Political Ideology, Confidence, & Cognitive Ability

Research Thesis

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Abstract

Political conservativism has been associated with lower cognitive ability, including lower numeracy (math ability) and higher perceptions of their own ability including higher perceived math ability (numeric self-efficacy). It has been suggested that this is evidence of overconfidence on the part of conservatives, but conservatism has not been linked with overconfidence per se. In the current research, we investigated correlations of political conservatism with cognitive ability, self-efficacy, and measures of overconfidence, including overestimation of the number of items correctly answered on a test of numeracy and over placement of math ability relative to others. We also measured additional ability measures, education, general self-efficacy, and narcissism (a general measure of overconfidence). Cognitive ability was operationalized through a basic mathematics test, spatial reasoning, and a basic vocabulary test. Each ability variable was correlated with one another, and a standardized ability variable was created. We used a sample of N= 831 MTurk workers recruited from Cloud Research. We found only ability, self-efficacy, numeric efficacy (i.e., not measures of overconfidence) predicted ideology. In an exploratory regression using measures of numeric confidence, narcissism, general self-efficacy, cognitive ability, and education, greater conservatism was associated with lower ability, $b(se)= -0.166$ (0.057), $p=.004$, higher general self-efficacy, $b(se)= 0.171$ (0.051), $p=.001$, and higher subjective numeracy $b(se)= 0.080$ (0.037), $p=.033$. Based on these findings, we suggest the relationship between political ideology and numeracy is better stated as an issue of confidence rather than overconfidence. It appears that conservatives have generally high efficacy, but when asked to give specific judgments about their ability, they do not systematically overestimate it.

Introduction

Previous theory has considered an association between greater liberalism and higher education. For instance, one study found that education can interact with openness to facilitate more liberal views (Dunn, 2011). Another found that education weakens support of the church, law enforcement, and the military (Weakliem, 2002). Generally, the liberal attitudes of most universities are believed to decrease right-wing and authoritarian views while increasing more progressive attitudes (Van Hiel et al., 2010).

Consistent with the link between education and ideology, other investigations have uncovered a link between political ideology and cognitive ability. Specifically, studies have found negative associations between cognitive ability and both right-wing ideology and conservatism. In fact, a meta-analysis of 92 studies showed a consistent link between higher conservatism and right-wing ideologies such as dogmatism and authoritarianism and lower cognitive abilities such as intelligence, reasoning tasks, and years of education (Van Hiel et al., 2010). Another study found that conservatives had worse SAT scores and performed worse on vocab and analogy tests (Stankov, 2009).

Of greatest interest to the current investigation, researchers found that conservatives tended to overperceive their math ability (i.e., subjective numeracy) but underperformed on an objective test of math ability (i.e., objective numeracy; Choma et al., 2019).

The earlier research suggests that conservatives might be overconfident because conservatism simultaneously predicted lower ability and higher perceptions in that ability. However, the earlier research did not test this directly. People can have specific overconfident beliefs, such as overestimating their actual performance (i.e., overestimation), placing

themselves too highly relative to other individuals (i.e., over-placement), and having undue

certainty regarding beliefs (i.e., over-precision; Moore & Healy, 2008).

We also were interested in links between conservatism and other individual differences that have

been associated with overconfidence, such as general self-efficacy and the Dark Triad. General

self-efficacy involves an individual's belief in whether they can accomplish a certain act

(Bandura, 1977). Higher self-efficacy has been associated with overconfidence in decision tasks

(Stone, 1994). Likewise, Dark Triad variables have been linked to overconfidence. First, higher

narcissism was related to overconfidence in betting (Campbell, et al., 2004). Second,

Machiavellianism was linked to overconfidence in World Cup tournament predictions such that

those higher in Machiavellianism had greater confidence but lower accuracy in their predictions

(Jain & Bearden, 2011).

Present Study

Thus, if it is the case that conservatives are generally overconfident, we hypothesized that

they may also have overconfident beliefs about their abilities, greater self-efficacy, and higher

narcissism or Machiavellianism.

In the current study, we used a large convenience sample to replicate and extend the past

research. We investigated the following research questions:

Hypothesis 1a: greater conservatism would be associated with greater perceived ability

and lower actual ability, as in prior research (Choma et al., 2019).

Hypothesis 1b: greater conservatism would be associated with greater overestimation and

over-placement.

Hypothesis 2a: greater conservatism would be associated with greater self-efficacy.

Hypothesis 2b: greater conservatism would be associated with greater narcissism and Machiavellianism.

Methods

The analysis was conducted on a previously collected data set from Amazon's Mechanical Turk. Participants took two surveys. They received $2.50 for completion of the first and $1.50 for completion of the second.

Of the 1054 (N=1054) responders, 831 (N=831) qualified for inclusion in the analysis by providing full data to both surveys, passing attention checks, and finishing the survey in an appropriate amount of time. The qualified participants were predominantly white (79.5%) with slightly more female responders than male (55.5% and 44.5%). The mean age was 40.4, there was a minimum age of 19, a maximum age of 79, and a standard deviation of 12.1 years.

Participants answered questions regarding cognitive ability, confidence, political ideology, and demographics in an initial survey, and the Dark Triad and general self-efficacy in a separate survey several weeks later.

Measures

General political ideology

We asked people to identify their political ideology through a 5-point scale: 1 (very libera), 2 (liberal), 3 (moderate), 4 (conservative), 5 (very conservative) (Jost, 2006).

Education

Participants were asked to identify the highest degree they earned. This included several options: 1 (less than high school), 2 (some high school), 3 (high school degree/ GED), 4 (2-year college degree), 5 (4-year college degree), 6 (Masters), 7 (Doctoral/MD, JD, PhD, etc.)**.**

Measures of Cognitive Ability

General cognitive ability was operationalized through spatial reasoning (Ravens), vocab proficiency (Vocab), and objective numeracy (ONS).

Spatial Reasoning (Ravens)

Raven's matrices, originally developed as a component of general cognitive ability, have shown to be a valid measure of spatial reasoning (Raven, 2000; Schweizer, et al., 2007). According to Raven (1948), these matrices can test someone's ability to make comparison, capacity for analogy, and use of logic without previously required knowledge. Performance on Raven's matrices is strongly associated with inductive reasoning (Burke, 1958). Participants were presented with 10 different, incomplete visual patterns and then asked to choose between 1 of 6 to 8 pieces that correctly completed each one. The spatial reasoning score was the sum of correctly answered questions (out of 10).

Vocab Proficiency (Vocab)

This section was intended to measure basic vocabulary and literacy. In a 12-item section, participants were given a word and two potential synonyms and then asked to select the correct one. For instance, participants were asked if "jovial" was more like "wise" or "jolly." Correct answers were summed to form a measure of vocab proficiency. The vocab score was the sum of correctly answered questions (out of 12) (Ekstrom & Harman, 1976).

Objective Numeracy

Like objective numeracy in the previous study, this was a series of 7 basic mathematics problems involving fractions and percentages and one attention check for a total of 8 questions in this section. The items we used have been derived from and validated in prior research (Cokely et al., 2012; Weller et al., 2013). Because many of the original items are searchable online, we changed the wordings of the problems. Correct answers were given a score of 1, incorrect

answers were given a score of 0. The total number of correct answers yielded the objective numeracy scale. An example question includes "In a fast-food sweep stakes, the chance of winning a $5 gift card with the purchase of a soft drink is 1%. What is your best guess about how many people would win a 5$ gift care if 1,000 people each buy a single soft drink?" The objective numeracy score was the sum of correctly answered questions (out of 7).

General Cognitive Ability

For our measure of general cognitive ability, we standardized and averaged the component measures, which were intercorrelated. ONS correlated with Ravens ($r =.382, p =.05$) and Vocab ($r =.243, p =.05$). Ravens and Vocab were significantly correlated as well ($r =.196, p = .05$). Ravens and ONS are measures of fluid intelligence; vocabulary is a measure of crystallized intelligence (McGrew, 2009).

Confidence Measures

Confidence was operationalized through overestimation, over-placement, general self-efficacy, and subjective numeracy.

Overestimation of Objective Numeracy

As defined in prior literature, overestimation is the difference between the number of correct answers vs. expected number of correct answers (Moore & Healy, 2008). Out of the 8 questions, including an attention check, participants were asked "how many of those questions do you think you answered correctly?" To calculate overestimation, we subtracted the number of correct answers on the to the objective numeracy test from the number of estimated correct answers. A positive difference meant the participants overestimated their score while negative difference meant they underestimated that score. No difference meant they had accurately anticipated their score.

Over-placement

We included a measure of self-placement of math ability relative to the general population (Moore & Healy, 2008). Participants were asked a single item: "For the following question, please give a percentile score between 0 and 100, where 0 means everyone is better than you, 50 means you are better than half the other people, and 100 means you are better than everyone else. Compared to the average person, how would you rate your math ability?" This question was then answered using a slider from 0 to 100.

General self-efficacy

Derived from a validated scale, our participants answered a 5-question Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) for their personal rating of general self-efficacy (Chen et al., 2001). An example question would include the following: "I will be able to achieve most of the goals that I have set for myself." Participants scores were averaged for these 5 questions to produce an overall general self-efficacy score. Higher scores indicate higher general self-efficacy.

Subjective Numeracy

Subjective numeracy is an individual's perception of their own numeric comfort and capacity. Participants were asked to rate their ability to work with fractions and percentages in a 4-question, 6-point scale from 1 (not at all good) to 6 (extremely good) (Fagerlin et al., 2007). An example question includes, "How good are you at working with fractions?" Subjective numeracy scores were the average across the four questions with higher numbers indicating higher subjective numeracy.

Dark Triad Personality

The Dark Triad of Personality consists of Narcissism, Machiavellianism, and Psychopathology. Each was measured using four questions, and scores on each subscale were averaged individually (Jonason & Webster, 2010). Ends points of Likert scale ranged from 1 (strongly disagree) to 7 (strongly agree). Higher scores indicate greater Dark Triad subscale scores.

Narcissistic people seek prestige and admiration. Survey examples include "I tend to want others to pay attention to me" or "I tend to seek prestige or status." Machiavellianism is a trait characterized by deceit and manipulation. Example statements include "I tend to exploit others towards my own end" or "I use flattery to get my way." Psychopathology is a trait that is synonymous with callousness and insensitivity. On the survey, it is measured through statements such as "I tend to lack remorse," or "I tend to be cynical."

Results

All of the following data was analyzed with SPSS IBM SPSS Statistics for Windows, Version 27.0.

Table 1. Correlation table including confidence, cognitive ability, and political ideology. All variables are continuous. *p<.05. **p<.001.

Variable	1	2	3	4	5	6	7	8	9	10
1 Political Ideology	1									
2 ONS	-.08*	1								
3 Ravens	-.06	.38**	1							
4 Vocab	-.08*	.24**	.20**	1						
5 Cognitive Ability	-.10**	.75**	.73**	.67**	1					
6 Education	-.02	.24**	.05	.13**	.19**	1				
7 SNS	.06	.38**	.15**	.12**	.30**	.22**	1			
8 Overestimation ONS	.07*	-.34**	-.07*	-.06	-.22**	-.01	.18**	1		
9 Over-placement	.00	.53**	.26**	.15**	.43**	.25**	.61**	.34**	1	
10 General Self-Eff.	.15**	-.15**	-.12**	-.03	-.14**	.05	.18**	.17**	.08*	1

Over half of participants identified as liberal: very liberal (17.8%) and liberal (34.4%); about a quarter of participants identified as moderate (24.9%); less than a quarter identified as conservative: conservative (18.2%) and very conservative (4.7%).

Greater conservative ideology was associated with lower ONS ($r = -.077$, $p = .05$), Vocab ($r = -.076$, $p = .05$), and Cognitive Ability ($r = -.099$, $p = .05$) although the Ravens scores by themselves were not significantly correlated with ideology ($r = -.060$, $p = .05$). There was no relationship between education ($r = -.020$, $p = .05$) and political ideology.

More conservative participants had greater general self-efficacy ($r = .146$, $p = .05$) and overestimation ($r = .074$, $p = .05$), but not greater SNS ($r = .062$, $p = .05$) or over-placement ($r = .004$, $p = .05$). Additional correlations are included in Table 1.

Test of Hypothesis 1a and 1b: Predicting ideology from numeracy-related ability, efficacy, and overconfidence variables

Table 2. Starting and final models predicting political ideology from key variables. Unstandardized betas are reported with standard errors in parentheses. All variables are continuous.

	Starting model		Final model	
	b(se)	p	b(se)	p
Constant	2.33 (0.16)	<.001		
Overestimation	0.02 (0.04)	.569		
Over-placement	-0.00 (0.00)	.778		
SNS	0.11 (0.04)	.017	0.11 (0.04)	.004
ONS	-0.06 (0.03)	.067	-0.08 (0.02)	.002
Model fit	**F (4, 826) =3.368**	.010	**F (2, 828) =6.584**	.001
Adjusted R²	**.01**		**.01**	

To parallel Choma and colleague's (2019) analysis, we ran a similar multiple regression to predict ideology (Hypothesis 1a), but with the addition of numeric overconfidence variables (Hypothesis 1b). We included these variables in a single model because they were specific to numeracy. Starting variables included overestimation, over-placement, SNS, and ONS. Our final model results replicate past research (Choma et al., 2019).

As predicted in Hypothesis 1a, greater conservatism was associated with lower objective numeracy, $b(se)$= -0.075 (0.02), p=.002, but higher subjective numeracy, $b(se)$= 0.107 (0.037), p<.004. All other variables were not retained as predictors (starting and final models in Table 2). Thus, we did not find support for Hypothesis 1b.

Test of Hypothesis 2a and 2b: Predicting ideology from general ability, efficacy, and overconfidence variables

Table 3. Starting and final models predicting political ideology from key variables. Unstandardized betas are reported with standard errors in parentheses. All variables are continuous.

	Starting model		Final model	
	$b(se)$	p	$b(se)$	p
Constant	1.73 (0.30)	<.001		
Education	−0.02 (0.04)	.645		
Ability	−0.15 (0.07)	.026	-0.17 (0.06)	.004
Overestimation	0.02 (0.03)	.489		
SNS	0.08 (0.04)	.075	0.08 (0.04)	.033
Over-placement	-0.00 (0.00)	.791		
General Self-Eff.	0.18 (0.06)	.001	0.17 (0.05)	.001
Narcissism	-0.05 (0.03)	.150	-0.06 (0.03)	.036
Psychopathology	0.06 (0.04)	.153		
Machiavellianism	-0.06 (0.04)	.150		
Model fit	**F (9, 821) =3.910**	<.001	**F (4, 826) =7.967**	<.001
Adjusted R²	**.03**		**.03**	

We conducted a second regression to test Hypotheses 2a and 2b that included more general measures of ability (i.e., our general cognitive ability measure and education), self-efficacy (i.e., SNS and general self-efficacy), and overconfidence (overestimation and over-placement in math ability and Dark Triad measures).

In the final model (Table 3), greater conservatism was associated with lower ability, $b(se)$= −0.166 (0.057), p=.004, greater general self-efficacy, $b(se)$= 0.171 (0.051), p=.001, and lower subjective numeracy $b(se)$= 0.080 (0.037), p=.033. Narcissism was unexpectedly related to higher liberalism, $b(se)$= −0.06 (0.029), p=.036. All other variables were not retained as predictors (starting and final models in Table 3).

We predicted greater conservatism would be associated with greater self-efficacy (Hypothesis 2a), which was confirmed. However, we did not observe the expected links between ideology and Narcissism and Machiavellianism (Hypothesis 2b).

Discussion

In two analyses, we found consistent evidence that lower cognitive ability and greater self-efficacy is associated with greater political conservatism. While this suggests there might be a link between ideology and other measures of overconfidence, we found no link for four different constructs related to overconfidence (i.e., overestimation, over-placement, Narcissism, and Machiavellianism).

The results replicate prior research for both specific measures of ONS and SNS (i.e., Choma et al., 2019) as well as general measures of cognitive ability (Stankov 2009; Van Hiel et al., 2010). With just ONS, SNS, over-placement, and overestimation in the regression for political ideology, only ONS and SNS were retained as predictors. Conservatives had higher subjective numeracy but lower objective scores. In the more comprehensive regression, a similar trend was observed.

We also anticipated a relationship between ideology and education for several reasons. First, prior research has found a relationship between ideology and education (Weakliem, 2002; Dunn, 2011). Also, lower cognitive ability was retained as a predictor for conservative ideology, so we thought this relationship might be driven by education. However, education was not found to be a significant predictor of ideology. Our inability to replicate might have something to do with our education variable. We asked participants about the highest degree in which they achieved but not about degree type (i.e., MBA vs. MSW etc.). Had we done so, it is possible that certain types of advanced degrees are more associated with political ideology than others.

Furthermore, the lack of relationships between ideology and our two measures of overconfident beliefs (overestimation and over-placement) suggest that conservatives do not actually overestimate their performance on exams (overestimation) or their abilities relative to others (over-placement) yet still have higher numeric efficacy and general self-efficacy. Thus, something besides overconfidence should be responsible for the greater self-efficacy of conservatives.

One possibility is that the relationship between conservatism and general self-efficacy is driven by happiness. Past research shows that conservatives are generally happier than liberals (Schlenker & Chambers, 2012), and political orientation has proven to be a significant predictor of happiness (Bixter, 2015).

Furthermore, happiness leads to increased thought confidence, which is defined as a belief in the accuracy of one's own thoughts (Briñol et al., 2007; Petty et al., 2002). Therefore, if conservatives are happier than liberals, they may possess more confidence in themselves and their thoughts. Another study supports this conclusion. According to a 1988 review by Taylor and Brown, people who maintain high personal self-efficacy are happier and more productive even after negative or vague feedback. Thus, conservatives may be happier and have higher self-efficacy.

Additionally, one novel finding showed that higher levels of narcissism were associated with liberalism. This has not been thoroughly documented in previous literature, and past research has citied such an association with conservatism and the Dark Triad (Arvan 2013; Jonason, 2014). One study found equal levels of narcissism among conservatives and liberals and observed that the quality of each's narcissism was different: conservative narcissism was more entitled while liberal narcissism was more exhibitionist (Hatemi & Fazekas, 2018).

However, our analysis did not replicate this finding. The supplemental data includes more information regarding this issue (Table 13.)

There are some limitations to our study. First, the participants were taken from a convenience sample. The sample was generally White, educated, and liberal and therefore may not reflect the general American population. Second, some of our variables lacked specificity that could have revealed more nuance in our results. For instance, we only included a single scale of ideology (general political ideology) and did not include subtypes such as economic or social political identity. In Choma's 2019 paper, they found numeracy was related to social conservatism and general conservative identity but not economic conservativism in their first sample. In their second sample, they found that social conservatism related to numeracy; however, economic, and overall political ideology did not significantly relate. It is possible that we would have similarly found social but not economic conservatism would predict lower ability and greater confidence.

Despite these limitations, our findings contribute to a growing body of research that suggests a linear relationship between greater conservatism (vs. liberalism) and lower cognitive ability but higher self-confidence (Stankov 2009; Van Hiel et al., 2010; Choma et al., 2019). However, it is important to note that cognitive ability and confidence accounted for a very small portion of the variance, as also seen in Choma's study, when predicting ideology. Furthermore, there is more variance within ideological groups than between them (see supplemental analyses).

However, these small differences may still be impactful. For example, worse financial and medical decisions have been observed in those lower in numeric ability but higher numeric efficacy (Peters, et al. 2019). With financial decisions, this group were more likely to have filed for bankruptcy, foreclosures, and have unpaid taxes. Also those with higher numeric efficacy but

lower ability and also suffering from Lupus, an autoimmune disorder, had worse medical outcomes and rarely predicted that their symptoms required increased medical attention when they in fact did.

To relate these findings back to politics, increased efficacy or over precision in one's beliefs, as seen with conservatives, leads to higher voter turnout (Ortoleva & Snowberg, 2015; Matsusaka, 1995). Thus, a small difference in efficacy could lead to thousands of more votes when aggregated across the country. In future research, it will be imperative to further investigate in which political contexts these differences manifest themselves and in which they are of greatest consequence. Furthermore, future research should examine cognitive ability and its relationship to specific policy endorsement. Likewise, a previous study has shown that political uncertainty leads to decreased political involvement (Vitriol, 2019). Therefore, future studies might consider investigating the relationship between cognitive ability, confidence, and political initiatives such as lobbying or online engagement. Perhaps cognitive ability and specific measures of confidence relate to the intensity and effectiveness of one's political involvement.

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Supplemental materials: ANOVA, descriptive statistics, & narcissism correlation

ANOVA and Means

Past research has made us suspect the relationship between ideology and cognitive ability may be curvilinear. For instance, one paper found that right and left extremist scored higher in verbal ability than moderates (Kemmelmeir 2008). We looked at the order of average cognitive ability scores to verify the direction of the effect. Our findings demonstrates that the order of means for cognitive ability were consistent with the linear effect of ideology. Liberals had the highest standarized score ($M = 0.07$), then moderates ($M = -0.08$), and conservaties scored the lowest ($M = -.08$) The same effect was found found with SNS and general self-efficacy. Although conservatives scored the lowest in cognitive ability, and they scored the highest in SNS and general self-efficacy thus driving the linear effect rather than moderates.

Additionaly, we conducted ANOVA's between cognitive ability, SNS, and general self-efficacy to determine whether or not the average scores between groups were significantly different.

Table S1. Cognitive Ability averages for conservatives, moderates, and liberals. Mean variables are continuous.

	M	*N*	SD
Conservative	-0.08	190	0.72
Moderate	-0.08	207	0.68
Liberal	0.07	434	0.73

Conservatives and liberals mean cognitive ability scores differed by (0.15), so there was more variance within the groups than between them (SD$s \geq 0.68$).

Table S2. Cognitive Ability ANOVA output comparing liberals, moderates, and conservatives. Variables are continuous.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.579	2	2.290	4.475	.012
Within Groups	423.650	828	.512		
Total	428.230	830			

Table S3. Cognitive Ability Tukey HSD Multiple Comparisons output for liberals, moderates, and conservatives. Variables are continuous.

Tukey HSD

(I) IDANOVA	(J) IDANOVA	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Liberal	Moderate	.14809*	.06042	.038	.0062	.2900
	Conservative	.14918*	.06222	.044	.0031	.2953
Moderate	Liberal	-.14809*	.06042	.038	-.2900	-.0062
	Conservative	.00109	.07187	1.000	-.1676	.1698
Conservative	Liberal	-.14918*	.06222	.044	-.2953	-.0031
	Moderate	-.00109	.07187	1.000	-.1698	.1676

*. The mean difference is significant at the 0.05 level.

However, there was a significant effect between cognitive ability and the three subsets of ideology at the $p<.05$ [F(2, 830) = 4.475, $p = 0.012$].

Post hoc comparisons using the Tukey HSD test show that average scores for the conservative cognitive ability ($M = -0.08$, SD = 0.72) was significantly different than liberal cognitive ability ($M = 0.07$, SD = 0.73). Liberal cognitive ability was also significantly different

moderate cognitive ability (M = -0.08, SD = 0.73). There was no difference between moderate

and conservative cognitive ability.

Table S4. SNS averages for conservatives, moderates, and liberals. Mean variables are

continuous.

	M	*N*	SD
Moderate	4.36	207	1.12
Liberal	4.37	434	1.11
Conservative	4.55	190	1.10

Conservatives mean objective numeracy scores differed with moderate and liberals by a

small amount (<0.20), so there was more variance within the groups than between them (SDs $\geq$

1.10).

Table S5. SNS ANOVA output comparing liberals, moderates, and conservatives. Variables are
continuous.

SNS

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.157	2	2.579	2.097	.123
Within Groups	1017.966	828	1.229		
Total	1023.123	830			

Table S6. SNS Tukey HSD Multiple Comparisons output for liberals, moderates, and conservatives.
Variables are continuous.

Tukey HSD

(I) Ideology	(J) Ideology	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Liberal	Moderate	.00991	.09366	.994	-.2100	.2298
	Conservative	-.18413	.09645	.137	-.4106	.0423
Moderate	Liberal	-.00991	.09366	.994	-.2298	.2100

	Conservative	-.19404	.11140	.190	-.4556	.0675
Conservative	Liberal	.18413	.09645	.137	-.0423	.4106
	Moderate	.19404	.11140	.190	-.0675	.4556

There were not significant differences between subjective numeracy and the three subsets

of ideology at the $p<.05$ [F (2, 830) = 2.097, $p = 0.123$].

Post hoc comparisons using the Tukey HSD test show that average scores for the liberal

SNS ($M = 4.37$, SD = 1.11), moderate SNS ($M = 4.36$, SD = 1.12), and conservative SNS ($M =$

4.55, SD = 1.10) were not significantly different.

Table S7. General self-efficacy averages for conservatives, moderates, and liberals. Mean
variables are continuous.

	M	N	SD
Liberal	3.83	434	0.79
Moderate	3.95	207	0.80
Conservative	4.12	190	0.70

Conservatives and liberals mean general self-efficacy scores differed by a small amount

(0.29), so there was more variance within the groups than between them (SDs ≥ 0.70).

Table S8. General self-efficacy ANOVA output comparing liberals, moderates,
and conservatives.

General Self-Efficacy Average

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.088	2	5.544	9.304	.000
Within Groups	493.406	828	.596		
Total	504.494	830			

Table S9. General self-efficacy Tukey HSD Multiple Comparisons output for liberals, moderates, and conservatives. Variables are continuous.

Tukey HSD

(I) IDANOVA	(J) IDANOVA	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Liberal	Moderate	-.12123	.06521	.151	-.2743	.0319
	Conservative	-.28735*	.06715	.000	-.4450	-.1297
Moderate	Liberal	.12123	.06521	.151	-.0319	.2743
	Conservative	-.16612	.07756	.082	-.3482	.0160
Conservative	Liberal	.28735*	.06715	.000	.1297	.4450
	Moderate	.16612	.07756	.082	-.0160	.3482

*. The mean difference is significant at the 0.05 level.

There was a significant effect between general self-efficacy and the three subsets of ideology at the $p<.05$ [F (2, 830) = 9.304, $p=$ 0.000].

Post hoc comparisons using the Tukey HSD test indicated that the mean score for the conservative general self-efficacy ($M = 4.12$, SD = 0.70) was significantly different than liberal general self-efficacy ($M = 3.83$, SD = 0.79). However, moderate general self-efficacy ($M = 3.95$, SD = 0.80) did not significantly differ from moderate or conservative general self-efficacy.

The mean comparison provides more context in the growing understanding of political ideology, cognitive ability, and efficacy. It provides strength to the argument that conservatives are overly efficacious yet rank lower in cognitive ability compared to their ideological counterparts.

Also, it is important to mention that there is greater variance within ideological groups than between for cognitive ability, SNS, and general self-efficacy. These findings might be of interest considering the typical over perception of party differences. For example, political opposites are not as different in core values as expected (Chambers, Baron, & Inman, 2006), and partisans on both sides overestimate the extremity of opposing party views (Yudkin et al., 2019). Additionally, both liberals and conservatives engage in partisan bias (e.g., Ditto et al. 2019) such as endorsing (or rejecting) the same policy depending on whether their own party (or the other party) endorsed it (Cohen, 2003). Future studies might replicate this type of research but in the realm of ability and confidence; we would predict that people would underestimate the cognitive ability of their political opposites and overestimate their confidence. We also speculate that people might overestimate their own party's alikeness, potentially underestimating the range of abilities found within their own political group.

Narcissism and Political Ideology

As mentioned, our research did not show a relationship between ideology and types of narcissism (exhibitionism & entitlement) (Hatemi & Fazekas, 2018). To explore this, we divided our narcissism scale into exhibitionist and entitled questions to see the relationship between these sub-variables and ideology. An exhibitionist would highly agree on a question such as "I tend to want others to admire me" while someone who is entitled might agree they "tend to expect special favors from others." However, we did not find correlations between either type of narcissism and ideology. This difference has several potential explanations. Unlike our study, Hatemi & Fazekas (2018) contained several different operationalization of ideology, such as including specific policy preferences. Once again, they found equal levels of narcissism across the political divide with liberal narcissism being exhibitionist while conservatives were more

entitled. Given that they used both a regression and more diverse ideological subsets, this might explain why we were unable to replicate their findings.

Table S10. Correlation table involving political ideology and types of narcissism. All variables are continuous. *p<.05. **p<.001.

	Exhibition	Entitlement	Political ID
Exhibition	1	.652**	-.058
Entitlement	.652**	1	-.048
Political ID	-.058	-.048	1

Descriptive Statistics

Table S11. Descriptive table including confidence, cognitive ability, and political ideology. Mean, standard deviations and alphas are continuous.

	Min	*Max*	*M*	*SD*	*α*
Political Ideology	1	5	2.58	1.12	
ONS	0	7	3.24	1.75	.70
Ravens	0	10	5.58	1.78	.64
Vocab	1	12	7.45	1.80	.45
Cognitive Ability	-2.29	2.02	0.00	0.72	
Education	1	7	4.37	1.11	
SNS	1	6	4.41	1.11	
Overestimation ONS	-4	6	1.10	1.53	
Over-placement	0	100	50.8	24.34	
General Self-Eff.	1	5	3.93	0.78	
Narcissism	1	7	2.88	1.31	.85
Psychopathology	1	7	2.31	1.17	.80
Machiavellianism	1	7	2.46	1.25	.84