Personality and political beliefs across the lifespan

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Abstract

Since the development of the Five Factor Model as a framework for measuring and classifying personality, psychology research has been interested in using this framework to examine the relationship between personality and cognitions, mindsets, and behaviors. Prior research has attempted to predict political beliefs and affiliations from personality traits, finding that the personality trait of openness to experience is positively correlated with liberalness, while the trait of conscientiousness is positively correlated with conservativeness. The current study attempts to replicate these findings in a U.S. Amazon Mechanical Turk population using the Ten Item Personality Inventory to measure the Big Five personality traits (openness to experiences, conscientiousness, extraversion, agreeableness, and emotional stability) and a 12-item Social and Economic Conservatism Scale to measure the social and economic dimensions of conservatism. Consistent with past research, the current study found that openness to experience was a significant negative predictor of both economic and social conservatism. Contrary to past findings, however, we found that agreeableness and emotional stability were both significant positive predictors of social conservatism, and conscientiousness was not a significant predictor of either social or economic conservatism. Neither social nor economic conservatism were strongly correlated with any of the Big Five personality traits, but they were strongly positively correlated with each other.

Keywords: keywords: personality, openness to experiences, conscientiousness, extraversion, agreeableness, emotional stability, conservatism, social conservatism, economic conservatism

Word count: 208

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The Five Factor Model is a widely used framework for measuring and classifying personality into five dimensions (Goldberg, 1992; John & Srivastava, 1999; McCrae et al., 1999). Those who score high in *openness to experiences* tend to describe themselves as curious, deep thinkers compared to those who score low in openness to experience, who describe themselves as traditional and conventional. Those who score high in *conscientiousness* are generally reliable and hardworking, while those who score low in conscientiousness tend to be disorganized and impulsive. Those high in *extraversion* are talkative and energetic, while those high in introversion are reserved and quiet. Those who score high in *agreeableness* describe themselves as kind and trusting, while those who score low in agreeableness say they are quarrelsome and critical. And lastly, those who are high in *emotional stability* are calm individuals who handle stress well, while those high in neuroticism tend to be anxious individuals who are easily upset.

Given that these personality traits have been found to predict a multitude of cognitions and behaviors, from well-being to cognitive abilities (Barlett & Anderson, 2012; Curtis, Windsor, & Soubelet, 2015; Hayes & Joseph, 2003), previous studies have looked at whether personality can predict political beliefs and affiliation (Hirsh, DeYoung, Xu, & Peterson, 2010; Jost, West, & Gosling, 2009). The most robust findings are that openness to experience is positively correlated with liberalness (Carney, Jost, Gosling, & Potter, 2008; Ekehammar, Akrami, Gylje, & Zakrisson, 2004), while conscientiousness is positively correlated with conservativeness (Barbaranelli, Caprara, Vecchione, & Fraley, 2007; Stenner, 2005).

This project uses data from a larger study that measured political beliefs and the big five personality traits. Consistent with prior research, we hypothesize that we will find a positive relation between conscientiousness and conservatism and a negative relation between openness to experience and conservatism. We will first make exploratory tables

and plots that explore the relation between all big five personality traits and social and economic conservatism, and then we will run two linear models with traits as predictors and types of conservatism as outcome variables.

Method

Participants

Two-hundred U.S. adults were recruited via Amazon Mechanical Turk to participate in a study listed as "Psychology and society survey." Participants were removed for completing the survey quicker than predetermined time cutoffs or failing to pass attention checks. Of the remaining 131 participants, who were 20 to 68 years old ($M = 40.55$, $SD = 11.98$), 54.2% identified as female and 45.8% identified as male, while 77.1% identified as White of Caucasian, 7.6% as African American or Black, 6.1% as Hispanic or Latinx, 5.3% as Asian or Asian American, 0.8% as Native American, and 9.2% as "Other." The sample leaned liberal, with 45% affiliated with the Democratic Party, 23.7% affiliated with the Republican Party, 22.1% affiliated with no party, and 9.2% affiliated with the Green Party, Libertarian Party, or another party. The participants were compensated $1.50 for completing the survey, which took on average 10.43 minutes ($SD = 3.34$).

Material

Personality. To assess personality traits (openness to experiences, conscientiousness, extraversion, agreeableness, and emotional stability), 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 seven social issues and five economic issues (eg. Abortion; Fiscal Responsibility). 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.

Additional Measures. Incidental affect was induced via video clips (Schaefer, Nils, Sanchez, & Philippot, 2010). Clips from *The Shining* and *The Blair Witch Project* were used to induce fear, clips from *Seven* and *Schindler's List* were used to induce anger, and clips from *Blue* were used to induce no emotion. Participants also read a speech on the prevalence of homelessness in the United States and a corresponding policy varying in complexity and affiliation.

Participants completed additional measures, including an adjusted PANAS Affect Scale assessing current emotional state (Watson, Clark, & Tellegen, 1988), the 18-Point Need for Cognition Scale assessing need for cognition (Cacioppo, Petty, & Feng Kao, 1984), the 10-Point Emotion Regulation Questionnaire assessing the use of two emotional regulation strategies, cognitive reappraisal and expressive supression (Gross & John, 2003), and demographic information, including gender, ethnicity, age, and political orientation and affiliation.

Procedure

Participants accessed the survey through the Amazon Mechanical Turk website. Once informed consent was confirmed, participants were randomly assigned to watch a video

intended to induce primarily fear, anger, or no emotion. After watching the video, each participant was presented with information describing the prevalance of homelessness in the United States. Participants were then randomly assigned to read a policy statement addressing homelessness that was either simple or complex, and liberal or conservative, and were then asked to answer questions measuring their beliefs about the policy. Additional measures followed measuring social and economic conservatism, personality traits, current affective state, neeed for cognition, and emotional regulation. Participants concluded the study by providing demographic information.

Data analysis

We used R (Version 3.6.1; R Core Team, 2019) and the R-packages *}forcats* [@}R-forcats], *}MBESS* [@}R-MBESS], *corrplot2017* (Wei & Simko, 2017), *dplyr* (Version 0.8.3; Wickham et al., 2019), *GGally* (Schloerke et al., 2018), *ggplot2* (Version 3.2.1; Wickham, 2016), *here* (Version 0.1; Müller, 2017), *janitor* (Version 1.2.0; Firke, 2019), *knitr* (Version 1.26; Xie, 2015), *papaja* (Version 0.1.0.9842; Aust & Barth, 2018), *psych* (Version 1.8.12; Revelle, 2018), *purrr* (Version 0.3.3; 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, 2019), *tibble* (Version 2.1.3; Müller & Wickham, 2019), *tidyr* (Version 1.0.0; Wickham & Henry, 2019), *tidyverse* (Version 1.3.0; Wickham, 2017), *viridis* (Version 0.5.1; Garnier, 2018a, 2018b), and *viridisLite* (Version 0.3.0; Garnier, 2018b) for all our analyses.

Results

In order to explore relation between conservatism and personality, we created a table of the Big Five personality trait (openness to experiences, conscientiousness, extraversion, agreeableness, and emotional stability) scores across different levels of social (see Table 1) and economic (see Table 2) conservatism.

To see whether there were significant relations between social conservatism and the Big Five traits, we then ran a multiple regression predicting social conservatism from the Big Five personality traits. We found that together the personality traits explain about 13.5% of the variance in social conservatism scores, $F(5, 125) = 5.05$, $p < .001$, with an adjusted R^2 of .14 (see Table 3). We found that agreeablessness, $\beta = 3.93$, $t(125) = 2.40$, $p = .018$, and emotional stability, $\beta = 4.30$, $t(125) = 2.37$, $p = .020$, significantly predict social conservatism, such that, controlling for the other personality traits, those who scored higher on agreeableness and emotional stability measures tended to also score higher on the social conservatism measure. Additionally, openness to experiences marginally predicted social conservatism, $\beta = -3.73$, $t(125) = -1.96$, $p = .052$, such that, controlling for other personality traits, those who scored higher on conservatism tended to score lower on the openness to experience measure.

To see whether there were significant relations between economic conservatism and the Big Five traits, we then ran a multiple regression predicting economic conservatism from the Big Five personality traits. The personality traits taken together did not significantly explain variance in economic conservatism scores, $F(5, 125) = 2.21$, $p = .058$ (see Table 4). However, openness to experience was a significant predictor of economic conservatism, $\beta = -3.79$, $t(125) = -2.35$, $p = .021$, such that, controlling for other personality traits, those who scored high on economic conservatism subscale tended to score lower on the openness to experiences measure.

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 $r = .65$. Neither social nor economic extraversion were strongly correlated with any of the Big Five personality traits (see Figure 1).

Discussion

Consistent with prior research on personality and political beliefs, participants in this study that were higher in economic conservatism produced significantly lower scores on openness to experience. This relation has been described in prior research as a result of the ideas and beliefs surrounding economic conservatism, such as rule following, self-regulation, and order, contradicting the ideas and beliefs surrounding openness to experience, such as creativity and diversity of experience (Carney et al., 2008; Ekehammar et al., 2004).

However, inconsistent with prior research and our hypotheses, the negative relationship between social conservatism and openness to experience scores, along with the positive relationships between conscientiousness and both social and economic conservatism were not significant. With this subject so heavily studied, the lack of significant results indicates that a replication of the study that includes a power analysis and possibly, an increase in sample size may give us a clearer understanding of the strength and significance of these relationships.

Additional exploratory analysis revealed a significant positive relationship between emotional stability and social conservatism, as well as a positive relationship between agreeableness and social conservatism. Prior research indicates that emotional stability is not a significant predictor of conservatism, and agreeableness is usually negatively correlated with conservatism (Sibley, Osborne, & Duckitt, 2012). The departure of these results from previous findings may indicate that there is an increase in positive personality traits associated with conservatism, but the controlling, firm, inhibited characteristics heavily associated with conservatism are not compatible with the change in direction between agreeableness and conservatism.

While the results of this study did not support all of our hypotheses on personality traits and conservatism, the limitations of the study surrounding the self-reporting methods along with the potential low power of the study may help explain the departure of

our results from previous findings. Future research on this subject would be more informed through the use of experimental methods and observations of participants to determine behavior that reveals personality traits and level of social and economic conservatism. Increasing understanding of the relationship between personality traits and left-right differences could help implement actions that would help diffuse the increasing political polarization currently taking place in the United States.

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Call:corr.test(x $=$ untidy$economic_conservatism, y = untidy$social_conservatism) 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

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Table 1

Mean Personality Trait Scores by Social Conservatism Score

personality_trait	Social Conservatism Score				
	[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

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

Table 2

Mean Personality Trait Scores by Economic Conservatism Score

personality_trait	Economic Conservatism Score				
	[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.

Table 4

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

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.

Table 5

Correlation Matrix for Conservatism and Big Five Personality Traits

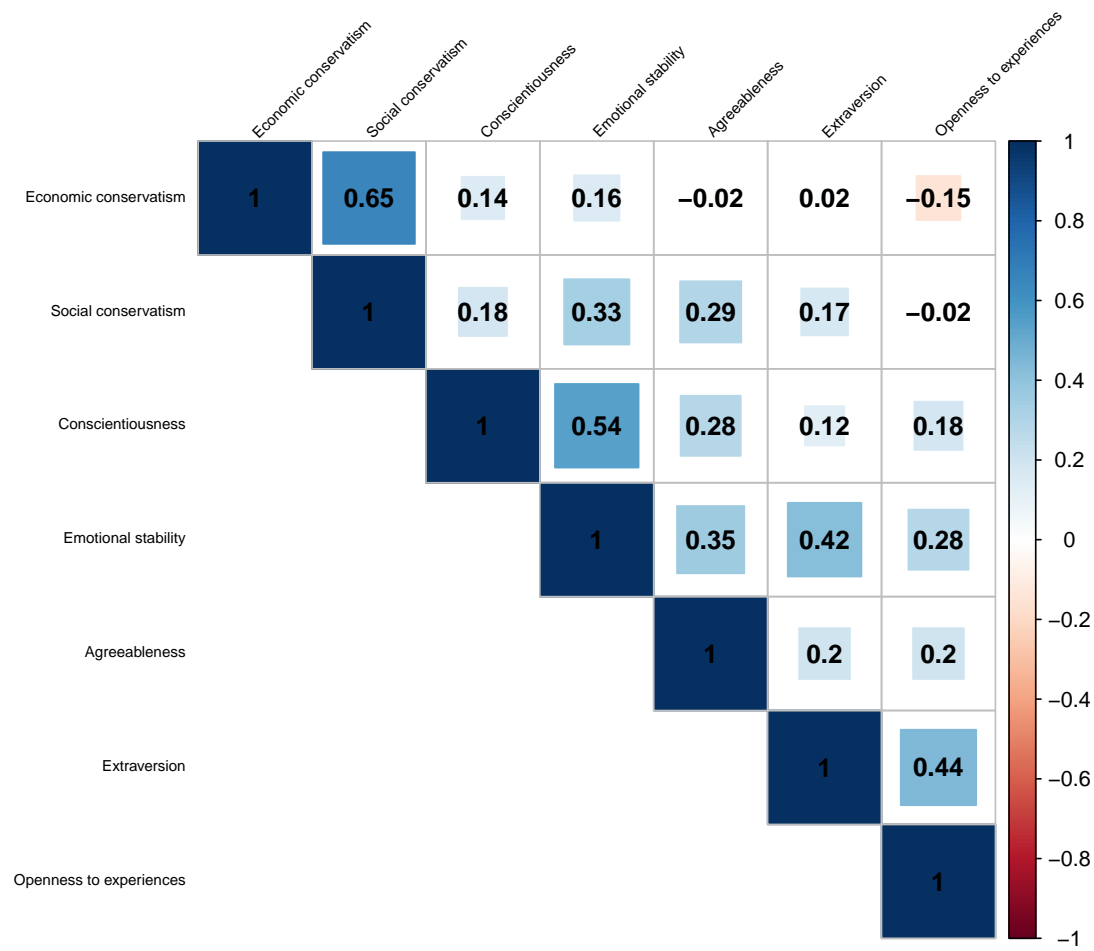|	Economic conservatism	Social conservatism	Agreeableness	Conscientiousness	Openness to experiences	Extraversion	Emotional stability
Economic conservatism	1						
Social conservatism	0.65	1					
Agreeableness	-0.02	0.29	1				
Conscientiousness	0.14	0.18	0.28	1			
Openness to experiences	-0.15	-0.02	0.2	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

Figure 1. A correlation heatmap demonstrating the correlations between the Big Five personality traits and social and economic conservatism.
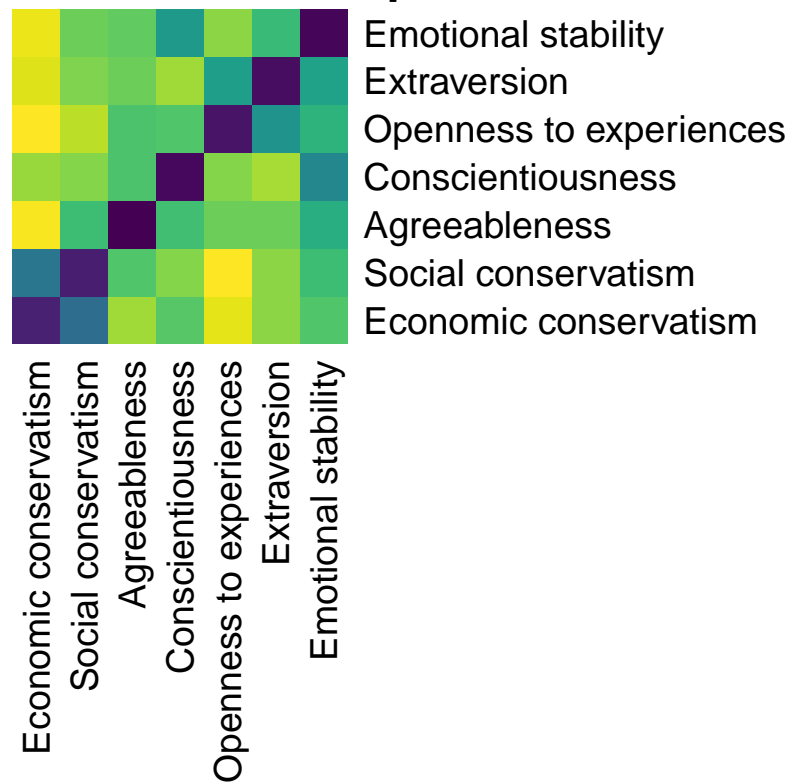
Figure 2. A correlation heatmap demonstrating the correlations between the Big Five personality traits and social and economic conservatism.
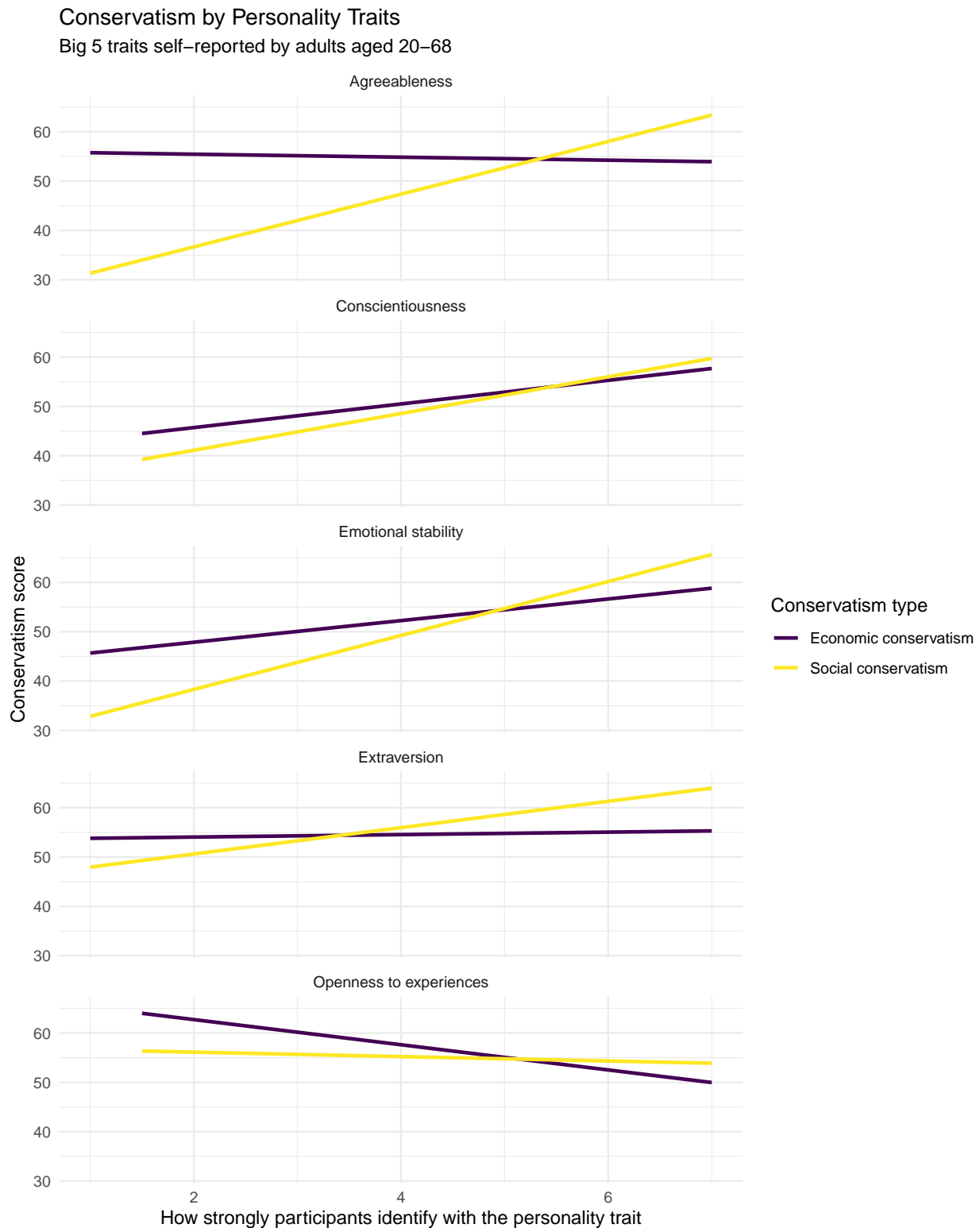
Figure 3. We found a significant positive relation between emotional stability and social conservatism, a positive relation between agreeableness and social conservatism, and a negative relation between openness to experiences and economic conservatism.