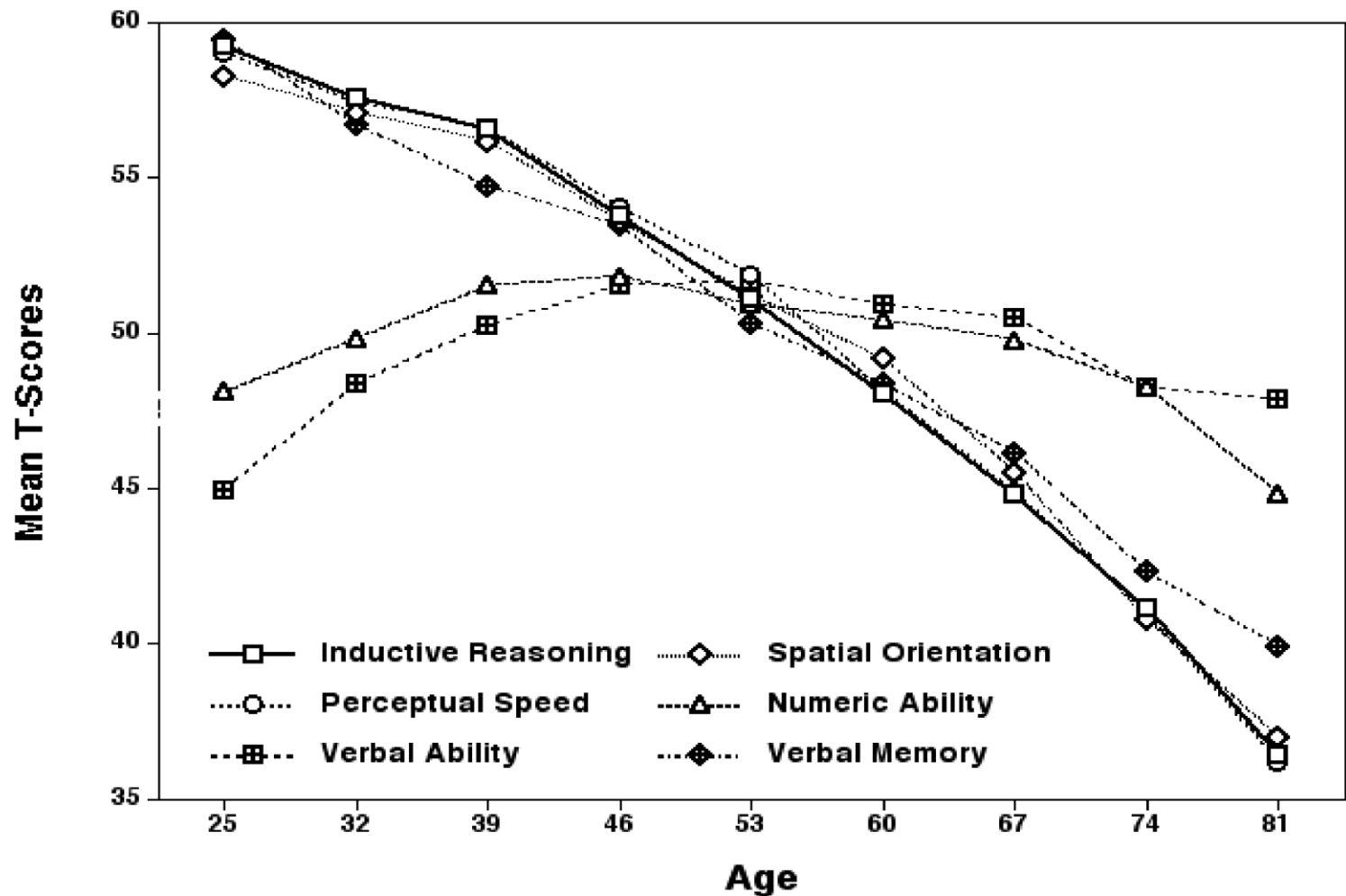
The Influence of Methodological Advances on the Psychology of Aging

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

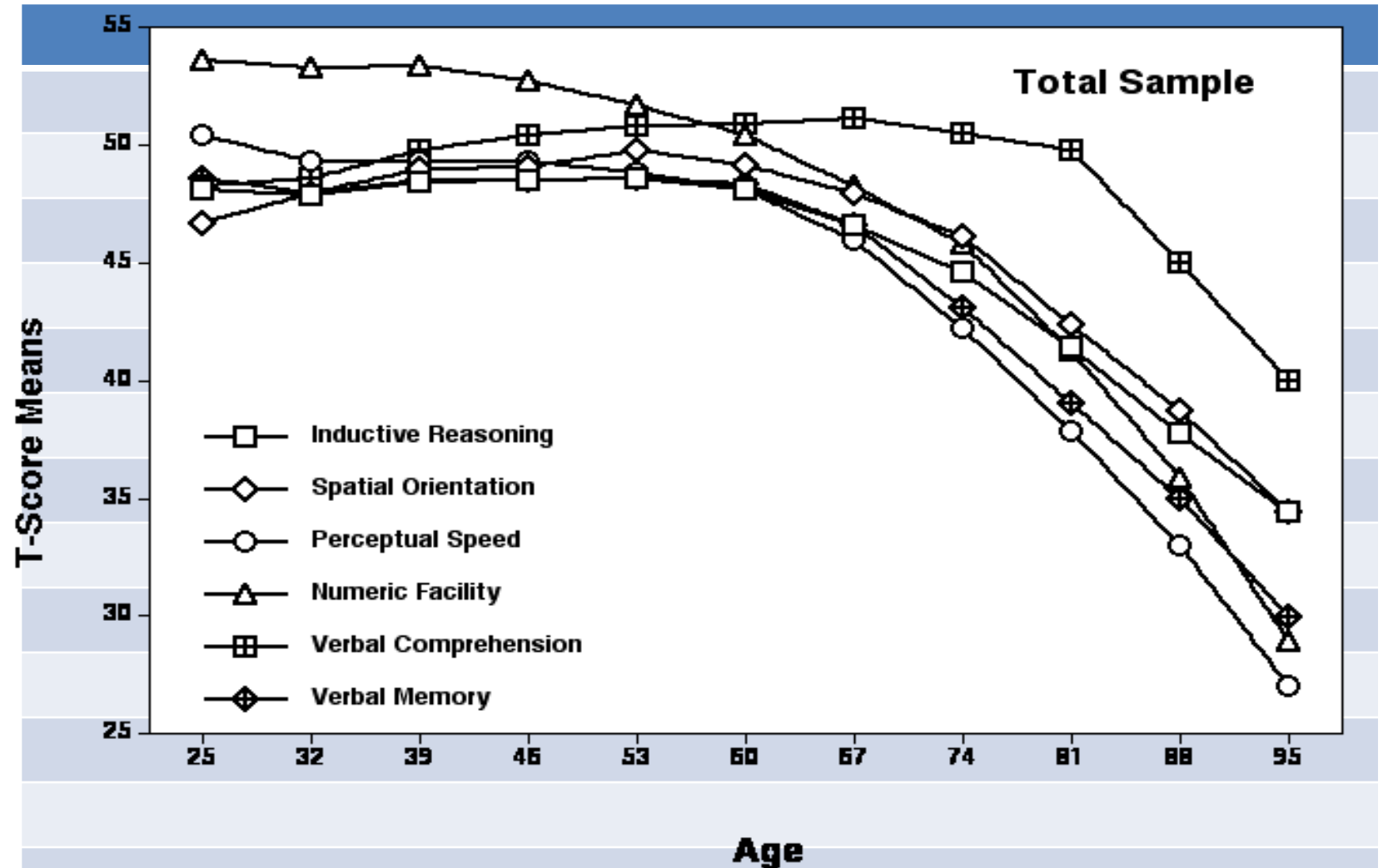
Sequential Design Strategies



Cross-Sectional Age Differences

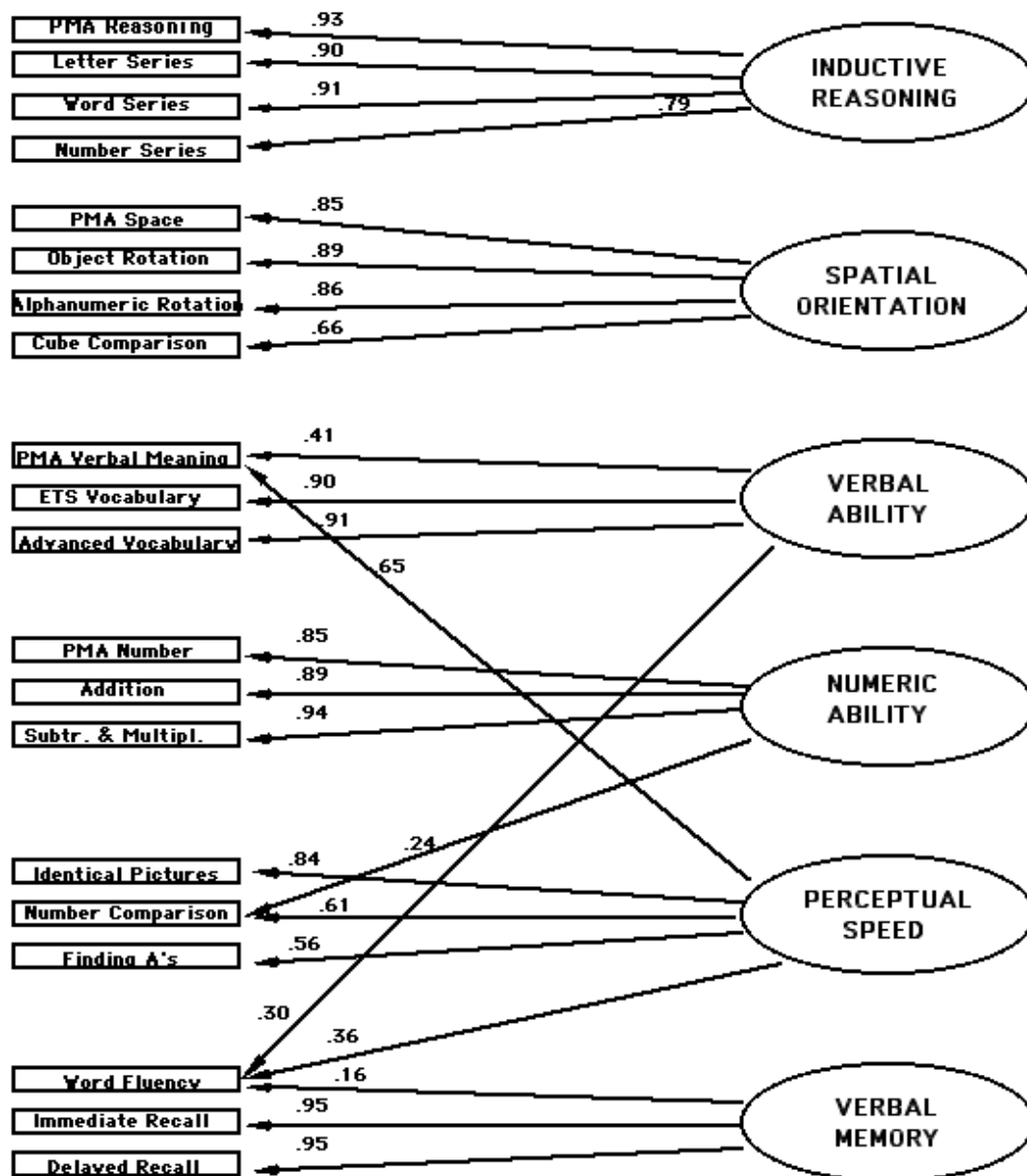


Longitudinal Age Changes



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**

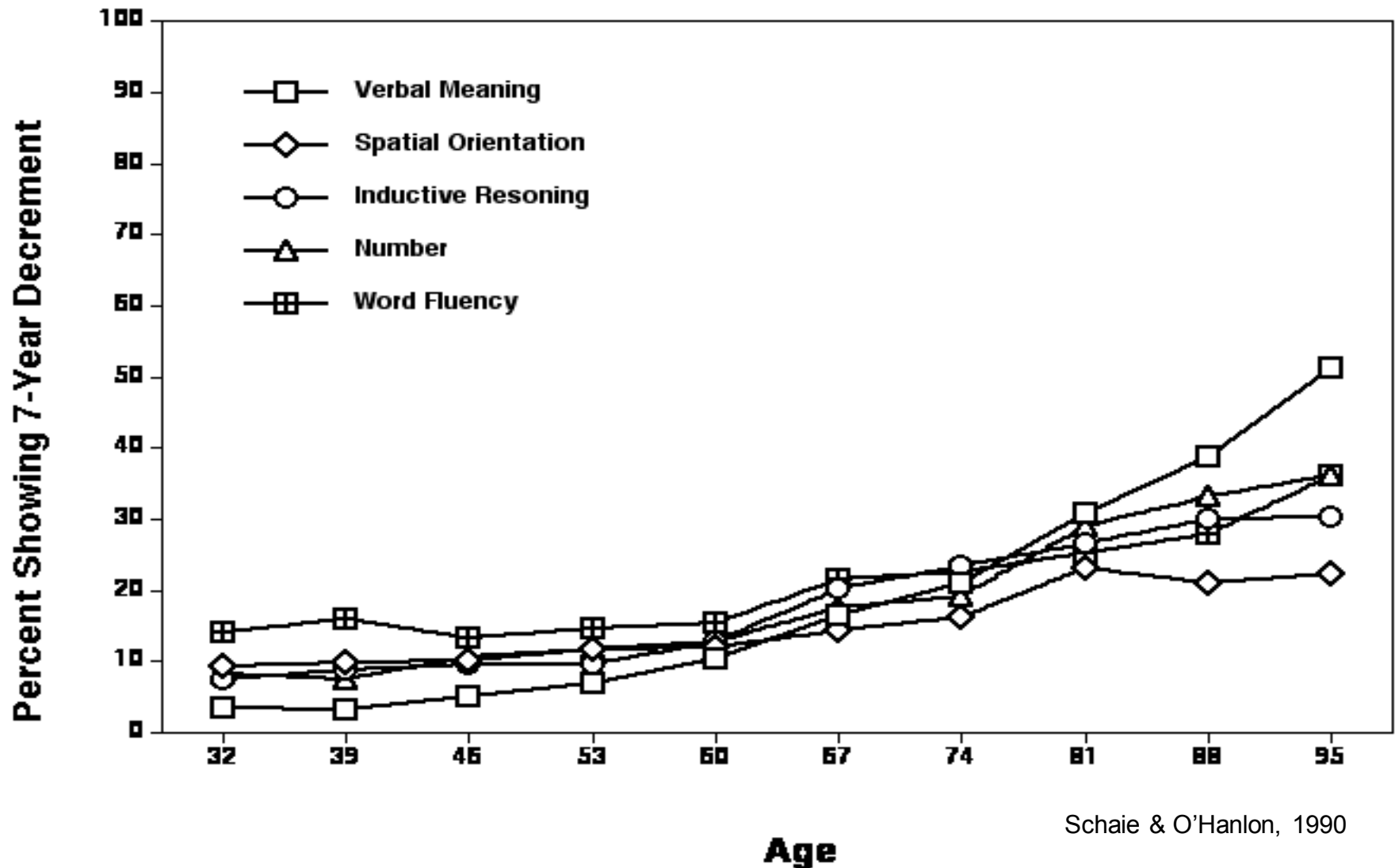


SLS
Longitudinal Factor
Structure

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- **Consideration of chronological age as a dependent rather than as an independent variable (Wohlwill, 1973)**

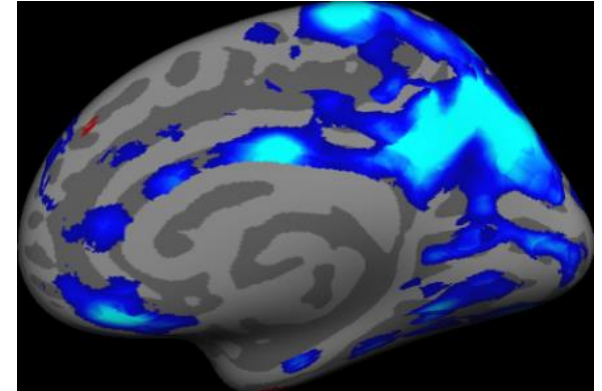
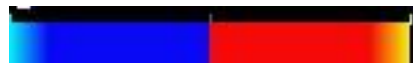
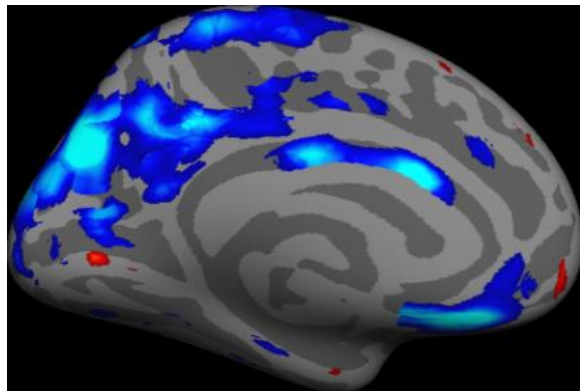
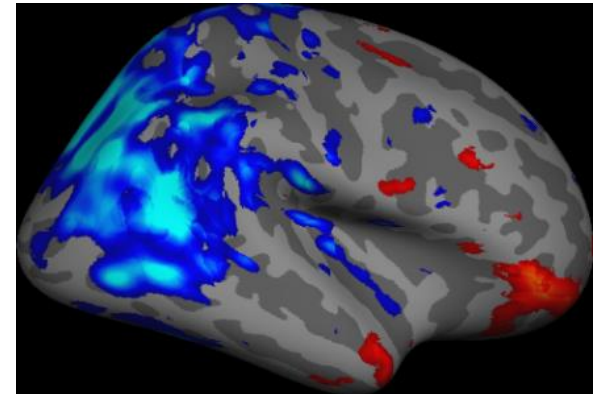
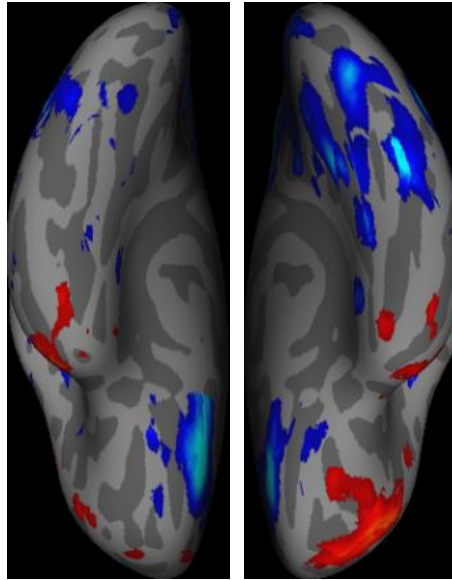
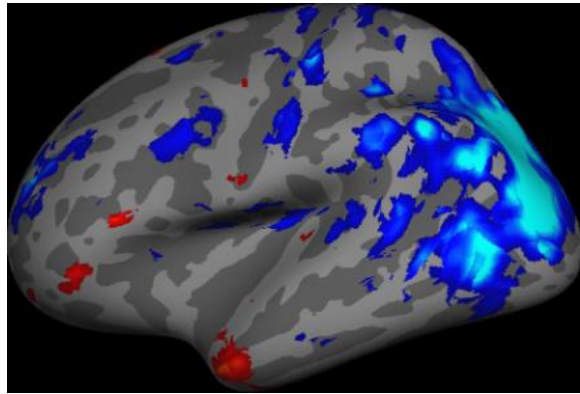
Hazard rate of encountering significant decrement in differences among abilities in every 7-year period



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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*

- Recognition of lasting heritable influences, *Schaie, Plomin. Willis et al, 1992; Schaie & Zuo, 1991*
- Age-related changes in the efficiency of the physiological infrastructure. *Siegler & Costa, 1985, Cristofalo, Tresini , Francis & Volker, 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

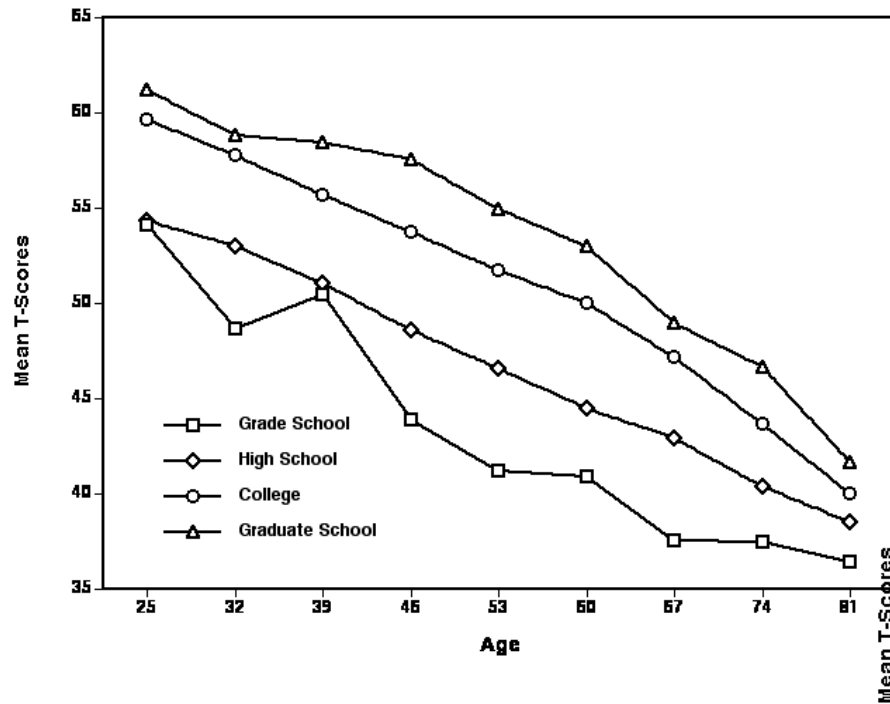
The Role of Longitudinal Studies in Geropsychology

**Identifying factors related to individual differences
in rate of aging:**

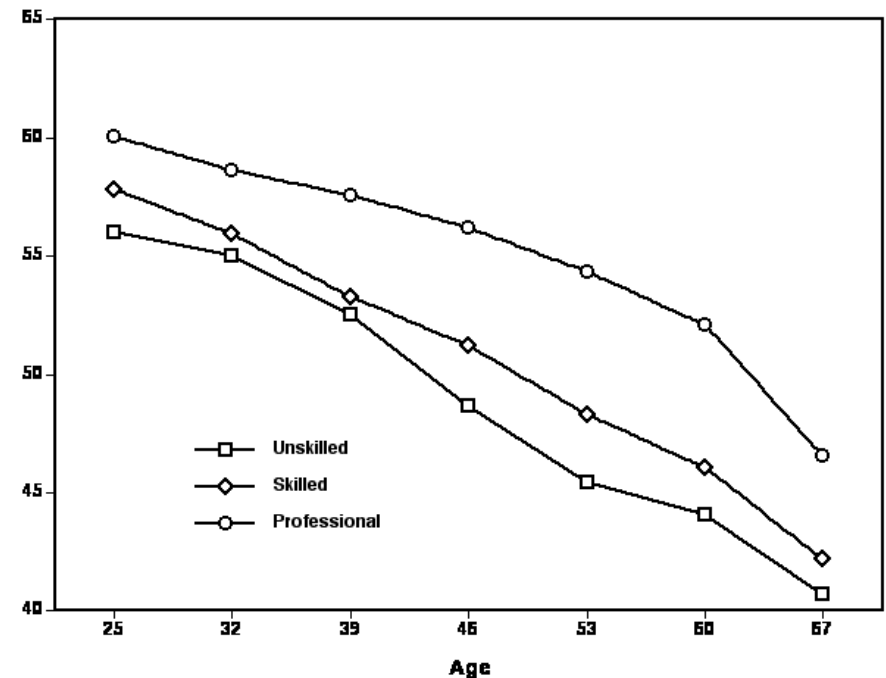
- **Demographic Factors – education, occupation**
- **Chronic disease**
- **Lifestyle**
- **Personality**
- **Social relations**
- **Life satisfaction**

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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