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# Cognitive ability and authoritarianism: Understanding support for Trump and Clinton

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Running Head: AUTHORITARIANISM AND TRUMP

**Cognitive ability and authoritarianism: Understanding support for Trump and Clinton**

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**Abstract**

With Donald Trump the Republican nominee and Hillary Clinton the Democratic nominee for the 2016 U.S. Presidential election, speculations of why Trump resonates with many Americans are widespread - as are suppositions of whether, independent of party identification, people might vote for Hillary Clinton. The present study, using a sample of American adults ( $n = 406$ ), investigated whether two ideological beliefs, namely, right-wing authoritarianism (RWA) and social dominance orientation (SDO) uniquely predicted Trump support and voting intentions for Clinton. Cognitive ability as a predictor of RWA and SDO was also tested. Path analyses, controlling for political party identification, revealed that higher RWA and SDO uniquely predicted more favorable attitudes of Trump, greater intentions to vote for Trump, and lower intentions to vote for Clinton. Lower cognitive ability predicted greater RWA and SDO and indirectly predicted more favorable Trump attitudes, greater intentions to vote for Trump and lower intentions to vote for Clinton.

Keywords: authoritarianism, ideological beliefs, right-wing authoritarianism, social dominance orientation, cognitive ability, voting, political psychology.

## 1. Introduction

On July 19, 2016, Donald Trump became the Republican nominee for the 2016 U.S. Presidential election. Despite the GOP's outspoken disapproval of him, Trump secured the required delegates and was officially named the Republican candidate. Speculations of what led many Republicans to support Trump have pervaded news outlets and social media.

Authoritarianism has been identified as a key catalyst (Taub, 2016). In a sample of 1,800 Americans, MacWilliams (2016) found that authoritarianism explained Trump support over and above key demographic characteristics of age, gender, education, religious affiliation, income, and political identification. A poll conducted by Rahn and Oliver (2016) with 1,044 adults also showed that Trump supporters were higher on authoritarianism than supporters of Hillary Clinton. In both polls, researchers employed four questions created in the 1990s to measure authoritarianism. The questions cover child-rearing style preferences, providing a relatively narrow index of authoritarianism. Presently, utilizing broader measures of authoritarian ideologies (i.e., right-wing authoritarianism and social dominance orientation), we investigate whether the ideological beliefs RWA and SDO might uniquely inform evaluations of Trump and affect voting intentions for Trump and Clinton. We also explore cognitive ability as a factor theoretically underlying ideological beliefs and hence, a potential indirect source of Trump support and voting intentions for the U.S. 2016 Presidential election.

### *1.1 Ideological Beliefs*

Grappling with identifying the causes of the rise of fascism, in the wake of WW2 Adorno and colleagues (1950) proposed the 'authoritarian personality'. They argued that an authoritarian personality stemmed from repressed anger and fear in response to punitive parenting and economic hardship. Overhauling the psychometrically flawed 'authoritarian personality,' in the 1980s Altemeyer proposed right-wing authoritarianism (RWA). Although initially – and still by

some researchers – considered a personality dimension (Altemeyer, 1998), RWA is now also considered an ideological belief (Duckitt, 2001) that people should obey and respect authorities deemed as legitimate, abide by social conventions, and endorse harsh punishment of norm violators. In contrast to the psychoanalytic underpinnings of the ‘authoritarian personality’, social learning stressing obedience to authorities, fear and aggressiveness, and adherence to social norms is theorized to nurture RWA (Altemeyer, 1981, 1996, 1998). Strong associations between RWA scores of parents and their children suggest socialization and genetic factors likely contribute to a right-wing authoritarian ideology (Dhont, Roets, & Van Hiel, 2013).

Complementing Altemeyer’s authoritarianism construct, Pratto and Sidanius (1999; Pratto et al., 1994) proposed social dominance theory and social dominance orientation (SDO). SDO-also now widely considered an ideological belief rather than a personality variable (Duckitt, 2001; Pratto, Sidanius, & Levin, 2006)-concerns the belief that relations between social groups should reflect a hierarchy with some groups wielding more power than others. Societal and evolutionary factors are proposed to underlie SDO (Sidanius & Pratto, 1999; Pratto, Sidanius, & Levin, 2006). More narrowly, being male, a dominant group member, disagreeable (Bäckström & Björklund, 2007; Pratto et al., 1994), having negative intergroup experiences, and limited affection in childhood are implicated in adopting a SDO (Duckitt, 2001; Pratto et al., 2006). Compared to RWA, SDO typically shows lower levels of heritability (e.g., Kandler, Bleidorn, & Riemann, 2012).

In psychology, RWA and SDO are the most popular indices of authoritarianism, measured with comprehensive scales comprising items on a range of attitudes (Duckitt, 2001). Correlations between RWA and SDO range from weak to stronger than .60 (Altemeyer, 1998; Roccato & Ricolfi, 2005). Factors including the strength of ideological contrast of a particular

context affect the strength of the association between RWA and SDO (Roccatto & Ricolfi, 2005). In countries where political orientation can be summarized by a single left-right dimension, such as Belgium, Britain, and New Zealand (i.e., countries with a strong ideological contrast), RWA and SDO tend to be more strongly connected. Conversely, in countries where political orientation is better summarized by two or more dimensions (e.g., a social left-right dimension and an economic left-right dimension; see e.g., Choma, Ashton, & Hafer, 2010), such as Canada, South Africa, and the U.S. (i.e., countries with weaker ideological contrasts), the magnitude of their association tends to be smaller (Duckitt, 2001). Further, in some countries, including Poland and Japan, the correlation is near zero (Duriez, Van Hiel, & Kossowska, 2005; Kandler et al., 2015). Therefore, RWA and SDO are theoretically distinguishable concepts that capture statistically unique types of authoritarianism. Moreover, whereas those higher in SDO might be characterized as ‘leaders’, believing that they and their ingroup are superior to others and should have more power, those higher in RWA might be better thought of as ‘followers’, rigidly enforcing and abiding by social rules and conventions (see Altemeyer, 1998). Thus, in countries like the U.S., both RWA and SDO are poised to independently inform political behaviors, including attitudes and voting intentions toward Trump and Clinton.

Incorporating RWA and SDO, Duckitt (2001) outlined the Dual Process Model of ideological attitudes. According to this model, RWA and SDO are rooted in distinct psychological and social factors, and predict shared and unique outcomes through two distinct pathways (Duckitt, 2006). More specifically, social contexts defined as threatening and personality traits like social conformity theoretically lead individuals to adopt a view that the world is an unstable, unpredictable, and unsafe place, in turn fostering higher RWA. Consequently, higher RWAs hold negative attitudes toward outgroups deemed socially

threatening and support policies that seek to preserve social order and control (Duckitt & Sibley, 2007). Conversely, social contexts defined as competitive and personality traits like tough-mindedness position individuals to adopt a view that the world is competitive and governed by dominance and superiority, in turn leading to higher SDO (Duckitt, 2001; Duckitt & Sibley, 2009). Individuals higher (*vs.* lower) in SDO are particularly attuned to threats of dominance and superiority. As a result, SDOs hold negative attitudes toward outgroups perceived of as disadvantaged or lower-status and support policies that sustain intergroup hierarchies (Duckitt & Sibley, 2007).

One implication of the Dual Process Model (Duckitt, 2001; Duckitt & Sibley, 2009) is that RWA and SDO can predict similar outcomes, but for different reasons. In explaining support for Trump, drawing on the Dual Process Model, those higher (*vs.* lower) in RWA and SDO might endorse Trump because he resonates with RWAs fear of socially threatening groups and SDOs disdain of inferior groups. In one illustration of this assertion, Trump's proposed "total and complete shutdown of Muslims entering the United States until our country's representatives can figure out what is going on" (DonalTrump.com, 2015) in response to the San Bernardino terrorist attack advocates policy that, from the perspective of those higher in RWA promises to maintain social order and, from the perspective of those higher in SDO promises to preserve or restore power relations. Thus, we expect that RWA and SDO will predict greater support for Trump, higher intentions to vote for Trump, and lower intentions to vote for Clinton.

### *1.2 Ideological Beliefs and Cognitive Ability*

Theory and research on the causes of RWA and SDO have focused more heavily on motivational predictors. Yet, cognitive factors, including cognitive style and cognitive ability have long been connected to ideology, including authoritarianism (McCourt et al., 1999;

Kemmelmeier, 2010; Stankov, 2009). Individuals higher in authoritarian ideology are cognitively rigid and dogmatic (Jost, Glaser, Kruglanski, & Sulloway, 2003; Van Hiel, Onraet, & DePauw, 2010). Of particular relevance, there is evidence that authoritarianism is linked, in part, to lower cognitive ability (see Onraet et al., 2015). Contemporary research shows that those higher in RWA, in particular, perform less well on cognitive ability tasks (Choma, Hodson, Hoffarth, Charlesford, & Hafer, 2014; Heaven, Ciarrochi, & Leeson, 2011; Van Hiel et al., 2010). Recently, Onraet et al. (2015), using meta-analyses, reported an average effect size of  $r = -.30$  between cognitive ability and authoritarianism, based on 27 samples with a total of 18,142 participants. In studying the association between cognitive ability and authoritarianism, researchers have predominantly examined the relation between ability and RWA or related concepts. Indeed, the connection between lower cognitive ability and higher RWA is arguably robust (Onraet et al., 2015). Far fewer studies have examined the relation between SDO and cognitive ability. The minimal research thus far on SDO and cognitive ability is mixed with some studies noting a negative association (Heaven et al., 2011) and others finding no relation (Choma et al., 2014). Thus, there is a great need for research exploring the nature of the relation between cognitive ability and SDO.

### *1.3 The Present Research*

The present research addressed three main goals. First, it explores the relation between ideological beliefs and cognitive ability, as the majority of research in this area has focused on motivational factors. One possible reason for the imbalance is the relative difficulty in accessing cognitive ability measures compared to measures of motivational variables. Addressing this hurdle, Condon and Revelle (2014) created the International Cognitive Ability Resource measure (ICAR). The ICAR is a publically available measure of cognitive ability with demonstrated

validity based on analyses with 97,000 participants. The test comprises four item types: Three-Dimensional Rotations, Letter and Number Series, Matrix Reasoning, and Verbal Reasoning. Items from the ICAR were used in the present study to assess cognitive ability. In exploring the cognitive ability connection with ideology beliefs, the present study investigated relations between cognitive ability and both dimensions of authoritarian ideology, namely, RWA and SDO.

Second, support for Donald Trump might be attributed to authoritarian beliefs. Indeed, both those higher (*vs.* lower) in RWA and SDO might support Trump because he resonates with RWAs fear of socially threatening groups and SDOs contempt for inferior groups. Hence, the present research investigated whether RWA and SDO uniquely predict Trump support in a sample of American adults. Whether voting intentions for Hillary Clinton could be attributed to lower RWA and SDO was also tested.

Third, it investigated whether the association between ideological beliefs and greater Trump support and lower intentions to vote for Clinton related, in part, because of lower cognitive ability. To evaluate the influence of ideological beliefs, party affiliation was controlled for in all primary analyses.

## **2. Method**

### *2.1 Participants and procedure*

A sample of 451 American adults was recruited through Amazon Mechanical Turk (MTurk); each participant was paid \$1US. Data from MTurk samples produce reliable results, replicating robust findings in economics, political science, and psychology (see Paolacci & Chandler, 2014). A sample of at least 400 was collected to facilitate factor analyses on the

Trump items and sufficiently-powered path analyses (Kline, 2005). Examination of the data revealed extensive missing data for 45 participants; these cases were removed.

The final sample of 406 adults ranged in age from 19 to 76 years ( $mean_{age} = 38.35$ ,  $SD=13.05$ , 45.1% male). In response to a question about ethnic identification, participants identified as White (82.7%), African American (5.4%), Latin American (3.5%), Chinese (3.2%), South East Asian (1.7%), South Asian (1.0%), and either Arab/West Asian, Filipino, Japanese, or other (2.5%). With respect to religious affiliation, participants identified as Atheist (25.2%), other religion (25.2%), Protestant (20.5%), Catholic (20.3%), Baptist (4.5%), and either Anglican, United, Jewish, Muslim, or Hindu (4.3%). Most participants had completed some college (34.0%) or a Bachelor's degree (38.9%). For annual incomes for 2015: 11.6% earned less than \$15,000, 22.4% earned \$15,001-\$30,000, 18% earned \$30,001-\$45,000, 16.5% earned \$45,001-\$60,000, 12.3% earned \$60,001-\$75,000, 9.9% earned \$75,001-\$100,000, and 9.4% earned over \$100,000. Participants completed measures of cognitive ability, RWA, SDO, attitudes toward Trump, and voting intentions. (Measures of risk perceptions and numeracy were also collected for the purposes of a multi-study project exploring risk perceptions, ideology, cognitive ability and numeracy. Full details are available from the first author).

## 2.2 Measures

*2.2.1. Cognitive ability.* Participants completed four items from the International Cognitive Ability Resource measure (ICAR; Condon & Revelle, 2014). As noted earlier, the ICAR is a publically available measure of cognitive ability with four item types: Three-Dimensional Rotations, Letter and Number Series, Matrix Reasoning, and Verbal Reasoning. To ensure that the length of the survey remained manageable for an online study, one question from

each of the four item types was administered. Scores were created by summing correct responses to the four questions.

2.2.2. *RWA*. Participants responded to a 12-item version of the RWA scale (Altemeyer, 1996) on a scale from 1 - *strongly disagree* to 7 - *strongly agree*. An example item is: “Our country will be destroyed someday if we do not smash the perversions eating away at our moral and traditional beliefs.” Scores were created by averaging the items with higher scores denoting greater endorsement of RWA ( $\alpha = .94$ ).

2.2.3. *SDO*. The 16-item SDO scale (Pratto et al., 1994) was administered to assess SDO. Participants responded to each item using a scale from 1- *do not at all agree* to 7 - *strongly agree*. An example item is: “Inferior groups should stay in their place.” Scores were created by averaging the items with higher scores denoting greater SDO ( $\alpha = .95$ ).

2.2.4. *Trump attitudes*. A 9-item scale was developed by the researchers to assess participants’ attitudes toward Trump. The items were intended to reflect popular reasons for supporting or opposing Trump. Four items were written such that stronger agreement indicated less favorable opinions of Trump and five items were written such that stronger agreement indicated more favorable opinions of Trump. The items are listed in Table 1. Participants indicated their agreement with each item on a scale from 1 - *completely disagree* to 7 - *completely agree*. Scores were created by averaging the items (after reverse-keying the four less favorable items) with higher scores reflecting positive evaluations of Trump ( $\alpha = .94$ ).

2.2.5. *Voting intentions*. Participants indicated how likely they would be to vote for Donald Trump and Hillary Clinton in the 2016 U.S. Presidential election if that person became

the Presidential candidate for their party. Participants responded on a scale from 1 - *definitely would not vote for them* to 7 - *definitely would vote for them*.<sup>1</sup>

2.2.6. *Party affiliation.* Participants indicated which party they identified with. The options were a Democrat ( $n=195$ , 48%), a Republican ( $n=101$ , 24.9%), and neither ( $n=110$ , 27.1%).

### 3. Results

Means, standard deviations and correlations are shown in Table 2. Lower cognitive ability weakly related to higher RWA, higher SDO, and more favorable attitudes toward Trump. Higher RWA and SDO all related moderately to more favorable attitudes of Trump, greater intentions to vote for Trump, and lower intentions to vote for Clinton. Cognitive ability did not correlate significantly to intentions to vote for Trump or intentions to vote for Clinton.

#### 3.1.1 *Trump attitudes: Scale construction*

To evaluate the structure of the Trump attitudes scale, a principal axis factor analysis was conducted on the 9 items, applying a varimax rotation. A single factor was uncovered. The factor loadings of each item are shown in Table 1. Seven of the items had loadings over  $\pm .84$ . As noted in the Method section, reliability for the scale was excellent,  $\alpha = .94$ . Removing the last two items with the lowest loadings only slightly improved reliability ( $\alpha = .95$ ). As such, the items with the lowest loadings were retained in the scale.

#### 3.2 *Primary Analyses*

Path analyses on each of the three dependent variables (Trump support, intentions to vote for Trump, intentions to vote for Clinton) were conducted with AMOS version 22.0 software to test the three main goals of the present study: (1) Whether cognitive ability predicted RWA and

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<sup>1</sup> Voting intentions for Cruz, Kasich, and Sanders were also assessed. Contact the first author for details.

SDO, (2) whether RWA and SDO predicted support for Trump (and voting intentions for Trump and for Clinton), and (3) whether ideological beliefs mediated the relation between cognitive ability and support for Trump (and voting intentions for Trump and Clinton). Cognitive ability was modeled as a predictor of RWA, SDO, and Trump attitudes (or voting intentions), and RWA and SDO were modelled as correlated predictors of Trump attitudes (or voting intentions). Party affiliation was modelled as a control variable (i.e. modelled as a predictor of cognitive ability, RWA, SDO and Trump attitudes [or for voting intentions]). The indirect effect of cognitive ability on Trump attitudes (or voting intentions) was estimated based on bias-corrected estimates derived from 2,000 bootstrap samples computed using maximum likelihood procedures. Standardized direct and indirect effects are reported. Model fit indices are not reported as the model was fully saturated ( $df=0$ ). Standardized direct path coefficients are reported.

Path analysis results for Trump support are shown in Figure 1. Consistent with previous research and hypotheses, cognitive ability had a significant direct effect on RWA. The direct effect of cognitive ability on SDO was also significant. Examination of critical ratios of difference revealed that the strength of these paths differed significantly from each other ( $z=2.42$ ,  $p=.016$ ), with the path from cognitive ability to RWA significantly stronger than the path from cognitive ability to SDO.

For the model predicting Trump attitudes, RWA and SDO significantly predicted favorable Trump attitudes. Examination of the critical ratios of difference revealed that the strength of these paths did not differ significantly ( $z=0.67$ ,  $p<.250$ ), indicating that RWA and SDO were equally relevant to Trump attitudes. The error terms for RWA and SDO were significantly correlated,  $r=.44$ ,  $p<.001$ . The direct effect of cognitive ability on Trump attitudes was not significant; however, the indirect effect of cognitive ability on Trump support was

significant ( $p=.001$ ), 95% CI [-.20,-.09]. Therefore, as hypothesized, the relation between ideological beliefs and favorable Trump attitudes was predicted, in part, by lower cognitive ability.

For the model predicting voting intentions for Trump, the paths between cognitive ability and RWA/SDO, and the relation between the error terms for RWA and SDO, as well as the variance accounted for in RWA and SDO, were identical to those of the previous model (see Figure 1). The model accounted for 32% of the variance in intentions to vote for Trump. The direct effects of RWA on positive intentions to vote for Trump ( $+.29, p<.001$ ) and SDO on positive intentions to vote for Trump ( $+.32, p<.001$ ) were both significant. Examination of the critical ratios of difference showed that these paths did not differ significantly from each other,  $z=.67, p<.250$ . Again, the direct effect of cognitive ability on intentions to vote for Trump was not significant,  $+.05, p=.253$ . The indirect effect of cognitive ability on positive intentions to vote for Trump was significant,  $p=.001$ , 95% CI [-.18,-.08]. Therefore, consistent with hypotheses, ideological beliefs directly predicted intentions to vote for Trump and these relations were predicted, partly, by lower cognitive ability.<sup>2</sup>

For the model predicting voting intentions for Clinton, the paths between cognitive ability and RWA/SDO, and the relation between the error terms for RWA and SDO, as well as the variance accounted for in RWA and SDO, were identical to those of the previous models. The direct effect of RWA on voting intentions for Clinton was significant ( $-.20, p<.001$ ), as was the direct effect of SDO on voting intentions ( $-.14, p=.004$ ). Examination of the critical ratios of difference showed that the two paths did not differ significantly,  $z=.50, p<.250$ . The direct effect of cognitive ability on intentions to vote for Hillary Clinton was not significant,  $-.03, p=.491$ .

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<sup>2</sup> Party affiliation significantly predicted intentions to vote for Trump,  $+.14, p <.001$ .

The indirect effect of cognitive ability on intentions to vote for Clinton, however, was significant,  $p=.001$ , 95% CI [+0.04, +0.12], demonstrating that higher cognitive ability indirectly predicted intentions to vote for Clinton via less endorsement of RWA and SDO.<sup>3,4</sup>

#### 4. Discussion

Donald Trump's ascent to the GOP nomination has surprised many, with few pundits, journalists, and political scientists predicting this outcome. Trump's authoritarian style—his ability to make strong and unconventional statements about race, gender, sexuality and foreign policy—has resonated with many GOP delegates. Yet, at the same time, there is opposition to Trump among conservatives: Prominent Republicans refuse to support him, movements like the #NeverTrump emerged, and some even considered Hillary Clinton as their only option (Gollom, 2016). This enigma raises the question of who supports Trump. Demographically, Trump supporters tend to earn less money and are less educated (Edsall, 2016). Ideologically, research from political science suggests that Trump appeals to authoritarians (MacWilliams, 2016) and populists (Rahn & Oliver, 2016); the measure of authoritarian ideology used in previous investigations studying attitudes toward Trump, however, more narrowly conceptualises authoritarianism as child-rearing preferences.

Using comprehensive indices of authoritarianism (i.e., measures of RWA and SDO), the present study confirms that endorsing authoritarian ideology predicts favorable Trump attitudes and intentions to vote for Trump in the U.S. Presidential election. Specifically, greater endorsement of RWA (the aspect of authoritarianism specific to obedience and respect of

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<sup>3</sup> Party affiliation significantly predicted intentions to vote for Clinton,  $-.33$ ,  $p < .001$ .

<sup>4</sup> All path analyses were also run controlling for age, gender, income, and education level. The inclusion of these covariates did not affect the significance of the paths in the models or substantially alter the magnitude of the standardized path coefficients. In most cases, the magnitude was weaker by .01. Being older predicted more positive evaluations of Trump and greater intentions to vote for Trump. Higher income predicted greater intentions to vote for Trump. Being more educated predicted greater intentions to vote for Clinton. Given the limited impact of demographics, analyses without these covariates are presented for brevity.

authorities and punishment of those who violate social conventions) and SDO (the aspect of authoritarianism specific to preferring hierarchical intergroup relations) uniquely predicted more positive evaluations of Trump and a greater desire to vote for him. Lower endorsement of RWA and SDO also uniquely led to intentions to vote for Clinton (see also MacWilliams, 2016; Rahn & Oliver, 2016). Critically, RWA and SDO significantly predicted Trump support and voting intentions, even controlling for party affiliation. Furthermore, our results indicate that both ideological beliefs exert similar effects on Trump support and voting intentions. These findings are consistent with the dual process model (Duckitt, 2001; Duckitt & Sibley, 2009) and the notion that RWA and SDO, although distinct and independent, uniquely predict similar outcomes, and likely do so for different reasons. Hence, Trump likely appeals to a wide range of authoritarian positions.

The present study also informs research on cognitive ability and ideology. Although a considerable number of studies have examined the link between cognitive ability with social conservatism and RWA (for a meta-analysis see Onraet et al., 2015), very few have considered the link between cognitive ability and SDO. Consistent with Heaven et al. (2011), we found that although cognitive ability predicted both RWA and SDO, the relation was significantly stronger between ability and RWA than between ability and SDO (see also Choma et al., 2014). Hence, while the relation between cognitive ability with RWA seems to be quite robust (e.g. Choma et al., 2014; Heaven et al., 2011; Onraet et al., 2015; Van Hiel et al., 2010), more research is needed on the possible association between cognitive ability and SDO before any firm conclusions can be drawn.

Path analyses also indicated that support for Trump and Clinton is partially and weakly explained by ability, not just motivation or self-interest. The finding that cognitive ability

predicts ideological beliefs and politically relevant outcomes highlights the importance of cognitive factors, in addition to more widely studied motivational factors like threat (e.g., Duckitt, 2001).

A number of limitations should be noted. First, we have only used a subset of the International Cognitive Ability Resource items (Condon & Revelle, 2014), and it is possible that usage of the full measure (or other questions) would have affected our results. Our decision to use a subset of the measure was largely driven by the need to reduce the length of time required to complete the entire measure, as well as indications by Condon (personal communication) that it is theoretically possible to use any subset of the measure. Further, our study was conducted during the GOP and Democratic primaries. As such, it might capture and represent early characteristics of Trump's supporters that could possibly change during the election campaign. Finally, and critically, it is impossible and inappropriate to draw a causal relationship from our data, and further research is urgently needed. In conclusion, although the rise of Trump to presumptive nominee for the GOP has been unexpected, it is evident that Trump's success is intimately tied to peoples' beliefs about social conventionalism and obedience, and intergroup relations, which may stem theoretically, in part, from poorer performance on cognitive ability measures.

## References

- Altemeyer, B. (1996). *The authoritarian specter*. Cambridge, MA: Harvard University Press.
- Altemeyer, R.A. (1998). The other “authoritarian personality.” In M.P.Zanna (Ed.), *Advances in experimental social psychology* (Vol.30, pp. 47-91). New York: Academic Press.
- Bäckström, M., & Björklund, F. (2007). Structural modeling of generalized prejudice: The role of social dominance, authoritarianism, and empathy. *Journal of Individual Differences*, 28, 10–17.
- Choma, B.L., Ashton, M.C., & Hafer, C.L. (2010). Conceptualizing political orientation among Canadian political candidates: A tale of two (correlated) dimensions. *Canadian Journal of Behavioural Science*, 42, 24-33.
- Choma, B.L., Hodson, G., Hoffarth, M., Charlesford, J.J., & Hafer, C.L. (2014). Reasoning ability and ideological beliefs: Inaccuracies in hierarchical relations (but not numerical ability) are associated with right-wing authoritarianism. *Journal of Individual Differences*, 35, 177-183.
- Condon, D., & Revelle, W. (2014). The international cognitive ability resource: Development and initial validation of a public-domain measure. *Intelligence*, 43, 52-64.
- Dhont, K., Roets, A., & Van Hiel, A. (2013). The intergenerational transmission of need for closure underlies the transmission of authoritarianism and anti-immigrant prejudice. *Personality and Individual Differences*, 54, 779-784.
- DonaldTrump.com (2015, December 7). Press release. Retrieved from:  
<https://www.donaldjtrump.com/press-releases/donald-j.-trump-statement-on-preventing-muslim-immigration>

- Duckitt, J. (2001). A dual-process cognitive-motivational theory of ideology and prejudice. *Advances in experimental social psychology*, 33, 41-113.
- Duckitt, J., & Sibley, C.G. (2007). Right wing authoritarianism, social dominance orientation and the dimensions of generalized prejudice. *European Journal of Personality*, 21, 113-130.
- Duriez, B., Van Hiel, A., & Kossowska, M. (2005). Authoritarianism and social dominance in Western and Eastern Europe: The importance of the sociopolitical context and of political interest and involvement. *Political Psychology*, 26, 299-320.
- Edsall, T.B. (2016, May 4). The great Trump reshuffle. *The New York Times*. Retrieved from [http://www.nytimes.com/2016/05/04/opinion/campaign-stops/the-great-trump-reshuffle.html?src=me&\\_r=1](http://www.nytimes.com/2016/05/04/opinion/campaign-stops/the-great-trump-reshuffle.html?src=me&_r=1)
- Fraley, R.C., Griffin, B.N., Belsky, J., & Roisman, G.I. (2012). Developmental antecedents of political ideology: A longitudinal investigation from birth to age 18 years. *Psychological Science*, 23, 1425-1431.
- Gollom, M. (2016, May 7). #NeverTrump conservatives think the unthinkable: Supporting Hillary Clinton. *CBC News*. Retrieved from <http://www.cbc.ca/news/politics/donald-trump-never-trump-republicans-conservatives-hillary-clinton-support-1.3567944>
- Heaven, P.C.L., Ciarrochi, J., & Leeson, P. (2011). Cognitive ability, right-wing authoritarianism, and social dominance orientation: A five-year longitudinal study amongst adolescents. *Intelligence*, 39, 15-21.
- Hooper, D., Coughlan, J., & Mullen, M.R. (2008). Structural equation modelling: Guidelines for determining model fit. *Business Research Methods*, 6, 53-60.
- Jost, J.T., Glaser, J., Kruglanski, A. W., & Sulloway, F.J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129, 339-375.

- Kandler,C., Bell,E., Shikishima,C., Yamagata,S., & Riemann,R. (2015). Genetic foundations of attitude formation. In R.Scott, & S.Kosslyn (Eds.), *Emerging Trends in the Social and Behavioral Sciences*. John Wiley&Sons,Inc.
- Kandler,C., Bleidorn,W., & Riemann,R. (2012). Left or right? Sources of political orientation: the roles of genetic factors, cultural transmission, assortative mating, and personality. *Journal of Personality and Social Psychology*, *102*,633-645.
- Kemmelmeier,M. (2010). Authoritarianism and its relationship with intuitive-experiential and rational-analytical cognitive styles. *Personality and Individual Differences*, *48*,44-48.
- Kline,R. (2005). *Principles and practice of structural equation modeling*. New York:The Guilford Press.
- MacWilliams,M. (2016, January17). The one weird trait that predicts whether you're a Trump supporter:And it's not gender, age, income, race or religion. *PoliticoMagazine*. Retrieved from <http://www.politico.com/magazine/story/2016/01/donald-trump-2016-authoritarian-213533>
- McCourt,K., Bouchard,T.J., Lykken,D.T., Tellegen,A., & Keyes,M. (1999). Authoritarianism revisited:Genetic and environmental influences examined in twins reared apart and together. *Personality and Individual Differences*, *27*,985–1014.
- Onraet,E., Van Hiel,A., Dhont,K., Hodson,G., Schittekatte,M., & DePauw,S. (2015). The association of cognitive ability with right-wing ideological attitudes and prejudice:A meta-analytic review. *European Journal of Personality*, *29*,599-621.
- Paolacci,G., & Chandler,J. (2014). Inside the Turk:Understanding Mechanical Turk as a participant pool. *Current Directions in Psychological Science*, *23*(3),184-188.

- Pratto,F., Sidanius,J., Stallworth,L.M., & Malle,B.F. (1994). Social dominance orientation:A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, 67,741-763.
- Pratto,F., Sidanius,J., & Levin,S. (2006). Social dominance theory and the dynamics of intergroup relations:Taking stock and looking forward. *European Review of Social Psychology*, 17,271-320.
- Rahn,W., & Oliver,E. (2016, March9). Trump’s voters aren’t authoritarians, new research says. So what are they? *The Washington Post*. Retrieved from <https://www.washingtonpost.com/news/monkey-cage/wp/2016/03/09/trumps-voters-arent-authoritarians-new-research-says-so-what-are-they/>
- Roccatto,M., & Ricolfi,L. (2005). On the correlation between right-wing authoritarianism and social dominance orientation. *BASP*, 27,187-200.
- Sidanius,J., & Pratto,F. (1999). *Social dominance:An intergroup theory of social hierarchy and oppression*. NewYork:Cambridge University Press.
- Stankov, L. (2009). Conservatism and cognitive ability. *Intelligence*, 37, 294-304.
- Taub, A. (2016, March 1). The rise of American authoritarianism. *Vox*. Retrieved from <http://www.vox.com/2016/3/1/11127424/trump-authoritarianism>
- Van Hiel,A., Onraet,E., & DePauw,S. (2010). The relationship between social-cultural attitudes and behavioral measures of cognitive style:A meta-analytic integration of studies. *Journal of Personality*, 78,1765-1800.

**Table 1**

Results of the principal axis factor analysis on the Trump attitudes scale

Scale item:	Loading
Donald Trump is not prejudiced, he simply speaks the truth.	.91
Donald Trump has American peoples' best interests in mind.	.91
It takes a macho guy like Trump, who doesn't let anyone push him around, to be President of the U.S.	.88
Donald Trump will ruin America's reputation internationally.	-.87
Many of the things that Donald Trump says are lies.	-.87
Donald Trump is refreshing because he tells people what he really thinks.	.86
Some of the things that Donald Trump has said are downright racist, xenophobic, and sexist.	-.84
Donald Trump is as wealthy and successful as he says he is.	.66
Donald Trump does not represent conservative values.	-.45

*Note.*  $N = 406$  Loadings are factor matrix loadings in a varimax-rotated solution.

**Table 2**

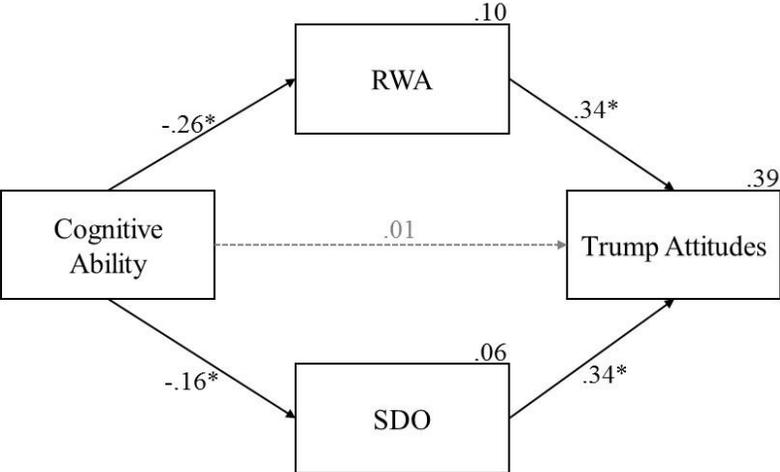
Means, standard deviations and correlations

	<i>Mean (SD)</i>	1	2	3	4	5
1. Cognitive ability	1.44 (1.10)					
2. RWA	3.06 (1.57)	-.26**				
3. SDO	2.47 (1.43)	-.16**	.48**			
4. Trump attitudes	3.23 (1.83)	-.13**	.52**	.52**		
5. Vote for Trump	2.71 (2.33)	-.08	.46**	.48**	.88**	
6. Vote for Clinton	3.41 (2.35)	.05	-.32**	-.30**	-.48**	-.46**

Note.  $N = 406$ . \* $p < .05$ , \*\* $p < .010$ .

**Figure 1**

Path analysis with cognitive ability and ideology predicting attitudes toward Trump, controlling for party affiliation



*Note.* \* $p < .001$ . Standardized coefficients are displayed. Party affiliation is not shown in the Figure for brevity. Party affiliation did not significantly predict cognitive ability ( $p = .710$ ) or Trump attitudes ( $p = .737$ ). The direct effects of party affiliation on RWA and SDO were significant ( $ps < .001$ ).