

Childhood Socioeconomic Position Relates to Adult Decision-Making: Evidence From a Large Cross-Cultural Investigation

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Background

- 356 million children worldwide live below the extreme poverty line [1]
- **Socioeconomic position (SEP)** and poverty may profoundly shape human well-being and health [2]
- SEP may impact many behavioral and decision-making processes
- **Temporal discounting (TD)** is a decision-making concept representing an individual's preferences for immediate over long-term rewards.
- TD connects to consequential outcomes including academic achievement, occupational success, and risk-taking behaviors [3]

Aim 1

Does childhood SEP relate to TD in adulthood?

Aim 2

Does childhood SEP interact with contemporaneous SEP to affect TD?

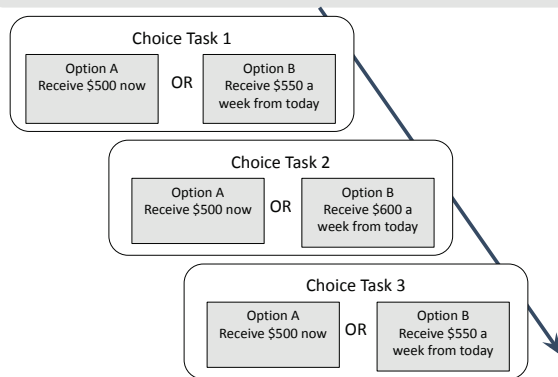
Methods

Participants

- Public Access Data, from a project focused on globality of decision making [4]
- N = 13,692
- Age: M = 34 years, SD = 11.7, Range = 18-89
- 47% Female, 50.5% Male
- 61 countries

Measures

- **Childhood SEP (Individual):**
 - Retrospective, subjective self report
 - 5 point Likert Scale from poor to wealthy
- **Childhood SEP (Country):**
 - Objective, country-level data
 - Global Extreme Poverty Rate (Dollar a Day)
- **Current SEP:**
 - Subjective self report
 - 5 point Likert Scale from much worse to much better
- **Temporal Discounting:**
 - Scored 1 (always prefer delayed gains or earlier losses) to 19 (always prefer immediate gains or delayed losses)
 - Based on a series of varied binary choice sets

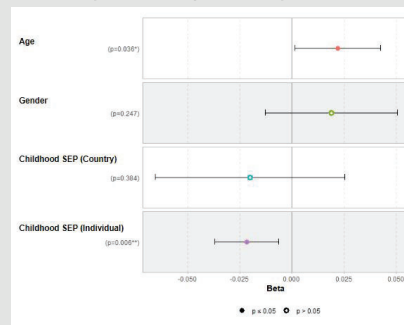


Results

- Linear mixed-effects models with simple slope analyses

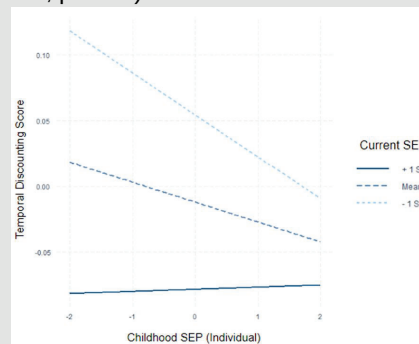
Aim 1: Childhood SEP & TD

- TD was related to Childhood SEP (Individual) ($\beta = -0.0216$, $t = 2.769$, $p = 0.006$)
- Effect of childhood SEP (Country) was not significant ($t = 0.871$, $p = 0.384$).



Aim 2: Interaction Effect

- Significant main effects of both childhood SEP ($\beta = -0.02$, $t = -1.93$, $p = 0.05$) and current SEP ($\beta = -0.07$, $t = -8.00$, $p < 0.001$)
- Significant interaction effect of childhood SEP and contemporaneous SEP on TD ($\beta = 0.02$, $t = 2.33$, $p = 0.02$)



Conclusions

- Poverty may have lasting effects on core psychological processes, including on TD behavior
- Despite potential changes in economic mobility, childhood poverty relates to steeper devaluation of future rewards later in adulthood.
- The steepest temporal discounting was found for those facing persistent economic adversity across both time periods
- Stress from poverty cannot be completely remedied by achieving higher socioeconomic positions

Limitations & Future Directions

- Prospective longitudinal data validation of findings
- Bayesian estimation to model discounting scores
- Effects of country-level indicators on TD
- Attention to variation in specific choice anomalies
- Environmental volatility and decision-making

References

1. Silwal, A. R., Engilbertsdottir, S., Cuesta, J., Newhouse, D., & Stewart, D. (2020). Global estimate of children in monetary poverty: An update. World Bank.
2. Chaudry, A., & Wimer, C. (2016). Poverty is Not Just an Indicator: The Relationship Between Income, Poverty, and Child Well-Being. *Academic Pediatrics*, 16(3, Supplement), S23–S29. <https://doi.org/10.1016/j.acap.2015.12.010>
3. Michaelson, L. E., & Munakata, Y. (2020). Same data set, different conclusions: Preschool delay of gratification predicts later behavioral outcomes in a preregistered study. *Psychological Science*, 31(2), 193–201.
4. Ruggier, K., Panin, A., Vdovic, M., Veckalov, B., Abdul-Salaam, N., Achterberg, J., Akil, C., Amata, J., Amata, K., Andersen, T. L., & others. (2022). The globalizability of temporal discounting. *Nature Human Behaviour*, 6(10), 1386–1397.

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