Personality and political beliefs across the lifespan

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Author Note

- This project was completed as part of the EDLD Introduction to Data Science class
- 6 at the University of Oregon.

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9 Abstract

10 Here is where we will write our abstract.

11 Keywords: keywords

Word count: X

Personality and political beliefs across the lifespan

14 Methods

### Participants

#### 6 Material

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Personality To assess participant personality traits, respondents completed the Ten
Item Personality Inventory (Gosling, Rentfrow, & Swann Jr, 2003). Participants were
asked to indicate the extent to which they agreed or disagreed with statements describing
themselves (e.g. "Extraverted, enthusiastic"; "Critical, quarrelsome"). Respondents rated
each statement on a 7-point likert scale (1 = Strongly Disagree to 7 = Strongly Agree).
Responses were coded such that higher values reflected greater identification with the
personality trait.

Social and Economic Conservatism To assess participant levels of
conservatism, respondents completed the 12-item Social and Economic Conservatism Scale
(Everett, 2013). Participants were asked to indicate the extent to which they feel positively
or negatively about twelve distinct issues (eg. Abortion; Patriotism). Respondents rated
each issue on a 100-point scale (0 indicates greater negativity and 100 indicates greater
positivity). Responses were coded such that higher values reflected greater levels of
conservatism.

#### 31 Procedure

#### 32 Data analysis

We used R (Version 3.6.1; R Core Team, 2019) and the R-packages }MBESS

[@}R-MBESS], dplyr (Version 0.8.3; Wickham et al., 2019), forcats (Version 0.4.0;

Wickham, 2019a), ggplot2 (Version 3.2.1; Wickham, 2016), here (Version 0.1; Müller,

2017), janitor (Version 1.2.0; Firke, 2019), knitr (Version 1.25; Xie, 2015), papaja (Version 0.1.0.9842; Aust & Barth, 2018), psych (Version 1.8.12; Revelle, 2018), purrr (Version 0.3.2; Henry & Wickham, 2019), readr (Version 1.3.1; Wickham, Hester, & Francois, 2018), rio (Version 0.5.16; Chan, Chan, Leeper, & Becker, 2018), stringr (Version 1.4.0; Wickham, 2019b), tibble (Version 2.1.3; Müller & Wickham, 2019), tidyr (Version 1.0.0; Wickham & Henry, 2019), tidyverse (Version 1.2.1; Wickham, 2017), viridis (Version 0.5.1; Garnier, 2018a, 2018b), and viridisLite (Version 0.3.0; Garnier, 2018b) for all our analyses.

Results

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Conservatism.

In order to understand the relation between conservatism and personality, we first looked at Big Five personality trait (Openness to Experience, Conscientiousness,

Extraversion, Agreeableness, and Emotional Stability) scores across the spectrum of Social

Conservatism (Table 1) and Economic Conservatism (Table 2) scores.

To see whether there were significant relations between Social Conservatism and the Big Five, we then ran a multiple regression predicting Social Conservatism from the Big Five personality traits. A significant regression equation was found (F(5, 125) = 5.051, p < .001), with an adjusted  $R^2$  of 0.135 (Table 2). Thus, personality traits taken together explained 13.48% of variance in Social Conservatism scores. Participants' predicted Social Conservatism scores were equal to 25.82 - 3.73(Openness to Experience) + 0.07(Conscientiousness) + 1.56(Extraversion) + 3.93(Agreeableness) + 4.30(Emotional Stability). Agreeableness and Emotional Stability were significant predictors of Social

To see whether there were significant relations between Economic Conservatism and the Big Five, we then ran a multiple regression predicting Economic Conservatism from the Big Five personality traits. No significant regression equation was found (F(5, 125) =2.207, p = .058) (Table 3). Thus, personality traits taken together did not significantly

- explain variance in Economic Conservatism scores. However, Openness to Experience was
  a significant predictor of Economic Conservatism.
- To better understand the relation between social and economic conservatism, we examined the correlation between social and economic conservatism scores, and found it to be r = 0.65. Neither social nor economic extraversion were strongly correlated with any of the Big Five personality traits.

Discussion

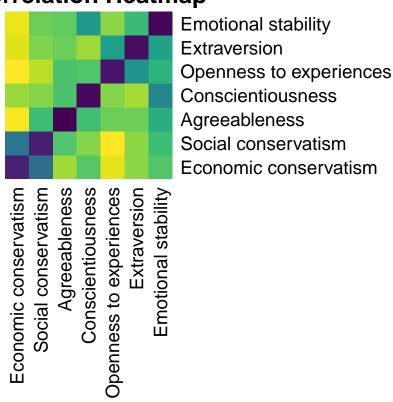
References

- ## Warning in readLines(file): incomplete final line found on 'r## references.bib'
- Aust, F., & Barth, M. (2018). papaja: Create APA manuscripts with R Markdown.
- Retrieved from https://github.com/crsh/papaja
- Chan, C.-h., Chan, G. C., Leeper, T. J., & Becker, J. (2018). Rio: A swiss-army knife for data file i/o.
- Everett, J. A. (2013). The 12 item social and economic conservatism scale (secs). *PloS*One, 8(12), e82131.
- Firke, S. (2019). Janitor: Simple tools for examining and cleaning dirty data. Retrieved from https://CRAN.R-project.org/package=janitor
- Garnier, S. (2018a). Viridis: Default color maps from 'matplotlib'. Retrieved from https://CRAN.R-project.org/package=viridis
- Garnier, S. (2018b). ViridisLite: Default color maps from 'matplotlib' (lite version).
- Retrieved from https://CRAN.R-project.org/package=viridisLite
- Gosling, S. D., Rentfrow, P. J., & Swann Jr, W. B. (2003). A very brief measure of the big-five personality domains. *Journal of Research in Personality*, 37(6), 504–528.
- Henry, L., & Wickham, H. (2019). Purrr: Functional programming tools. Retrieved from https://CRAN.R-project.org/package=purrr
- Müller, K. (2017). Here: A simpler way to find your files. Retrieved from https://CRAN.R-project.org/package=here
- Müller, K., & Wickham, H. (2019). *Tibble: Simple data frames*. Retrieved from https://CRAN.R-project.org/package=tibble

- R Core Team. (2019). R: A language and environment for statistical computing. Vienna,
- Austria: R Foundation for Statistical Computing. Retrieved from
- https://www.R-project.org/
- Revelle, W. (2018). Psych: Procedures for psychological, psychometric, and personality
- 95 research. Evanston, Illinois: Northwestern University. Retrieved from
- https://CRAN.R-project.org/package=psych
- Wickham, H. (2016). Ggplot2: Elegant graphics for data analysis. Springer-Verlag New
- York. Retrieved from https://ggplot2.tidyverse.org
- 99 Wickham, H. (2017). Tidyverse: Easily install and load the 'tidyverse'. Retrieved from
- https://CRAN.R-project.org/package=tidyverse
- Wickham, H. (2019a). Forcats: Tools for working with categorical variables (factors).
- Retrieved from https://CRAN.R-project.org/package=forcats
- Wickham, H. (2019b). Stringr: Simple, consistent wrappers for common string operations.
- Retrieved from https://CRAN.R-project.org/package=stringr
- Wickham, H., François, R., Henry, L., & Müller, K. (2019). Dplyr: A grammar of data
- manipulation. Retrieved from https://CRAN.R-project.org/package=dplyr
- Wickham, H., & Henry, L. (2019). Tidyr: Tidy messy data. Retrieved from
- https://CRAN.R-project.org/package=tidyr
- Wickham, H., Hester, J., & Francois, R. (2018). Readr: Read rectangular text data.
- Retrieved from https://CRAN.R-project.org/package=readr
- 111 Xie, Y. (2015). Dynamic documents with R and knitr (2nd ed.). Boca Raton, Florida:
- 112 Chapman; Hall/CRC. Retrieved from https://yihui.name/knitr/
- Call:corr.test(x = untidyeconomic\_conservatism, y = untidysocial conservatism)
- 114 Correlation matrix [1] 0.65 Sample Size [1] 131 Probability values adjusted for
- multiple tests. [1] 0

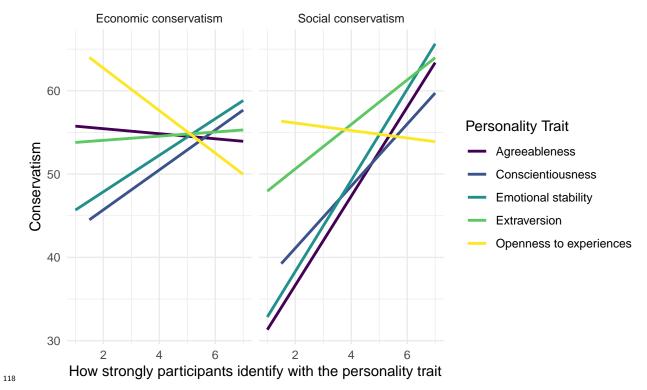
To see confidence intervals of the correlations, print with the short=FALSE option

# **Correlation Heatmap**



## Conservatism by Personality Traits

Big 5 traits self-reported by adults aged 20-68



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Table 1  $\label{eq:mean_personality} \textit{Mean Personality Trait Scores by Social Conservatism Score}$ 

		Social (	Conservat	tism Scor	e
personality_trait	[0-19]	[20-39]	[40-59]	[60-79]	[80-100]
Agreeableness	4.67	5.20	4.88	5.76	5.90
Conscientiousness	5.37	5.44	5.32	5.84	6.03
Emotional stability	4.07	4.38	4.82	5.50	5.57
Extraversion	2.73	3.16	3.57	3.90	3.72
Openness to experiences	4.93	5.40	5.43	5.25	5.12

 $\it Note.$  Personality trait scores reported on a 1-7 scale.

Table 2

Mean Personality Trait Scores by Economic Conservatism Score

	-	Economic	c Conserv	vatism Sc	ore
personality_trait	[0-19]	[20-39]	[40-59]	[60-79]	[80-100]
Agreeableness	6.14	5.21	5.29	5.40	5.43
Conscientiousness	5.50	5.31	5.60	5.77	6.00
Emotional stability	4.29	4.67	5.09	4.85	5.62
Extraversion	2.79	3.67	3.61	3.42	3.50
Openness to experiences	6.43	5.44	5.12	5.05	5.21

Note. Personality trait scores reported on a 1-7 scale.

Table 3

Regression Table Predicting Social Conservatism From Big-Five Personality Traits.

Predictor	b	95% CI	t(125)	p
Intercept	25.82	[0.07, 51.58]	1.98	.049
Openness to experiences	-3.73	[-7.50, 0.04]	-1.96	.052
Conscientiousness	0.07	[-3.98, 4.11]	0.03	.974
Extraversion	1.56	[-1.42, 4.55]	1.04	.302
Agreeableness	3.93	[0.69, 7.17]	2.40	.018
Emotional stability	4.30	[0.70, 7.91]	2.37	.020

Note. Residual standard error: 25.13 on 125 degrees of freedom.

Multiple R-squared: 0.168, Adjusted R-squared: 0.135. F(5,

125): 5.051, p-value: 0.0003.

 $\label{thm:conservation} \begin{tabular}{ll} Table 4 \\ Regression \ Table \ Predicting \ Economic \ Conservatism \ From \ Big-Five \\ Personality \ Traits. \end{tabular}$ 

Predictor	b	95% CI	t(125)	p
Intercept	56.54	[34.71, 78.37]	5.13	< .001
Openness to experiences	-3.79	[-6.98, -0.59]	-2.35	.021
Conscientiousness	1.78	[-1.65, 5.20]	1.03	.307
Extraversion	0.61	[-1.92, 3.14]	0.48	.632
Agreeableness	-1.13	[-3.88, 1.61]	-0.82	.415
Emotional stability	2.34	[-0.71, 5.39]	1.52	.131

Note. Residual standard error: 21.3 on 125 degrees of freedom.

Multiple R-squared: 0.081, Adjusted R-squared: 0.044. F(5, 125):

2.207, p-value: 0.058.

 Lable 3

 Correlation Matrix for Conservatism and Big Five Personality Traits

	Economic conservatism	Social conservatism	Agreeableness	Conscientiousness	Economic conservatism Social conservatism Agreeableness Conscientiousness Openness to experiences Extraversion Emotional stability	Extraversion	Emotional stability
Economic conservatism	1						
Social conservatism	0.65	1					
Agreeableness	-0.02	0.29	1				
Conscientiousness	0.14	0.18	0.28	1			
Openness to experiences	-0.15	-0.02	0.2	0.18	1		
Extraversion	0.02	0.17	0.2	0.12	0.44	1	
Emotional stability	0.16	0.33	0.35	0.54	0.28	0.42	1