Changes in Locus of Control Orientation Across College Major Pathways

Varsha Venkatesh[1] & Moin Syed[1]

[1] University of Minnesota

Author Note

Add complete departmental affiliations for each author here. Each new line herein must be indented, like this line.

Enter author note here.

The authors made the following contributions. Varsha Venkatesh: Conceptualization, Writing - Original Draft Preparation, Writing - Review & Editing; Moin Syed: Writing - Review & Editing, Supervision.

Correspondence concerning this article should be addressed to Varsha Venkatesh, 75 E River Pkwy, Minneapolis, MN 55455. E-mail: venka288@umn.edu

Abstract

One or two sentences providing a **basic introduction** to the field, comprehensible to a scientist in any discipline. Two to three sentences of **more detailed background**, comprehensible to scientists in related disciplines. One sentence clearly stating the **general problem** being addressed by this particular study. One sentence summarizing the main result (with the words "**here we show**" or their equivalent). Two or three sentences explaining what the **main result** reveals in direct comparison to what was thought to be the case previously, or how the main result adds to previous knowledge. One or two sentences to put the results into a more **general context**. Two or three sentences to provide a **broader perspective**, readily comprehensible to a scientist in any discipline.

Keywords: keywords

Word count: X

Changes in Locus of Control Orientation Across College Major Pathways

Methods

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study.

Participants

Participants were 96 undergraduate students enrolled at a large, public university in the United States. They ranged in age from 18 to 22 years old ($M = 18.91$, $SD = 1.15$). The majority of participants identified as Asian/Pacific Islander (34.38%) and male (55.21%). Additionally, the majority (96.88%) of participants were born in the United States. A detailed summary of participant demographics is available in Table 1.

Participants were recruited through a multicultural orientation event, with the first wave of data collection occurring during their first semester of college and the final wave occurring during the second semester of their sophomore year. Participants who participated in at least three waves of the survey were included in analyses.

Materials

College Major Pathway. College major pathways were coded based on participant self-reported narratives about their path to choosing a college major. Students were assigned one of five pathways: Uncertain (uncertain of their major from T1 to T4), Discovery (undecided at T1, chose major by T4), Redirect (changed major between T1 and T4), Solidification (unsure about initial major at T1, certain about same major at T4), and Certain (certain about same major from T1 to T4).

Locus of Control. Locus of control was measured through the Internal Locus of Control subscale of the 20-item version of the Multi-Measure Agentic Personality Scale

Table 1

Sociodemographic Characteristics of Participants

Characteristic	n	%
Gender		
Male	53	55.21
Female	40	41.67
Nonbinary	3	3.12
Race		
Asian/Pacific Islander	33	34.38
Black/African American	24	25
Hispanic/Latine	16	16.67
Multiracial	12	12.5
Native American	7	7.29
Other	4	4.17
Birthplace		
Born in the US	93	96.88
Not Born in the US	3	3.12

Note. N = 96. Participants were 18.91 years old on average (SD = 1.15)

(MAPS20) (Côté, Mizokami, Roberts, & Nakama, 2016). Participants responded to five items on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), with higher scores indicating higher internal locus of control.

Procedure

Data analysis

We used R (Version 4.5.1; R Core Team, 2025) and the R-packages *DescTools* (Version 0.99.60; Signorell, 2025), *dplyr* (Version 1.1.4; Wickham, François, Henry, Müller, & Vaughan, 2023), *papaja* (Version 0.1.4; Aust & Barth, 2025), *summarytools* (Version 1.1.4; Comtois, 2025), and *tinylabels* (Version 0.2.5; Barth, 2025) for all our analyses.

Results

Discussion

References

Aust, F., & Barth, M. (2025). *papaja: Prepare reproducible APA journal articles with R Markdown*. https://doi.org/10.32614/CRAN.package.papaja

Barth, M. (2025). *tinylabels: Lightweight variable labels*. https://doi.org/10.32614/CRAN.package.tinylabels

Comtois, D. (2025). *Summarytools: Tools to quickly and neatly summarize data*. https://doi.org/10.32614/CRAN.package.summarytools

Côté, J. E., Mizokami, S., Roberts, S. E., & Nakama, R. (2016). An examination of the cross-cultural validity of the Identity Capital Model: American and Japanese students compared. *Journal of Adolescence*, *46*(1), 76–85. https://doi.org/10.1016/j.adolescence.2015.11.001

R Core Team. (2025). *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing. Retrieved from https://www.R-project.org/

Signorell, A. (2025). *DescTools: Tools for descriptive statistics*. https://doi.org/10.32614/CRAN.package.DescTools

Wickham, H., François, R., Henry, L., Müller, K., & Vaughan, D. (2023). *Dplyr: A grammar of data manipulation*. https://doi.org/10.32614/CRAN.package.dplyr