



Perceived Life Control Differences in the Association between Income and Education

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Introduction

- Self-determination theory describes the importance of autonomy, competence, and relatedness for fostering individual well-being. Autonomy is an essential aspect of happiness (Seligman & Csikszentmihalyi, 2000), and perceived control is directly correlated with life satisfaction (Andrew & Meeks, 2018).
- Optimistic mindsets are associated with lower risk of heart attacks and strokes, as well as a lower risk of death (Rozanski et al., 2019). Neurophysiology, psychology, and economics predict mindset (Yang et al., 2022).
- There is conflicting evidence regarding the effect of education on happiness and perceived life control.
 - The objective of pursuing higher education is often to open up more vocational opportunities, and thus increase life control and happiness (Blanchflower & Oswald, 2004).
 - However, these opportunities may not always pay as much as one may desire. The frustration of these unmet expectations may ultimately decrease happiness (Clark & Oswald, 1996).

Research Questions

- To what extent are income and education predictive of **perceived life control (PLC)**?
- Is it important to consider both income and education to create a predictive model of perceived life control?

Methods

Sample

- Respondents (n=4196) were drawn from Wave 5 of the U.S. **National Longitudinal Survey of Adolescent Health** (Add Health), a nationally representative sample of adults from an age-matched cohort.

Measures

- Levels of income (low, middle, upper) and levels of education (high school, college, post-graduate) were considered in tandem to create a measure of individual income+education.
- PLC was measured by considering responses to the questions:
 - In the past 30 days, how often have you felt that you were unable to control the important things in your life?
 - In the past 30 days, how often have you felt confident in your ability to handle your personal problems?
 - In the past 30 days, how often have you felt that things were going your way?

Results

Bivariate

- PLC is significantly and positively associated with income ($r = 0.22, p < 2e-16$), education ($r = 0.124, p = 2.366e-15$), and income + education ($r = 0.2, p < 2.2e-16$).

Multivariate

- PLC was significantly and positively associated with Income, education, and income + education after controlling for biological sex ($p < 2.2e-16$ for all).
- Males tend to have higher PLC scores than females (beta = 0.53, $p = 2.74e-13$).

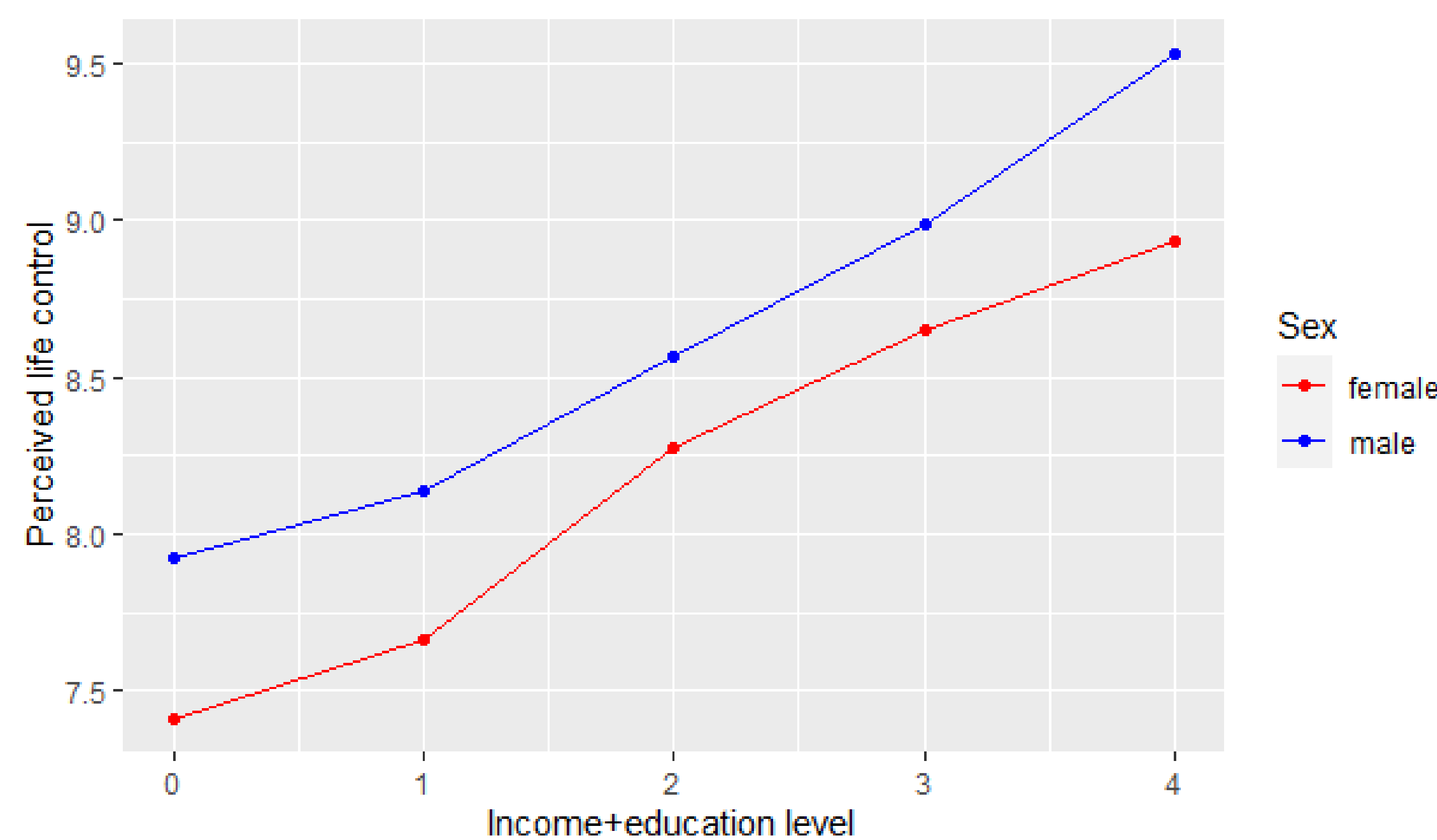


Figure 1: Differences in Male and Female Perceived Life Control scores by Income + Education

Discussion

- As income and education increase, perceived life control reliably increases.
- A better understanding of the relationship between perceived life control and income and/or education may inform decision-making for supporting those who are low in income and/or education.
- The lower reported PLC scores by females suggests the importance of testing other covariates (race, sexual orientation, etc.).
- The association between income, education, and PLC by age should be investigated; this would necessitate the use of a non-age-matched survey cohort.

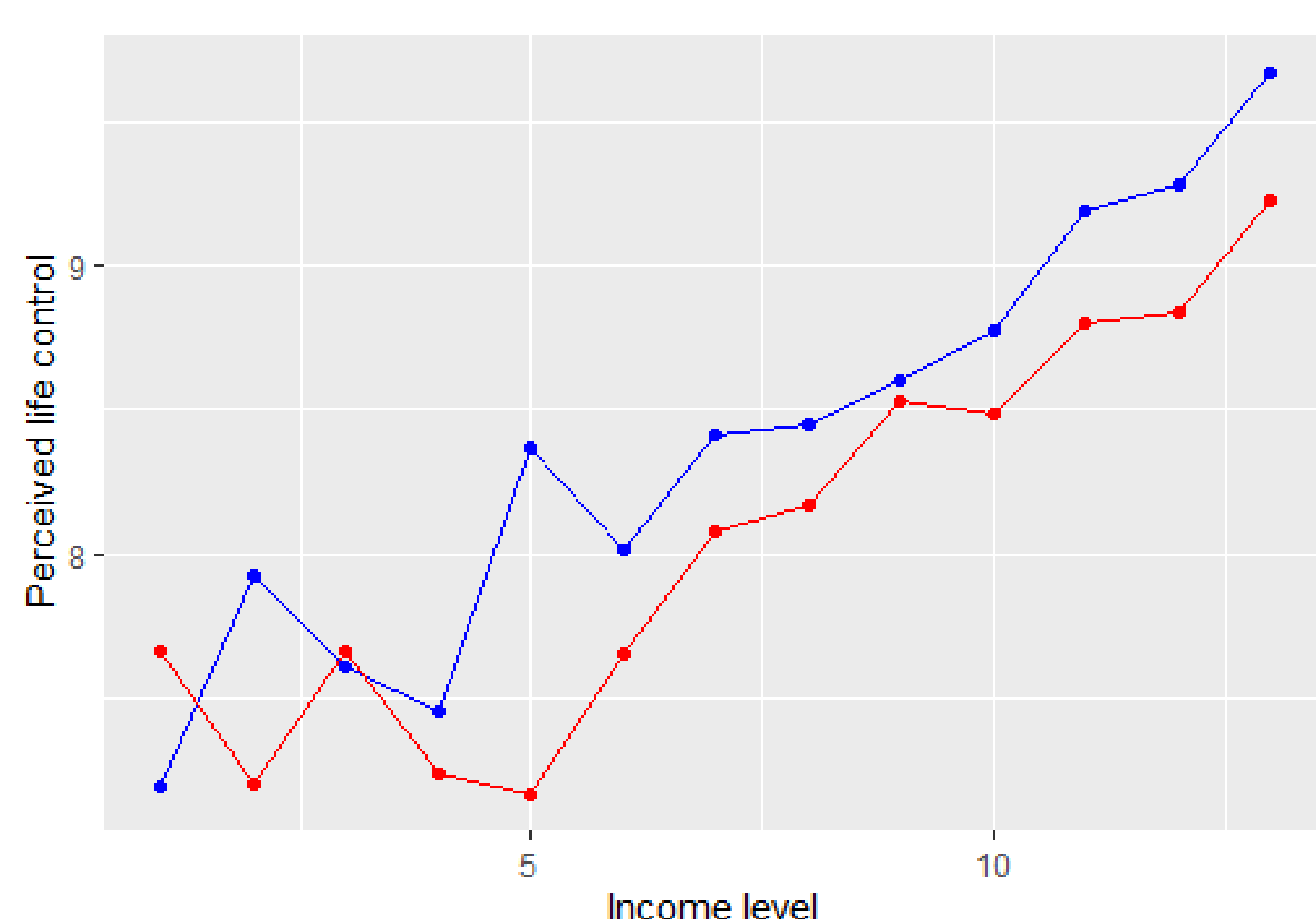


Figure 2: Differences in Male and Female Perceived Life Control scores by Income

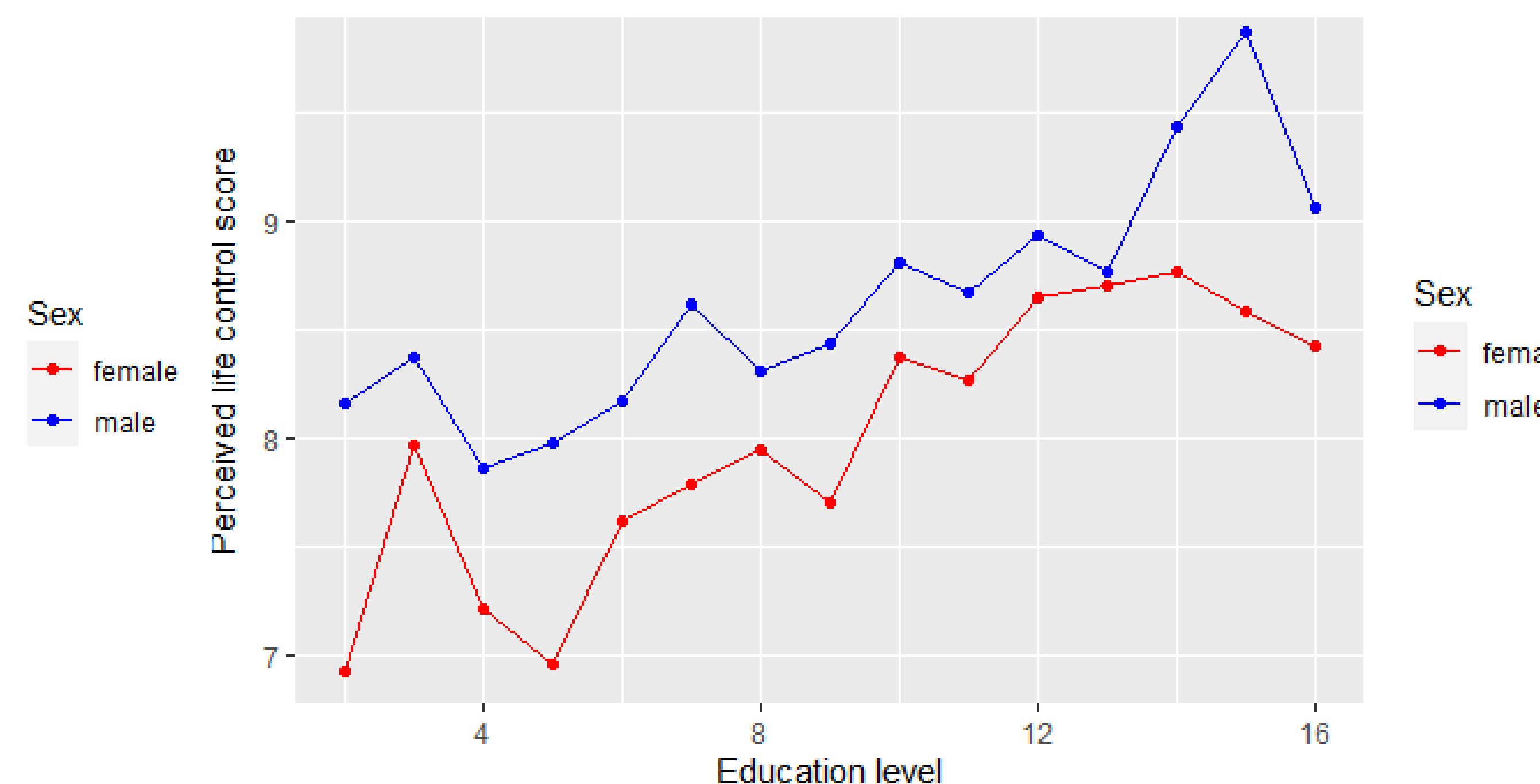


Figure 3: Differences in Male and Female Perceived Life Control scores by Education

References

Andrew, N., & Meeks, S. (2018). Fulfilled preferences, perceived control, life satisfaction, and loneliness in elderly long-term care residents. *Aging & Mental Health, 22*(2), 183–189. <https://doi.org/10.1080/13607863.2016.1244804>

Blanchflower, D. G., & Oswald, A. J. (2004). Well-being over time in Britain and the USA. *Journal of Public Economics, 88*(7), 1359–1386. [https://doi.org/10.1016/S0047-2727\(02\)00168-8](https://doi.org/10.1016/S0047-2727(02)00168-8)

Clark, A. E., & Oswald, A. J. (1996). Satisfaction and comparison income. *Journal of Public Economics, 61*(3), 359–381. [https://doi.org/10.1016/0047-2727\(95\)01564-7](https://doi.org/10.1016/0047-2727(95)01564-7)

Rozanski, A., Bavishi, C., Kubzansky, L. D., & Cohen, R. (2019). Association of Optimism With Cardiovascular Events and All-Cause Mortality: A Systematic Review and Meta-analysis. *JAMA Network Open, 2*(9), e1912200. <https://doi.org/10.1001/jamanetworkopen.2019.12200>

Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology. An introduction. *The American Psychologist, 55*(1), 5–14. <https://doi.org/10.1037//0003-066x.55.1.5>

Yang, D., Zheng, G., Wang, H., & Li, M. (2022). Education, Income, and Happiness: Evidence From China. *Frontiers in Public Health, 10*, 855327. <https://doi.org/10.3389/fpubh.2022.855327>