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Verbal intelligence is correlated with socially and economically liberal beliefs

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A B S T R A C T

Research has consistently shown that intelligence is positively correlated with socially liberal beliefs and negatively correlated with religious beliefs. This should lead one to expect that Republicans are less intelligent than Democrats. However, I find that individuals who identify as Republican have slightly higher verbal intelligence than those who identify as Democrat (2–5 IQ points), and that individuals who supported the Republican Party in elections have slightly higher verbal intelligence than those who supported the Democratic Party (2 IQ points). I reconcile these findings with the previous literature by showing that verbal intelligence is correlated with both socially and economically liberal beliefs (β = .10–.32). My findings suggest that higher intelligence among classically liberal Republicans compensates for lower intelligence among socially conservative Republicans.

1. Introduction

Over the last few years, scholarly interest in the relationship between intelligence and political beliefs has grown considerably. A consistent finding is that people with higher intelligence tend to be more socially liberal (Deary, Batty, & Gale, 2008a, 2008b; Stankov, 2009; Kanazawa, 2010; Schoon, Cheng, Gale, Batty, & Deary, 2010; Heaven, Ciarrochi, & Leeson, 2011; Hodson & Busseri, 2012). Another consistent finding is that people with higher intelligence tend to be less religious (Bell, 2002; Lynn, Harvey & Nyborg, 2009; Nyborg, 2009; Ganzach, Ellis, & Gotlibovski, 2013; Zuckerman, Silberman, & Hall, 2013). Given that Republicans tend to be both more religious and more socially conservative than Democrats (Newport, 2007; Saad, 2012), these two findings should lead one to expect that Republicans have lower intelligence. Consistent with this

hypothesis, Republicans are less likely to believe in widely accepted scientific ideas such as climate change and the theory of evolution (Kohut, Doherty, & Dimmock, 2009). Indeed, Mooney (2005) argues that, over the last couple of decades, members of the Republican Party have attempted to systematically undermine certain fields of scientific research. And in his latest book, Mooney (2012, pp. 59–126) contends that Republicans' denial of science stems not only from perceived political advantage, but from psychological traits that incline Republicans to prize certainty above all else.

However, there is evidence pointing in the other direction. To begin with, education is correlated with the tendency to think like an economist, which could be considered a centre-right characteristic (Caplan, 2001; Caplan, 2007, pp. 50–93; Caplan & Miller, 2012). More importantly, intelligence itself is correlated with the tendency to think like an economist, at least in the United States (Caplan & Miller, 2010). For example, Americans with higher intelligence are less likely to agree with statements such as "it is the government's responsibility to provide a job for everyone who wants one", and "corporations should pay more of their profits to workers

and less to shareholders". They are also less likely to agree with the statement, "it is the government's responsibility to reduce the differences in income between people with high incomes and those with low incomes" (Kanazawa, 2010). Furthermore, Rindermann, Flores-Mendoza, and Woodley (2012) analyzed data from Brazil, and found that mean IQ was highest among individuals who described themselves as centre-right. In addition, there is evidence that libertarians, who are more likely to vote for the Republican Party (Kirby & Boaz, 2010), have higher intelligence than both conservatives and progressives (Kemmelmeier, 2008; Iyer, Koleva, Graham, Ditto, & Haidt, 2012). Finally, Republicans have better objective political knowledge than Democrats (Kohut, Doherty, Dimmock, & Keeter, 2012). And just like conservatives, progressives are prone to logical fallacies and unscientific thinking (Berezow & Campbell, 2012).

Pinker (2011, pp. 662–664), drawing on some of the evidence outlined above, argues that intelligence is actually correlated with classically liberal beliefs. According to McLean and McMillan (2009, pp. 306–308), classical liberalism is "the belief that it is the aim of politics to preserve individual rights and maximise freedom of choice" (see also Miller, 2003, pp. 55–73). Classical liberals define 'liberty' in the negative sense, as freedom from coercion and interference (Berlin, 1969, pp. 123–4). They hold both socially and economically liberal beliefs (Friedman, 1962, pp. 5–6). Socially liberal beliefs are predicated on the idea that an individual should be free to pursue his own values and make his own lifestyle choices. Economically liberal beliefs are predicated on the idea that an individual should be free to engage in voluntary transactions with others and to enjoy the fruits of her labour. Pinker's (2011) hypothesis predicts that intelligence should be associated with economically liberal beliefs, as well as socially liberal beliefs.

2. Method

2.1. Data

I analyze data from the General Social Survey (GSS), a public-opinion survey that has been administered to a nationally representative sample of American adults every 1–2 years since 1972. The GSS contains questions on respondents' socio-economic characteristics, behaviours, and social attitudes. It has been used by numerous previous studies to examine intelligence (e.g., Kanazawa, 2010; Caplan & Miller, 2010; Carl & Billari, 2014). Each wave of the GSS provides data on a cross-section of the U.S. population in a particular year. Sample sizes range from 1372 respondents in 1990 to 4510 respondents in 2006; the mean sample size is just under 2000 respondents.

2.2. Measures

The primary measure of intelligence available in the GSS is a 10-word vocabulary test in which the respondent is asked to identify which of five phrases supplies the correct definition of a given word (see Smith, Marsden, Hout, & Kim, 2012). Notwithstanding its brevity, the test has a correlation of .71 with the Army General Classification Test (Wolfle, 1980). In addition, there is a huge amount of psychometric evidence

that individuals with higher IQs have larger vocabularies (Jensen, 2001). Vocabulary tests load more strongly onto the crystallized factor of intelligence than onto the fluid factor, so the test included in the GSS is most appropriately described as a measure of verbal intelligence, rather than problem-solving ability (Cattell, 1963; Horn & Cattell, 1966). For a longer discussion of the measure's validity, see Caplan and Miller (2010). Prior to analysis, I transform the measure so that it has a mean of 100 and a standard deviation of 15, which is the convention for normalizing IQ scores.

In the GSS, party identity is assessed with the question, "Do you think of yourself as a Republican, Democrat, Independent, or what?" (Smith et al., 2012). There are eight response categories: "strong Democrat", "not strong Democrat", "Independent, near Democrat", "Independent", "Independent, near Republican", "not strong Republican", "strong Republican", and "other". I create three binary variables, corresponding to three alternative definitions of party identity. The first variable, which uses a narrow definition of party identity, takes the value '1' if a respondent answered "strong Republican" and takes the value '0' if he answered "strong Democrat". The second, which uses an intermediate definition, takes the value '1' if a respondent answered "strong Republican" or "not strong Republican" and takes the value '0' if he answered "strong Democrat" or "not strong Democrat". The third, which uses a broad definition, takes the value '1' if a respondent answered "strong Republican", "not strong Republican" or "Independent, near Republican" and takes the value '0' if he answered "strong Democrat", "not strong Democrat" or "Independent, near Democrat".

For each presidential election that took place between 1968 and 2008, the GSS contains at least one wave in which respondents were asked how they voted in that election or how they would have voted if they did not (Smith et al., 2012). For example, respondents interviewed in 1987, 1988 and 1989 were asked how they voted or would have voted in the 1984 election, while those interviewed in 1989, 1990, 1991 and 1993 were asked how they voted or would have voted in the 1988 election. Notice that respondents interviewed in 1989 were asked about the 1984 election, as well as the 1988 election. I create two binary variables, corresponding to those who voted

Table 1
Difference in mean verbal intelligence between those who identify as Republican and those who identify as Democrat for three definitions of party identity.

	Narrow definition	Intermediate definition	Broad definition
Without covariates	5.48[***]	3.47[***]	2.47[***]
With covariates	1.26[**]	0.52[*]	−0.00
Observations	5985	14,887	20,025

Notes: Each value is the Republican advantage in IQ points. Estimates are from weighted OLS models of verbal intelligence Covariates: age, age squared, gender, race, language, marital status, education, log of real household income, region effects, year effects.
[*] 5% Significance level, based on robust standard error.
[**] 1% Significance level, based on robust standard error.
[***] 0.1% Significance level, based on robust standard error.

Table 2
Difference in mean verbal intelligence between those who supported the Republican Party in elections and those who supported the Democratic Party for voters and non-voters.

	Voters	Non-voters
Without covariates	1.82***	1.86***
With covariates	−0.42	0.34
Observations	14,231	5660

Notes: Each value is the Republican advantage in IQ points. Estimates are from weighted OLS models of verbal intelligence. Covariates: age, age squared, gender, race, language, marital status, education, log of real household income, region effects, year effects.
*** 0.1% significance level, based on robust standard error.

and those who did not vote, respectively. The first takes the value '1' if a respondent voted Republican in the most recent election, and takes the value '0' if she voted Democrat. The second takes the value '1' if a respondent would have voted Republican in the most recent election, and takes the value '0' if she would have voted Democrat. In each case, every respondent who was asked about more than one election retains the observation corresponding to the most recent election.

A number of covariates are included in some of the models, namely: age, age squared, gender, race, language, marital status, education, and household income, as well as region and year effects (Smith et al., 2012). The GSS distinguishes between three racial categories: "white", "black" and "other". It distinguishes between five levels of educational attainment: "less than high school", "high school", "junior college", "bachelor" and "graduate". It distinguishes between five marital statuses: "married", "widowed", "divorced", "separated" and "never married". Household income is the natural log of a respondent's household income, given in constant 2000 dollars. Beginning in 2006, the GSS began to sample Spanish speakers ($n = 513$), alongside English speakers. Language is a dummy variable equal to 1 if the interview was conducted in Spanish.

I utilise six measures of socially liberal beliefs, namely: attitude toward homosexuality, attitude toward marijuana legalisation, attitude toward abortion, attitude toward free speech for communists, attitude toward free speech for racists, and attitude toward free speech for militarists (Smith et al., 2012). The first is assessed with the question, "What about

sexual relations between two adults of the same sex—do you think it is always wrong, almost always wrong, wrong only sometimes, or not wrong at all?" The second is assessed with the question, "Do you think the use of marijuana should be made legal or not?" The third is assessed with the question, "Tell me whether you think it should be possible for a pregnant woman to obtain a legal abortion if she wants it for any reason." The fourth is assessed with the question, "Suppose an admitted communist wanted to make a speech in your community. Should he be allowed to or not?" The fifth is assessed with the question, "If a person wanted to make a speech in your community claiming that blacks are inferior, should he be allowed to or not?" And the sixth is assessed with the question, "Consider a person who advocates doing away with elections and letting the military run the country. If such a person wanted to make a speech in your community, should he be allowed to or not?"

I utilise six measures of economically liberal beliefs, namely: attitude toward government provision of jobs, attitude toward government assistance of industry, attitude toward government redistribution of income, attitude toward price controls, attitude toward labour unions, and attitude toward military spending (Smith et al., 2012). The first is assessed with the question, "Do you think it should or should not be the government's responsibility to provide a job for everyone who wants one?" The second is assessed with the question, "Do you think it should or should not be the government's responsibility to provide industry with the help it needs to grow?" The third is assessed with the question, "Do you think it should or should not be the government's responsibility to reduce income differences between rich and poor?" The fourth is assessed with the question, "Do you think it should or should not be the government's responsibility to keep prices under control?" The fifth is assessed with the question, "To what extent do you agree or disagree that unions in this country have too little power?" And the sixth is assessed with the question, "Are we spending too little, about the right amount, or too much on the military, armaments and defence?" Descriptive statistics on the measures of social and economic beliefs are provided in Appendix A.

2.3. Models

In the first stage of the analysis, OLS regression is used to compute the difference in mean verbal intelligence between

Table 3
Standardized effects of verbal intelligence on six measures of social beliefs.

	Homosexual relations are wrong	Marijuana should be illegal	Women should not be able to get an abortion	Communists should not be able to speak freely	Racists should not be able to speak freely	Militarists should not be able to speak freely
Without covariates	−.239***	−.115***	−.168***	−.317***	−.208***	−.254***
With covariates	−.165***	−.118***	−.092***	−.234***	−.139***	−.170***
Observations	13,610	12,610	12,589	14,024	12,783	12,774

Notes: Each value is the standardized coefficient on verbal intelligence. Estimates are from weighted OLS models. Covariates: age, age squared, gender, race, language, marital status, education, log of real household income, region effects, year effects.
*** 0.1% significance level, based on robust standard error.

Table 4
Standardized effects of verbal intelligence on six measures of economic beliefs.

	Government should provide a job for everyone	Government should assist industrial growth	Government should reduce income differences	Government should control prices	Unions do not have enough power	Military spending is not high enough
Without covariates	−.267***	−.162***	−.219***	−.309***	−.273***	−.103***
With covariates	−.154***	−.088*	−.131***	−.173***	−.210***	−.096***
Observations	2904	1342	2096	1375	807	13,409

Notes: Each value is the standardized coefficient on verbal intelligence. Estimates are from weighted OLS models. Covariates: age, age squared, gender, race, language, marital status, education, log of real household income, region effects, year effects.
  * 5% significance level, based on robust standard error.
*** 0.1% significance level, based on robust standard error.

those who identify as Republican and those who identify as Democrat, separately for the three definitions of party identity. Differences are computed both before and after adjusting for socio-economic characteristics. In the second stage of the analysis, OLS regression is used to compute the difference in mean verbal intelligence between those who supported the Republican Party in elections and those who supported the Democratic Party, separately for voters and non-voters. Again, differences are computed both before and after adjusting for socio-economic characteristics. In the third stage of the analysis, verbal intelligence is included as an independent variable in OLS models of social and economic beliefs.

A relatively small number of respondents are intentionally excluded from the analysis. In 1982 and 1987, blacks were oversampled as part of a National Science Foundation research project (Smith et al., 2012). Because the samples from these years are not representative of the U.S. population, all oversampled respondents ($n = 707$) are excluded from the analysis. Respondents for whom at least one of the covariates took a missing value are also excluded. Estimates from the models without covariates are qualitatively identical if these respondents are included (results not shown). In addition, the regression models are weighted as a way of compensating for bias due to unequal household size, and bias due to non-respondent sub-sampling in 2004 and 2006 (Stephenson, 1978; Smith et al., 2012). The estimates are qualitatively identical if unweighted models are estimated (results not shown).

3. Results

Table 1 displays the difference in mean verbal intelligence between those who identify as Republican and those who identity as Democrat, separately for the three definitions of party identity. Under the narrow definition, mean verbal intelligence is 5.48 IQ points ($d = 0.37$) higher among Republicans. This difference falls to 1.26 IQ points ($d = 0.08$) when covariates are included. Under the intermediate definition, mean verbal intelligence is 3.47 IQ points ($d = 0.23$) higher among Republicans. This difference falls to 0.52 IQ points ($d = 0.03$) when covariates are included. Under the broad definition, mean verbal intelligence is 2.47 IQ points ($d = 0.16$) higher among Republicans. This difference disappears completely when covariates are included. The preceding

results imply that the difference in verbal intelligence between Republicans and Democrats is largest when the comparison is restricted to those with the strongest partisan identity, and is smallest when the comparison is extended to those with the weakest partisan identity. In addition, they suggest that the effect of verbal intelligence on party identity is largely accounted for by socio-economic characteristics. People with higher verbal intelligence tend to have better education, higher incomes, and are more likely to be married (Herrnstein & Murray, 1994; Deary, 2012). And such people are more likely to identify as Republican.

Table 2 displays the difference in mean verbal intelligence between those who supported the Republican Party in elections and those who supported the Democratic Party, separately for voters and non-voters. In the case of voters, mean verbal intelligence is 1.82 IQ points ($d = 0.12$) higher among Republicans. This difference reverses and ceases to be statistically significant when covariates are included. In the case of non-voters, mean verbal intelligence is 1.86 IQ points ($d = 0.12$) higher among Republicans. Again, this difference ceases to be statistically significant when covariates are included. The preceding results indicate that the effect of verbal intelligence on voting decision is entirely accounted for by socio-economic characteristics. As a robustness check, Appendix B repeats the analysis using only white respondents.

Table 3 displays standardized effects of verbal intelligence on social beliefs. There is strong evidence that Americans with higher verbal intelligence tend to be more socially

Table 5
Standardized effects of verbal intelligence on principal components of social and economic beliefs.

	Social conservatism	Economic statism
Without covariates	−.350***	−.338***
With covariates	−.264***	−.210***
Observations	3220	1247

Notes: Each value is the standardized coefficient on verbal intelligence. Estimates are from weighted OLS models. Social conservatism had an eigenvalue of 2.51 and explained 42% of the variance. Economic statism had an eigenvalue of 2.25 and explained 56% of the variance. Covariates: age, age squared, gender, race, language, marital status, education, log of real household income, region effects, year effects.
*** 0.1% significance level, based on robust standard error.

liberal. They are less likely to believe that homosexual relations are wrong ($\beta = -.24$), that marijuana should be illegal ($\beta = -.12$), that women should not be able to get an abortion ($\beta = -.17$), that communists should not be able to speak freely ($\beta = -.32$), that racists should not be able to speak freely ($\beta = -.21$), and that militarists should not be able to speak freely ($\beta = -.25$). Table 4 displays standardized effects of verbal intelligence on economic beliefs. Once again, there is strong evidence that Americans with higher verbal intelligence tend to be more economically liberal. They are less likely to believe that the government should provide a job for everyone ($\beta = -.27$), that the government should assist industrial growth ($\beta = -.16$), that the government should reduce income differences ($\beta = -.22$), that the government should control prices ($\beta = -.31$), that unions do not have enough power ($\beta = -.27$), and that military spending is not high enough ($\beta = -.10$).

The fact that the correlation between verbal intelligence and economically liberal beliefs persists after controlling for characteristics like race, education and income suggests it cannot simply be attributed to selfishness on the parts of people with higher verbal intelligence. In particular, it contradicts the hypothesis that such people only have economically liberal beliefs because they believe they have personally benefitted from economically liberal policies. On the other hand, if conditional on current income, verbal intelligence is correlated with a tendency to believe one's future income will be higher under economically liberal policies, the correlation between verbal intelligence and economically liberal beliefs could be explained by selfishness, at least in part.

Table 5 displays standardized effects of verbal intelligence on a principal component of social beliefs (social conservatism) and a principal component of economic beliefs (economic statism). Social conservatism was obtained by extracting the first principal component from a PCA on all six measures of social beliefs. Economic statism was obtained by extracting the first principal component from a PCA on four measures of economic beliefs: attitude toward government provision of jobs, attitude toward government assistance of industrial growth, attitude toward government redistribution of income, and attitude toward price controls. The two other measures of economic beliefs were omitted because including them dramatically reduced the number of available cases. Insofar as many of the questions on social and economic beliefs were asked at different waves, it was not possible to estimate models using a single dimension of classically liberal beliefs. Verbal intelligence has a moderate negative effect on both social conservatism and economic statism. Before adjusting for covariates, $\beta = -.35$ in the model of social conservatism and $\beta = -.34$ in the model of economic statism. After adjusting for covariates, $\beta = -.26$ in the model of social conservatism and $\beta = -.21$ in the model of economic statism. For further discussion of the relationships between intelligence and social beliefs, and between intelligence and economic beliefs, I refer the reader to Kanazawa (2010) and Caplan and Miller (2010), respectively.

4. Discussion

Previous studies have documented that people with higher intelligence tend to be more socially liberal (Deary et al., 2008a, 2008b; Stankov, 2009; Kanazawa, 2010; Schoon et al., 2010; Heaven et al., 2011; Hodson & Busseri, 2012) and less religious (Bell, 2002; Lynn, Harvey, & Nyborg, 2009; Nyborg, 2009; Ganzach et al., 2013; Zuckerman et al., 2013). This should lead one to expect that Republicans are less intelligent than Democrats. However, looking at data from the General Social Survey, I find that Republicans have slightly higher verbal intelligence than Democrats. In particular, individuals who identify as Republican have slightly higher verbal intelligence than those who identify as Democrat (2–5 IQ points), and individuals who supported the Republican Party in elections have slightly higher verbal intelligence than those who supported the Democratic Party (2 IQ points). I reconcile these findings with the previous literature by showing that, consistent with Pinker's (2011) hypothesis, Americans with higher verbal intelligence tend to have more socially liberal beliefs and more economically liberal beliefs ($\beta = .10$–$.32$).

Overall, my findings suggest that higher intelligence among classically liberal Republicans compensates for lower intelligence among socially conservative Republicans. Interestingly, the difference in verbal intelligence between those who supported the Republican Party in elections and those who supported the Democratic Party (2 IQ points) is somewhat smaller than the difference between those who identify as Republican and those who identify as Democrat (2–5 IQ points). One possible explanation is that Independents with higher intelligence are more likely to support the Democratic Party in elections. Future research should test this prediction. It should also address the more complex question of why intelligence happens to be correlated with particular kinds of social and economic beliefs (Charlton, 2009; Kanazawa, 2010; Woodley, 2010; Dutton, 2013).

Two important caveats should be attached to my conclusions. First, a 10-word vocabulary test is at best an imperfect measure of verbal intelligence, let alone general intelligence. Indeed, there is already evidence that the correlation between intelligence and political beliefs varies with the sub-dimension of intelligence under scrutiny. Specifically, Kemmelmeier (2008) found that although libertarian social attitudes were positively related to verbal SAT scores, they were unrelated to math SAT scores. Second, most of the effects I observe are small by conventional standards, especially the differences in verbal intelligence between Republicans and Democrats. According to convention, a standardized difference of 0.20 constitutes a small effect size; by contrast, a standardized difference of 0.50 is considered moderate, while a standardized difference of 0.80 or greater is considered large (Cohen, 1988, pp. 24–8).

Appendix A

Table A.1
Descriptive statistics for measures of social and economic beliefs.

	Minimum	Maximum	Mean	Standard deviation	Observations
Homosexual relations are wrong	1	4	3.14	1.26	13,610
Marijuana should be illegal	1	2	1.72	0.45	12,610
Women should not be able to get an abortion	1	2	1.59	0.49	12,589
Communists should not be able to speak freely	1	2	1.35	0.48	14,024
Racists should not be able to speak freely	1	2	1.38	0.48	12,783
Militarists should not be able to speak freely	1	2	1.37	0.48	12,774
Government should provide a job for everyone	1	4	2.34	1.03	2904
Government should assist industrial growth	1	4	2.78	0.79	1342
Government should reduce income differences	1	4	2.38	1.06	2096
Government should control prices	1	4	2.87	0.87	1375
Unions do not have enough power	1	4	2.24	0.77	807
Military spending is not high enough	1	3	1.88	0.74	13,409

Appendix B

It is well-documented that blacks score lower than whites on the GSS measure of verbal intelligence (Lynn, 1998; Huang & Hauser, 2001). Part of this disparity is due to downward bias in the test scores of blacks (Huang, 2009). There may be other racial biases in the GSS measure of verbal intelligence as well. To check whether the results concerning Republicans and Democrats are attributable to lower test scores among non-whites, who are more likely to be Democrats (Newport, 2013), I repeat the analysis using only white respondents.

Table B.1 displays the difference in mean verbal intelligence between whites who identify as Republican and whites who identify as Democrat, separately for the three definitions of party identity. Under the narrow definition, mean verbal intelligence is 3.32 IQ points ($d = 0.22$) higher among Republicans before adjustments, and 1.6 IQ points ($d = 0.11$) higher after. Under the intermediate definition, mean verbal intelligence is 2.01 IQ points ($d = 0.13$) higher among Republicans before adjustments, and 0.71 IQ points ($d = 0.05$) higher after. Under the broad definition, mean verbal intelligence is 1.2 IQ points ($d = 0.08$) higher among Republicans before adjustments, and not significantly higher after. The preceding estimates are smaller than those in Table 1, which suggests that the difference in verbal intelligence by party identity may be partly attributable to lower test scores among non-whites. However, a statistically significant Republican advantage remains even when non-white respondents are excluded.

Table B.2 displays the difference in mean verbal intelligence between whites who supported the Republican Party in elections and whites who supported the Democratic Party, separately for voters and non-voters. In the case of voters, the Republican advantage is negative, while in the case of non-voters, it is very small. This suggests that the difference in verbal intelligence by voting decision may be entirely attributable to lower test scores among non-whites. Overall, the results from Tables B.1 and B.2 reinforce the prediction that Independents with higher intelligence are more likely to support the Democratic Party in elections.

Table B.2
Difference in mean verbal intelligence between whites who supported the Republican Party in elections and whites who supported the Democratic Party for voters and non-voters.

	Voters	Non-voters
Without covariates	−0.25	0.73
With covariates	−0.43	1.00[*]
Observations	12,174	4324

Notes: Each value is the Republican advantage in IQ points. Estimates are from weighted OLS models of verbal intelligence. Covariates: age, age squared, gender, language, marital status, education, log of real household income, region effects, year effects.
  [*] 5% significance level, based on robust standard error.

Table B.1
Difference in mean verbal intelligence between whites who identify as Republican and whites who identify as Democrat for three definitions of party identity.

	Narrow definition	Intermediate definition	Broad definition
Without covariates	3.32[***]	2.01[***]	1.20[***]
With covariates	1.60[***]	0.71[**]	0.24
Observations	4600	12,192	16,667

Notes: Each value is the Republican advantage in IQ points. Estimates are from weighted OLS models of verbal intelligence. Covariates: age, age squared, gender, language, marital status, education, log of real household income, region effects, year effects.
  [**] 1% significance level, based on robust standard error.
  [***] 0.1% significance level, based on robust standard error.

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