# The Predictive Utility of Risk Profiles

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## Introduction

- Although risk researchers have historically assumed that risk taking differs across domains (e.g., health and finance), recent research suggests risk taking exhibits both domain-specific and domain-general (i.e., general risk factor) components (Highhouse et al., 2017).
- One way to reconcile the conceptualization of the domain-general vs. specific aspect of risk taking is by using a person-centered approach (i.e., latent profile analysis, LPA; Frey et al., in press).
- LPA extracts discrete profiles of risk taking based on the combination of domain-specific preferences. In doing so, it produces risk profiles based on configuration risk preferences.
- One advantage of LPA is that it provides insight into the predictive efficacy of risk preferences for work and life outcomes. Whereas traditional psychometric methods focus on the predictive role of either general risk taking or domain-specific preferences, LPA allows us to examine how combinations of risk preferences lead to positive or negative work and life outcomes.
- The purpose of this study is to 1) examine the presence of latent profiles of risk taking using the Domain-Specific Risk-Taking Scale (DOSPERT) and 2) examine the predictive efficacy of risk profiles as compared to traditional psychometric approaches (e.g., regression).

## Methods

**Sample**

- Participants (n = 921) were recruited and participated using Mturk. 50.2% were male, 77.7% identified as White/Caucasian, and the average age was 35.7 years (*SD* = 15.9).

**Measures**

- Participants completed the 30-item revised DOSPERT scale (ethical: $\alpha$ = .78; health: $\alpha$ = .72; financial: $\alpha$ = .82; recreational: $\alpha$ = .83; social: $\alpha$ = .71; Blais & Weber, 2006), the 5-item Satisfaction with Life scale ($\alpha$ = .91; Diener et al., 1985), the 4-item PHQ-4 ($\alpha$ = .91; Kroenke et al., 2009), and the 3-item Subjective Success in the Work-Domain scale ($\alpha$ = .92; Wiese et al., 2002).

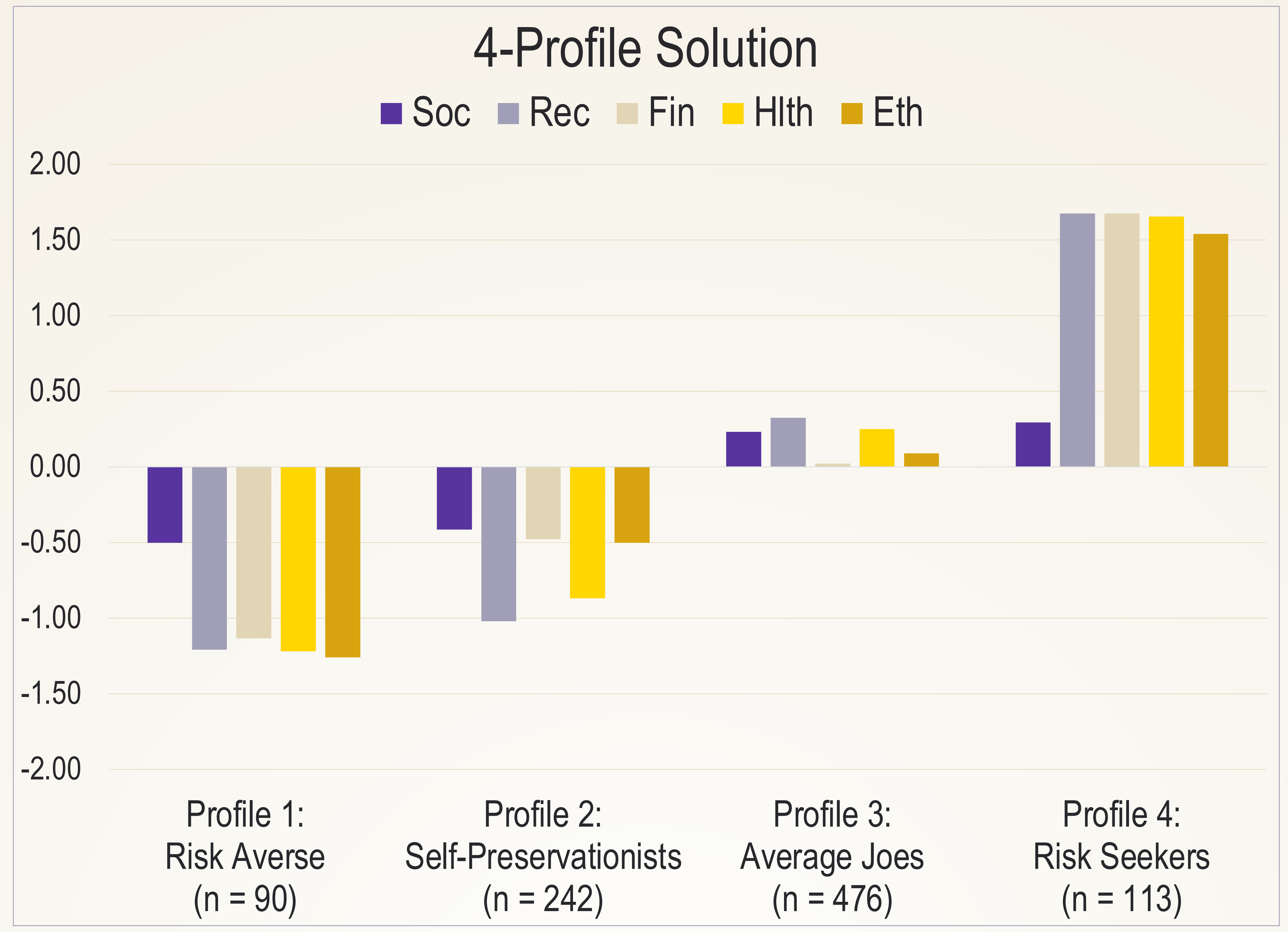
**Analyses**

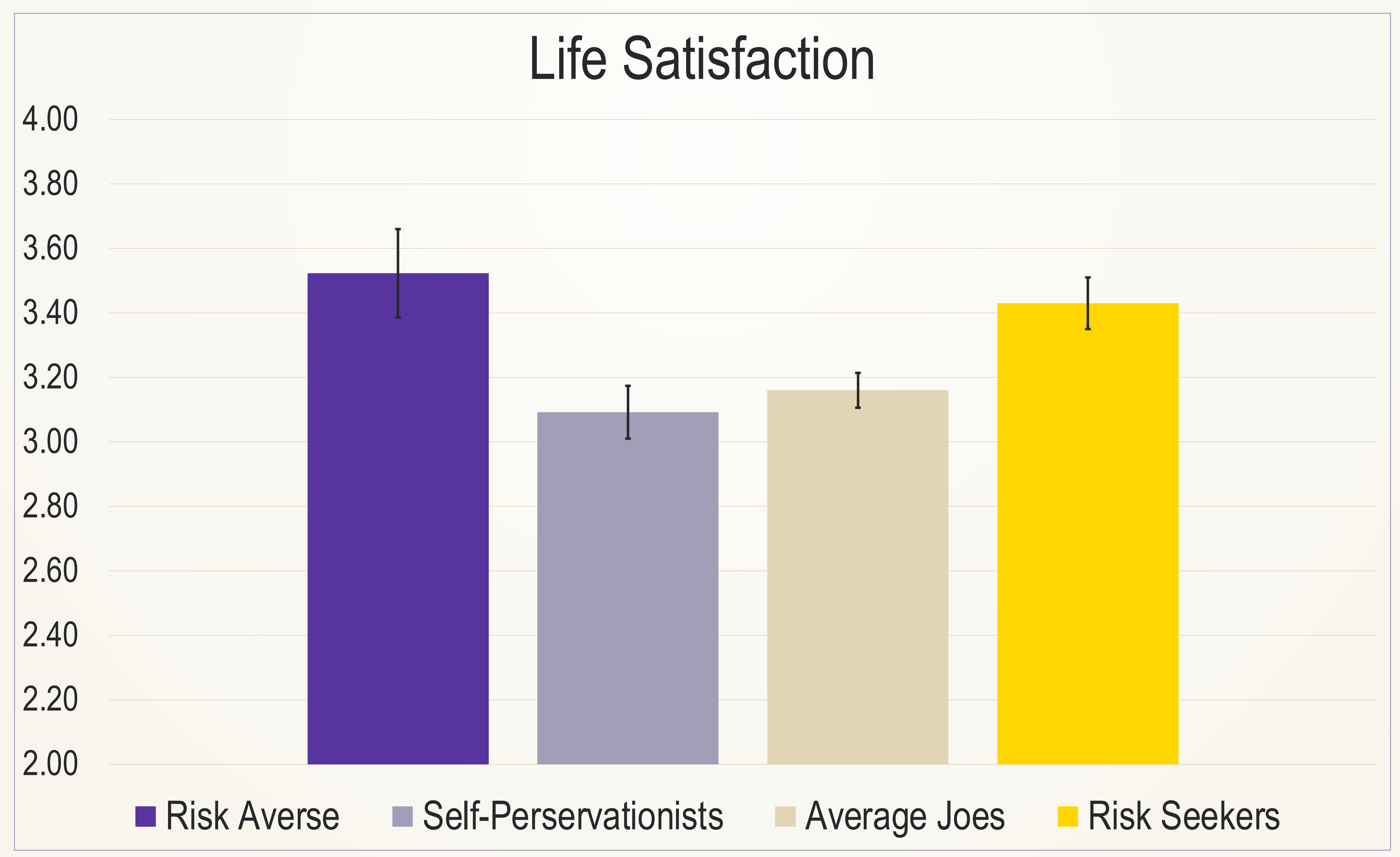
- A Latent Profile Analysis was conducted using Mplus 8.0. The automatic BCH procedure was conducted to compare the mean scores of outcome variables across profiles.

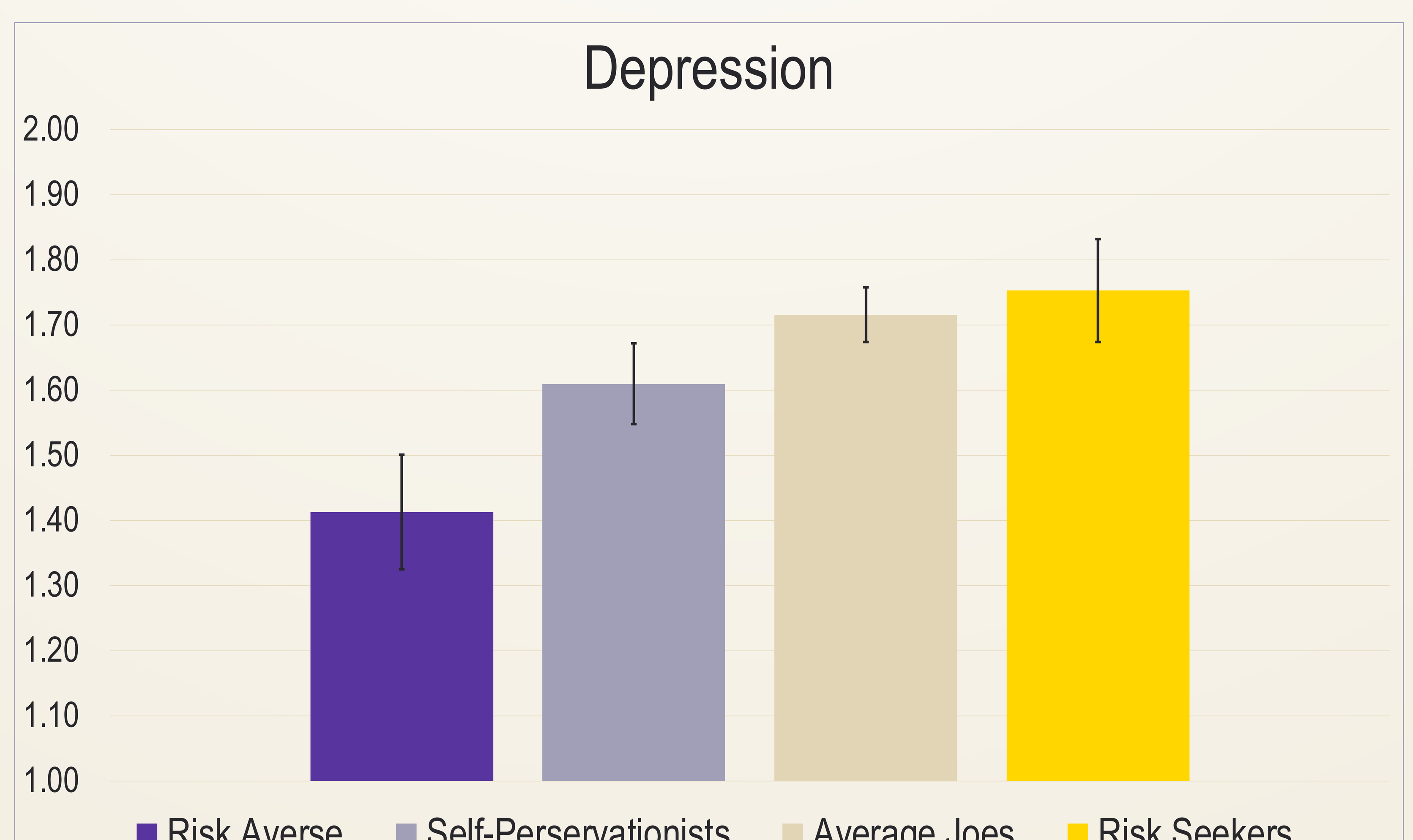
## References

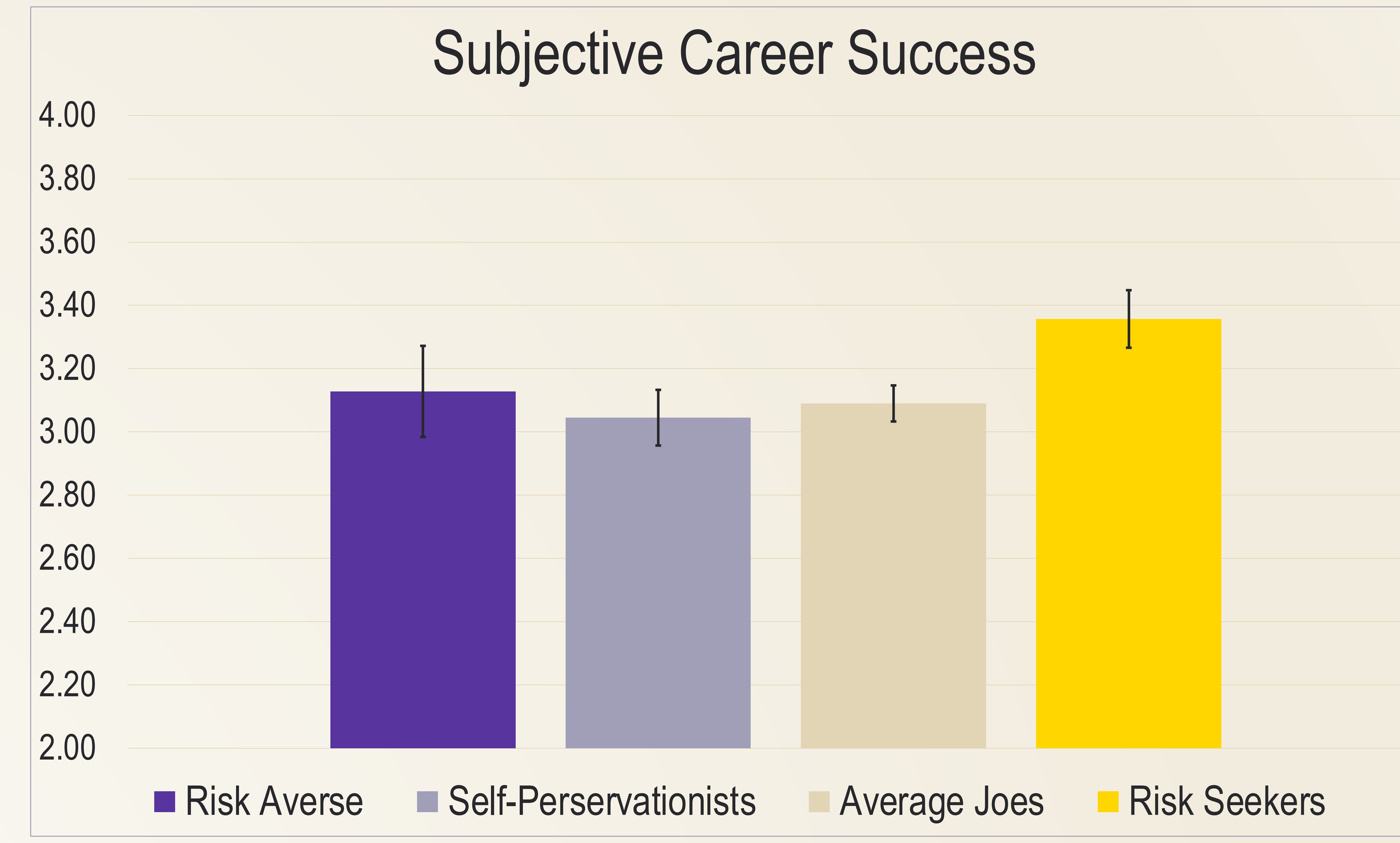

- Blais, A. R., & Weber, E. U. (2006). A domain-specific risk-taking (DOSPERT) scale for adult populations. *Judgment and Decision Making, 1*(1), 33-47.
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71-75.
- Frey, R., Duncan, S., & Weber, E.U. (in press). Towards a typology of risk preference: Four risk profiles describe two thirds of individuals in a large sample of the U.S. population. *Journal of Risk and Uncertainty*. https://doi.org/10.31234/osf.io/yjwr9
- Highhouse, S., Nye, C. D., Zhang, D. C., & Rada, T. B. (2017). Structure of the Dospert: Is there evidence for a general risk factor?. *Journal of Behavioral Decision Making, 30*(2), 400-406.
- Kroenke, K., Spitzer, R. L., Williams, J. B., & Löwe, B. (2009). An ultra-brief screening scale for anxiety and depression: the PHQ–4. *Psychosomatics, 50*(6), 613-621.
- Wiese, B. S., Freund, A. M., & Baltes, P. B. (2002). Subjective career success and emotional well-being: Longitudinal predictive power of selection, optimization, and compensation. *Journal of Vocational Behavior, 60*(3), 321-335.


## Results




| Variable | M | SD | 1 | 2 | 3 |
|---|---|---|---|---|---|
| 1. DOSPERT Total | 3.12 | 0.81 | | | |
| 2. Subjective Career Success | 3.12 | 1.07 | .10** | | |
| 3. Life Satisfaction | 3.21 | 1.01 | **0.05** | .68** | |
| 4. Depression | 1.67 | 0.78 | **0.04** | -.38** | -.44** |

*Note.* * indicates p < .05. ** indicates p < .01

## Discussion

- Four profiles of risk taking emerged from our sample:
  - those with consistent, below average risk taking (the “Risk Averse”)
  - those with below average risk taking but especially low recreational and health/safety related risk taking (the “Self-Preservationists”)
  - those with average levels of risk taking (the ”Average Joes”)
  - those with consistent, above average risk taking (the “Risk Seekers”)
- The application of LPA uncovered a relationship between risk taking and life satisfaction and depression that had been previously undetected by other analyses (see correlation table).
  - Risk Averse and Risk Seekers report significantly more life satisfaction than Self-Preservationists and Average Joes
  - Risk Averse report significantly less depression than Average Joes and Risk Seekers
- Although not significant in this study, the relationship between risk taking and subjective career success reflect a similar pattern to that of life satisfaction (i.e., the Risk Averse and Risk Seekers report more life satisfaction and subjective career success relative to other profiles).
- Together, these findings indicate that risk profiles may have the ability to predict outcome variables above and beyond more common analyses (i.e., correlation, regression).

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