Advancing the Measurement of Authoritarianism¹

Andrew M. Engelhardt Assistant Professor Department of Political Science University of North Carolina, Greensboro amengelhard@uncg.edu ORCID: 0000-0003-2516-3394 Stanley Feldman Professor Department of Political Science Stony Brook University stanley.feldman@stonybrook.edu Marc J. Hetherington Raymond H. Dawson Distinguished Bicentennial Professor Department of Political Science University of North Carolina, Chapel Hill marcj@unc.edu

Abstract

Popular support for ethnocentric, nationalistic politicians, parties, and policies around the world has renewed interest in authoritarianism. Measured by people's preferences for certain desirable qualities in children, scholars have identified relationships between it and support for right wing populist parties and the ideas they champion. But despite authoritarianism's unique ability to explain present political dynamics, scholars have devoted too little attention to this operationalization's measurement properties. We address these and other issues here. We demonstrate that 1) the childrearing measure taps authoritarianism, 2) it is exogenous to a wide range of political attitudes, 3) its temporal stability is consistent with its conceptualization as a personality adaptation and 4) adding new items to the existing set improves our ability to measure authoritarianism. We thus provide scholars with a measure that better explains political opinions, which should allow future work to better identify when, how, and among whom authoritarianism explains political thinking.

Keywords: authoritarianism, measurement, public opinion, political psychology

Conflict of Interest: The authors declare that they have no conflict of interest.

This is a post-peer-review, pre-copyedit version of an article published in *Political Behavior*. The final authenticated version is available online at: http://dx.doi.org/10.1007/s11109-021-09718-6

¹ We thank the 6 reviewers and editor for their helpful comments and suggestions. Data and code to replicate the reported analyses can be accessed at: <u>https://doi.org/10.7910/DVN/LYW91V</u>

Many countries today face serious challenges to democracy, in the form of growing support for ethnocentric, nationalistic politicians, parties, and policies. Whether it is negative feelings about immigrants and other cultural outgroups, sympathy for strongman tactics, or support for parties and candidates promising both, research reveals that authoritarianism is central to understanding a wide range of relevant mass attitudes and preferences (Cohen and Smith 2016, Hetherington and Weiler 2018; Dunwoody and McFarland 2018; Smith, Murib, and Motta 2018; Miller et al. 2017; Johnston and Wronski 2015; Brandt and Reyna 2014; Weber, Federico, and Feldman 2017; Vasilopoulos and Lachat 2017). Our aim in this paper is to help scholars choose the best available tools to study these matters.

Soon after authoritarianism achieved prominence in the 1950s and 1960s (Adorno et al. 1950; Fromm 1957), scholars began to view it with skepticism. Importantly, its measurement, not the concept, was the source of most scholarly controversy.¹ Both Adorno et al.'s (1950) F-Scale and Altemeyer's (1981) Right-Wing Authoritarianism (RWA) scale have absorbed withering criticism (Christie and Jahoda 1954; Feldman 2003; Stenner 2005). Many of the items that comprise these scales make them especially problematic predictors of public support for ethnocentric parties and their ideas. Consider, for example, the following items measuring RWA: 1) "The only way our country can get through the crisis ahead is to get back our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas," 2) "What our country really needs is a strong, determined leader who will crush evil, and take us back to our true path," and 3) "It is always better to trust the judgment of the proper authorities in

¹ In evaluating the early work on the topic, Kinder and Kam (2009) sum things up well: "[I]t is important to recognize that the critics . . . established that Adorno, Frenkel-Brunswik, Levinson, and Sanford failed to prove their conclusions, not that their conclusions were necessarily incorrect" (16).

government and religion than to listen to the noisy rabble-rousers in our society who are trying to create doubt in people's minds."

Such items undoubtedly identify people with attitudes and policy positions that could induce support for nationalistic right-wing parties, but the language in these and other RWA items too closely mimics the rhetoric that right-wing politicians and media use.² That Altemeyer (1996, 92) himself allows that his RWA index may "shift back and forth" due to social and political events suggests it may have significant endogeneity problems. Two recent research studies show that this is not just a hypothetical issue. Van Assche, Dhont, and Pettigrew (2019) found that pro-Brexit attitudes and support for the UK Independence Party predicted increased scores on an RWA measure in a three-wave panel study. In their analysis of a nine-wave New Zealand panel study, Satherly, Sibley, and Osborne (2021) found that support for the right of center National Party led to over-time increases in RWA. Endogeneity between dependent and explanatory variables is no small matter, as it renders RWA's covariance with many contemporary political attitudes causally ambiguous (cf. Lenz 2012; Engelhardt 2019).

By eliciting preferences to questions with no explicit political content, a different measurement strategy, introduced on the 1992 American National Election Study, overcame many problems associated with other measures of authoritarianism.³ It combines four items that ask people to choose between pairs of desirable qualities in children:

Although there are a number of qualities that people think children should have, every person thinks that some are <u>more important</u> than others. Although you may

² This potential for endogeneity extends to other operationalizations of authoritarianism (e.g., Duckitt et al. 2010). Dunwoody and Funke's (2016) Aggression-Submission-Conventionalism scale also avoids explicitly political language, but the content of many items still reflects positions right-wing elites take. Endogeneity may, therefore, still affect this better measure. ³ See also the Race and Politics Study, undertaken by Paul Sniderman and a group of colleagues in 1989, which used a similar approach with a smaller number of items.

feel that both qualities are important, please tell me which one of each pair you think is *more important* for a child to have.

1. Would you say that it is <u>more important</u> for a child to be INDEPENDENT or RESPECTFUL OF THEIR ELDERS?

2. Would you say that it is <u>more important</u> for a child to be OBEDIENT or SELF-RELIANT?

3. Would you say that it is <u>more important</u> for a child to be WELL-BEHAVED or CONSIDERATE?

4. Would you say that it is <u>more important</u> for a child to be CURIOUS or GOOD MANNERED?

This measure is strongly associated with a wide range of attitudes and preferences from racial attitudes to support for democracy to women's equality to LGBT rights to immigration (see e.g., Hetherington and Weiler 2009, 2018), as a valid measure of authoritarianism should be. It also correlates strongly with parties and candidates who promote these issues, explaining voting for both Donald Trump in 2016 (Weber, Federico, and Feldman 2017) and for far-right parties in Europe (Vasilopoulos and Lachat 2017; Hetherington and Weiler 2018).

As effective as the desirable qualities in children (childrearing) measure has been, some concerns about it remain, which we address in this paper. Most fundamental is whether it captures authoritarianism. We confirm that it does. Using a nationally representative data set that included the childrearing items and a set of RWA-style questions, we demonstrate the two are very strongly related. If RWA taps authoritarianism, then the childrearing scale must, too. In addition, we use two recent panel data collections that include the childrearing scale in multiple waves to demonstrate that it, unlike the RWA scale, is exogenous to a wide range of political attitudes. This has not been shown before because scholars, assuming authoritarianism was

causally prior to politics, almost always designed panel studies with the childrearing items in only one wave.⁴

Other concerns center on the measure's statistical properties. One is its temporal stability, which, for the same reason as its exogeneity, has not been thoroughly tested.⁵ The two panel surveys referenced above also allow us to demonstrate that answers to the childrearing scale remain stable over time. A second statistical question is how efficiently the scale items capture the concept. The four childrearing items have shown acceptable, but less than ideal, internal reliability (e.g., Hetherington and Suhay 2011).⁶ More concerning, between a quarter and a third of respondents generally score at either the scale's absolute maximum or minimum, suggesting it fails to differentiate scores at the construct's extremes. A more reliable measure that discriminates levels of the concept more extensively should strengthen measures of association between it and other variables.

To that end, we introduce four new pairs of childrearing items to go along with the present four. The additional items increase the scale's reliability and reduce the percentage of respondents scoring at its minimum and maximum by half. As expected, the payoff for these improvements is substantial. The marginal effects of the new measure increase markedly

⁴ We canvassed publicly available panels from the American National Election Studies, Cooperative Congressional Election Studies, Cooperative Campaign Analysis Project, General Social Survey, National Annenberg Election Study, and the Democracy Fund's VOTER Survey. They either exclude this operationalization or measure it once. In one instance we found the measures repeated, and we use this collection in our analyses below.

⁵ Not only does this question have theoretical implications, it has empirical ones, too. If the measure is not temporally stable, it becomes possible that some of its variance reflects the political environment or political rhetoric, which would make its exogeneity as a predictor suspect. This is among the problems we noted about the RWA scale.

⁶ ANES data offer the following alphas: .67 (1992), .60 (2000), .61 (2004), .59 (2008), .60 (2012), .65 (2016).

relative to those of the 4-item index. In adopting the improved measure, scholars' ability to understand when, how, and among whom this predisposition matters ought to increase.

Contemporary Politics Makes Authoritarianism Important

Authoritarianism is a personality adaptation that values social cohesion and conformity to ingroup norms over personal freedom and individual autonomy (Feldman and Stenner 1997; Feldman 2003; Stenner 2005; Smith et al 2011; Duckitt 1989; Schwartz 1992). Across a wide variety of countries and contexts, politics has evolved such that issues structured by authoritarianism are increasingly central to party contestation (Hetherington and Weiler 2018). Relevant issue areas include gender norms, views about sexuality, racial, religious, and immigration attitudes, and the propriety of leadership tactics deemed by supporters as necessary to maintain social cohesion and conformity.

The core reason that preferences differ across the authoritarianism continuum is that the more authoritarian tend to perceive threat in social change and challenges to social cohesion, while those who are less authoritarian tend not to (Feldman 2003; Kehrberg 2017; Van Assche et al. 2019). As a result, authoritarianism affects support for increased gender equality, challenges to existing racial hierarchies, and equal rights for LGBT people (Smith, Murib, and Motta 2017; Miller et al. 2017; Hetherington and Weiler 2018). Because authoritarians perceive racial and ethnic difference as threatening to social cohesion, attitudes about minorities differ substantially across the authoritarianism continuum. Those who score high evaluate African Americans and Muslims especially negatively (Dunwoody and McFarland 2018; Velez and Lavine 2017; Brandt and Reyna 2014). In addition, policies that minimize intergroup contact, such as immigration restrictions, border walls, and travel bans, have more appeal to those who score high than low in authoritarianism (Hetherington and Weiler 2018; Feldman 2020). The same is true of

"racialized" policies (Gilens 1999), such as affirmative action and welfare spending (Kehrberg 2017; Johnston and Wronski 2015). Finally authoritarian concerns about social cohesion and change can buttress support for state aggression against those they perceive as outgroups (Altemeyer 1988; Feldman 2020). Those scoring higher in authoritarianism are especially likely to endorse strongman tactics when their favored leaders argue they are necessary to confront bad actors (Hetherington and Weiler 2018).

Although authoritarianism ought to remain largely constant over a person's lifetime, changes in political context can connect it to – or disconnect it from – politics (Feldman 2003; Stenner 2005). The issues that events and political elites make salient work like a switch. When the New Deal party divide organized American politics, the switch was in the off position, because an adaptation to cope with concerns about racial difference and social change doesn't structure Americans' preferences on government spending and regulation (Cizmar et al. 2014). After events and political leaders in the late 20th and early 21st Century made security, race, and culture fundamental to party conflict, however, the switch flipped on. Americans' partisanship went from being uncorrelated with authoritarianism as recently as 1992 to strongly correlated by 2016 (Hetherington and Weiler 2018). Similarly, the refugee crisis and Brexit focused attention on issues like immigration and free movement across established borders in Europe, making authoritarianism central to opinionation there as well (Vasilopoulos and Lachat 2017). Authoritarianism is not politically relevant in a vacuum but influences party contestation when events and elites activate it (Johnston, Lavine, and Federico 2017).

Data and New Measures

We rely on two cross-sectional and two panel surveys to explore the measurement properties of the childrearing items used to measure authoritarianism. The first of the crosssectional surveys is the 2016 ANES, which we use to demonstrate the validity of the childrearing measure. While the childrearing questions have been included on ANES presidential year surveys since 1992 (with the exception of 1996), the 2016 survey also contained six agree-disagree questions that closely resemble those in the RWA measure of authoritarianism (Altemeyer 1988). In the first section of the results, we estimate the relationship between the two sets of items and directly address the validity of the childrearing measure.

The first of the panel studies is the 2012-2013 American National Election Study Internet Recontact Study, which was conducted by GfK (formerly Knowledge Networks). 1,563 respondents to the web version of the 2012 ANES were reinterviewed in July 2013.⁷ The authoritarianism questions were asked in both waves. The second panel data collection is an original survey conducted for us by YouGov. It interviewed 1,500 individuals in March 2017 and reinterviewed 1,102 of them in May 2018.⁸ These panel data help shed light on the childrearing scale's exogeneity and stability over 7 to 8 months for the ANES survey and 15 months for the YouGov survey. The panel results are the focus of the second and third sections of the results.

We also include the results from a second cross-sectional survey, an online collection using a nationally diverse sample provided by Qualtrics. Data collection ran July 25-August 12, 2019 and yielded 1,872 responses, which reflected population benchmarks relative to education, age, race, and gender. In addition to the traditional four childrearing items, we added four new

⁷ The ANES reported a preliminary response rate calculation of 1-2 percent (AAPOR RR3). ⁸ While both surveys involve online data collections, sampling strategies differ. GfK uses phoneand address-based sampling to recruit their respondent pool, with eligible participants provided internet access and a computer if needed. YouGov uses the firm's nonrandom respondent pool with respondents then weighted back to national benchmarks.

pairs to improve the 4-item measure.⁹ We developed the new pairs in a series of online pretests. Our effort to build a better measure of authoritarianism and evaluate the relative success of this undertaking occupies the fourth section of the results. The Qualtrics survey also included a range of variables that authoritarianism is correlated with: partisanship, ideology, evaluations of the political parties, and preferences on major social issues. If the additional childrearing questions improve the precision of the measure at the extremes of authoritarianism, the new measure should be more strongly associated with these political variables than the traditional four item version is. We explore these matters in the fifth section of the results.

Results 1: Validity

The logic for using pairs of child values to measure authoritarianism flows from the conceptualization of the construct that we draw on in this paper, with valuing social conformity anchoring one end of the spectrum and valuing personal autonomy anchoring the other. Qualities such as obedience, respect for elders, and good behavior in children suggest a hierarchical understanding of authority in a family, which, in turn, ought to reflect a similar understanding about political authority. The value pairs in the childrearing measure are not antonyms; rather, they make respondents choose between often competing goals. Because both qualities in each pair are desirable, many people must choose between two values that are important to them.¹⁰

⁹ The original four were first presented to respondents. The new items appeared after them in the survey. This was to allow us to compare the properties of the longer measure with the original one without altering the way respondents would respond to the original four value items. ¹⁰ One may worry that the specific pairs are unbalanced and one trait is more socially desirable than another. While plausible, mode differences in responses are absent, suggesting value choice isn't necessarily constrained by beliefs about socially valued traits (Pietryka and Macintosh Forthcoming).

¹¹ The ANES survey protocol allows respondents to volunteer "both" for each of the childrearing items. When we estimate three category item response models for the four items, the category

The appeal of using items not explicitly about politics to measure authoritarianism is that it overcomes concerns that we and others have raised about the RWA-scale. When survey questions operationalizing authoritarianism use the language authoritarian leaders themselves employ, it is difficult to untangle whether authoritarianism is a cause of support for such leaders and their ideas or a consequence of it. Although few question whether the RWA scale measures authoritarianism, its endogeneity to politically relevant variables -- caused by this approach to measuring the concept -- undermines its value as a research tool.

The childrearing approach is quite different from that of RWA, so it is not unreasonable to wonder whether the two measures capture the same underlying concept. To test whether it does or not, we turn to the 2016 ANES, which included both the childrearing items and measures that approximate the RWA-scale.¹² Specifically, the survey included these six agree/disagree items:

What the country really needs is a strong, determined leader who will crush evil and take us back to our true path.

Our country would be great if we honor the ways of our forefathers, do what the authorities tell us to do, and get rid of the 'rotten apples' who are ruining everything.

Having a strong leader in government is good for the United States even if the leader bends the rules to get things done.

What people call compromise in politics is really just selling out on one's principles.

Minorities should adapt to the customs and traditions of the United States.

response curves for the "both" response are virtually flat. Not choosing between the pair of values provides almost no information about the underlying latent variable. The category response curves are shown in Figure A.1 in the Appendix.

¹² We only use respondents in the face-to-face sample. We get very similar estimates if we also use the online respondents.

The will of the majority should always prevail, even over the rights of minorities.

The first two questions are drawn directly from the RWA measure. The other four possess face validity as it relates to authoritarian beliefs.

The tight fit between the childrearing battery and the two questions drawn directly from the RWA measure suggest that the childrearing and RWA approaches capture the same underlying concept. For the first item, "What the country really needs is a strong, determined leader who will crush evil and take us back to our true path," 17.5% of those scoring lowest (0) on the childrearing measure agree compared to 74.3% of those scoring high (4). On the second question, "Our country would be great if we honor the ways of our forefathers, do what the authorities tell us to do, and get rid of the 'rotten apples' who are ruining everything," agreement ranges from 23.3% to 78.3%. Those high on the childrearing measure are expressing authoritarian, not socially conservative, beliefs.

In addition, the six RWA-style questions measure a single underlying factor: the first principal components eigenvalue is 2.69 and the second is .85. We estimated a simple two-factor latent variable model; one factor for the four childrearing items and a second for the six RWA-like items.¹³ The model is an excellent fit to these data,¹⁴ with an estimated correlation between the two factors of .77. The latent factor measured by the childrearing items is highly correlated with the RWA scale. Finally, we specified a multiple group model for White, Black, and Latino Americans that estimates the correlation between the two latent factors for each subgroup.¹⁵ There is little difference in

¹³ The model was estimated using Mplus, version 7.11.

¹⁴ The RMSEA is .058 and the Comparative Fit Index is .97.

¹⁵ We fixed the measurement parameters to be equal across the three groups.

the relationship between the factors across them. The estimated correlations are .75 for Whites, .72 for African Americans, and .63 for Latinos. A model that constrains the covariances across the groups fits the data as well as the unconstrained model does.¹⁶ This indicates that the childrearing measure taps authoritarianism equally well for Whites and minority groups in the U.S. (cf. Pérez and Hetherington 2014). Hence we use all survey respondents, not just non-Hispanic Whites, in the analysis that follows.

Results 2: Exogeneity

We and others have argued that the RWA scale is likely endogenous to politics, and recent work offers evidence it is, in fact, endogenous to attitudes like party support and issue preferences (Van Assche, Dhont, and Pettigrew 2019; Satherly, Sibley, and Osborne 2021). Below, we provide evidence that the childrearing approach is not. Using the ANES and YouGov panel data collections, we explored whether authoritarianism changed over time as a function of a range of social and political attitudes. In the ANES panel these included: ideology, partisanship, moral traditionalism, racial resentment, religiosity, anti-gay attitudes, and Tea Party support. The YouGov data include partisanship, anti-democratic attitudes, and feelings about Donald Trump. With the exception of the Trump thermometer, we operationalized all constructs with multiple items. We estimated cross-lagged structural equation models fixing authoritarianism's factor loadings and thresholds over time to hold constant the meaning of the underlying dimension and predicting wave 2 authoritarianism with wave 1 attitudes and authoritarianism.

¹⁶ While the covariances are not significantly different across the three groups the correlations do vary somewhat as function of group differences in the estimated variances of the two latent variables.

	ANES 20	12-2013	YouGov 20	017-2018	
	Coefficient	<i>p</i> -value	Coefficient	<i>p</i> -value	
Partisanship _{t1}	032	.248	.020	.633	
Ideology _{t1}	043	.153			
Moral Traditionalism _{t1}	080	.109			
Racial resentment _{t1}	040	.209			
Religiosity ₁	.009	.780			
Anti-Gay Attitudes _{t1}	071	.092			
Tea Party Support _{t1}	063	.033			
Anti-Democratic Attitudes _{t1}			.005	.925	
Trump Feelings _{t1}			.048	.210	

Table 1: Exogeneity of Childrearing Measure

Note: Results from structural equation models estimated separately for each social or political attitude. Outcome is wave 2 authoritarianism. All models include wave 1 authoritarianism.

We summarize these tests in Table 1 and provide the full set of questions used to measure each of the wave 1 predictors in the Appendix. In nine of the ten models, we find no significant relationship between wave 1 political preferences and wave 2 authoritarianism. In the one test that grazed statistical significance – Tea Party support in 2012 – the association is weak and the coefficient is in the wrong direction: support for the Tea Party predicts *lower* levels of authoritarianism. Across several plausible sources of change in authoritarianism in two panel studies we find no evidence that it is endogenous to political and social attitudes. It is particularly noteworthy that neither lagged partisanship nor attitudes toward Donald Trump lead to changes in childrearing preferences as this would cast doubt on the use of the measure to help explain party and candidate support.

It is important to recognize that we cannot prove that the childrearing measure is fully exogenous. No matter how many variables we examine it is always possible that evidence of endogeneity could yet emerge from another source. However, the best evidence we have at this point suggests significant endogeneity in RWA measures but no evidence of that for the childrearing measure.

Results 3: Temporal Stability

Although no political attitudes are completely stable over time, their relative stability is important because attitudes that are more central, less peripheral, in political belief systems tend to change less over time (Converse 1964). Based on this logic, Converse used the greater stability of certain attitudes to distinguish them as causes of less stable attitudes. Because authoritarianism is a personality adaptation, moreover, any good measure of it should, theoretically, be relatively stable as well.

To assess the childrearing scale's stability, we use the same panel data as above. We estimated the correlation between responses to the childrearing measure across the two survey waves in each study. These correlations appear separately for the ANES and YouGov surveys in Table 2. The first column presents the Pearson r coefficient. The second presents the correlation from a latent variable model that corrects for measurement error by using a confirmatory factor analysis to examine only the correlation in common variation between items across waves.¹⁷ The results from both data collections offer evidence that the childrearing index exhibits temporal stability. Whether reassessed after several months as was the case for the ANES data, or after just over a year had passed as was the case for the YouGov data, responses are similar. The

¹⁷ The CFA treats items as ordered, fixing item loadings and thresholds between waves to hold constant the meaning of the underlying dimension. Model estimated in R using the lavaan package (Rosseel 2012). Each model displays excellent fit (ANES: CFI = .984, RMSEA = 0.051, SRMR = .041; YouGov: CFI = .988, RMSEA = .052, SRMR = .052). Full model results in the Appendix.

Pearson correlations across waves are about .70 and rise to above .90 after accounting for measurement error.

	Test-Retest	Error-Corrected
	(Pearson's <i>r</i>)	Correlation
ANES (2012-2013)	.69	.92
YouGov (2017-2018)	.71	.91

Table 2: The Stability of Authoritarianism Measures

Note: Correlations based on 1529 and 660 completed responses in the ANES and YouGov surveys. The error corrected estimates fixed the measurement parameters across the waves and included temporal correlated errors.

Results 4: Improving Internal Consistency and Stretching the Scale

Having established that the four-item childrearing scale measures authoritarianism, overcomes the endogeneity problems that plague the RWA, and possesses temporal stability, we turn next to improving it. Previous research reveals that the measure is not sufficiently sensitive to differences in authoritarianism at the upper and lower ends of the distribution. For example, in the 2016 ANES, 13% of respondents received a score of 0 (none of the 4 authoritarian values were selected) while 19% got a score of 4 (all 4 of the authoritarian values were chosen). Compared with measures of similarly abstract concepts, the percentage of responses at the scale extremes is high, suggesting that it is not fully distinguishing very high and very low values.¹⁸

The estimated item response curves from a two-parameter logistic model (2PL) in Figure 1 show why.¹⁹ This model estimates two item parameters: discrimination and difficulty. Discrimination denotes how precisely the item captures authoritarianism with higher values signaling a stronger relationship between an item response and latent authoritarianism and thus

¹⁸ For example, in the 2016 ANES face-to-face survey 3.3% of respondents scored in the highest category of the moral traditionalism scale while 2.0% fell into the lowest category. In that same survey, the numbers in the highest and lowest categories of the egalitarianism scale were 8.5% and 0.4% respectively.

¹⁹ This and subsequent IRT models were estimated in R using the ltm and irtoys packages.

greater precision. Difficulty indicates the level of latent authoritarianism needed for someone to choose the authoritarian value to an item, with higher values indicating that someone must score higher in latent authoritarianism for us to observe such a response.²⁰ While all four of the items are relatively discriminating (the discrimination parameters range from 1.19 to 2.50 indicating observed item responses are sensitive to variation in latent authoritarianism), 3 of the item difficulty parameters are quite close to the mean of the latent distribution (here 0 due to model identification constraints). The easiest item (independence vs. respect) has an estimated item difficulty of -.89 – the probability of choosing the non-authoritarian value is above .5 before values of the latent trait are even one standard deviation below the mean. The hardest item (considerate vs. well-behaved) has an estimated difficulty score of .77.

With no difficulty parameter less than -1 or greater than 1, the 4-item measure does not distinguish between individuals low or high in authoritarianism very well. The parameter estimates indicate that someone one standard deviation above authoritarianism's mean likely has the same observed score as someone two standard deviations above the mean (i.e., both answer all four items in an authoritarian direction). In addition, the similarity in difficulty parameters means these items are to some degree duplicating one another; *respect* offers similar information as *manners*. As a result, the measure offers redundant information about "typical" authoritarians, those near the attitude's center, and hence produces problematically "fat tails." Ideally, the best measure would have scale items with different difficulty scores arrayed across a wide range of authoritarianism.

 $^{^{20}}$ Item difficulty in IRT models is defined as the value of the latent variable at the point at which the probability of a positive response to the item is 0.50.



Figure 1: Item Response Curves for Four Child Values Items, 2016 American National Elections Study Data

In order to obtain a better distribution of authoritarianism scores, we used several pretests (using online surveys) to develop new items that would create a unidimensional scale, with good item discrimination, and a wider range of easy and difficult items.²¹ We arrived at four new questions that we included on an online survey using the Qualtrics panel, which went into the

²¹ We focused on developing pairs of values where the authoritarian response was harder (easier) to select to stretch the lower (upper) tail. We placed these items on two multi-investigator surveys through YouGov, including the YouGov survey used to assess the four-item measure's temporal stability. We then assessed dimensionality using CFA, removing any items capturing another dimension. Finally, we used 2PL item response models to gauge item locations for that set and used this to produce items targeting parts of the distribution lacking items. We did this by focusing on pairs of traits that emphasize order and conformity to greater or lesser degrees and striving to make the specific tradeoff harder or easier. Throughout this process we cared more about addressing similarity in item location and characteristics than redundancy in specific item content. Content similarity is useful because it ensures our items are capturing the same dimension, something we validate statistically through factor analyses. Redundancy in location is more problematic because while adding more items increases precision, this precision is located at specific parts of the distribution, resulting in capturing less faithfully the full range of latent authoritarianism.

field in summer 2019. These items use the same forced-choice format and introductory text and were presented to respondents in a randomized order following the original four items. Table 3 presents the complete set of item pairs, with the new items following the original four (the authoritarian value in each pair is italicized).

Independence	Respect for Elders
Curiosity	Good Manners
Obedience	Self-Reliance
Being Considerate	Being Well-Behaved
Free-spirited	Polite
Orderly	Imaginative
Adaptable	Disciplined
Loyal	Open-minded

Table 3: Qualtrics Study Items

We first estimated a one-factor model treating the items as ordered to determine if the new set of eight items satisfies unidimensionality. The fit statistics were excellent – the comparative fit index (CFI) was .974 and the root mean squared error of approximation (RMSEA) was .053 (90% CI [.045, .063]). The fit estimates are consistent with the assumption that these eight items measure the same latent variable. We report the full model results in the Appendix.²²

We next estimated a 2-parameter item response model for the eight items. The item parameter estimates, presented in Table 4, suggest that the new items are all relatively good measures of authoritarianism. We also plot the associated item response curves for each item and show visually these results in Figure 2. All eight estimated discrimination parameters are above

²² Results in the appendix support measurement equivalence by race for the eight-item measure. We also find measurement equivalence for: sex, college degree, (median) income, region (South vs. non-South), and religious/non-religious.

1, ranging from a low of 1.02 for *loyal* to a high of 2.26 for *good manners*. Importantly, two of the new items have difficulty estimates that improve the ability of the measure to capture variation at the extremes of the latent trait. Polite vs. free-spirited is a relatively easy item that helps to differentiate people who are low in authoritarianism. At the opposite extreme, orderly vs. imaginative is a relatively hard item for those high in authoritarianism. While it would be desirable to have a value pair that is even easier, these new items should help to capture more variance in authoritarianism than the original set of four items can.

Item	Discrimination	Difficulty					
Respect vs. Independence	1.580	522					
	(.112)	(.048)					
Good Manners vs.	2.258	359					
Curiosity	(.170)	(.038)					
Obedience vs. Self-	1.728	.244					
Reliance	(.122)	(.042)					
Well-behaved vs.	1.256	.571					
Considerate	(.093)	(.056)					
Polite vs. Free-spirited	1.432	622					
_	(.103)	(.053)					
Orderly vs. Imaginative	1.045	1.254					
	(.089)	(.097)					
Disciplined vs. Adaptable	1.661	.118					
	(.116)	(.042)					
Loyal vs. Open-minded	1.021	.445					
	(.080)	(.061)					
<i>Note:</i> Entries are parameter estimates from a 2-parameter item-response model with standard errors in parentheses. Model identified by setting the latent distribution to mean zero, unit variance.							

Table 4: Item Parameter Estimates, Qualtrics Study



Figure 2: Item Response Curves, Qualtrics Study

The complete 8-item set substantially improves our ability to capture the concept. The measure's internal reliability increases by over 17% (alpha: .63 [four-item], .74 [eight-item]). Further, we better measure more extreme levels of latent authoritarianism. Figure 3 compares test information curves for the full 8-item set against that for the traditional four, as measured in this same data collection. The relative heights of these curves show how precisely the measure captures different levels of authoritarianism: the more information, the greater the precision. The new items increase our precision in capturing authoritarianism across the construct's range with notable increases at \pm 1-2 standard deviations from the mean. While some have reported improved internal reliability via rating scale outcomes (Brandt and Henry 2012), our new items achieve an identical reliability estimate while overcoming the rating scale approach's inability to capture the tradeoffs in value pairs the forced-choice format creates.

This precision results in a substantial improvement at the extremes of the summed measure. As Figure 4 shows, roughly 15% place at the scale's endpoints, with about 10% at the minimum and just 5% at its maximum. This is a marked improvement over the 4-item version where 35% of respondents place at the scale endpoints (17% at the minimum, 18% at the maximum). It is clear from the distributions in Figures 3 and 4 that the new measure offers more information about the distribution of authoritarianism than the 4-item scale does.





Figure 4: Distribution of Authoritarianism by Measure Version, Qualtrics Study



Results 5: The Empirical Benefits of a Superior Measure

Adding new items improves the measurement properties of the childrearing index. The eight-item construct should, in turn, yield larger estimates of authoritarianism's impact on key political attitudes than the four-item construct. We test this proposition by comparing the

relationships of these two measures with partisan and ideological identity, feeling thermometer ratings of Donald Trump and the Democratic and Republican parties, and policy positions on immigration, gay rights, and criminal justice. We first report the attitudes of low (0) and high (1) authoritarians as categorized by each measure. We then compare the marginal effects of each measure as estimated through a series of regression analyses.

We first consider partisan and ideological self-identification. To model these outcomes, we collapse each identification measure into a 3-category version. Our focus is on the link between authoritarianism and categorical identification. We are less interested in variation within these categories. For partisanship, we treated independent leaners as partisans (Keith et al. 1992), such that the categories in our analysis are Democrats, pure Independents, and Republicans. For ideological self-identification, our final categories are liberals, moderates, and conservatives. We include "don't know" and "haven't thought enough" responses with moderates.²³

Doubling the number of childrearing items offers greater clarity on the political identifications of the least and most authoritarian. Consider partisanship. Using the 4-item measure, 64% of the least authoritarian identify as Democrats and 20% identify as Republicans. Respective percentages for the most authoritarian are 48% and 40%. In using the 8-item version, the least authoritarian split 68% Democratic and 15% Republican, while the most authoritarian divide 34% Democratic and 54% Republican. At the maximum of authoritarianism with the 4-item measure, there is an 8-point difference in the percentages of Democratic and Republican identifiers. That grows to a 20-point difference with the 8-item scale.

A like pattern holds for ideology. For the least authoritarian on the 4-item measure, 53% identify as liberals and 14% identify as conservatives. The most authoritarian tend to identify as

²³ The substantive results persist excluding don't know/haven't thought responses.

conservative (37%), with only 22% identifying as liberal. Turning to the 8-item measure, 58% of the least authoritarian identify as liberal and 10% as conservative. Among the most authoritarian, 56% identify as conservative and 16% identify as liberal. Again, the improved precision at the upper end of the scale is remarkable. Among those scoring at the maximum of the 4-item measure, conservatives outnumber liberals by 15 points. With the 8-item measure, the difference jumps to 40 points.

We next model these relationships with ordered probit models and present the results visually in Figures 5 and 6.²⁴ Two models were estimated for each identity – one using the traditional 4-item measure and one with the new 8-item measure. Further, we estimate the partisanship models separately for Black, Latino, and White Americans to allow for group-specific links. For racial and ethnic minorities, group identity reduces the importance of orientations like authoritarianism when it comes to making partisan-oriented choices (Hajnal and Lee 2011; White and Laird 2020). The figures show the predicted probability of expressing a specific identity and bootstrapped 84% confidence intervals, holding the other covariates at their sample means or modes, as the 4- and 8-item scales vary from 0 to 1. For both partisanship and ideology, the 8-item measure of authoritarianism has a markedly stronger marginal effect on identification than the 4-item version. For example, the probability of a White respondent identifying as a Republican (Figure 4) increases by .30 using the 4-item measure but by .45 with

²⁴ Full model results included in the Appendix. Covariates include sex, age, education, income, religiosity, and indicators for religious denomination, income as missing or refused, and racial group membership. While some may wish to include predispositions like racial resentment as predictors, such orientations arguably come causally after authoritarianism, making the causal ordering of predictors ambiguous and mischaracterizing their relative influence. Indicative of this association, the correlation between authoritarianism and racial resentment grows from .21 to .29 for the four- and eight-item versions, an increase of 38%. The 8-item measure still offers important substantive gains beyond the four-item version in models including racial resentment.

the 8-item scale. Put another way, the marginal effect is 51% larger using the longer scale. For Latinos, this probability of identifying as a Republican triples, from .06 to .18.

The eight-item measure offers similar gains in explaining ideological identification (Figure 5). For conservative identification, the marginal effect is 54% larger when using the 8-item measure compared to the 4-item scale (.43 vs. .28).



Figure 5: Relationship between Authoritarianism and Partisan Self-Identification



Figure 6: Relationship between Authoritarianism and Ideological Self-Identification

To further explore the degree to which improved measurement affects substantive results, we take up three feeling thermometer questions and three measures of policy preferences. The feeling thermometer items asked for evaluations of Donald Trump and the Democratic and Republican parties. We combined responses to policy questions in three substantive areas: restrictions on immigration, gay rights, and punitive criminal justice attitudes. Question wording for these items is provided in the Appendix. All the dependent variables were coded to range from 0 to 1, with higher values corresponding with more conservative views.

As with political identities, we find substantially larger differences in evaluations and preferences across the range of the 8-item measure. Table 5 reports means on each thermometer or policy preference for low or high authoritarians as defined by the 4- or 8-item measures. We also add moderate authoritarians, those scoring at the measure midpoint, as a comparison group. The new items again clarify the attitudinal divide between the least and most authoritarian. Comparing the 8-item measure to the 4-item measure, the least authoritarian are an average of about 4.6 points more liberal in their attitudes. The shift for the most authoritarian is 8 points more conservative, on average. Further, the gains for the least and most authoritarian differ in size by domain. For instance, the change in the mean for the most authoritarian ranges from 2 points on punitive criminal justice policy to 11 points on the party feeling thermometers. For the least authoritarian these items see differences of 8 and 3 points, respectively.

The 8-item measure also strengthens insights in Hetherington and Weiler (2018) and extends these to include Black and Latino Americans as well. Relying on the 4-item measure, the authors argue that those in the middle of the authoritarianism distribution look more like high authoritarians than low ones. Low authoritarians tended to have anomalously liberal attitudes rather than high authoritarians tending to have anomalously conservative ones. Even after stretching the distribution's tails with particular success at the high end, this insight persists. When using the 4-item measure, low authoritarians' attitudes are on average about 16 points more liberal than moderate authoritarians', while high authoritarians' attitudes are only 2 points more conservative than moderate authoritarians'. When using the 8-item measure, these differences increase to 21 and 9 points, respectively. Those low in authoritarianism have unique attitudes relative to others in the distribution, something the existing 4-item scale understates.

		Four-Item		Eight-Item					
	Low	Moderate	High	Low	Moderate	High			
Trump Thermometer	0.28	0.46	0.44	0.23*	0.47	0.51			
Republican Party Thermometer	0.20	0.40	0.39	0.16	0.40	0.50*			
Democratic Party Thermometer	0.56	0.50	0.50	0.59	0.47	0.39*			
Immigration	0.29	0.52	0.52	0.23*	0.53	0.61*			
Gay Rights	0.17	0.33	0.46	0.15	0.33	0.54*			
Punitive Criminal Justice	0.47	0.67	0.69	0.39*	0.67	0.71			
<i>Note</i> : Variables scaled 0-1 with higher values denoting more conservative attitude. Low, moderate, and high indicated by scores of 0, 0.5, and 1, respectively, on associated authoritarianism measure. * denotes $p < .05$ for a difference in means between measure									

Table 5: Attitude Means for Types of Authoritarians, Qualtrics Study

We next evaluate differences in the relationship between these different measures of authoritarianism and political attitudes. Figure 7 includes estimated coefficients and associated 95% confidence intervals for the effects of the child value measures on each dependent variable from a linear regression including either the 4- or 8-item scales and estimated using OLS.²⁵ We estimate the same model for all outcomes but modify this slightly for immigration policy. Extant work suggests that the correlates of immigration opinion vary according to one's racial group membership given the U.S. racial hierarchy (Masuoka and Junn 2013; Carter 2019). We

versions.

²⁵ Full model results included in the Appendix. Covariates include sex, age, education, income, religiosity, and indicators for religious denomination, income as missing or refused, and racial group membership. Since both partisanship and ideology are substantially influenced by authoritarianism, we do not include them as controls in these models. Nor do we include racial resentment again. Including it still sees substantive increases authoritarianism's association from the 4- to 8-item versions.

therefore estimate separate regression models for our White and non-White respondents to allow for these varied links to manifest.

As implied by the mean comparisons, both authoritarianism measures have significant and substantively large effects on each of the six variables. It is not that the 4-item measure is fatally flawed. Rather, the marginal effects for the 8-item measure are consistently *much* larger than the original 4-item scale. The smallest improvement is for the punitive criminal justice measure where the marginal effect increases by 36% (.300 vs. .220). The increases for the other dependent variables range from 40% (gay rights) to 84% (Democratic party feeling thermometer). We find similar increases on immigration attitudes among White respondents (43%). Our results also reveal a muted influence for authoritarianism on immigration opinions among our non-White respondents, consistent with divergent attitudinal correlates. Interestingly, and suggestive of our new measure's gains, the association between authoritarianism and immigration opinion is positive but insignificant for the four-item measure ($\hat{\beta} = .058, p =$.139). But this relationship almost triples in size for the eight-item measure, with the resultant coefficient estimate distinguishable from 0 ($\hat{\beta} = .168, p < .001$). Improving our ability to measure authoritarianism may allow for recovering noisier relationships.

Taken together, these estimates show that, while the original 4-item child values measure does a reasonable job of identifying the effects of authoritarianism on partisanship, ideology, politically relevant feelings, and a range of policy preferences, the 8-item measure does a better job, producing marginal effect estimates that are, on average, more than 50% larger than for the original measure.²⁶

²⁶ Our data unfortunately lack other operationalizations of authoritarianism to which we can compare these gains in predictive validity (e.g., Duckitt et al 2010; Dunwoody and Funke 2016).



Figure 7: Marginal Effects of Authoritarianism on Feeling Thermometer and Policy Measures

Four-Item Eight-Item

Conclusion

Our unsettled political times have led to a resurgent interest in the scholarly study of authoritarianism. Although measurement issues have plagued this area of study, a 4-item measure that makes use of people's childrearing preferences has surmounted some of these problems. In this paper, we have shown that this measure of authoritarianism faithfully measures the concept, is exogenous to politics, and responses to it are stable over time. Better still, we have improved on the measure. Using the same childrearing approach, we identified four additional items that possess excellent discrimination and useful difficulty parameters. By employing the new items along with the traditional four, we have substantially reduced the percentage of people who score at the absolute maximum and minimum of the scale. Whereas the traditional four-item desirable qualities measure has often placed a third (and sometimes more) of respondents at its poles, our new 8-item battery reduces that percentage by half. The improved measure provides a substantial practical payoff. The 8-item measure produces marginal effects often more than fifty percent larger than that of the 4-item measure. Even the smallest increases in marginal effects we found were over 30 percent. As Bakker and Lelkes (2018) demonstrate, abbreviated but still reliable scales can, at times, offer insights at odds with longer versions of the scales, with meaningful improvements to substantive understanding coming from adding additional items. This is particularly consequential for binary measures like the childrearing items. By less precisely capturing the full breadth of latent authoritarianism, the 4-item measure likely undersells treatment effects in experiments where the least or most authoritarian are particularly responsive. The 8-item version should help scholars avoid a potential file-drawer problem by enhancing their ability to capture a core concept. Our results for understanding non-White Americans' immigration opinions are especially suggestive of these gains.

Because the four additional items use the same childrearing approach, adding them to questionnaires will increase survey time only marginally. Whether the survey includes four or eight pairs of items, respondents must read the three-sentence preamble only once before choosing between the pairs. Each answer is a judgment between two qualities, which are either one or two words in length. We estimate each choice between pairs takes five to ten seconds. Hence adding the four new questions will increase survey time by about 30 seconds, a small price to pay for the benefit of such large increases in explanatory power.

The preceding results have limitations. Central among these is that we do not directly compare our extension of the childrearing values measure to other operationalizations of authoritarianism (e.g., Duckitt et al. 2010; Dunwoody and Funke 2016). Our assessments of temporal stability and relative predictive validity do not provide information on the performance

30

of alternatives to showcase a "best possible" operationalization. While this may be desired, we reiterate that many items in these measures reflect the rhetoric of right-wing politicians and media, which we find problematic. Although helpful for content validity, this approach creates potential endogeneity problems for even presumptively fundamental orientations (Goren 2005; Lenz 2012; Engelhardt 2020), something recent work finds for RWA (Van Assche, Dhont, and Pettigrew 2019; Satherly, Sibley, and Osborne 2021). Any assessment of relative predictive validity then faces an ambiguous causal ordering. Likewise, we also lack a broad suite of other constructs to show construct validity gains (e.g., ethnocentrism, need for cognition). Given the gains in predictive validity we demonstrate, we suspect other constructs would see similar gains. That we find a stronger correlation with racial resentment between the four- and eight-item operationalizations is suggestive of this possibility.

Our goal has been to give scholars interested in explaining the myriad challenges facing democracies today the best tools. While our validation focuses on the United States, we expect this operationalization to work cross-nationally as the four-item measure functions the same in samples from the United Kingdom to France and Germany (Hetherington and Weiler 2018) and across Latin America (Cohen and Smith 2016). With authoritarianism providing a potential reservoir of support for right-wing politicians globally, we hope scholars will find this improved measure useful for explaining these anti-democratic threats.

Ethical approval: "All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards." **Informed consent:** "Informed consent was obtained from all individual participants included in the study."

References

Adorno, Theodore, Else Frenkel-Brunswik, Daniel Levinson, and Nevitt Sanford. 1950. *The Authoritarian Personality*. New York: Harper & Brothers.

Altemeyer, Robert. 1981. *Right-Wing Authoritarianism*. Winnipeg: University of Manitoba Press.

Altemeyer, Bob. 1988. Enemies of freedom. Jossey-Bass.

Altemeyer, Bob. 1996. The Authoritarian Specter. Cambridge: Harvard University Press.

Van Assche, Jasper, Alain Van Hiel, Kristof Dhont, and Arne Roets. 2019. "Broadening the Individual Differences Lens on Party Support and Voting Behavior: Cynicism and Prejudice as Relevant Attitudes Referring to Modern-Day Political Alignments." *European journal of social psychology* 49(1): 190–99.

Van Assche, Jasper, Kristof Dhont, and Thomas F Pettigrew. 2019. "The Social-Psychological Bases of Far-Right Support in Europe and the United States." *Journal of Community & Applied Social Psychology* 29: 385–401.

Bakker, Bert N, and Yphtach Lelkes. 2018. "Selling Ourselves Short? How Abbreviated Measures of Personality Change the Way We Think About Personality and Politics." *The Journal of Politics* 80(4): 1311–25.

Brandt, Mark J, and P J Henry. 2012. "Gender Inequality and Gender Differences in Authoritarianism." *Personality and Social Psychology Bulletin* 38(10): 1301–15.

Brandt, Mark J, and Christine Reyna. 2014. "To Love or Hate Thy Neighbor: the Role of Authoritarianism and Traditionalism in Explaining the Link Between Fundamentalism and Racial Prejudice." *Political Psychology* 35(2): 207–23.

Carter, Niambi M. 2019. American While Black. New York: Oxford University Press.

Christie, Richard and Jahoda, Marie. 1954. *Studies in the scope and method of "The authoritarian personality."* Glencoe: Free Press.

Cizmar, Anne M., Geoffrey C. Layman, John McTague, Shanna Pearson-Merkowitz, and Michael Spivey. 2014. "Authoritarianism and American political behavior from 1952 to 2008." *Political Research Quarterly* (67)1: 71-83.

Cohen, Mollie J, and Amy Erica Smith. 2016. "Do Authoritarians Vote for Authoritarians? Evidence From Latin America." *Research & Politics* 3(4): 205316801668406–8.

Duckitt, John. 1989. "Authoritarianism and Group Identification: a New View of an Old Construct." *Political Psychology* 10(1): 63–84.

Duckitt, John, Boris Bizumic, Stephen W Krauss, and Edna Heled. 2010. "A Tripartite Approach to Right-Wing Authoritarianism: the Authoritarianism-Conservatism-Traditionalism Model." *Political Psychology* 31(5): 685–715.

Dunwoody, Philip T, and Friedrich Funke. 2016. "The Aggression-Submission-Conventionalism Scale: Testing a New Three Factor Measure of Authoritarianism." *Journal of Social and Political Psychology* 4(2): 571–600.

Dunwoody, Philip T, and Sam G McFarland. 2018. "Support for Anti-Muslim Policies: the Role of Political Traits and Threat Perception." *Political Psychology* 39(1): 89–106.

Engelhardt, Andrew M. 2019. "Trumped by Race: Explanations for Race's Influence on Whites' Votes in 2016." *Quarterly Journal of Political Science* 14(3): 313–28.

Engelhardt, Andrew M. 2020. "Racial Attitudes Through a Partisan Lens." *British Journal of Political Science*.

Feldman, Stanley. 2003. "Enforcing Social Conformity: a Theory of Authoritarianism." *Political Psychology* 24(1): 41–74.

Feldman, Stanley. 2020. "Authoritarianism, threat, and intolerance." In Eugene Borgida, Christopher Federico, and Joanne Miller (eds), *At the forefront of political psychology: Essays in honor of John L. Sullivan.* New York: Routledge.

Feldman, Stanley, and Karen Stenner. 1997. "Perceived Threat and Authoritarianism." *Political Psychology* 18(4): 741–70.

Fromm, Eric. 1957. "The Authoritarian Personality." Deutsche Universitätszeitung, 12(9): 3-4.

Gilens, Martin. 1999. Why Americans Hate Welfare. Chicago: University of Chicago Press.

Goren, Paul. 2005. "Party Identification and Core Political Values." *American Journal of Political Science* 49(4): 881–96.

Hajnal, Zoltan L, and Taeku Lee. 2011. *Why Americans Don't Join the Party*. Princeton: Princeton University Press.

Hetherington, Marc J, and Jonathan D Weiler. 2009. *Authoritarianism and Polarization in American Politics*. New York: Cambridge University Press.

Hetherington, Marc, and Elizabeth Suhay. 2011. "Authoritarianism, Threat, and Americans' Support for the War on Terror." *American Journal of Political Science* 55(3): 546–60.

Hetherington, Marc J, and Jonathan D Weiler. 2018. *Prius or Pickup?* New York: Houghton Mifflin Harcourt.

Johnston, Christopher D, Howard G Lavine, and Christopher M Federico. 2017. *Open Versus Closed*. New York: Cambridge University Press.

Johnston, Christopher D, and Julie Wronski. 2015. "Personality Dispositions and Political Preferences Across Hard and Easy Issues." *Political Psychology* 36(1): 35–53.

Kehrberg, Jason E. 2017. "The Mediating Effect of Authoritarianism on Immigrant Access to TANF: a State-Level Analysis." *Political Science Quarterly* 132(2): 291–311.

Keith, Bruce E et al. 1992. *The Myth of the Independent Voter*. Berkeley: University of California Press.

Kinder, Donald R, and Cindy D Kam. 2009. Us Against Them. Chicago: University of Chicago Press.

Lenz, Gabriel S. 2012. Follow the Leader?. Chicago: University of Chicago Press.

Masuoka, Natalie, and Jane Junn. 2013. *The Politics of Belonging*. Chicago: University of Chicago Press.

Miller, Patrick R et al. 2017. "Transgender Politics as Body Politics: Effects of Disgust Sensitivity and Authoritarianism on Transgender Rights Attitudes." *Politics, Groups and Identities* 5(1): 4–24.

Pérez, Efrén O, and Marc J Hetherington. 2014. "Authoritarianism in Black and White: Testing the Cross-Racial Validity of the Child Rearing Scale." *Political Analysis* 22(3): 398–412.

Pietryka, Matthew T. and MacIntosh, Randall C. Forthcoming. "ANES Scales Often Don't Measure What You Think They Measure." *The Journal of Politics*.

Rosseel, Yves. 2012. "lavaan: An R Package for Structural Equation Modeling." *Journal of Statistical Software*. 48(2): 1–36.

Satherley, Nicole, Chris G Sibley, and Danny Osborne. 2021. "Ideology Before Party: Social Dominance Orientation and Right-Wing Authoritarianism Temporally Precede Political Party Support." *British Journal of Social Psychology*. 60(2): 509-523.

Schwartz, Shalom H. 1992. "Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries." *Advances in experimental social psychology* 25(1): 1-65.

Smith, Brianna A et al. 2018. ""Gay" or "Homosexual?" the Implications of Social Category Labels for the Structure of Mass Attitudes." *American Politics Research* 46(2): 336–72.

Smith, Kevin B et al. 2011. "Linking Genetics and Political Attitudes: Reconceptualizing Political Ideology." *Political Psychology* 32(3): 369–97.

Stenner, Karen. 2005. The Authoritarian Dynamic. New York: Cambridge University Press.

Velez, Yamil Ricardo, and Howard G Lavine. 2017. "Racial Diversity and the Dynamics of Authoritarianism." *The Journal of Politics* 79(2): 519–33.

Weber, Christopher, Christopher Federico, and Stanley Feldman. 2017. "How Authoritarianism is Shaping American Politics (And It's Not Just About Trump)." *The Washington Post*. May 10, 2017 (<u>https://www.washingtonpost.com/news/monkey-cage/wp/2017/05/10/how-authoritarianism-is-shaping-american-politics-and-its-not-just-about-trump/</u>).

White, Ismail K, and Chryl N Laird. 2020. *Steadfast Democrats*. Princeton: Princeton University Press.

Vasilopoulos, Pavlos, and Romain Lachat. 2017. "Authoritarianism and Political Choice in France." *Acta Politica* 53(4): 612-634.

Online Appendix: Advancing the Measurement of Authoritarianism

The result and analyses reported here clarify and extend those presented in the main text.

Table A1 Variables Used to Measure the Wave 1 Predictors in Table 1

1. ANES 2012-13 Panel Study

Partisanship:

Seven-point Party Identification Republican Feeling Thermometer Democratic Feeling Thermometer

Ideology:

Seven-point Ideological Self-Identification Conservative Feeling Thermometer Liberal Feeling Thermometer

Moral Traditionalism (all 5-point Agree/Disagree):

The world is always changing and we should adjust our view of moral behavior to those changes.

The newer lifestyles are contributing to the breakdown of our society.

We should be more tolerant of people who choose to live according to their own moral standards, even if they are very different from our own.

This country would have many fewer problems if there were more emphasis on traditional family ties.

Racial Resentment (all 5-point Agree/Disagree):

Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same with any special favors.

Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class.

Over the past few years, blacks have gotten less than they deserve.

It's really a matter of some people not trying hard enough; if blacks would only try harder they could be just as well off as whites.

Religiosity:

Do you consider religion to be an important part of your life, or not?

Would you say that your religion provides some guidance in your day-to-day living, quite a bit of guidance, or a great deal of guidance in your day-to-day life?

Outside of attending religious services, do you pray several times a day, once a day, a few times a week, once a week or less or never?

Do you go to religious services every week, almost every week, once or twice a month, a few times a year, or never?

Anti-Gay Rights:

Which comes closest to your view? Gay and lesbian couples should be allowed to legally marry. Gay and lesbian couples should be allowed to form civil unions but not legally marry. There should be no legal recognition of a gay or lesbian couple's relationship.

Do you strongly favor, favor, oppose, or strongly oppose laws to protect homosexuals against job discrimination?

Do you think gays and lesbians should be allowed to serve in the United States Armed Forces or don't you think so? (Do you feel strongly or not strongly?)

Do you thin gay or lesbian couples should be legally permitted to adopt children?

Tea Party Support:

Do you support, oppose, or neither support nor oppose the Tea Party movement? Would you say your [support/opposition] is strong or not very strong? Tea Party Feeling Thermometer

2. YouGov 2017-18 Panel Study

Partisanship:

Seven-point Party Identification Republican Feeling Thermometer Democratic Feeling Thermometer

Anti-democratic Attitudes (all 4-point good/bad)

Having a strong leader who does not have to bother with Congress and elections. Having experts, not government, make decisions according to what they think is best for the country.

Having the military rule.

Trump Feelings Trump Feeling Thermometer

Tables A2 and A3 report the full results for our models testing authoritarianism's stability after
correcting for measurement error.

	Parameter Estimate	Standard Error				
Obedience	0.801	0.020				
Good Manners	0.782	0.021				
Respect for Elders	0.727	0.025				
Well-behaved	0.530	0.028				
Obedience (τ_1)	-0.083	0.028				
Good Manners (τ_1)	-0.396	0.029				
Respect for Elders (τ_1)	-0.691	0.030				
Well-behaved (τ_1)	0.434	0.028				
Cor(Authoritarianism ₂₀₁₂ ,	0.915	0.019				
Authoritarianism ₂₀₁₃)						
Ν	152	9				
χ2	112.:	52				
DF	23					
CFI	0.98	4				
RMSEA [90% CI]	0.051 [.041, .060]					
SRMR	0.04	-1				

Table A2 Authoritarianism's Temporal Stability, 2012-2013 ANES

Note: Model estimated using diagonally weighted least squares. Parameter estimates and associated standard errors. Factor loadings, thresholds, and item error variances constrained to equality over time.

	Parameter Estimate	Standard Error				
Obedience	0.772	0.028				
Good Manners	0.902	0.019				
Respect for Elders	0.762	0.029				
Well-behaved	0.618	0.036				
Obedience (τ_1)	0.281	0.043				
Good Manners (τ_1)	-0.210	0.043				
Respect for Elders (τ_1)	-0.420	0.044				
Well-behaved (τ_1)	0.412	0.044				
Cor (Authoritarianism ₂₀₁₇ , Authoritarianism ₂₀₁₈)	0.906	0.024				
N	660)				
χ2	65.9	2				
DF	24					
CFI	0.988					
RMSEA [90% CI]	.052 [.037, .067]					
SRMR	0.05	52				

Table A3 Authoritarianism's Temporal Stability, 2017-2018 YouGov

Note: Model estimated using diagonally weighted least squares. Parameter estimates and associated standard errors. Factor loadings, thresholds, and item error variances constrained to equality over time.

Pilot Study Details

We report here additional details on the two pilot studies developing the additional items for the childrearing measure. Both data collections were provided by YouGov. The first ran May 11-29, 2018, and the second ran July 13-23, 2018. Both were nationally representative samples of 1500 and 1200 respondents, respectively. Both studies included the traditional 4-item measure. Table A4 reports these items as well as the item pairs we included in each pilot. Within each pilot we evaluated the item set's dimensionality using CFA, retaining items capturing a single dimension. Those items were saved and included in the Qualtrics study we report here which confirms their unidimensionality.

Table A4: Pilot Study Item Pairs					
Independence	Respect for Elders				
Curiosity	Good Manners				
Obedience	Self-Reliance				
Being Considerate	Being Well-Behaved				
Pilot Study 1					
Creative	Hard-working				
Orderly	Imaginative				
Adaptable	Disciplined				
Loyal	Open-minded				
Tough	Kind				
Forceful	Empathetic				
Pilot Study 2					
Orderly	Imaginative				
Free-spirited	Polite				
Tough	Kind				
Forceful	Empathetic				
Aggressive	Compromising				
Courteous	Law Abiding				

Table A's Communicity Factor Analysis of 2017 Quantities Study							
	Parameter Estimate	Standard Error					
Obedience	0.716	0.022					
Good Manners	0.805	0.021					
Respect for Elders	0.623	0.026					
Well-behaved	0.601	0.026					
Polite	0.583	0.028					
Disciplined	0.702	0.023					
Orderly	0.530	0.029					
Loyal	0.536	0.027					
Obedience (τ_1)	0.172	0.029					
Good Manners (τ_1)	-0.291	0.029					
Respect for Elders (τ_1)	-0.359	0.030					
Well-behaved (τ_1)	0.342	0.030					
Polite (τ_1)	-0.405	0.030					
Disciplined (τ_1)	0.080	0.029					
Orderly (τ_1)	0.664	0.031					
Loyal (τ_1)	0.233	0.029					
N	1	1871					
χ^2	12	20.21					
DF		20					
CFI	C	0.974					
RMSEA [90% CI]	.053 [.	045, .063]					
SRMR	0	0.053					

Table A5 reports the results for our measurement model establishing that our new 8-item measure is unidimensional.

Table A5 Confirmatory Factor Analysis of 2019 Qualtrics Study

Note: Model estimated using diagonally weighted least squares. Parameter estimates and associated standard errors.

				Ideological				
	Wh	ites	Bla	icks	Lat	inos	Identit	fication
	Four- Item	Eight- Item	Four- Item	Eight- Item	Four- Item	Eight- Item	Four-Item	Eight-Item
Authoritarianism	0.821***	1.265***	-0.224	0.178	0.262	0.750***	0.841***	1.312***
	(0.110)	(0.129)	(0.279)	(0.342)	(0.217)	(0.261)	(0.085)	(0.102)
Age	-0.163	-0.209	-1.017***	-1.076***	0.388	0.330	0.265**	0.208
	(0.158)	(0.159)	(0.475)	(0.483)	(0.415)	(0.417)	(0.128)	(0.129)
Female	-0.020	-0.005	-0.122	-0.169	-0.096	-0.025	0.077	0.095
	(0.088)	(0.088)	(0.184)	(0.181)	(0.523)	(0.526)	(0.068)	(0.069)
South	0.107	0.121	0.017	-0.005	0.151	0.174	-0.026	-0.034
	(0.075)	(0.076)	(0.174)	(0.175)	(0.142)	(0.143)	(0.056)	(0.057)
Religiosity	0.289^{**}	0.224^{*}	0.333	0.291	0.072	0.035	0.180^{**}	0.123
	(0.116)	(0.117)	(0.274)	(0.274)	(0.239)	(0.241)	(0.089)	(0.090)
Catholic	0.145	0.135	0.298	0.314	-0.279	-0.341	0.078	0.052
	(0.119)	(0.119)	(0.333)	(0.333)	(0.260)	(0.262)	(0.092)	(0.093)
Protestant	0.380^{***}	0.352***	0.313	0.315	0.431	0.315	0.427^{***}	0.396***
	(0.119)	(0.120)	(0.301)	(0.301)	(0.399)	(0.405)	(0.097)	(0.097)
Evangelical	0.400^{***}	0.344**	0.044	0.015	0.474	0.399	0.453***	0.391***
	(0.147)	(0.148)	(0.291)	(0.291)	(0.323)	(0.325)	(0.110)	(0.110)
No Religion	-0.003	-0.010	0.405	0.402	-0.147	-0.138	0.100	0.089
	(0.118)	(0.119)	(0.269)	(0.269)	(0.272)	(0.271)	(0.091)	(0.091)
Income	0.174	0.184	-0.503	-0.522	-0.576*	-0.604^{*}	0.203^{*}	0.204^{*}
	(0.152)	(0.153)	(0.362)	(0.362)	(0.318)	(0.318)	(0.118)	(0.118)
Income (Missing)	0.134	0.126	-0.373	-0.423	0.316	0.286	0.406***	0.397***
	(0.177)	(0.179)	(0.411)	(0.416)	(0.334)	(0.335)	(0.134)	(0.135)
Education	-0.045	-0.029	-0.116	-0.097	-0.191*	-0.174	-0.042	-0.026
	(0.059)	(0.059)	(0.127)	(0.127)	(0.114)	(0.115)	(0.044)	(0.044)
White							0.303***	0.304***
							(0.087)	(0.087)
Black							-0.319***	-0.329***
							(0.106)	(0.106)
Observations	1,223	1,223	247	247	348	348	1,871	1,871

Tables A6 and A7 report the full model results comparing the association between the 4- and 8- item measures of authoritarianism and key political outcomes.

Table A6: Authoritarianism and Self-Identification

Note: p < .10 * p < .05 * p < 0.01. Cell entries are ordered probit coefficients and associated standard errors.

	Turner	n FT	Republic	can Party	Democra	tic Party		Immigratio		Immigration		Gay Rights		Punitive	Criminal
	IIuiii	lp I I	F	Т	F	Т	Wh	ites	Non-V	Whites	Uay I	Aights	Jus	tice	
	4-Item	8-Item	4-Item	8-Item	4-Item	8-Item	4-Item	8-Item	4-Item	8-Item	4-Item	8-Item	4-Item	8-Item	
Authoritarianism	.159***	.260***	.197***	.318***	127***	234***	.319***	.457***	.058	.168***	.247***	.346***	.220***	.300***	
	(.023)	(.027)	(.026)	(.030)	(.024)	(.028)	(.029)	(.032)	(.039)	(.047)	(.020)	(.023)	(.021)	(.025)	
Age	027	039	$.066^{*}$.051	.017	.029	.014	.0002	.059	.037	.174***	.160***	.001	012	
	(.036)	(.035)	(.040)	(.039)	(.037)	(.036)	(.041)	(.040)	(.070)	(.069)	(.031)	(.030)	(.033)	(.033)	
Female	034*	031	059***	054***	.024	.021	041*	035	077**	081**	- .044 ^{***}	039**	.012	.016	
	(.019)	(.019)	(.021)	(.021)	(.020)	(.019)	(.023)	(.022)	(.032)	(.032)	(.016)	(.016)	(.018)	(.017)	
White	.166***	.165***	.210***	.209***	156***	157***					.002	001	.046**	.043*	
	(.024)	(.024)	(.027)	(.026)	(.025)	(.025)					(.021)	(.020)	(.022)	(.022)	
Black	086***	087***	084**	085***	.104***	.106***					.020	.021	122***	120***	
	(.030)	(.029)	(.033)	(.032)	(.030)	(.030)					(.025)	(.025)	(.027)	(.027)	
South	.025	.024	.036**	.034**	018	017	.023	.026	.008	.005	008	009	.017	.016	
	(.016)	(.016)	(.017)	(.017)	(.016)	(.016)	(.020)	(.019)	(.025)	(.025)	(.013)	(.013)	(.014)	(.014)	
Religiosity	.109***	.096***	.141***	.125***	.023	.036	.092***	.067**	.173***	.166***	.115***	.101***	.031	.019	
	(.025)	(.024)	(.027)	(.027)	(.025)	(.025)	(.030)	(.030)	(.041)	(.041)	(.021)	(.021)	(.023)	(.023)	
Catholic	.033	.027	.063**	.056**	.022	.029	$.060^{*}$	$.055^{*}$	011	016	021	027	.052**	.047**	
	(.026)	(.025)	(.029)	(.028)	(.026)	(.026)	(.031)	(.030)	(.044)	(.043)	(.022)	(.022)	(.024)	(.023)	
Protestant	.089***	.079***	.100***	$.088^{***}$	065**	055**	.053*	.037	.033	.029	.064***	.053**	.022	.013	
	(.027)	(.027)	(.030)	(.029)	(.028)	(.027)	(.031)	(.031)	(.053)	(.052)	(.023)	(.023)	(.025)	(.024)	
Evangelical	.065**	.049	.140***	.121***	070**	054*	.092**	$.070^{*}$.020	.008	.087***	.071***	.049*	.035	
	(.031)	(.030)	(.034)	(.033)	(.031)	(.031)	(.038)	(.037)	(.049)	(.049)	(.026)	(.026)	(.028)	(.028)	
No Religion	018	020	.027	.024	029	028	001	007	.039	.044	.018	.013	.029	.024	
	(.026)	(.025)	(.028)	(.028)	(.026)	(.026)	(.031)	(.030)	(.044)	(.043)	(.022)	(.021)	(.023)	(.023)	
Income	.072**	.071**	.092**	.091**	.004	.004	.095**	.096**	021	023	045	047*	.097***	.094***	
	(.033)	(.032)	(.036)	(.036)	(.034)	(.033)	(.040)	(.039)	(.056)	(.056)	(.028)	(.028)	(.030)	(.030)	

Table A7: Authoritarianism and Attitudes

Income (Missing)	019	024	029	034	110***	106***	.055	.053	049	053	.044	.039	.032	.028
	(.038)	(.037)	(.042)	(.041)	(.039)	(.038)	(.045)	(.044)	(.066)	(.065)	(.032)	(.032)	(.035)	(.034)
Education	040***	036***	051***	046***	.033***	.028**	036**	031**	040**	036*	- .030 ^{***}	- .027 ^{***}	.010	.013
	(.012)	(.012)	(.014)	(.013)	(.013)	(.012)	(.015)	(.015)	(.019)	(.019)	(.010)	(.010)	(.011)	(.011)
Constant	.202***	.169***	.024	015	.623***	.662***	.308***	.264***	.289***	.243***	.146***	.122***	.392***	.374***
	(.035)	(.034)	(.039)	(.038)	(.036)	(.035)	(.045)	(.044)	(.056)	(.055)	(.030)	(.029)	(.032)	(.032)
Observations	1,871	1,871	1,871	1,871	1,871	1,871	1,261	1,261	610	610	1,871	1,871	1,871	1,871
Residual Std. Error	.317	.313	.351	.346	.326	.322	.317	.309	.300	.298	.272	.267	.291	.288

Note: p < .10 **p < .05 ***p < 0.01. Cell entries are OLS coefficient estimates and associated standard errors.

Tables A8 and A9 report the results from measurement equivalence analyses establishing the cross-group validity of our proposed eight-item extension to the childrearing measure. This extends analyses provided in the main text indicating the four-item version captures the same construct for Black, Latino, and White Americans (cf. Pérez and Hetherington 2014). We use the same multi-group confirmatory factor analysis approach prior work uses (Pérez and Hetherington 2014). This compares three nested factor analysis models which iteratively freely estimate item factor loadings and thresholds, constrains loadings but not thresholds across groups, and constraining loadings and thresholds. These are known as configural, metric, and scalar equivalence tests, respectively (Brown 2015). We modify the typical model comparison approach slightly by considering not only $\Delta \chi^2$ but also change in three other fit measures: the comparative fit index (CFI), standardized root mean square residual (SRMR), and root mean square error of approximation (RMSEA). These other fit statistics address known issues in using χ^2 alone to evaluate change in model fit. Because they lack sampling distributions, we use permutation randomization to approximate a distribution of fit changes under a null of no difference in fit (Jorgensen et al 2018). To identify the models and avoid arbitrarily selecting an anchor item we set the variance for latent authoritarianism to 1 for each group (Brown 2015).²⁸

Table A8 reports the model fit comparisons for these tests and Table A9 reports the estimated model parameters. The results offer evidence for measurement equivalence. Specifically, the measure meets full metric and partial scalar equivalence across Black, Latino, and White Americans. Model fit reliably changes between the metric and scalar models, but freely estimating the threshold for *well-behaved* yields a model whose fit does not differ from the

²⁸ The substantive results persist identifying the models using effect coding or anchor items.

metric model, establishing partial scalar equivalence. Partial equivalence is a sufficient condition for measurement equivalence where one or more item parameters are freely estimated across groups (Byrne, Shavelson, and Muthen 1989). This evidence, particularly full metric equivalence, supports our use of the eight-item operationalization for the full sample in the Qualtrics study.

	χ^2	CFI	SRMR	RMSEA	$\Delta\chi^2$	р	ΔCFI	р	ΔSRMR	р	ΔRMSEA	р
Configural	21.47	.962	.063	.063								
Metric	226.43	.962	.075	.056	15.955	.005	.000	.005	.012	.006	007	.005
Scalar	291.95	.945	.082	.069	65.523	.011	017	.015	.007	.000	.012	.104
Scalar—												
Partial ¹	249.93	.955	.076	.063	23.505	.913	007	.921	.000	.022	.007	.925

Table A8: Model Fit Comparisons for Measurement Equivalence Tests

Note: 1: frees well-behaved's threshold.

		Configural			Metric			Scalar			Partial Scalar	
	Black	Latino	White	Black	Latino	White	Black	Latino	White	Black	Latino	White
Good Manners	.559 (.076)	.652 (.060)	.708 (.028)		.680 (.024)			.717 (.027)			.717 (.027)	
Polite	.590 (.073)	.690 (.053)	.715 (.027)		.698 (.023)			.717 (.026)			.721 (.026)	
Respect for Elders	.652 (.073)	.650 (.058)	.712 (.027)		.695 (.023)			.717 (.027)			.716 (.027)	
Disciplined	.625 (.072)	.565 (.061)	.583 (.033)		.580 (.027)			.613 (.032)			.583 (.033)	
Obedience	.722 (.071)	.764 (.055)	.796 (.023)		.786 (.020)			.792 (.023)			.791 (.023)	
Well-behaved	.636 (.072)	.592 (.060)	.719 (.026)		.690 (.023)			.718 (.026)			.721 (.026)	
Orderly	.330 (.094)	.481 (.071)	.564 (.034)		.519 (.029)			.547 (.031)			.553 (.032)	
Loyal Good Manners	.387 (.087)	.476 (.065) 350	.578 (.031) 440		.539 (.027)			.564 (.031)			.568 (.031)	
(τ1)	313 (.080)	(.068)	(.037)	313 (.080)	350 (.068)	440 (.037)		390 (.035)			228 (.034)	
Polite (τ1) Respect for Elders	251 (.080)	.077 (.066) 358	.285 (.036) 344	251 (.080)	.077 (.066)	.285 (.036)		.255 (.033)			399 (.035)	
(\tau1)	442 (.082)	(.068)	(.036)	442 (.082)	358 (.068)	344 (.036)		311 (.034)			323 (.034)	
Disciplined (t1)	110 (.079)	.028 (.066) 449	.537 (.037) 191	110 (.079)	.028 (.066)	.537 (.037)		.431 (.034)			.142 (.033)	
Obedience (t1)	601 (.084)	(.069)	(.036)	601 (.084)	449 (.069)	191 (.036)		210 (.034)		.135	.240 (.033) .124	.537
Well-behaved $(\tau 1)$	210 (.080)	.000 (.066)	.161 (.035)	210 (.080)	.000 (.066)	.161 (.035)		.158 (.033)		(.076)	(.069)	(.037)
Orderly (t1)	.520 (.083)	.560 (.070)	.726 (.039)	.520 (.083)	.560 (.070)	.726 (.039)		.752 (.037)			.745 (.037)	
Loyal (t1)	.210 (.080)	.233 (.067)	.238 (.036)	.210 (.080)	.233 (.067)	.238 (.036)		.290 (.033)			.280 (.033)	
Ν	252	358	1261	252	358	1261	252	358	1261	252	358	1261
χ2		210.47			226.43			291.95			249.93	
DF		60			76			74			72	
CFI RMSEA		0.962			0.962			0.945			0.955	
[90% CI]	0.0	63 [0.054, 0.07	73]	0.0	56 [0.048, 0.06	5]	0.00	69 [0.061, 0.	077]	0.0	063 [0.055, 0.0	72]
SRMR		0.063			0.075			0.082			0.076	

 Table A9: Parameter Estimates for Measurement Equivalence Tests

Tables A10-A14 continue these analyses but compares other types of individuals. We compare respondents by sex, college degree (four-year degree or not), religion (atheists and Nones or other traditions), region (South vs. non-South defined by former Confederacy), and income (under or over \$40,000 based on median split). With our interest in establishing measurement equivalence we present the model fit comparisons like Table A8. In all instances the results indicate comparisons meeting at least partial metric and/or scalar equivalence.

Table A10: Model Fit Comparisons for Measurement Equivalence Tests, Sex

	χ^2	CFI	SRMR	RMSEA	$\Delta \chi^2$	р	ΔCFI	р	ΔSRMR	р	ΔRMSEA	р
Configural	197.12	.959	.061	.065								
Metric	182.08	.965	.066	.055	-15.03	.128	.006	.128	.005	.105	010	.128
Scalar	290.90	.937	.066	.075	108.81	.000	028	.000	.000	.160	.020	.000
Scalar—												
Partial ¹	253.86	.946	.065	.070	71.78	.000	019	.000	001	.327	.015	.000
Scalar—												
Partial ^{1,2}	215.75	.956	.068	.064	33.66	.550	009	.562	.002	.027	.009	.566

Note: Comparison categories are male and female. 1: frees *orderly*'s threshold; 2: frees *well-behaved*'s threshold **Table A11: Model Fit Comparisons for Measurement Equivalence Tests, College Degree**

	χ^2	CFI	SRMR	RMSEA	$\Delta \chi^2$	р	∆CFI	р	∆SRMR	р	ΔRMSEA	р
Configural	202.29	.958	.062	.066								
Metric	244.50	.949	.077	.066	42.21	.000	009	.000	.016	.000	.000	.000
Metric												
Partial ¹	210.32	.958	.069	.061	8.04	.010	.000	.010	.008	.004	005	.009
Metric-												
Partial ^{1,2}	186.80	.963	.064	.057	-15.49	.371	.006	.375	.003	.199	009	.371
Scalar	278.96	.940	.073	.073	44.69	.001	012	.001	.016	.000	.009	.001
Scalar—												
Partial ^{1,2,3}	212.52	.956	.073	.064	25.72	.392	007	.396	.008	.000	.007	.409

Note: Comparison categories are four-year degree or more and less than four-year degree. 1: frees *orderly*'s loading; 2: frees *well-behaved*'s loading; 3: frees *good manners*'s threshold

Table A12: Model Fit Con	parisons for	Measurement Ec	uivalence '	Tests, Rel	igion
				,	

	χ^2	CFI	SRMR	RMSEA	$\Delta \chi^2$	р	∆CFI	р	∆SRMR	р	ΔRMSEA	р
Configural	198.56	.955	.063	.065								
Metric	175.35	.964	.066	.053	-23.21	.250	.009	.354	.003	.470	012	.250
Scalar	218.19	.951	.100	.062	42.85	.134	012	.050	.035	.000	.009	.184
Scalar—												
Partial ¹	209.59	.954	.096	.062	34.24	.519	010	.344	.031	.000	.008	.541

Note: Comparison categories are atheists/Nones and other traditions. 1: frees respect's threshold

	χ^2	CFI	SRMR	RMSEA	$\Delta \chi^2$	р	ΔCFI	р	∆SRMR	р	ΔRMSEA	р
Configural	211.93	.955	.063	.068								
Metric	184.92	.964	.066	.055	-27.02	.382	.009	.384	.003	.329	013	.369
Scalar	222.98	.954	.072	.063	38.07	.374	010	.377	.006	.012	.008	.450

Table A13: Model Fit Comparisons for Measurement Equivalence Tests, Region

Note: Comparison categories are South (defined as the former Confederacy) or non-South.

Table A14: Model Fit Comparisons for Measurement Equivalence Tests, Income

	χ^2	CFI	SRMR	RMSEA	$\Delta \chi^2$	р	ΔCFI	р	ΔSRMR	р	ΔRMSEA	р
Configural	214.83	.952	.065	.070								
Metric	185.18	.962	.068	.057	-29.65	.581	.010	.580	.003	.349	013	.573
Scalar	243.96	.946	.069	.069	58.79	.001	016	.001	.001	.056	.012	.001
Scalar—												
Partial ¹	227.92	.950	.071	.067	42.74	.109	012	.112	.003	.012	.010	.154

Note: Comparison categories are under \$40,000 or over \$40,000, defined by a median split. 1: frees polite's threshold

			Party Ide	ntification			Ideol	ogical
	Wh	ites	Bla	icks	Lat	inos	Identii	ication
	Four- Item	Eight- Item	Four- Item	Eight- Item	Four- Item	Eight- Item	Four-Item	Eight-Item
Authoritarianism	0.386***	0.703***	-0.214	0.201	0.120	0.455^{*}	$0.607 s^{***}$	0.977^{***}
	(0.118)	(0.140)	(0.281)	(0.345)	(0.225)	(0.271)	(0.087)	(0.106)
Age	-0.398**	-0.410**	-1.017**	-1.087**	0.010	-0.011	0.119	0.087
	(0.164)	(0.164)	(0.479)	(0.488)	(0.437)	(0.437)	(0.131)	(0.132)
Female	-0.008	0.001	-0.087	-0.134	-0.016	0.034	0.119^{*}	0.130*
	(0.090)	(0.090)	(0.187)	(0.183)	(0.538)	(0.539)	(0.069)	(0.069)
South	0.084	0.095	0.004	-0.017	0.133	0.148	-0.044	-0.049
	(0.078)	(0.078)	(0.176)	(0.178)	(0.147)	(0.147)	(0.057)	(0.058)
Religiosity	0.331***	0.289^{**}	0.348	0.307	-0.068	-0.086	0.184^{**}	0.142
	(0.119)	(0.119)	(0.277)	(0.277)	(0.246)	(0.247)	(0.090)	(0.091)
Catholic	0.125	0.119	0.303	0.316	-0.185	-0.229	0.071	0.052
	(0.122)	(0.122)	(0.337)	(0.337)	(0.265)	(0.267)	(0.093)	(0.094)
Protestant	0.346***	0.329***	0.303	0.302	0.350	0.274	0.388^{***}	0.368***
	(0.123)	(0.123)	(0.304)	(0.304)	(0.411)	(0.415)	(0.098)	(0.099)
Evangelical	0.347**	0.311**	0.032	-0.002	0.553^{*}	0.501	0.406^{***}	0.363***
	(0.151)	(0.151)	(0.295)	(0.295)	(0.328)	(0.331)	(0.111)	(0.111)
No Religion	0.024	0.019	0.451^{*}	0.449	-0.148	-0.139	0.112	0.104
	(0.122)	(0.122)	(0.273)	(0.273)	(0.276)	(0.275)	(0.093)	(0.093)
Income	0.076	0.094	-0.448	-0.465	-0.782**	-0.795**	0.158	0.164
	(0.156)	(0.156)	(0.365)	(0.365)	(0.326)	(0.326)	(0.119)	(0.120)
Income (Missing)	0.098	0.095	-0.350	-0.405	0.291	0.276	0.402^{***}	0.398***
	(0.181)	(0.182)	(0.417)	(0.422)	(0.336)	(0.336)	(0.136)	(0.137)
Education	0.005	0.014	-0.067	-0.049	-0.128	-0.121	0.009	0.018
	(0.060)	(0.060)	(0.128)	(0.128)	(0.117)	(0.118)	(0.044)	(0.044)
Racial Resentment	1.892***	1.778***	1.047***	1.052***	1.840***	1.775***	1.592***	1.489***
	(0.147)	(0.149)	(0.359)	(0.358)	(0.295)	(0.300)	(0.110)	(0.112)
White							0.205^{**}	0.213**
							(0.088)	(0.088)
Black							-0.038	-0.062
							(0.109)	(0.109)
Observations	1,223	1,223	247	247	348	348	1,871	1,871

Tables A15 and A16 report the full model results comparing the effect of the 4- and 8-item measures of authoritarianism on key political outcomes after including racial resentment. **Table A15 Authoritarianism and Self-Identification**

Note: p < .10 * p < .05 * 0.01. Cell entries are ordered probit coefficients and associated standard errors.

	Trump	o FT	Repu Part	blican y FT	Demo Part	ocratic y FT	Wh	Immig nites	gration Non-V	Whites	Gay l	Rights	Pun Crimina	itive 1 Justice
	4-Item	8-Item	4-Item	8-Item	4-Item	8-Item	4-Item	8-Item	4-Item	8-Item	4-Item	8-Item	4-Item	8-Item
Authoritarianism	.070***	.134***	.089***	.164***	038	109***	.134***	.211***	.038	.122***	.197***	.281***	.140***	.187***
	(.022)	(.027)	(.024)	(.029)	(.023)	(.028)	(.025)	(.029)	(.037)	(.045)	(.020)	(.024)	(.021)	(.025)
Age	072**	077**	.011	.005	$.062^{*}$	$.066^{*}$	069**	072**	.040	.024	.149***	.140***	040	045
	(.033)	(.033)	(.037)	(.036)	(.035)	(.034)	(.034)	(.034)	(.066)	(.066)	(.030)	(.030)	(.031)	(.031)
Female	023	022	045**	043**	.013	.012	034*	031	022	028	038**	035**	.022	.024
	(.018)	(.018)	(.019)	(.019)	(.018)	(.018)	(.019)	(.019)	(.031)	(.031)	(.016)	(.016)	(.016)	(.016)
White	.131***	.133***	.168***	.170***	122***	126***					017	017	.015	.014
	(.023)	(.023)	(.025)	(.025)	(.023)	(.023)					(.020)	(.020)	(.021)	(.021)
Black	003	008	.018	.012	.021	.027					.067***	.063**	047*	049*
	(.028)	(.028)	(.031)	(.030)	(.029)	(.029)					(.025)	(.025)	(.026)	(.026)
South	.022	.021	.031*	$.030^{*}$	014	014	.013	.015	.013	.011	010	011	.014	.013
	(.015)	(.015)	(.016)	(.016)	(.015)	(.015)	(.016)	(.016)	(.024)	(.024)	(.013)	(.013)	(.013)	(.013)
Religiosity	.103***	.096***	.134***	.125***	.029	.036	.096***	.084***	.170***	.165***	.111***	.101***	.025	.019
	(.023)	(.023)	(.025)	(.025)	(.024)	(.024)	(.025)	(.025)	(.039)	(.039)	(.021)	(.020)	(.021)	(.021)
Catholic	.026	.023	.055**	.051*	.029	.033	.037	.035	010	014	025	029	.046**	.044**
	(.024)	(.024)	(.026)	(.026)	(.025)	(.025)	(.026)	(.026)	(.041)	(.041)	(.021)	(.021)	(.022)	(.022)
Protestant	.068***	.064**	.075***	.069**	044*	039	.019	.013	.036	.033	.052**	.045**	.003	001
	(.025)	(.025)	(.027)	(.027)	(.026)	(.026)	(.026)	(.026)	(.050)	(.050)	(.022)	(.022)	(.023)	(.023)
Evangelical	.043	.034	.112***	.102***	048	039	.048	.039	.024	.015	.075***	.063**	.028	.021
	(.029)	(.028)	(.031)	(.031)	(.029)	(.029)	(.032)	(.032)	(.047)	(.047)	(.025)	(.025)	(.026)	(.026)
No Religion	017	018	.028	.027	029	030	001	004	.053	.057	.018	.014	.029	.026
	(.024)	(.024)	(.026)	(.026)	(.025)	(.024)	(.026)	(.025)	(.042)	(.041)	(.021)	(.021)	(.022)	(.022)
Income	.053*	$.055^{*}$	$.070^{**}$.071**	.022	.020	.051	.054	018	020	055**	056**	.081***	.079***
	(.031)	(.030)	(.033)	(.033)	(.032)	(.031)	(.033)	(.033)	(.053)	(.053)	(.027)	(.027)	(.028)	(.028)
Income (Missing)	034	036	046	049	096***	094***	.025	.025	036	039	.036	.033	.020	.018
	(.035)	(.035)	(.038)	(.038)	(.036)	(.036)	(.038)	(.037)	(.062)	(.062)	(.032)	(.031)	(.032)	(.032)
Education	024**	022*	031**	029**	.016	.014	017	015	010	009	021**	019*	.025**	.026**
	(.011)	(.011)	(.012)	(.012)	(.012)	(.012)	(.013)	(.013)	(.018)	(.018)	(.010)	(.010)	(.011)	(.010)
Racial Resentment	.458***	.437***	.559***	.534***	456***	433***	.704***	.673***	.395***	.382***	.255***	.225***	.409***	.392***
	(.027)	(.028)	(.030)	(.030)	(.028)	(.029)	(.029)	(.030)	(.047)	(.047)	(.024)	(.025)	(.025)	(.026)
Constant	.040	.026	173***	189***	.783***	.803***	.056	.045	.096*	.067	.056*	.048	.247***	.246***
	(.034)	(.034)	(.037)	(.037)	(.035)	(.035)	(.039)	(.039)	(.058)	(.057)	(.030)	(.030)	(.031)	(.031)
Observations	1,871	1,871	1,871	1,871	1,871	1,871	1,261	1,261	610	610	1,871	1,871	1,871	1,871
R ²	.253	.259	.297	.304	.210	.216	.424	.434	.153	.161	.211	.228	.209	.214
Residual Std. Error	.295	.294	.322	.321	.305	.304	.263	.261	.284	.282	.264	.261	.272	.271

Table A16: Authoritarianism and Attitudes

Note: *p<.10 **p<.05 ***p<0.01. Cell entries are OLS coefficient estimates and associated standard errors.



Figure A.1: Item Characteristic Curves for the Four Childrearing Items in the 2016 ANES

These graphs show the item characteristic curves (the predicted probability of a positive response to each response option across the range of the latent variable) for the non-authoritarian, authoritarian, and "both" response options for each of the childrearing items. Data are from the face-to-face respondents in the 2016 ANES.

Qualtrics Study Policy Item Question Wording

All items recoded such that higher values denote more conservative positions.

Immigration

"Do you approve or disapprove of the new federal policy to arrest and send to jail anyone who crosses the border into the United States without proper documentation?"

- Strongly approve
- Somewhat approve
- Somewhat disapprove
- Strongly disapprove

"Do you favor or oppose building a wall along the US-Mexico border to try to stop illegal immigration?"

- Strongly favor
- Somewhat favor
- Somewhat oppose
- Strongly oppose

"Do you favor or oppose deporting all immigrants who are living in the United States illegally back to their home country?"

- Strongly favor
- Somewhat favor
- Somewhat oppose
- Strongly oppose

"Do you approve or disapprove separating families from each other, including minor children, when the adults are arrested for crossing the border into the United States without proper documentation?"

- Strongly approve
- Somewhat approve
- Somewhat disapprove
- Strongly disapprove

Gay Rights

"Do you think marriages between same-sex couples should or should not be recognized by the law as valid, with the same rights as traditional marriages?"

- Strongly should
- Somewhat should
- Somewhat should not
- Strongly should not

"Do you agree or disagree that gay conversion therapy aimed at changing a person's sexual orientation from gay to straight should be illegal for minors?"

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly agree

Punitive Criminal Justice

"Do you favor or oppose the death penalty for persons convicted of murder?"

- Strongly favor
- Somewhat favor
- Somewhat oppose
- Strongly oppose

"Do you agree or disagree that a state should be allowed to execute a prisoner by lethal injection, even if there is a small chance the drugs used to make the execution speedy and less painful might not work as fast as expected?"

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly agree

References

Brown, Timothy A. 2015. *Confirmatory Factor Analysis for Applied Research*. 2nd ed. New York: Guilford Press.

Byrne, Barbara M, Richard J Shavelson, and Bengt Muthen. 1989. "Testing for the Equivalence of Factor Covariance and Mean Structures: the Issue of Partial Measurement Invariance." *Psychological Bulletin* 105(3): 456–66.

Jorgensen, Terrence D, Benjamin A Kite, Po-Yi Chen, and Stephen D Short. 2018. "Permutation Randomization Methods for Testing Measurement Equivalence and Detecting Differential Item Functioning in Multiple-Group Confirmatory Factor Analysis." *Psychological Methods* 23(4): 708–28.

Pérez, Efrén O, and Marc J Hetherington. 2014. "Authoritarianism in Black and White: Testing the Cross-Racial Validity of the Child Rearing Scale." *Political Analysis* 22(3): 398–412.