Inverted?

The U-shape of Happiness from Adolescence to Mid-life

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The Life & Age of Woman
Why, beyond middle age, people get happier as they get older

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- **Review** of economics, psychology and gerontology research on “subjective well-being” across the life course

- **Data:** Discuss two previous literature reviews and 18 empirical studies (several analyzing multiple data sets)

- **Findings:** Many studies report evidence of a U-shaped curve; only a few report an inverted-U; a few argue for a linear relationship (straight, negative, or positive)

- **Conclusion:** difficult to conclude whether relationship is linear or convex (U-shaped), but it is likely not concave
Research Design & Analysis Issues

- Many studies have used cross-sectional data which can confuse ageing with cohort effects, including a majority of studies finding a U-shaped relationship.

- Longitudinal (panel) data with multiple time points across most of the life-span are required to properly estimate the relationship between age and happiness.

- Some U-shape findings disappear when baseline predictors and time-varying covariates are controlled.
Measurement Issues

- Subjective well-being: “all of the various types of evaluations, both positive and negative, that people make of their lives” (Diener et al. 1985)

- “U-bend” studies have measured:
  - Life satisfaction (general)
  - Life satisfaction (up to eight domains)
  - Happiness
  - Feelings of stress, anger, and sadness
  - Willingness to live
  - Prevalence of antidepressant (prescribed psychiatric medication) use and diagnosed mental illness
Edmonton Transition Study (ETS) High School Sample 1985 – 2010

1985
N=983
Original sample

1985
N=894
Recontact sample

1986
N=665
Age 19

1987
N=547
Age 20

1989
N=504
Age 22

1992
N=404
Age 25

1999
N=509
Rejoined in 1999
n=215
n=294

2010
N=405
Rejoined in 2010
n=102
n=207
n=96

Age 18

Age 19

Age 20

Age 22

Age 25

Age 32

Age 43
2010 Sample Characteristics ($N = 405$)

- 53% female
- 70% married, 6% cohabiting, 24% other
- 78% raising children
- 34% with technical school diploma (associate degree); 37% with university degree
- 78% employed in one job; 13% holding more than one job; 7% out of labour force; 2% unemployed
- 58% had been unemployed at some point in previous 25 years.
Research Questions

- Does happiness decline (U-shape), flat-line, or increase (inverted U-shape) between adolescence and mid-life?

- Does the shape of the relationship remain after controlling for baseline predictors (gender, family SES, high school grades, self-esteem)?

- ….. controlling for time-varying covariates (marital status, unemployment, self-assessed physical health)?
Measures

• **Happiness:** “Thinking about your life in general, how happy are you with your life?” [very happy, somewhat happy, not very happy at all]

• **Baseline predictors**
  • **Gender** (male = 1; female = 0)
  • **Family SES:** Were parents university educated?
  • **High school grades:** “On average, what have your grades been like this last school year?”
  • **Self-esteem:** Six items from Rosenberg’s (1989) Self-esteem Scale
Measures

- Time-varying covariates
  - **Marital status:** (married/cohabiting = 1; other = 0)
  - **Unemployment:** Months unemployed in previous year
  - **Self-assessed physical health:** “In the past few months, how healthy have you felt physically?” (not very healthy; somewhat healthy; very healthy)
Findings

- Individual growth trajectories in Happiness across 25 years for random sample of 15% of participants
Q1: Average growth trajectory in Happiness across 25 years—evidence of a possibly inverted U-shape curve
**Findings**

- **Q2: Model results, controlling for baseline predictors**

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<td>Linear term</td>
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<td>Quadratic term</td>
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Q3: Model results, controlling for time-varying covariates

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<tr>
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<tr>
<td>Married</td>
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<tr>
<td>Unemployed</td>
<td>-.009</td>
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<td>Physical health</td>
<td>.089*</td>
<td>.20</td>
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*a controlling for gender, parents’ education, grades, self-esteem at baseline*
Conclusions

• Long-term longitudinal studies are required to reveal the true nature of within-person change in happiness across the lifespan

• 25 years of data with 7 time points suggest that an inverted-U curve rather than a U-curve may better describe the relationship between age and happiness

• “Mid-life is at the intersection of growth and decline” (Lachman et al., 2014) – some abilities and health beginning to fail, while knowledge, experience, and emotion regulation grow

• What happens after age 43? – other longitudinal research shows decline in positive affect after age 70
Acknowledgements