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Authoritarian Notions of Democracy  
around the Globe

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# **Democracy Misunderstood: Authoritarian Notions of Democracy around the Globe**

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## Abstract

An intriguing observation consists in the fact that widespread support for democracy coexists in many countries with the persistent absence of democracy. Addressing this phenomenon, we show that in most places where it exists people understand democracy in ambiguous ways in which authoritarian notions mix into—and even overshadow—liberal notions, in spite of the contradiction between these two notions. In light of this contradiction, we present evidence suggesting that authoritarian notions of democracy question the authenticity of liberal ones when both are endorsed conjointly. Worse, the evidence further suggests that authoritarian notions even revert the meaning of support for democracy itself, indeed indicating support for autocracy. Arguably, this reversal in the meaning of support for democracy lends legitimacy to authoritarian rule, which helps to explain where it endures. Testing alternative explanations of authoritarian notions of democracy, we find that emancipative values are most influential, exerting a two-fold “enlightening” effect in (a) making people recognize the contradiction between liberal and authoritarian notions of democracy and (b) turning them against authoritarian notions.

# I. Introduction

For a long time, researchers who are interested in the legitimacy of democratic rule examined *how widespread* support for democracy is in given countries (e.g., Klingemann 1999, Anderson & Tverdova 2003, Fails & Pierce 2010). Implicitly, these studies presume that the chances of a country to become and remain democratic are larger when a wider share of the population says to prefer democracy (Linz & Stepan 1996, Dalton 2007).

Obviously, this presumption rests on the belief that popular support for democracy is indicative of a regime's legitimacy: if support for democracy is widespread in a democracy, the regime is apparently legitimate and likely to persist for this reason (Mattes & Bratton 2007, Diamond 2008); if such support exists in an autocracy, the regime lacks legitimacy, which supposedly helps preparing it for transition (Mishler & Rose 2002, Shin & Tusalem 2009).

Should these premises be accurate, we face a puzzle that Alvarez-Moreno and Welzel (2014) coin the "paradox of democracy": widespread support for democracy often coexists with enduring deficiencies in the latter, including its outright absence.<sup>1</sup> Indeed, Norris (2011) illustrates that support for democracy as widespread as 80, 85 and 90 percent coexists with the persistent absence of democracy in countries like Zimbabwe, Azerbaijan and Morocco. Newer evidence, documented in Figure 6 below, demonstrates that this paradox also includes such countries as China, Egypt, Russia, and Turkey, as well as many other autocracies.

How can we explain the frequent coexistence of widespread support for democracy with the persistent absence of the latter? A simple explanation could be marginal utilities: since people desire most what they lack most, support for democracy is most widespread in non-democracies (Maseland & van Hoorn 2012). The marginal utility thesis implies that people in authoritarian regimes who express support for democracy understand democracy accurately as the alternative to their own type of government. If so, widespread support for democracy in authoritarian regimes unravels that most of these regimes are deeply illegitimate in the eyes of their populations.

We offer an alternative explanation according to which authoritarian regimes are more legitimate in the eyes of their people than the support ratings for democracy suggest. Specifically, we demonstrate that where widespread support for democracy coexists persistently with authoritarian rule, most people have an ambiguous understanding of democracy in which *authoritarian* notions of what democracy means mix into and even overshadow liberal notions. We

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<sup>1</sup> The authors interpret this phenomenon as a puzzle from the viewpoint of "congruence theory," due to which regimes cannot persist for long against large majorities with opposing regime preferences, unless artificially propped up by the military force of foreign powers. See Response RIII-7 in the Online Appendix (p. 47) for an elaboration of this point.

further suggest that the extent to which people endorse authoritarian notions of democracy tells us how seriously we can take liberal notions of democracy, and even how much trust we can credit to people's outspoken support for democracy itself. Indeed, we argue that authoritarian notions of democracy render simultaneously expressed liberal notions unreliable, if not meaningless, because a properly understood endorsement of liberal principles mandates an unequivocal rejection of their authoritarian opposites. In the same vein, we provide evidence that authoritarian notions of democracy revert the meaning of support for democracy into its own contradiction: support for autocracy. Consequently, authoritarian notions of democracy lend legitimacy to authoritarian rule, under the guise of support for democracy.

For definitional purposes, we briefly denote our usage of the terms liberal and authoritarian notions of democracy. *Liberal* notions of democracy (henceforth: LNDs) define democracy as civic freedoms that entitle people to a self-determined life, protect them from tyranny and give them a voice and vote in politics. By contrast, *authoritarian* notions of democracy (henceforth: ANDs) define democracy as obedience to the unchecked authority of electorally uncontested (or not seriously contested) rulers.

Dealing with ANDs and LNDs, we distinguish empirical and normative considerations. Empirically, we make no difference between LNDs and ANDs in the sense that we treat both as equally real where we find them. Normatively, however, such neutrality is untenable because democracy is a scholarly pre-defined concept. Despite existing differences, all concepts of democracy acknowledged in constitutional law, comparative politics and empirical measurement share a semantic core that incorporates universal suffrage, electoral contestation, horizontal checks, vertical accountability and civil rights (Dahl 1971, Held 2006). Because of this consensual core, established measures of democracy reach similar results as to which countries are most and which ones are least democratic (Bernhagen 2018). Hence, in evaluating people's notions of democracy we cannot ignore that there is a scholarly definition, which is quintessentially liberal. In this situation, it is obvious to ask in what way people's notions of democracy deviate from the scholarly definition and whether we can identify the conditions that generate these deviations.<sup>2</sup>

Our study provides the first cross-national evidence in support of several novel points about ANDs and LNDs. Specifically, we demonstrate (*a*) that people in many countries exhibit inherently ambiguous notions of democracy, such that ANDs blend into and even overshadow LNDs. Furthermore, we show (*b*) that this phenomenon prevails where emancipative values remain weak because these values need to be strong to make people (*c*) recognize the contradiction between ANDs and LNDs and to turn them (*d*) against ANDs.

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<sup>2</sup> For a discussion of relativist-vs.-essentialist views of democracy, see Responses RI-1 and RI-6 in the Online Appendix (pp. 39 and 41).

The remainder of our article is organized in four sections. Section one reviews the literature, suggesting a set of explanations of ANDs. Section two describes the data and variables used to test these explanations. Section three presents the evidence. Finally, the concluding section discusses the implications of our findings.

## II. Theory: Popular views of democracy

Since a while, scholars criticize that looking merely at people's stated preferences for democracy is of limited value unless we know that these preferences include a similar notion of what democracy means (Schedler & Sarsfield 2007, Ferrin & Kriesi 2017). Thus, instead of taking equivalence in meaning for granted, researchers began to examine questions asking people what they think democracy is about. The initial findings seemed encouraging, suggesting that people all over the world agree on the "liberal" definition of democracy (e.g. Dalton, Shin & Jou 2007, Bratton 2009, al-Braizat 2010).

However, when one asks people for their agreement with anti-liberal, outright authoritarian re-definitions of democracy, the picture of a liberal consensus evaporates (Norris 2011, Shin & Cho 2010, Cho 2014). Especially in non-Western cultures, endorsing liberal notions of democracy frequently goes together with support for authoritarian notions (Shin 2015). Since these authoritarian notions of democracy are much more common than established scholarship realizes, they deserve to be studied in greater detail.

Only two works so far focus on ANDs in and by themselves. Shin (2015) interprets ANDs as the result of misinformation and shows that such notions are particularly prevalent in the Middle East and South Asia. Norris (2011) shows that ANDs prevail in countries that are less developed, less connected and less democratic. She also finds that individuals with higher education see less appeal in ANDs. Valuable as these insights are, we lack a deeper understanding of the sources of ANDs, how they vary the LND-AND link and what all of this means for regime legitimacy.

Probing into these issues, our study is novel by (a) recognizing the variable LND-AND relationship, (b) testing a larger number of conceptually distinct influences on ANDs, (c) addressing the issue of false preferences and (d) tackling causality, as much as this is possible with non-experimental, mostly cross-sectional data.

Before discussing the most plausible influences on ANDs, we briefly spell out the premises of our reasoning. To begin with, most authoritarian regimes in the world characterize themselves as democracies in their propaganda (Marquez 2016: 12-14, Markoff 2009). The typical narrative denounces Western democracy as a perversion of "true" democracy, which is re-defined

as a form of guardianship by which the “wise” ruler governs unrestrictedly in the best of all people’s interest. Re-defining democracy as unchecked rule by wise leaders to whom people owe obedience constitutes the definitional core of ANDs (Brown 2001). Consequently, we presume that ANDs are shaped (*a*) by people’s exposure to authoritarian propaganda as well as (*b*) by their cognitive and moral capacities to resist this propaganda’s intention. Based on these premises, we consider the following set of influences as most plausible in shaping ANDs.

From the viewpoint of institutional learning, a plausible influence consists in the presence of democratic institutions. In their presence, people learn from first-hand experience how democracy works and what its norms are. These learning effects should raise awareness that authoritarian rule is in contradiction to democracy’s liberal norms (Mishler & Rose 2002, Mattes & Bratton 2007, Fails & Pierce 2010, Norris 2011: chapter 8). The supposed learning effects should increase in direct proportion to the quality level of democracy. Hence, we expect that fewer people endorse ANDs and more people recognize the AND-LND contradiction, the more democratic a country is. Less democracy and more autocracy should show the opposite effects.

Inspired by the literature stressing the cognitive consequences of modernization (Lerner 1958, Inkeles & Smith 1974), a second influence relates to the information flows in the wake of progressing global exchange (Norris & Inglehart 2009). People in countries exposed to more extensive political, economic and cultural exchange become more knowledgeable and develop greater awareness, which is a cognitive resource that should increase people’s capacity to see authoritarian indoctrination as what it is and to withstand the propaganda’s intentions. Accordingly, we expect that in countries that are more immersed into international exchange, fewer people endorse ANDs and more people recognize the AND-LND contradiction. At the individual level, education and information should show similar effects.

A third influence relates to moral autonomy as a psychological resource, which should also increase people’s immunity against the brainwashing effects of authoritarian indoctrination. The works of Kegan (1982) as well as Deci and Ryan (2000) suggest that people’s rising capacity to think for themselves inevitably activates in them an emancipatory drive towards “self-authorization” or “self-determination,” visible in rising emancipative values (Welzel 2013). Driven by emancipative values, people adopt an elite-challenging mindset that pre-disposes them to question any kind of arrogated authority. Thus, rising emancipative values increase people’s moral capacity to resist indoctrination. Consequently, ANDs should lose appeal and people should recognize in increasing clarity authoritarianism’s contradiction to liberal norms.

A fourth approach emphasizes physical insecurity, which derives from the fear of falling victim to violence. Starting from works as early as Adorno and Brunswick et al. (1950), there is a



large literature showing that feelings of physical insecurity lead people to idolize mighty leaders, strict hierarchies and draconic orders as protective mechanisms (Sullivan & Transue 1999, Duckitt et al. 2002, Scheepers et al. 1990). The same literature suggests that exposure to violence not only produces fear of it but also toleration of it, as a means to solve conflicts with penultimate conclusiveness. Accordingly, we expect that the authoritarian tendencies inherent in both violence anxiety and violence toleration create a fear-anger syndrome that primes people to believe in authoritarian propaganda, find appeal in ANDs and be indifferent about the AND-LND contradiction.

Apart from subjective perceptions of threat, objective manifestations of state repression might play a role of their own. State repression, which usually includes censorship, can bring forceful indoctrination to fruition, in successfully cultivating ANDs (Brown 2001, Marquez 2016). Given that even some of the most repressive regimes present themselves as democracies, cultivating ANDs is actually in the interest of these regimes. Thus, we expect that people find more appeal in ANDs and are more negligent about the AND-LND contradiction where repression is more severe.

Yet another influence might be religion. Since Karl Marx, generations of critics blame religion for indoctrinating people with an uncritical belief in authority. Resonating with this criticism, Norris and Inglehart (2004) cite a large literature showing that religious people tend to hold more conservative, patriarchal and authoritarian beliefs. But even though an affinity to authoritarian beliefs seems to characterize religious people in general, some works suggest that this tendency varies with denominations, being least pronounced in Protestantism and most in Islam (Inglehart & Norris 2003, Norris & Inglehart 2004). If authoritarian beliefs indeed predispose people to embrace ANDs, then these writings suggest that Islam and strong religiosity favor ANDs, whereas Protestantism and weak religiosity disfavor them.

### III. Data and measurements

#### *DATA*

We measure ANDs using the sixth World Values Survey (henceforth: WVS; Inglehart, Haerpfer, Moreno, Welzel et al. 2014), conducted between 2010 and 2014, which is the only cross-national survey covering ANDs in a closed-ended question format. Our Online Appendix (henceforth: OA), accessible at this journal's website, includes a documentation of our country samples, detailed information of our variables, descriptive statistics, a download link to our data and supplementary regression results. To avoid overloading the manuscript, we outsource a deeper discussion of further points of consideration to the "Response Section" at the end of the OA to which we relate readers by several footnotes in the manuscript.

The country coverage of the sixth WVS is displayed in Figure 2. The countries represent a balanced compilation of developed and developing economies, democratic and authoritarian regimes as well as Western and non-Western cultures. Because the sample includes the largest populations in each area of the world, it represents more than *ninety* percent of humanity.

#### *THE OUTCOME VARIABLE: ANDs*

The sixth WVS presents respondents a list of statements of what democracy means. Respondents are asked to rate each of these supposed meanings in terms of how well they think it captures the true definition of democracy. Respondents indicate their opinion on a showcard displaying a scale from 1 to 10. Scale positions 1 and 10 are labeled "not an essential characteristic of democracy" and "an essential characteristic of democracy," respectively. Table 1 displays the question and item wordings.<sup>3</sup>

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<sup>3</sup> The WVS has encountered sweeping criticism that its data lack comparability, due to problems of translation and measurement equivalence (Aléman & Woods 2016). This critique is at odds with the observation that WVS-findings typically reach their greatest clarity when the diversity of countries is stretched to its maximum global scope. Illustrating this regularity, Welzel and Inglehart (2016) conclude that measures from the WVS map more tightly on other key aspects of social reality, the broader—not the narrower—the scope of cross-cultural inclusion is. Indeed, when measures from the WVS correlate across countries with key social indicators—such as security, prosperity, equality, peace and democracy—from  $R = .70$  to  $R = .90$ , the suspicion that WVS data are bedeviled with measurement error and cross-cultural incomparability seems overstated. For further considerations of this issue see Responses RII-1 to RII-3 and RIII-2 and RIII-3 (OA: 41-42, 45-46).

Table 1. Notions of Democracy: Factor Analyses and Descriptive Statistics (country-pooled individual-level and country-level data)

Introduction to the item battery reads as follows: "Many things are desirable, but not all of them are essential characteristics of democracy. Please tell me for each of the following things how essential you think it is as a characteristic of democracy. Use this scale where 1 means "not at all an essential characteristic of democracy" and 10 means it definitely is "an essential characteristic of democracy" (interviewer: read out and code one answer for each):"

	Dimension 1, LNDs <sup>a)</sup> : Loadings (country-level)	Dimension 2, ANDs <sup>b)</sup> : Loadings (country level)	Mean (Median)	SD (CV) <sup>c)</sup>	% Strong Agreement (scoring 8 and higher)	% Outright Rejection (scoring 1)	% Missing Responses
"People choose their leaders in free elections."	0.80 (0.92)		0.77 (0.89)	0.28 (0.36)	67%	3%	4%
"Civil rights protect people from state oppression."	0.79 (0.92)		0.71 (0.78)	0.29 (0.41)	56%	4%	6%
"Women have the same rights as men."	0.77 (0.79)	(-0.43)	0.76 (0.89)	0.29 (0.38)	65%	4%	3%
<b>"Religious authorities ultimately interpret the laws."</b>		<b>0.78 (0.91)</b>	<b>0.36 (0.33)</b>	<b>0.33 (0.92)</b>	<b>18%</b>	<b>28%</b>	<b>6%</b>
<b>"The army takes over when government is incompetent."</b>		<b>0.77 (0.85)</b>	<b>0.38 (0.33)</b>	<b>0.34 (0.89)</b>	<b>21%</b>	<b>28%</b>	<b>8%</b>
<b>"People obey their rulers."</b>		<b>0.66 (0.85)</b>	<b>0.56 (0.56)</b>	<b>0.33 (0.59)</b>	<b>37%</b>	<b>12%</b>	<b>5%</b>
Explained Variance	32% (24%)	27% (59%)					
Eigenvalue	1.95 (1.42)	1.63 (3.52)					
Cronbach's alpha	0.70 (0.88)	0.58 (0.87)					
Kaiser-Meyer-Olkin	0.65 (0.66)						
Respondents (N)	73,501 (60)						

Notes: Data are from WVS round six. First cell entries in the first two columns cover pooled individual-level data (country-mean centered). Second entries (in parentheses) cover country-level aggregates. Both individual- and country-level factor analyses are conducted using the Kaiser criterion with varimax rotation and pairwise deletion of missing responses (11,569 ≈ 14% at the individual level). Loadings below 0.30 are not shown. <sup>a)</sup> LNDs: Liberal Notions of Democracy. <sup>b)</sup> ANDs: Authoritarian Notions of Democracy. <sup>c)</sup> SD: standard deviation; CV: coefficient of variance.

Three of the meanings phrase an authoritarian notion of democracy by attributing unchecked powers to (1) “religious authorities” and (2) “the army” and (3) stating that people’s obedience to their rulers is the essence of democracy. The first two meanings are authoritarian in that they attribute unchecked power to non-elected elites. The third meaning—obedience—addresses an authoritarian ideal that violates liberal principles, in particular the right to oppose those in power and to vote them out of office. In liberal democracy, citizens are expected to abide by the laws but not to “obey” rulers.

At any rate, endorsing as meanings of democracy the unchecked powers of non-elected military and religious rulers as well as obedience to rulers generally speaking means a distinctive authoritarian contradiction to the liberal definition of democracy.

The individual- and country-level factor analyses in Table 1 contrast the three ANDs with three LNDs, which address free elections, civil liberties and gender equality. Apparently, these item sets reflect two separate dimensions that are uncorrelated with each other. Upon closer scrutiny, however, it turns out that the seeming unrelatedness between ANDs and LNDs is just the average constellation between two contrasting groups of countries (visualized in Figure 3, below), namely a group of countries in which the individual-level link between ANDs and LNDs is *negative* and a contrasting group in which it is *positive*. We come back to this intriguing difference in the plausibility test section.

It is noteworthy that in almost half of the countries (i.e., 26 out of 60), a majority endorses at least one AND more strongly than they support LNDs overall. Even two thirds of all individuals in the pooled WVS endorse at least one AND more strongly than they support LNDs overall. Given that an overwhelming majority of these people live in population-rich countries such as China, Egypt, India, Iran, Russia, Pakistan and Turkey, one can project that up to three quarters of the world population have a taste for authoritarianism, hidden under lip service for democracy.

The popularity, salience and cohesion of the three AND-items vary across countries, as one would expect in the face of divergent national histories. As we will see, however, cross-country variability in the single AND-items’ functioning is irrelevant to the empirical linkages of their very combination—a clear case of what Welzel and Inglehart (2016) coin “compositional substitutability”: that is, the linkages of a composite index to its supposed antecedents, consequences and concomitants are insensitive to cross-country variability in the constituent items’ popularity, salience and cohesion.

“Compositional substitutability” moves the issue of construct validity beyond latent variable tests. While the latter judge cross-country variability in item functioning automatically as

invalidity, “compositional substitutability” takes the issue one step further in asking if such variability actually affects a construct’s empirical linkages. If it doesn’t, the construct is judged valid, which is the logical conclusion when the very *combination* of items is insensitive to variability in the functioning of its single items.<sup>4</sup>

Hence, instead of testing our three AND-items for dimensional invariance across countries, we take such invariance for granted and test instead whether the items’ combined functioning is sensitive to it—which is testing for “compositional substitutability.” To conduct this test, we calculate an additive AND-index by summing up each respondent’s endorsement over all three AND-components. We standardize the resulting sum into a scale range from minimum 0 for a full refusal of all three components to maximum 1 for a full endorsement, with decimal fractions of 1 indicating intermediate positions. We also calculate an alternative AND-index by assigning each respondent the score of that AND-component which s/he endorses the most.

Figure 1 displays the univariate distribution of the additive AND-index at the individual level (left-hand diagram) and country level (right-hand diagram). Both diagrams show mean-clustered, bell-shaped contours that come close to a normal distribution. At the individual level, the Kolmogorov-Smirnov test indicates a significant but rather small deviation from a perfectly normal distribution, while the test statistics for the country-level distribution indicate no significant deviation from normalcy.<sup>5</sup>

Due to Welzel and Inglehart (2016), a construct is valid under the criterion of “compositional substitutability,” if it fulfills three requirements: (1) the constituent items cover partly distinct domains of their overarching construct, visible in non-redundant, complementary variance components; (2) given the constituent items’ complementarity, the overarching construct shows stronger linkages with its expected antecedents and consequences than does each constituent item; (3) the overarching construct’s linkages are unaffected by cross-country variability in the items’ popularities, saliencies and dimensional cohesion.

The AND-index meets all three criteria. First, the three single ANDs correlate positively but moderately at the individual level.<sup>6</sup> Accordingly, there are sizeable divergent variance components that complement each other in building an encompassing AND.

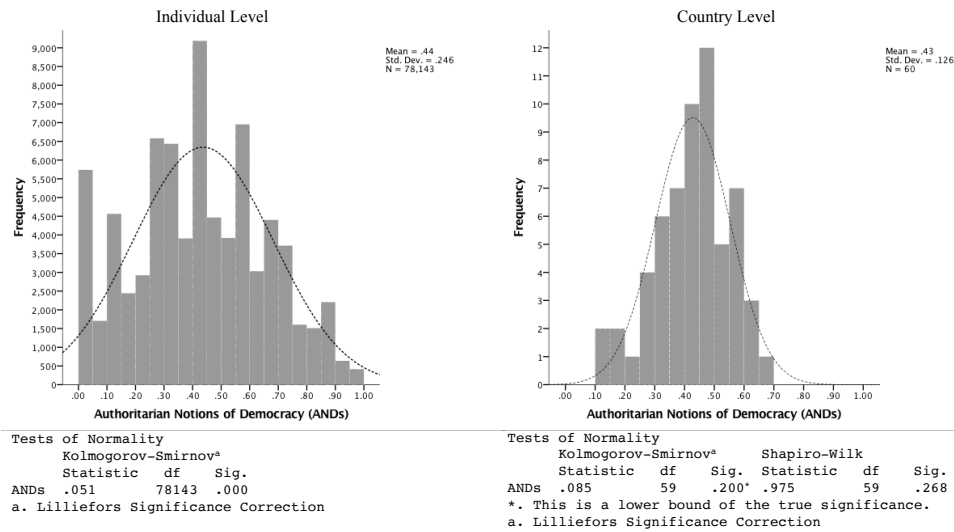
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<sup>4</sup> For a further consideration of this issue, see Response RII-6 (OA: 44).

<sup>5</sup> Besides, outcome variables don’t need to be normally distributed to be suited to ordinary least squares (OLS) regression. Only the error term must be normally distributed in OLS.

<sup>6</sup> In the pooled individual-level dataset ( $N \approx 75,000$ ), ANDs referring to religious authority correlate at  $R = .39$  with ANDs referring to military authority and at  $R = .29$  with ANDs requesting obedience to rulers. The latter two correlate at  $R = .27$  (all significant at  $P = 0.01$ , 2-tailed).

Figure 1. Individual- and Country-level Distributions of Authoritarian Notions of Democracy



Note: Data source is WVS round six. For measurement details see OA II (8-22) at this journal's website.

Second, Table 2 correlates the AND-index as well as its three constituents with two supposed antecedents (i.e., information intake and emancipative values) and two supposed outcomes (i.e., protest activity and overrating democracy), whose measurement we explain in the next section. The key lesson from these correlations is that all three AND-items correlate with their supposed antecedents and outcomes in the expected direction (at both the individual- and country-level), while the overall AND-index does the same but, in each instance, considerably more strongly so.<sup>7</sup>

Third, we obtain the partial correlations in line six of Table 2 by controlling the additive AND-index for a set of dummy variables indicating which of the three single AND-items is the most popular. As is obvious, the correlations remain unaffected in significance and direction and largely also in size by controlling variability in item popularity. The supplementary regressions in OA V (pp. 32-34) extend this evidence, showing that the functioning of the overall AND-index is entirely insensitive to the criterion by which the latent variable logic judges measurement validity: invariance in inter-item cohesion across countries. In conclusion, the AND-index meets all the validity criteria required by “compositional substitutability.”

<sup>7</sup> To the strength of these correlations, see Response RI-5 (OA: 40).

Table 2. Correlations of Authoritarian Notions of Democracy (ANDs) and their Components with Supposed Antecedents and Outcomes of these Notions: country-pooled individual level (aggregate country level)

	Information Intake <sup>a)</sup>	Emancipative Values <sup>b)</sup>	Protest Activity <sup>c)</sup>	Overrating Democracy <sup>d)</sup>
"Religious authorities ultimately interpret the laws."	-0.18 (-0.72)	-0.26 (-0.77)	-0.16 (-0.58)	0.22 (0.64)
"The army takes over when government is incompetent."	-0.14 (-0.71)	-0.21 (-0.70)	-0.13 (-0.52)	0.19 (0.70)
"People obey their rulers."	-0.17 (-0.65)	-0.27 (-0.72)	-0.17 (-0.64)	0.23 (0.57)
AND (highest scoring single item)	-0.19 (-0.75)	-0.31 (-0.74)	-0.18 (-0.60)	0.25 (0.64)
<b>AND (3-item index, □)</b>	<b>-0.22 (-0.78)</b>	<b>-0.33 (-0.79)</b>	<b>-0.20 (-0.65)</b>	<b>0.29 (0.72)</b>
AND (index composition controlled) <sup>e)</sup>	-0.23 (-0.60)	-0.31 (-0.61)	-0.19 (-0.45)	0.29 (0.45)
LND (3-item summary)	0.07 (0.40)	0.17 (0.48)	0.13 (0.34)	-0.06 (-0.54)

Notes: Cell entries are bivariate Pearson's *R*-correlations, with the first cell entry showing the country-pooled individual-level correlation and the second entry (in parentheses) showing the aggregate country-level correlation. Number of observations per cell varies between roughly 66,000 and 80,000 at the individual level and between 50 and 60 at the country level. All shown correlations are significant at  $P = 0.01$  (2-tailed).

<sup>a)</sup> People's information intake in terms of the diversity of sources and frequency of usage.

<sup>b)</sup> People's emphasis on freedom of choice and equality of opportunities.

<sup>c)</sup> People's participation in non-violent acts of protest, including petitions, consumer boycotts and peaceful demonstrations.

<sup>d)</sup> Discrepancy between respondents' rating of their country's democraticness and its actual democraticness.

<sup>e)</sup> Partial correlation of the AND-index controlling for dummy variables indicating which of the three index components it the top scoring one.

## ***TREATMENT VARIABLES***

We measure *democratic institutions* using data from the Varieties of Democracy (V-Dem) project (Coppedge, Gerring & Lindberg 2017). The V-Dem project uses the most advanced methods of expert coding to create more differentiated indicators of democracy than those having been in use so far, most notably Polity and Freedom House. We test two of V-Dem's most prominent measures, including the indices of "electoral" and "liberal" democracy: electoral democracy focuses on universal suffrage, the fairness of elections and the proportion of positions open to electoral contestation; liberal democracy stresses civil liberties, minority rights and checks and balances. To estimate the long-term impact of democracy, we use Gerring, Thacker and Alfaro's (2012: 5-6) "democracy stock" measure as of 2010. This indicator measures a country's cumulative democracy record over the past hundred years.

To capture people's exposure to *information flows*, we use three variables at the individual level: a five-point index of political interest, an eight-point index of the respondents' level of education and a multi-point index of their information intake. The latter summarizes people's usage frequency of nine different sources of information. At the country level, we capture exposure to information flows by Dreher, Gaston and Maarten's (2008) measures of the countries' political, economic and cultural connectivity.<sup>8</sup> Political connectivity indicates a country's cumulative memberships in international organizations and participation in United Nations activities; economic connectivity captures a country's wealth generated by international trade; and cultural connectivity measures a country's exposure to tourism, immigration, international media and global communication flows.

To tap *emancipative values*, we use Welzel's (2013) WVS-measures, focusing on his "choice," "equality" and "defiance" index. Each of these three measures is based on three items: the "choice" index taps support for sexual self-determination with respect to abortion, divorce and homosexuality; the "equality" index covers support for gender equality in terms of women's access to education, jobs and politics; the "defiance" index measures distance from parental, communal and national authority.<sup>9</sup> At the country *level*, we calculate arithmetic population means on the choice, equality and defiance index.

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<sup>8</sup> Connectivity is an aspect of economic development. This raises the question if per capita income is a better alternative: the Gross Domestic Product per capita (in purchasing power parities) correlates at  $R = -.33$  (unlogged) and  $R = -.57$  (logged) with ANDs ( $N = 55$  for all correlations;  $P = 0.001$ , 2-tailed). These correlations are weaker than those of the most powerful connectivity measure.

<sup>9</sup> Aléman and Woods (2015) criticize these measures for lack of dimensional homogeneity. In response, Welzel and Inglehart (2016) reason that "dimensional" criteria are inappropriate for measures built on a "combinatory" logic, showing that the index components complement each other in enhancing the overall construct's empirical strength. Sokolov's (2018) recent contribution merely repeats Aléman and Woods' dimensional critique and, hence, ignores its refutation on combinatory grounds.



To measure *violence anxiety*, we use a question that asks “to what degree are you worried about the following situations?” The interviewer then reads out six situations and asks the respondent to tell for each of them how worried s/he feels about it, using a four-point scale ranging from “very much” to “not at all.” Three of these situations address a directly life-challenging physical threat: “a war involving my country,” “a civil war” and “a terrorist attack.” We measure each respondent’s violence anxiety additively across the three physical threat items. The other three items address anxieties from non-violent threats, including “loosing my job or not finding a job,” “not being able to give my children a good education” and “government wire-tapping or reading my mail or email.” We summarize responses to these three items under the label *existential anxiety*. *Violence toleration*, by contrast, summarizes responses to a set of three statements, each to be rated on a scale from 1 (“never justifiable”) to 10 (“always justifiable”). The three statements read as follows: “for a man to beat his wife,” “parents beating children” and “violence against other people.” At the country level, we measure each population’s average violence anxiety, existential anxiety and violence tolerance by calculating the sample mean.

To capture *state repression*, we rely on three indicators. To begin with, we use Gibney et al.’s (2015) “political terror scale.” Based on reports by the US State Department, this measure covers state-executed *political violence* on a five-point ordinal scale. Next, we invert Cingranelli and Richards’ (2016) eight-point index of “physical integrity rights,” so that we obtain an ordinal measure of basic *human rights violations*, such as freedom from torture and political imprisonment. Then, we measure *media censorship* by inverting the *Reporters sans Frontiers*’ (2015) “press freedom index.”

To measure the respondents’ *religiosity*, we use three WVS items addressing religion by belief, practice and belonging. At the country-level, we use the population mean in religiosity. *Muslim denomination* is measured by self-identification in the WVS interviews. At the country level, we aggregate the proportion of self-identifying Muslims from the individual-level data. In exactly the same way, we handle *Protestant denomination*.

We z-transform all variables to keep scale ranges comparable. Country-level variables that are not survey-based are measured in ten-year averages over the decade before the year in which our outcome variable is measured. We do this to capture treatment variables in terms of their lasting presence before the outcome variable.

To minimize collinearity, we summarize indicators within the same thematic field in factor-score variables, which provide averages in a z-standardized scale format. But we use these thematic summaries for further analyses only if the combinatory logic justifies this: that is, when

the summary has more explanatory power than its most predictive single indicator. Otherwise, we rely on the most predictive single indicator in a given thematic category.

We label the thematic summaries as the *Democracy Factor*, *Connectivity Factor*, *Repression Factor*, *Fear-Anger Factor* (summarizing violence anxiety, existential anxiety and violence toleration), *EV-Factor* (for emancipative values) and *Religion Factor*. Countries score high on these factors when they score high on each constituent component. On the *Religion Factor*, countries score high when the share of Muslims is large and the average level of religiosity is high; low-scoring countries have larger shares of Protestants and low overall levels of religiosity.

### ***CONTROL VARIABLES***

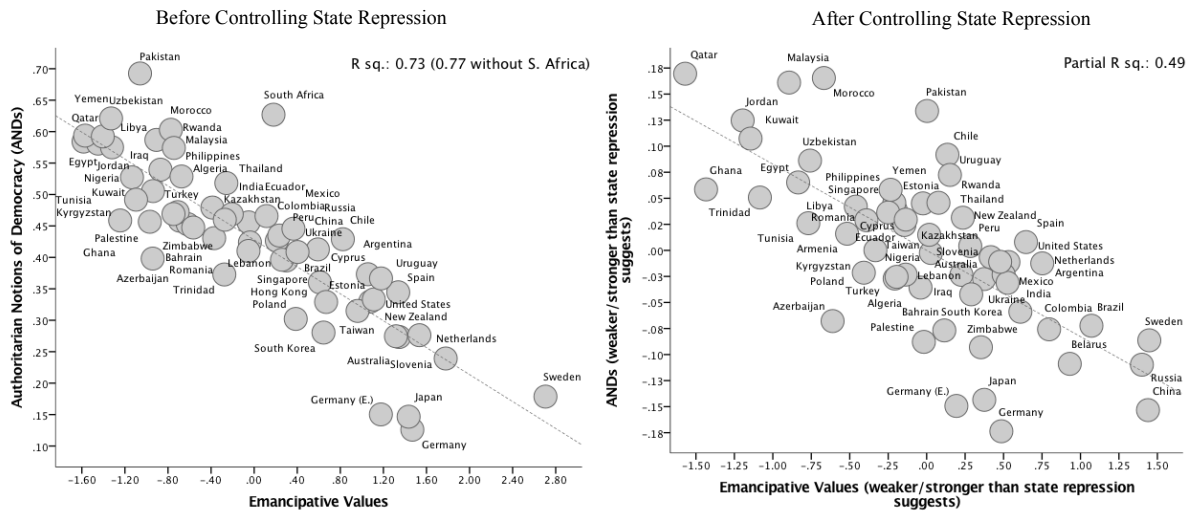
A concern with surveys relates to measurement error in terms of responses that represent non-attitudes or false preferences. We address this problem by including four different proxies of non-attitudes or false preferences, measuring the per country proportion of (1) *missing* responses, (2) *contradictory* responses, (3) *affirmative* responses and (4) *duplicate* responses. The analysis in OA – (p. 25) shows that—measured against these response patterns—problems of non-attitudes and false preferences in the sixth WVS are of minor proportion.

## **IV. Findings**

### ***MAIN RESULTS***

The vertical axis in the left-hand diagram of Figure 2 ranks country populations on the AND-index in descending order from strong to weak endorsements of ANDs. Country means vary massively, ranging from a low of .13 in Germany to a high of .69 in Pakistan. On the top of the AND-index, we find mostly Muslim countries (with the exception of South Africa); at the bottom it is mostly Protestant countries (with the exception of Japan). The top-countries are also mostly non-democratic, while most of the bottom-countries are mature democracies. Likewise, the top-countries represent developing economies; the bottom-countries are developed economies.

Figure 2. The Country-level Association between Authoritarian Notions of Democracy and Emancipative Values



Note: Data source is WVS round six. For measurement details see OA II (8-22) at this journal's website. Emancipative Values refer to the EV-Factor in Table 3. State Repression refers to the Repression Factor in Table 3.

The left-hand column in Table 3 correlates the prevalence of ANDs with these and other country-level influences. In each thematic category, the correlations show the expected direction: indicators in the fear-anger, repression and religion categories correlate positively with ANDs, whereas those in the connectivity, democracy and EV categories correlate negatively. In the fear-anger, repression, religion and EV categories, the thematic summary shows the strongest correlation. In the categories of democracy and connectivity, two single indicators show the strongest correlations: electoral democracy and cultural connectivity. The repression and religion factors and above all the EV-factor stick out as the strongest correlates of ANDs.

The right-hand column of Table 3 shows that all our hypothesized influences of ANDs moderate the individual-level AND-LND link in the expected manner: fear-anger, repression and religion turn the AND-LND link more strongly positive; whereas connectivity, democracy and EV turn it more strongly negative.

The left-hand diagram in Figure 2 shows the astoundingly close association between the EV-Factor and ANDs. As is evident, the EV-Factor alone explains fully 73 percent of the entire cross-national variation in ANDs. Excluding the outlier South Africa, the explained variance increases to even 77 percent.

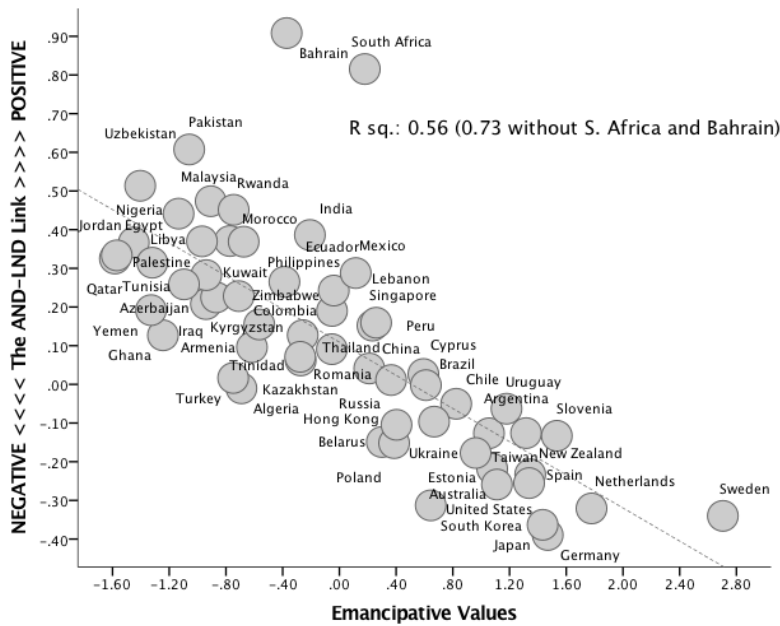
Table 3. Country-level Correlations with Authoritarian Notions of Democracy (ANDs) and their Country-specific Link with Liberal Notions of Democracy (LNDs)

CORRELATES:	Bivariate Correlations with ...	
	... Authoritarian Notions of Democracy (ANDs)	... AND-LND Individual-level Link per Country
<b>Substantive Correlates</b> (loadings):		
Violence Toleration (.65)	+ .51	+ .56
Existential Anxiety (.93)	+ .52	+ .42
Violence Anxiety (.94)	+ .66	+ .47
<b>Fear-Anger Factor (72%)</b>	<b>+ .69</b>	<b>+ .68</b>
Political Violence (.94)	+ .67	+ .55
Media Censorship (.84)	+ .69	+ .60
Human Rights Violations (.95)	+ .72	+ .61
<b>Repression Factor (83%)</b>	<b>+ .77</b>	<b>+ .68</b>
Protestants (-.71)	- .47	- .28
Muslims (.82)	+ .58	+ .52
Religiosity (.76)	+ .71	+ .66
<b>Religion Factor (58%)</b>	<b>+ .81</b>	<b>+ .74</b>
Political Connectivity (.14)	- .30	- .35
Economic Connectivity (.92)	- .40	- .23
<b>Cultural Connectivity (.94)</b>	<b>- .63</b>	<b>- .48</b>
Connectivity Factor (58%)	- .56	- .40
Democracy Stock (.87)	- .52	- .43
Liberal Democracy (.91)	- .54	- .55
<b>Electoral Democracy (.89)</b>	<b>- .68</b>	<b>- .61</b>
Democracy Factor (79%)	- .65	- .59
Emanc. Values (defiance) (.78)	- .73	- .60
Emanc. Values (equality) (.88)	- .74	- .66
Emanc. Values (choice) (.94)	- .76	- .69
<b>EV-Factor (76%)</b>	<b>- .85</b>	<b>- .75</b>
<b>Response Correlates:</b>		
Contradictory Responses	+ .39	+ .54
Affirmative Responses	- .11 <sup>n.s.</sup>	- .39
Duplicate Responses	- .28	- .33
Missing Responses	+ .09 <sup>n.s.</sup>	- .02 <sup>n.s.</sup>

*Note:* Entries are Pearson's product-moment correlations ( $R$ ). Number of observations (i.e., countries) varies from 56 to 60, depending on the indicator. Country coverage is due to WVS, round six, conducted over 2010-14. All reported correlations are significant at the 5%-level or better, unless indicated as "n.s." (not significant). Indicators not taken from the WVS are measured as a ten-year average over the decade before the year in which ANDs are measured. The AND-LND link is the country-specific regression coefficient obtained from regressing individual-level ANDs on LNDs. Numbers in parentheses behind correlates are loadings on the first principal component underlying each thematic category of indicators, or percentage variance explained over the indicators of a category by the factor summary.

Figure 3 visualizes an almost equally strong relationship between the EV-Factor and the AND-LND link, especially under the exclusion of South Africa and Bahrain, which are pronounced outliers. As the scattergram shows, the meaning of LNDs turns from an ally into an opponent of ANDs, alongside stronger emancipative values.

Figure 3. The Association between the Countries' Individual-level AND-LND Links and their Emancipative Values



Note: Data source is WVS round six. For measurement details see OA II (8-22) at this journal's website. Emancipative Values refer to the EV-Factor in Table 3. The AND-LND link displays the size and direction of the regression coefficient by which the individuals' LNDs impact on their ANDs, separately for each country.

In line with this visual evidence, the regression models in Table 4 flag out emancipative values as the most direct influence on ANDs. Comparing Models 1 and 2, we see that the EV-Factor alone explains as much of the cross-national variation in ANDs as all other influences together. Paired with the only other two significant influences—repression and religion—emancipative values remain most prevalent (Model 3) and religion turns insignificant. The EV-Factor mediates the influence of the religion-factor in Model 3 because the EV-Factor is more closely associated with ANDs but at the same time incorporates large shares of the variance in the religion-factor: emancipative values tend to be weak where the level of religiosity is high and the share of Muslims large. This mediation suggests a sequence in which high levels of religiosity and large shares of Muslims keep emancipative values weak, which diminishes resistance against ANDs. Allowing only significant influences to enter the equation, we end up with just two influences, the repression- and the EV-Factor, with the latter exerting the dominant influence (Model 4).

The right-hand diagram in Figure 2 visualizes the effect of the EV-factor on ANDs under control of repression. The rightward position of Sweden, China and Russia does, of course, not mean that China and Russia score as high on emancipative values as Sweden. What it means instead is that China, Russia and Sweden score higher on emancipative values than countries at their level of repression, which is high in China and Russia and low in Sweden. More generally, countries that are rightwardly positioned on the horizontal axis tend to be downward

positioned on the vertical axis, which means that—holding repression levels constant—stronger emancipative values coincide with lower ANDs.

Table 5 displays multilevel models. The country-level part of these regressions replicates Model 4 from Table 4, showing that the effects of repression and the EV-Factor on ANDs are adversarial, although the AND-diminishing effect of the EV-Factor is stronger than the AND-enhancing effect of repression. Insofar as repression and the EV-Factor show moderation effects, they are also antagonistic, with repression turning individual-level influences into an AND-enhancing direction, and the EV-Factor turning them into an AND-diminishing direction.

Among the individual-level influences, violence anxiety, violence toleration, religiosity and Muslim denomination all show the expected positive sign, indicating an enhancing effect on ANDs, with the strongest influences emanating from violence toleration and religiosity. The effect of Muslim denomination is only slightly significant and very small. Violence anxiety shows no unconditional effect, although it turns into a significant AND-diminishing influence if repression is strong. The individuals' education levels, information intake and emancipative values all show an unconditional AND-diminishing effect, which is exceptionally strong in the case of emancipative values (obvious from comparing the T-values). Political interest, by contrast, shows no unconditional effect. Instead, its effect is entirely conditioned by repression and country-level emancipative values, turning into an AND-enhancing influence if repression is strong and into an AND-diminishing influence if emancipative values are widespread.

On average, respondents with stronger endorsements of LNDs also tend to endorse ANDs more strongly, despite the inner contradiction between these two notions of democracy. But this overall tendency only exists because the WVS-six sample includes more respondents from countries in which the AND-LND link is positive than from those where it is negative. So this overall tendency is not very telling and the cross-level interactions unmask the issue. The strongest of these interactions exists in Model 4 where a country's overall level of emancipative values moderates the effect of the individuals' LNDs on their ANDs negatively. In other words, the stronger a population's overall support for emancipative values is, the more clearly do people's LNDs turn into a depressor of ANDs. The marginal effects plot in Figure 4 illustrates this powerful moderation.

Table 4. Explaining Between-Country Variation in Authoritarian Notions of Democracy

TREATMENTS:	OUTCOME: Authoritarian Notions of Democracy (ANDs)			
	Model 1	Model 2	Model 3	Model 4
Constant	.47 (6.66)***	.43 (49.79)***	.43 (51.89)***	.43 (56.54)***
Fear-Anger Factor	.02 (1.16) <sup>n.s.</sup>			
Repression Factor	.04 (2.07)*		.04 (2.78)**	.03 (2.91)***
Religion Factor	.05 (3.68)***		.02 (0.98) <sup>n.s.</sup>	
Cultural Connectivity	-.04 (-0.49) <sup>n.s.</sup>			
Electoral Democracy	-.03 (-0.39) <sup>n.s.</sup>			
EV-Factor		-.11 (-12.36)***	-.07 (-3.51)***	-.08 (7.31)***
Adjusted R <sup>2</sup>	.71	.72	.75	.79
N (number of countries)	52	60	59	58 (S. Africa excluded)

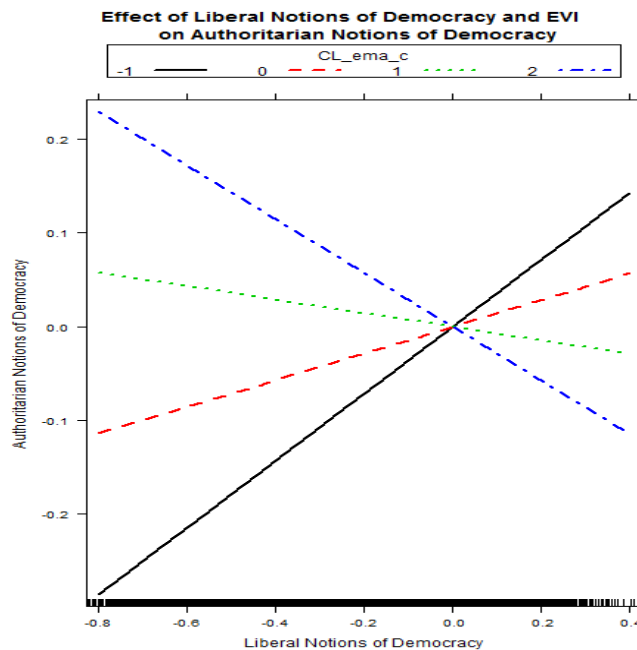
*Notes:* OLS-results are obtained from STATA 14. Entries are unstandardized regression coefficients with their T-values in parentheses. Test statistics for all for models indicate that they don't violate standard OLS assumptions. Specifically, test statistics for multicollinearity (variance inflation factors) are consistently below the critical threshold of 5.0, except for the EV- Factor in Model 4, which has a VIF just above 5.0. In Model 4, it is again below 5.0. The White-Test shows in all models an insignificant chi<sup>2</sup> value, indicating the absence of heteroskedasticity. Regression residuals all four models pass the White-Pagan as well Kolmogorov-Smirnov normal distribution test. All tests for omitted variable bias available in STATA 14 ("ovtest," "hettest" and "linktest") are negative. Re-running Model 4 with standard errors clustered for Welzel's (2013) eleven culture zones to control for spatial non-independence replicate the results in almost identical form. South Africa is indicated in all models as an outlier with residuals outside three standard deviations. Dropping South Africa from Models 1 to 3 does not change results, except for yielding slightly smaller standard errors for some coefficients and a larger adjusted R<sup>2</sup>.

## PLAUSIBILITY TESTS

Our argumentation involves premises that are difficult to test directly. But there are possibilities for indirect plausibility checks. Our key point of departure is the logical contradiction between LNDs and ANDs, which leads us to suggest that people don't understand LNDs when they endorse them together with ANDs. Yet, one could also argue that this constellation indicates not only an incomprehension of LNDs but of both LNDs and ANDs.

To resolve this issue, emancipative values provide a suitable benchmark because they embody an anti-authoritarian and pro-libertarian belief. The direction of this belief must shape people's endorsement of ANDs and LNDs, if they indeed believe in these endorsements. Thus, truly believed LNDs should correlate positively with emancipative values and truly believed ANDs should correlate negatively with these values. By contrast, LNDs and ANDs that are uncorrelated with emancipative values lack a solid belief base, in which case they might be meaningless.

Figure 4. Marginal Effects Plot Showing the Individual-level Impact of LNDs on ANDs for Countries at Different Overall Levels of Emancipative Values



Note: Data source is WVS round six. For measurement details see OA II (8-22) at this journal's website. Plot is for Model 4 in Table 5.

The bar chart in Figure 5 clarifies this point in a surprisingly unequivocal manner, dividing countries into those in which the individual-level link between ANDs and LNDs is positive and those in which it is negative (see the vertical axis in Figure 3 for the dividing line). As is obvious, ANDs correlate strongly negatively with emancipative values among both positive- and negative-link countries. Hence, AND-endorsements incorporate an element of belief under both constellations.



Table 5. Multilevel Model Explaining Variation in Authoritarian Notions of Democracy Within and Between Countries

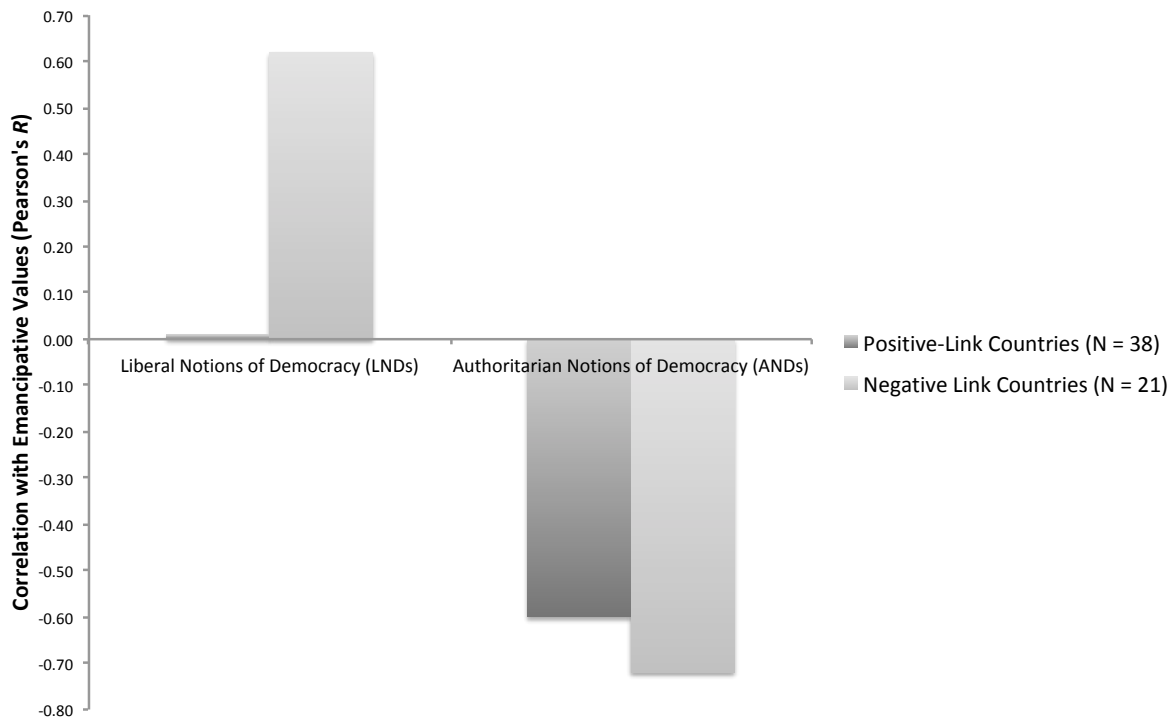
PREDICTORS:	OUTCOME VARIABLE: Authoritarian Notions of Democracy			
	Model 1	Model 2	Model 3	Model 4
Constant	.34 (18.31)***	.42 (48.36)***	.43 (42.00)***	.42 (40.37)***
Repression Factor <sub>CL</sub>		.03 (4.75)***	.09 (9.38)***	
EV-Factor <sub>CL</sub>		-.05 (-7.80)***		-.11 (-11.99)***
Violence Anxiety <sub>IL</sub>	.01 (1.00)	.01 (0.97)	.01 (0.97)	.01 (0.98)
* Repression-F <sub>CL</sub>			-.02 (-3.02)**	
* EV-Factor <sub>CL</sub>				.01 (2.50)*
Violence Toler <sub>IL</sub>	.10 (8.58)***	.10 (8.56)***	.10 (8.53)***	.10 (8.50)***
* Repression-F <sub>CL</sub>			-.02 (-1.61)	
* EV-Factor <sub>CL</sub>				.02 (1.25)
Religiosity <sub>IL</sub>	.05 (8.67)***	.06 (8.54)***	.05 (8.09)***	.05 (8.18)***
* Repression-F <sub>CL</sub>			-.00 (-0.47)	
* EV-Factor <sub>CL</sub>				.01 (1.21)
Muslim <sub>IL</sub>	.02 (2.26)*	.03 (2.94)*	.02 (2.68)*	.03 (2.69)*
* Repression-F <sub>CL</sub>			-.00 (-0.55)	
* EV-Factor <sub>CL</sub>				-.01 (-0.74)
Protestant <sub>IL</sub>	-.02 (-3.80)**	-.02 (-3.73)**	-.02 (-3.73)**	-.02 (-3.72)***
* Repression-F <sub>CL</sub>			-.02 (-2.93)*	
* EV-Factor <sub>CL</sub>				.03 (2.89)*
Political Interest <sub>IL</sub>	-.00 (-0.64)	-.00 (-0.62)	-.00 (-0.47)	-.00 (-0.70)
* Repression-F <sub>CL</sub>			.02 (3.09)**	
* EV-Factor <sub>CL</sub>				-.02 (-3.68)**
Education Level <sub>IL</sub>	-.05 (-7.13)***	-.05 (-7.17)***	-.05 (-7.12)***	-.05 (-7.19)***
* Repression-F <sub>CL</sub>			.00 (0.77)	
* EV-Factor <sub>CL</sub>				-.00 (-0.02)
Information Intake <sub>IL</sub>	-.02 (-3.62)**	-.02 (-3.60)**	-.02 (-3.56)**	-.02 (-3.59)**
* Repression-F <sub>CL</sub>			-.00 (-0.83)	
* EV-Factor <sub>CL</sub>				.00 (0.59)
EV-Factor <sub>IL</sub>	-.04 (-12.47)***	-.04 (-12.34)***	-.04 (-11.73)***	-.04 (-12.30)***
* Repression-F <sub>CL</sub>			.00 (1.03)	
* EV-Factor <sub>CL</sub>				-.00 (-0.91)
LND <sub>IL</sub>	.14 (4.46)***	.14 (4.48)***	.16 (6.36)***	.14 (6.54)***
* Repression-F <sub>CL</sub>			.16 (7.23)***	
* EV-Factor <sub>CL</sub>				-.17 (-8.47)
Explained Variances:				
Within Countries	8.3%	16.4%	16.4%	16.4%
Between Countries		72.5%	61.4%	74.3%
Slope (LNDs)			40.6%	51.7%
Observations	84,070 individuals in 59 countries			

Notes: Suffix <sub>CL</sub> denotes country-level and suffix <sub>IL</sub> individual-level variables. Entries are unstandardized regression coefficients with their T-values in parentheses. Individual-level variables are uncentered in Model 1 and country-mean centered in all other models. Country-level variables are global-mean centered. Calculations are based on robust standard errors in HLM. Explained variances are calculated from the reduction in error terms relative to the null-model. Missing values in individual-level variables (roughly 5% of all data) have been imputed using the multiple imputation package in SPSS 24 (each imputed cell contains the average across the five imputations obtained). Country samples are weighted to equal size ( $N = 1,500$  respondents). All models run under routine demographic controls for gender and age.

With LND-endorsements, the situation is strikingly different. LNDs correlate positively with emancipative values, as they should, only in negative-link countries but *not at all* in positive-

link countries. Therefore, LND-endorsements embody an element of belief only in negative-link countries, while they lack such an element in positive-link countries. Where the latter is the case, LND-endorsements are void of a genuine commitment to liberal principles.

Figure 5. Cross-country Correlations of Authoritarian and Liberal Notions of Democracy with Emancipative Values



Note: Data source is WVS round six. For measurement details see OA II (8-22) at this journal's website. Individual-level correlations between these variables are smaller but show exactly the same pattern as concerns the difference between positive- and negative-link countries.

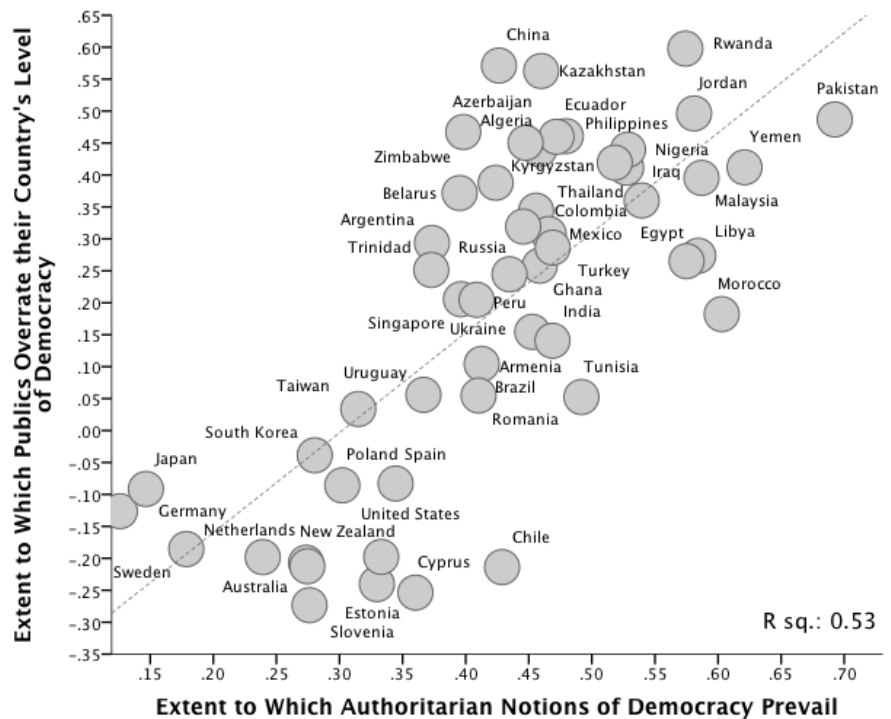
These insights support our point that ANDs provide a qualifier of LNDs that tells us how authentic we can consider the latter. This conclusion gains additional plausibility when one recognizes that positive-link countries are mostly authoritarian, for which reason people in these countries have first-hand experiences with authoritarianism, yet not with liberalism.

There is yet another plausibility check to see whether people really mean it when they define democracy in authoritarian ways. If they do, people who endorse ANDs should perceive authoritarian regimes as democratic, despite these regimes' lack of democracy. Put differently, the more prevalent ANDs are in a public, the stronger should this public overrate its country's level of democracy when democracy is lacking. As Figure 6 illustrates, this is indeed what we find.<sup>10</sup> Large segments of the populations in Nigeria, Pakistan, Rwanda, Yemen and many other

<sup>10</sup> Over-ratings of democracy correlate with ANDs also at the individual level:  $R = .32$  ( $N \approx 74,000$ ;  $P = .00$ , 2-tailed).

autocracies in which ANDs prevail estimate their countries as being at least fairly, if not entirely, democratic when the exact opposite is the case.<sup>11</sup>

Figure 6. The Association between Overratings of Democracy and Authoritarian Notions of Democracy



Note: Data source is WVS round six. For measurement details see OA II (8-22) at this journal's website.

The alternative to our interpretation is the “public lies – private truths” view (cf. Kuran 1993). Due to this view, ANDs prevail in autocracies not because people believe in them but because expressing ANDs is a means to hide an alternative regime preference for democracy. The evidence compiled so far is incompatible with this view. And there are more observations contradicting the “public lies – private truths” perspective. For instance, if ANDs are a mere artifact of public lies in autocracies, autocracy itself should be the most powerful predictor of ANDs. But it isn’t. Instead, taking the inverse of democracy as a measure of autocracy<sup>12</sup>, the latter shows no significant influence on ANDs whatsoever, once we take into account emancipative values, which fully retain their negative effect on ANDs, even under control of autocracy.

<sup>11</sup> This analysis touches again on the relativist-vs.-essentialist evaluation of democracy. For further considerations, see Responses RI-1 and RI-6 (OA: 39, 41).

<sup>12</sup> Electoral democracy is measured on a 0-to-1 scale, so 1 minus the countries’ scores inverts this scale into an autocracy index on which the least democratic countries score highest and the most democratic ones lowest. This inversion makes sense under the premise that the extent to which a regime lacks democracy defines its degree of autocracy.

Furthermore, if the primary concern of people living in autocracies was to hide an alternative regime preference for democracy, they shouldn't express support for democracy in the first place. In reality, however, the average support for democracy is as high in more autocratic countries (.81 on a 0-to-1 index,  $SD = .04$ ) as it is in less autocratic countries (.82,  $SD = .07$ ).<sup>13</sup> Besides, the cross-country correlation between autocracy and support for democracy is not even significant.<sup>14</sup>

Summing up, four observations merge into a coherent picture: (1) most people in autocracies say to support democracy; (2) most of these people endorse authoritarian notions of democracy; (3) these notions embody a strong element of belief; (4) outspoken supporters of democracy with authoritarian notions of the latter evaluate their regimes as democratic when in fact that the opposite is the case. As far as we can see, only one conclusion is consistent with all four of these observations: people do not see democracy as the alternative to autocracy when they understand democracy in authoritarian ways.<sup>15</sup>

We take the latter conclusion even a step farther, positing that the more widespread ANDs are in a country, the more reverts the meaning of support for democracy into its own contradiction, that is, support for autocracy. Let's assume that this interpretation is accurate. Let's also assume, along with "congruence theory" (cf. Inglehart & Welzel 2005), that a public's prevailing regime preference drives a country's actual regime towards congruence with the preference (at least in the long run). If so, the countries' democracy levels should be the lower, the more ANDs revert the meaning of democratic support into autocratic support. In this case, lacking democracy would be congruent with support for democracy where ANDs turn the meaning of this support into its opposite. We can test this by plotting a country's level of democracy against a qualified measure of support for democracy that shows support for democracy to the extent that this support associates with ANDs, in which case we measure the seemingly paradoxical phenomenon of "authoritarian support for democracy."<sup>16</sup>

The left-hand diagram of Figure 7 shows this relationship without controls. The evidence is clear: the more people's support for democracy involves an authoritarian notion of what democracy means, the lower is the level of democracy—in other words, the more authoritarian is the country.

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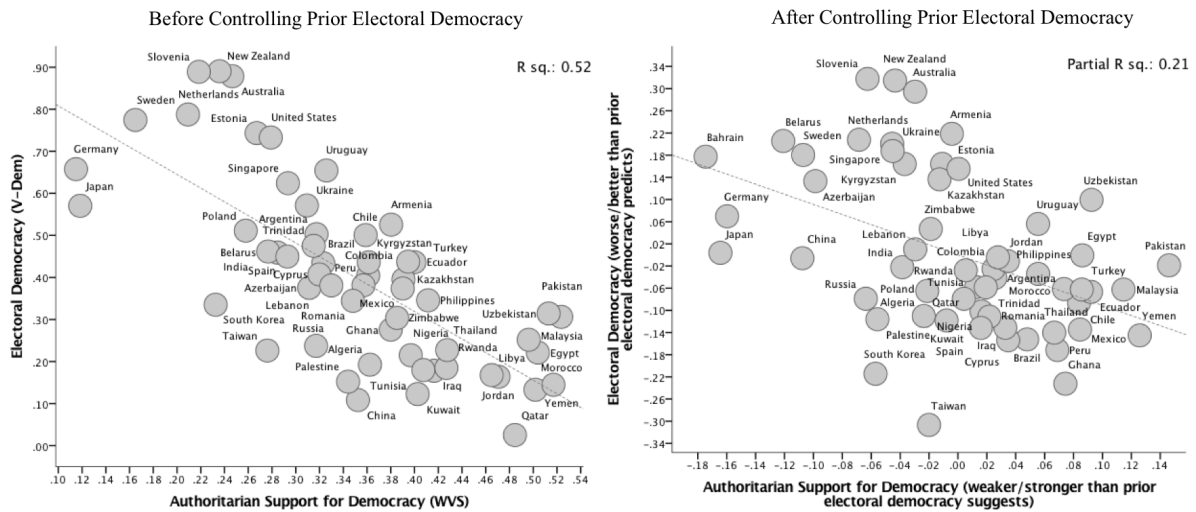
<sup>13</sup> We consider countries below the median (.40) on the electoral democracy scale as more autocratic ( $N = 29$ ) and countries above this median as less autocratic ( $N = 28$ ).

<sup>14</sup>  $R = -.25$ , insignificant at the 5%-hurdle ( $P = .06$ ;  $N = 57$ ).

<sup>15</sup> For further elaborations on this conclusion, see Responses RII-3 and RIII-6 (OA: 42, 47).

<sup>16</sup> WVS round six measures support for democracy on a ten-point scale indicating to what extent a respondent considers it important "to live in a democratic country." We rescale this variable into a range from 0 to 1 and weight it for ANDs by multiplication. The resulting product measures support for democracy to the extent that it is tied to ANDs, which is "authoritarian support for democracy."

Figure 7. The Association of Electoral Democracy with Authoritarian Support for Democracy



Note: Data source is WVS round six for authoritarian support for democracy and V-Dem for electoral democracy. For measurement details see OA II (8-22) at this journal's website.

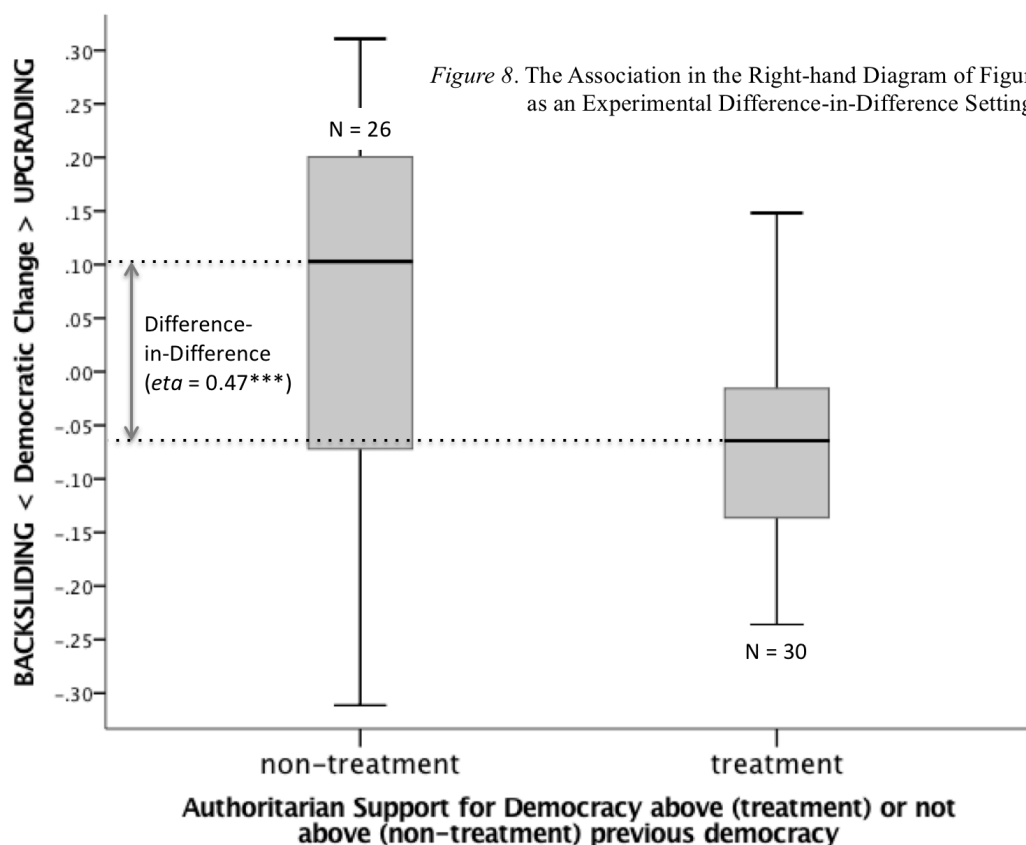
Of course, the causal direction in this relationship is not self-evident. The relationship could exist because a public in which ANDs are widespread facilitates the endurance of authoritarian regimes. But the relationship could also exist because authoritarian regimes breed ANDs among the public. Either way, the relationship itself is so tight that it provides a strong case for regime-culture congruence.

Further probing into this issue, the right-hand diagram of Figure 7 shows that authoritarian support for democracy associates with less democracy even when we control for the level of democracy present over the ten years before we have measured authoritarian support. Introducing this control removes any endogeneity that authoritarian support might have to prior democracy. Controlling for prior democracy also provides a dynamic picture, showing that more authoritarian support favors a drop in democracy below its previous ten-year average, while less authoritarian support favors a rise in democracy above its previous ten-year average.

The scenario in the right-hand diagram of Figure 7 is quasi-experimental. We have a pre-test situation: the level of democracy measured over the ten years before authoritarian support. And we have a post-test situation: the level of democracy measured after this decade. The treatment consists in authoritarian support being stronger than the pre-test democracy level suggests; the non-treatment (or counter-treatment) consists in authoritarian support being weaker than the pre-test democracy level suggests. The experimental question then is if the treatment and non-treatment group differ with respect to whether the post-test democracy level shifted above or below its pre-test level. Note that the attribution of countries to the treatment and non-treatment groups is random with respect to the pre-test democracy level. This is true

because we attribute countries to the treatment and non-treatment group by deciding whether authoritarian support has been higher or lower than the pre-test level of democracy suggests—no matter whether that pre-test level *itself* was high or low. Hence, there is no endogeneity in the treatment/non-treatment attribution with respect to the pre-test situation.

This quasi-experimental configuration provides a “difference-in-difference” setting that allows us to estimate the difference between the changes in the treatment and non-treatment groups. The boxplot in Figure 8 shows the result. The non-treatment group in which authoritarian support was lower than the pre-test democracy level suggested experienced an upgrade of the post-test democracy level by +.10 scale points. By contrast, the treatment group in which authoritarian support was higher than the pre-test democracy level suggested experienced a backsliding of the post-test democracy level by -.06 scale points. In total, this makes a difference-in-difference of .16 scale points between the treatment and non-treatment group, which is statistically significant at the .00-level.



Note: Data source is the same as in Figure 7.

Considering the relationship between emancipative values and ANDs, we believe the direction of impact points from values to ANDs. Actually, we think that weakness in these values is the common source of both ANDs and authoritarian rule. But of course, causality issues are impossible to resolve conclusively in the absence of experimental control and

sufficient time-series evidence. Therefore, it might as well be true that the exact opposite of our preferred causal narrative applies. If so, the association between emancipative values and ANDs would be spurious because both are caused by autocracy. This idea, however, is subject to a plausibility test: if it holds true, autocracy should be more closely correlated with both emancipative values and ANDs than they are correlated among each other. Taking again the inverse of democracy as a measure of autocracy, the opposite of this scenario turns out to be the case: emancipative values are more closely correlated with both autocracy ( $R = -.80$ ) and ANDs ( $R = -.85$ ) than they are correlated with each other ( $R = .74$ ;  $N = 59$ ,  $P = .00$ , 2-tailed).

This evidence speaks more in favor of the idea that weakness in emancipative values is the common source of both autocracy and ANDs. This interpretation finds additional support by two separate regression analyses, showing that ANDs fail to absorb the negative effect of emancipative values on autocracy (1), as much as autocracy fails to absorb these values' negative effect on ANDs (2).

The idea that the causal arrow in the relationship between emancipative values runs from weak emancipative values to strong ANDs finds further confirmation in a Hausman-test of endogeneity (OA VI: 30-31) and a linkage test to remote historic drivers (OA VII: 32-33). The results of these tests also accord to the logical sequence of socialization. Emancipative values refer to such issues as gender relations and sexual mores that become a central part of every person's daily life early in their socialization. ANDs, by contrast, address political regimes, which is a more abstract and remote aspect of reality, to which most people should form an opinion later in their socialization.

## V. Discussion

All cross-national surveys indicate widespread support for democracy, irrespective of the type of regime. So what does it mean when such support is expressed in authoritarian regimes? The standard interpretation in the literature is straightforward: support for democracy in authoritarian regimes indicates the public's preference for a democratic alternative to their authoritarian government.

A newly discovered phenomenon—authoritarian notions of democracy—calls this interpretation into question. Authoritarian notions of democracy are widespread—indeed surprisingly widespread for anyone aware of these notions' contradiction to scholarly definitions of democracy. The discovery that authoritarian notions of democracy are quite frequent is disturbing. It raises the question of whether support for democracy actually means its exact

opposite, support for autocracy, when this support is based on authoritarian notions of democracy. If so, all the conclusions that the literature draws from mass support for democracy on regime legitimacy are in doubt.

The doubt weighs heavy on two elements of interpretation in the literature. One element concerns the idea that—in the face of widespread support of democracy—authoritarian regimes are illegitimate in the eyes of their people. The other element concerns a closely related thought: since most people in the world dislike authoritarian regimes, these regimes persist despite their unpopularity, apparently because of their repressive capacities.

The discovery of authoritarian notions of democracy offers a provocative revision of these views: authoritarian regimes are legitimate in the eyes of their people where authoritarian notions of democracy prevail; this legitimacy is as important for the persistence of authoritarian regimes as their repressive capacities.<sup>17</sup>

To debunk this revisionist interpretation, the evidence must support the “public lies – private truths” perspective. According to this perspective, people in authoritarian regimes say many things in which they do not believe, so as to hide their alternative regime preference for democracy.

However, the evidence disconfirms this possibility in multiple ways. To begin with, if the primary concern of people in authoritarian regimes was to hide an alternative regime preference, they should avoid expressing support for democracy to begin with. However, respondents in authoritarian regimes show as little response refusal and express as much support for democracy as those in democracies.

Next, if respondents who endorse authoritarian notions of democracy in authoritarian regimes did not believe in these notions, these notions should be unrelated to such strongly belief-anchored orientations as emancipative values, which embody an anti-authoritarian and pro-liberal spirit. But the evidence shows the exact opposite: authoritarian notions are strongly inversely related to emancipative values, in both authoritarian and democratic regimes. Hence, authoritarian notions of democracy embody a strong belief element wherever they exist. Liberal notions of democracy, by contrast, lack this belief element when they are expressed conjointly with authoritarian notions: where this is the case, liberal notions of democracy are detached from the pro-liberal belief inherent in emancipative values. Consequently, liberal notions of democracy are void of an authentic commitment when they are endorsed conjointly with authoritarian

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<sup>17</sup> In support of this interpretation, we can report that when one regresses autocracy simultaneously on authoritarian notions of democracy and the repression factor, both of these variables show a significantly positive effect but that of authoritarian notions is slightly stronger ( $R_{\text{partial}} = .42$  for authoritarian notions and  $.36$  for repression;  $R^2_{\text{adj.}} = .59$ ;  $N = 58$ ).



notions, while the reverse does not hold true. For all these reasons, authoritarian notions turn the meaning of support for democracy into its own contradiction, that is, support for autocracy.

Against this backdrop, we conclude that Western-style democracy is not a universal human desire but a conditional aspiration that grows strong *only* in the presence of emancipative values. In the absence of emancipative values, authoritarian notions of democracy blossom and lend legitimacy to autocratic regimes, disguised under lip service for democracy. The cross-cultural prospects of democracy, thus, hinge on the cross-cultural diffusion of emancipative values.

We deem these insights important but also preliminary because we lack supportive qualitative, experimental and time-series evidence. As concerns qualitative evidence, researchers interested in regime legitimacy should spend more efforts into open-ended questions in order to let respondents narrate in more detail exactly how they understand a given concept. In this context, researchers should think about experimental settings to find out whether certain treatments, such as threats, can vary how people define a concept. Finally, the World Values Survey would be well advised to continue the battery with meaning of democracy statements, so as to build a longer time-series that can answer dynamic questions. It might even be worthwhile to design a novel battery with more items covering a greater variety of authoritarian notions of democracy.

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## Online Appendix (OA)

This document is the Online Appendix to our journal article "Democracy Misunderstood." It comprises eight sections. Section I gives an overview of the data samples and their country coverage. Section II describes the variables and recoding procedures at the individual and country levels. Section III provides descriptive statistics and correlation tables for the most relevant variables used in the article. Section IV specifies weblinks to access our data online. Section V replicates the country-level regressions from Model 4 in *Table 4* of our article by controlling cross-country variability in the composition and cohesion of our measure of authoritarian democracy notions. Section VI shows the results of endogeneity tests to resolve issues of causal direction. Further exploring this issue, Section VII analyzes differential links of our two main variables to remote historical drivers of development. Finally, Section VIII summarizes comments by three anonymous reviewers to a previous version of our article. Each comment is followed by a response, telling how we dealt with the comment in question. Doing so is not only a way to pay tribute to the reviewers' thoughtful input but also allows interested readers to see how this research developed through academic exchange. Furthermore, the comment-response dialogue offers a deeper discussion of certain points for which there was not enough space in the manuscript. Where suitable, footnotes in the manuscript guide readers to various of the discussion here. Feedback to our analyses is highly welcome; if you wish to provide your feedback, please write to [cwelzel@gmail.com](mailto:cwelzel@gmail.com).

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## SECTION I: DATA SAMPLES AND COUNTRY COVERAGE

All of our individual-level data are taken from the sixth round of the World Values Survey (henceforth: WVS), which provides the broadest available evidence of the presence of authoritarian notions of democracy around the globe. Round six of the WVS has been conducted from 2010 until 2014. Although the WVS has been fielded in five rounds, only round six includes the three items needed to estimate authoritarian notions of democracy. The WVS interviews nationally representative, random probability samples of adult country residents with a targeted minimum sample size of 1,000 respondents per country. Sub-contracted national polling agencies field a standardized English master questionnaire, translated into the main national language(s), preferably conducting face-to-face interviews. Only a few countries deviate from the preferred face-to-face mode, including Australia and New Zealand, where mail-back self-administered questionnaires have been used, and the Netherlands, where the interviews have been conducted via the Internet. Further Details on fieldwork organization, sample design and data collection are available at [www.worldvaluessurvey.org](http://www.worldvaluessurvey.org).

*OA-Table 1* gives an overview of the country coverage and sample sizes of the round-six WVS. It includes a total of 86,272 respondents from 60 country samples (a city sample in the case of Hong Kong). Because the selected countries cover the largest populations in each global region, the data represent more than ninety percent of the world population.

**OA-Table 1. Country Coverage and Sample Sizes of the Round-six WVS**

Country	Respondents (N)	Field-work (year)	Male/Female Ratio	Average Age	Missing Responses (%)	Contradictory Responses (%)	Duplicate Responses (%)
Algeria	1,200	2013	1.03	37.80	25	12	17
Argentina	1,030	2013	0.88	42.65	09	10	00
Armenia	1,100	2011	0.51	46.19	25	11	00
Australia	1,477	2012	0.79	46.38	03	04	00
Azerbaijan	1,002	2011	1.00	39.66	00	07	02
Bahrain	1,200	2014	1.22	39.30	01	26	12
Belarus	1,535	2011	0.81	45.36	02	05	03
Brazil	1,486	2014	0.60	42.98	16	13	00
Chile	1,000	2011	0.97	43.89	13	08	17
China	2,300	2012	0.96	42.29	41	09	03
Colombia	1,512	2012	0.98	40.41	09	10	00
Cyprus (Greek)	1,000	2011	0.87	41.95	09	12	04
Ecuador	1,202	2013	0.94	39.81	01	18	01
Egypt	1,523	2013	0.47	38.80	03	07	07

Estonia	1,533	2011	0.81	47.07	17	04	00
Georgia	1,202	2014	0.85	44.66	05	08	02
Germany	2,046	2013	0.98	49.63	04	04	00
Ghana	1,552	2012	1.01	32.26	00	10	01
Hong Kong	1,000	2013	0.83	44.67	02	07	00
India	1,581	2014	1.65	32.37	00	29	39
Iraq	1,200	2012	1.10	36.61	05	06	02
Japan	2,443	2010	0.93	50.74	30	05	00
Jordan	1,200	2014	1.00	39.78	08	07	00
Kazakhstan	1,500	2011	0.66	40.35	00	09	14
Kuwait	1,303	2014	1.75	36.49	12	15	09
Kyrgyzstan	1,500	2011	0.96	38.75	01	13	17
Lebanon	1,200	2013	0.96	38.37	04	15	01
Libya	2,131	2014	1.05	33.97	13	12	01
Malaysia	1,300	2012	1.06	40.01	00	09	06
Mexico	2,000	2012	1.00	37.48	04	15	00
Morocco	1,200	2011	0.99	37.26	35	07	04
Netherlands	1,902	2012	0.87	53.34	18	05	00
New Zealand	841	2011	0.73	51.44	11	05	00
Nigeria	1,759	2011	1.02	31.54	00	15	11
Pakistan	1,200	2012	1.08	34.43	04	12	14
Palestine	1,000	2013	0.95	36.68	09	07	03
Peru	1,210	2012	1.01	39.48	14	15	01
Philippines	1,200	2012	1.00	43.06	01	15	00
Poland	966	2012	0.84	47.85	17	03	00
Qatar	1,060	2010	0.85	37.78	06	08	00
Romania	1,503	2012	0.75	46.25	13	09	00
Russia	2,500	2011	0.81	44.66	22	08	01
Rwanda	1,527	2012	0.98	33.77	00	11	02
Singapore	1,972	2012	0.82	45.16	00	13	00

Slovenia	1,069	2011	0.73	49.50	13	07	00
South Africa	3,531	2013	1.00	37.72	04	17	00
South Korea	1,200	2010	0.97	43.79	01	09	01
Spain	1,189	2011	0.95	46.11	11	08	00
Sweden	1,206	2011	0.89	47.62	07	03	00
Taiwan	1,238	2012	0.92	44.56	12	06	00
Thailand	1,200	2013	1.10	45.14	03	12	08
Trinidad-Tobago	999	2011	0.82	45.87	15	12	00
Tunisia	1,205	2013	1.11	38.82	20	14	02
Turkey	1,605	2011	0.95	40.08	03	11	02
Ukraine	1,500	2011	0.67	46.68	00	08	01
United States	2,232	2011	0.94	46.37	04	04	00
Uruguay	1,000	2011	0.89	44.99	18	09	00
Uzbekistan	1,500	2011	0.63	39.35	02	09	01
Yemen	1,000	2014	0.99	35.59	33	05	00
Zimbabwe	1,500	2012	0.85	36.14	00	13	05
AGGRE-GATE	86,272 (sum)	2011 (mode)	0.93 (mean)	41.70 (mean)	09 (mean)	10 (mean)	04 (mean)

Apart from documenting sample sizes and the years of fieldwork per country, *OA-Table 1* also reports male-to-female ratios in each sample, as well as sample average ages and the percentage of missing, contradictory and duplicate responses on a country-by-country basis.

Most samples are slightly biased to include somewhat larger shares of women, in line with demographic realities. Only a few samples show a heavily biased sex ratio, like in the Egyptian sample (ratio: 0.47) in which the share of men is less than half as large as that of women, or the Kuwaiti sample (ratio: 1.75) in which men largely outnumber women. In about fifty of our sixty samples, sex ratios vary only modestly in a range from 0.80 to 1.20. Fortunately, our analyses reveal no evidence of a decisive influence of sex on our key dependent variable. For this reason, we did not employ any corrections for imbalanced sex ratios.

In terms of variation in average population age, it is evident that samples from developed countries tend to be older than samples from developing countries. Thus, a sample's mean age correlates at  $R = 0.64$  with the respective population's logged per capita Gross Domestic Product (in purchasing power parities in 2010). By far the overwhelming majority of samples range between 35 and 45 years of an average age, with no dramatic outliers from this range. Again, we believe that these patterns provide no good reasons to implement any correction schemes—even less so as age does not exert a decisive influence on our dependent variable.

The documentation of missing, contradictory and duplicate responses intends to shed light on the issue of "non-attitudes" or false preferences. Missing responses in *OA-Table 1* document per country the share of the sample refusing to respond to at least two of the three items addressing authoritarian notions of democracy. Response refusal to these items might

indicate that an interviewee has no idea about the meaning of democracy, in which case it is a non-attitude, or shies away from revealing her or his true opinion, in which case we measure a false preference. Contradictory responses in *OA-Table 1* document per country the share of the sample answering a question on the "importance of politics" in one's life in a way directly contradictory to a later question on one's "political interest." Such outright contradictions in response patterns might indicate that interviewees give random answers, which is a manifestation of false preferences. Duplicate responses in *OA-Table 1* document per country the share of the respondents who have at least one identical "clone" in the same sample, as concerns the answers to the first 65 substantial questions of the round-six WVS questionnaire. The existence of identical duplicates over large groups of variables might indicate faked responses, in which case we again measure false preferences. Section II of this appendix provides a more detailed documentation of how we created these response variables.

Measured against the standards of missing, contradictory and duplicate responses, the problem of non-attitudes or false preferences seems to be minor. The overall proportions of missing, contradictory and duplicate responses amount to 9, 10 and 4 percent in the order just mentioned. In 87 percent of our samples, the proportion of missing responses is below 15 percent. In 93 percent of our samples, the proportion of contradictory responses is below 15 percent. Exactly the same numbers apply to duplicate responses. A few extreme outliers exist: the Chinese sample includes 41 percent of interviewees giving non-responses, while the Indian sample includes 29 percent of interviewees giving contradictory responses and 39 percent with at least one identical clone in the same sample. However, controlling for these and other deviations did not affect our findings. Against this backdrop, we feel confident to conclude that our findings are not an artifact of non-attitudes or false preferences.

Further supporting this conclusion, it seems clear that response refusal is *not* driven by the interviewees' fear to exhibit their true posture. This is evident from the fact that the overall fear of violence in a country and its level of political repression do not contribute to a larger share of missing responses (see *OA-Table 5* in this appendix). This holds all the more true once we control for emancipative values: then fear of violence and political repression show no more linkage whatsoever to either missing or contradictory responses.

## SECTION II: VARIABLE DESCRIPTION AND CODING PROCEDURES

### Individual-Level Variables

#### Authoritarian Notions of Democracy (ANDs)

This variable is based on WVS round-six questions V132, V135 and V138:

“Many things are desirable, but not all of them are essential characteristics of democracy. Please tell me for each of the following things how essential you think it is as a characteristic of democracy. Use this scale where 1 means “not at all an essential characteristic of democracy” and 10 means it definitely is “an essential characteristic of democracy” [Interviewer: read out and code one answer for each!]?”

	Not an essential characteristic of democracy					An essential characteristic of democracy				
V132. Religious authorities ultimately interpret the laws.	1	2	3	4	5	6	7	8	9	10
V135. The army takes over when government is incompetent.	1	2	3	4	5	6	7	8	9	10
V138. People obey their rulers.	1	2	3	4	5	6	7	8	9	10

Based on these items, the command syntax to generate the AND-index reads as follows:

```
compute demrelig=(v132-1)/(10-1).
recode demrelig (sysmiss=-99).
mis val demrelig (-99).
```

```
compute demarmy=(v135-1)/(10-1).
recode demarmy (sysmiss=-99).
mis val demarmy (-99).
```

```
compute demobey=(v138-1)/(10-1).
recode demobey (sysmiss=-99).
mis val demobey (-99).
```

The following procedure creates the AND-index in such a way that whenever all three of its components are available, the resulting index is the average of these three, whereas when one component is missing it is a linear transformation of the available two components. The formula for the linear transformation (constant and component coefficients) is obtained from regressing the three-component average on the two specific components in question. Since there are three possibilities of which combination of two components is available, this procedure has to be performed separately for each combination.

```
mis val demarmy demobey demrelig ().
if (demarmy ne -99) and (demobey ne -99) and (demrelig ne -99) ands=(demrelig + demobey + demarmy)/3.
if (demarmy = -99) and (demobey ne -99) and (demrelig ne -99) ands=.693+.092*demrelig+.145*demobey.
if (demarmy ne -99) and (demobey ne -99) and (demrelig = -99) ands=.684+.042*demarmy+.131*demobey.
if (demarmy ne -99) and (demobey = -99) and (demrelig ne -99) ands=.785+.055*demrelig+.013*demarmy.

recode ands (sysmiss=-99).
mis val ands demarmy demrelig demobey (-99).
mis val demobey demrelig ands ().
```

The following procedure calculates a scheme to weight respondents in proportion to the completeness of information on which their AND-score is based:

```

if (demobey ne -99) and (demrelig ne -99) and (demarmy ne -99) weight1=1.
if (ands ne -99) and ((demobey = -99) or (demrelig = -99) or (demarmy = -99)) weight1=.66.
mis val demobey demrelig ands (-99).

```

We replicated all of our analyses using this scheme as a weight. This did not change the results.

Another version of the AND-index (labeled “and1st”) used in Table 2 of our article is to assign each respondent the standardized score of that particular AND-item on which s/he scores highest:

```

if (demarmy gt demobey) and (demarmy gt demrelig) and1st=demarmy.
if (demobed gt demarmy) and (demobed gt demrelig) and1st=demobed.
if (demrelig gt demobey) and (demrelig gt demarmy) and1st=demrelig.

```

## Liberal Notions of Democracy (LNDs)

This variable is based on WVS round-six questions V133, V136 and V139:

“Many things are desirable, but not all of them are essential characteristics of democracy. Please tell me for each of the following things how essential you think it is as a characteristic of democracy. Use this scale where 1 means “not at all an essential characteristic of democracy” and 10 means it definitely is “an essential characteristic of democracy” [Interviewer: read out and code one answer for each]?”

	Not an essential characteristic of democracy					An essential characteristic of democracy				
	1	2	3	4	5	6	7	8	9	10
V133. People choose their leaders in free elections.										
V136. Civil rights protect people from state oppression.										
V139. Women have the same rights as men.										

Based on these items, the command syntax to generate the LND-index reads as follows:

```

compute demelect=(v133-1)/(10-1).
recode demelect (sysmiss=-99).
mis val demelect (-99).

```

```

compute demcivri=(v136-1)/(10-1).
recode demcivri (sysmiss=-99).
mis val demcivri (-99).

```

```

compute demwomen=(v139-1)/(10-1).
recode demwomen (sysmiss=-99).
mis val demwomen (-99).

```

The following procedure creates the LND index in such a way that whenever all three of its components are available, the resulting index is the average of these three, whereas when one component is missing it is a linear transformation of the available two components. The formula for the linear transformation (constant and component coefficients) is obtained from regressing the three-component average on the two specific components in question. Since there are three possibilities of which combination of two components is available, this procedure has to be performed separately for each combination.

```

mis val demelect demcivri demwomen ().

```

```

if (demelect ne -99) and (demcivri ne -99) and (demwomen ne -99) lnds=(demelect + demcivri + demwomen)/3.
if (demwomen = -99) and (demelect ne -99) and (demcivri ne -99) lnds=.108+.435*demelect+.427*demcivri.
if (demwomen ne -99) and (demelect ne -99) and (demcivri = -99) lnds=.073+.419*demwomen+.460*demelect.

```

```
if (demwomen ne -99) and (demelect = -99) and (demcivri ne -99) lnds=.056+.421*demwomen+.050*demcivri.
```

```
recode lnds (sysmiss=-99).
```

```
mis val lnds demwomen demcivri demelect (-99).
```

## Educational Level

This variable based on WVS round-six question V248:

V248. "What is the highest educational level that you have attained? [NOTE: if respondent indicates to be a student, code highest level s/he expects to complete]."

- 1 No formal education
- 2 Incomplete primary school
- 3 Complete primary school
- 4 Incomplete secondary school: technical/vocational type
- 5 Complete secondary school: technical/vocational type
- 6 Incomplete secondary: university-preparatory type
- 7 Complete secondary: university-preparatory type
- 8 Some university-level education, without degree
- 9 University-level education, with degree

To transform this variable into an index, we use the following command syntax:

```
compute educachieve=(v248-1)/(9-1).
```

```
recode educachieve (sysmiss = -99).
```

```
mis val educachieve (-99).
```

## Information Intake

This variable is based on WVS round-six questions V217 to V224 and V225:

"People learn what is going on in this country and the world from various sources. For each of the following sources, please indicate whether you use it to obtain information daily, weekly, monthly, less than monthly or never [Interviewer: read out and code one answer for each]:"

	Daily	Weekly	Monthly	Less than monthly	Never
V217. Daily newspaper	1	2	3	4	5
V218. Printed magazines	1	2	3	4	5
V219. TV news	1	2	3	4	5
V220. Radio news	1	2	3	4	5
V221. Mobile phone	1	2	3	4	5
V222. Email	1	2	3	4	5
V223. Internet	1	2	3	4	5
V224. Talk with friends or colleagues	1	2	3	4	5

V225 "How often, if ever, do you use a personal computer? (Read out and code one answer):"

1. Never
2. Occasionally
3. Frequently
4. Do not know what a computer is (do not read out, code only if volunteered)

To transform this variable into an index, we use the following command syntax:

```
recode v217 (1 = 1) (2 = 0.75) (3= 0.5) (4= 0.25) (5 = 0) into infnewsp.
```

```

recode infnewsp (sysmiss = -99).
mis val infnewsp (-99).

recode v219 (1 = 1) (2 = 0.75) (3= 0.5) (4= 0.25) (5 = 0) into inftvnews.
recode inftvnews (sysmiss = -99).
mis val inftvnews (-99).

recode v220 (1 = 1) (2 = 0.75) (3 = 0.5) (4 = 0.25) (5 = 0) into infradionews.
recode infradionews (sysmiss = -99).
mis val infradionews (-99).

recode v221 (1 = 1) (2 = 0.75) (3= 0.5) (4= 0.25) (5 = 0) into infphone.
recode infphone (sysmiss = -99).
mis val infphone (-99).

recode v222 (1 = 1) (2 = 0.75) (3= 0.5) (4= 0.25) (5 = 0) into infemail.
recode infemail (sysmiss = -99).
mis val infemail (-99).

recode v223 (1 = 1) (2 = 0.75) (3= 0.5) (4= 0.25) (5 = 0) into infweb.
recode infweb (sysmiss = -99).
mis val infweb (-99).

recode v224 (1 = 1) (2 = 0.75) (3= 0.5) (4= 0.25) (5 = 0) into inftalk.
recode inftalk (sysmiss = -99).
mis val inftalk (-99).

recode v225 (1 = 0) (2 = 0.5) (3 = 1) (4= 0) into pcuse.
recode pcuse (sysmiss = -99).
mis val pcuse (-99).

compute infconnec1=(infnewsp+inftvnews+infradionews+infphone+infemail+infweb+inftalk+pcuse)/8.
recode infconnec1 (sysmiss=-99).
mis val infconnec1 (-99).
var lab infconnec1 'information intake'.

```

The following procedure creates a proxy for information intake based on V225 “how often if ever do you use a personal computer,” for those two countries (namely Morocco and Spain) where V217-V224 have not been fielded. The formula for the linear transformation (constant and component coefficients) is obtained from regressing the eight-component average on V225:

```

mis val pcuse ().
if (infconnec1 ne -99) infconnec = infconnec1.
if (infconnec1 = -99) and (pcuse ne - 99) infconnec = .392 + .396*pcuse.
mis val infconnec pcuse (-99).
recode infconnec (sysmiss =-99).
mis val infconnec (-99).

```

## Political Interest

This variable is based on WVS round-six question V84:

V84. "How interested would you say, are you in politics? Are you [*Interviewer: read out and code one answer only*]":

- 1 Very interested
- 2 Somewhat interested
- 3 Not very interested
- 4 Not at all interested

The following syntax transforms the original coding into a 0-to-1 index:



recode v84 (1 = 1) (2 = 0.66) (3 = 0.33) (4 = 0) into intpol.  
 recode intpol (sysmiss = -99).  
 mis val intpol (-99).

### Emancipative Values (EV-Factor<sub>II</sub>)

This variable uses the “choice,” “equality” and “defiance” components of Welzel’s “emancipative” and “secular” values, which is described in detail in Welzel (2013, Online Appendix: pp. 22-27). The appendix is accessible via the following link: [www.cambridge.org/de/download\\_file/473755/](http://www.cambridge.org/de/download_file/473755/). The three selected sub-indices address:

- (1) *choice* (summarizing tolerance of homosexuality, abortion and divorce);
- (2) *equality* (support of women's equal access to education, jobs and public office);
- (3) *defiance* (rejecting greater respect for authority as a necessity, refusing to live for one’s parents pride, modest feeling of national pride at most).

To summarize Welzel’s “choice,” “equality” and “defiance” sub-index scores (each of which scaled as a multi-point index from minimum 0 to maximum 1), we extract their joint variance in a factor-score variable yielding a z-standardized scale. The following SPSS-syntax does the job:

```
FACTOR
/VARIABLES choice equality defiance
/MISSING PAIRWISE
/ANALYSIS choice equality defiance
/PRINT INITIAL EXTRACTION
/FORMAT SORT BLANK(.10)
/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PC
/ROTATION NOROTATE
/SAVE REG(ALL)
/METHOD=CORRELATION.
compute F_EV_II=fac1_1.
```

Factor loadings are .78, .69 and .67 for “choice,” “equality” and “defiance” in this order. The three indicators’ shared variation on the first principal component is 51%.

### Violence Anxiety

This variable is based on WVS round-six questions V183 to V185:

“To what degree are you worried about the following situations?”

	Very much	A good deal	Not much	Not at all
V183. A war involving my country	1	2	3	4
V184. A terrorist attack	1	2	3	4
V185. A civil war	1	2	3	4

To summarize these variables into an index, we use the following command syntax:

```
recode v183 (1=1) (2=.66) (3=.33) (4=0) into worrwar.
recode worrwar (sysmiss =-99).
mis val worrwar (-99).

recode v184 (1=1) (2=.66) (3=.33) (4=0) into worrterror.
recode worrterror (sysmiss =-99).
mis val worrterror (-99).
```

```

recode v185 (1=1) (2=.66) (3=.33) (4=0) into worrcivilwar.
recode worrcivilwar (sysmiss =-99).
mis val worrcivilwar (-99).

```

```

compute violanx=(worrcivilwar+worrwar+worrterror)/3.

```

## Existential Anxiety

This variable is based on WVS round-six questions V181, V182 and V186:

“To what degree are you worried about the following situations?”

	Very much	A good deal	Not much	Not at all
V181. Losing my job or not finding a job	1	2	3	4
V182. Not being able to give my children a good education	1	2	3	4
V186. Government wire-tapping or reading my mail or email	1	2	3	4

To summarize these variables into an index, we use the following command syntax:

```

recode v181 (1=1) (2=.66) (3=.33) (4=0) into worrjob.
recode worrjob (sysmiss =-99).
mis val worrjob (-99).

```

```

recode v182 (1=1) (2=.66) (3=.33) (4=0) into worredu.
recode worredu (sysmiss =-99).
mis val worredu (-99).

```

```

recode v186 (1=1) (2=.66) (3=.33) (4=0) into worrgov.
recode worrgov (sysmiss =-99).
mis val worrgov (-99).

```

```

compute existanx=(worrjob+worredu+worrgov)/3.

```

## Violence Toleration

This variable is based on WVS round-six questions V208-V210:

„Please tell me for each of the following actions whether you think it can always be justified, never be justified, or something in between, using this card (Interviewer: *Read out and code one answer for each statement*):

		Never Justifiable					Always Justifiable				
V208	For a man to beat his wife	1	2	3	4	5	6	7	8	9	10
V209	Parents beating children	1	2	3	4	5	6	7	8	9	10
V210	Violence against other people	1	2	3	4	5	6	7	8	9	10

To summarize these variables into an index, we use the following command syntax:

```

compute violwom=(v208-1)/(10-1).
compute violkid=(v209-1)/(10-1).
compute violall=(v210-1)/(10-1).
compute violtol=(violwom+violkid+violall)/3.

```

## Religiosity<sub>IL</sub>

This variable is based on WVS round-six questions V19, V145 and V152:

“Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important? Please choose up to five!”

	Mentioned	Not mentioned
V19. Religious faith	1	2

	Not at all important							Very important		
V152. “How important is god in your life?” Please use this scale to indicate. 10 means “very important” and 1 means “not at all important.” [Interviewer: code one number only!]:	1	2	3	4	5	6	7	8	9	10

V145. “Apart from weddings and funerals how often do you attend religious services?”

1	More than once a week
2	Once a week
3	Once a month
4	Only on special holy days
5	Once a year
6	Less often
7	Never, practically never

These questions cover an individual’s religiosity in three domains: belief, practice and upbringing. The following syntax recodes and combines these questions into a multi-point additive index:

```

recode v19 (1=1) (2=0) (sysmis=sysmis) into faithchild.
recode faithchild (sysmis =-99).
mis val faithchild (-99).

```

```

compute religiouservices=1-((v145-1)/(7-1)).
recode religiouservices (sysmis =-99).
mis val religiouservices (-99).

```

```

compute impgod=(v152-1)/(10-1).
recode impgod (sysmis =-99).
mis val impgod (-99).

```

The following procedure creates the religiosity index in such a way that whenever all three of its components are available, the resulting index is the average of these three, whereas when one component is missing it is a linear transformation of the available two components. The formula for the linear transformation (constant and component coefficients) is obtained from regressing the three-component average on the two specific components in question. Since there are three possibilities of which combination of two components is available, this procedure has to be performed separately for each combination:

```

mis val impgod faithchild religiouservices ().

```

```

if (faithchild ne -99) and (impgod ne -99) and (religiouservices ne -99) religiosity1 = (faithchild + impgod + religiouservices)/3.

```

```

if (faithchild ne -99) and (impgod ne -99) and (religiouservices = -99) religiosity1 =.064+.464*impgod+.385*faithchild.

```

```

if (faithchild ne -99) and (impgod = -99) and (religiouservices ne -99) religiosity1 =.171+.389*faithchild+.442*religiouservices.

```

```

if (faithchild =-99) and (impgod ne -99) and (religiouservices ne -99) religiosity1 =-.014+.431*religiouservices+.463*impgod.

```

```

mis val faithchild impgod religiouservices ().

```

```
if (faithchild ne -99) and (impgod ne -99) and (religiousservices ne -99) weight1e=1.
```

```
if (faithchild = -99) or (impgod = -99) or (religiousservices = -99) weight1e=.66.  
mis val faithchild impgod religiousservices (-99).
```

```
recode religiosity1 (sysmiss=-99).  
mis val religiosity1 (-99).
```

In Kuwait and Egypt, not all of our preferred religiosity items have been fielded. To avoid dropping these two national samples, we create a proxy for the religiosity index by combining item V19 (standardized as described above) and the following round-six WVS question, which both have been fielded in Kuwait and Egypt as well:

For each of the following, indicate how important it is in your life. Would you say it is [*Interviewer: read out and code one answer for each!*]:

	Very important	Rather important	Not very important	Not at all important
V9. Religion	1	2	3	4

Thus, for Kuwaitis and Egyptians the religiosity index is calculated as follows:

```
recode v9 (1=1) (2=0.66) (3=0.33) (4=0) (sysmiss=sysmiss) into imprel.  
recode imprel (sysmiss=-99).  
mis val imprel (-99).
```

```
compute religiosity2= (imprel + faithchild)/2.  
recode religiosity2 (sysmiss =-99).  
mis val religiosity2 (-99).  
mis val religiosity1 religiosity2 ().
```

```
if (religiosity1 ne -99) religiosity = religiosity1.  
if (religiosity1 = -99) and (religiosity2 ne -99) religiosity = religiosity2.
```

```
mis val religiosity1 religiosity2 (-99).  
recode religiosity (sysmiss =-99).  
mis val religiosity (-99).
```

## Muslim and Protestant Denomination

This is a dummy variable based on WVS round-six question V144:

V144. “Do you belong to a religion or religious denomination? If yes, which one?”

We code answers according to the respondents’ self-identification as either Muslim (V144=49), Sunnite (V144=75) or Shiite (V144=70), or Protestant (V144=62) as follows:

```
recode v144 (49=1) (70=1) (75=1) (sysmiss=sysmiss) (else=0) into muslid.  
recode muslid (sysmiss =-99).  
mis val muslid (-99).
```

```
recode v144 (62=1) (sysmiss=sysmiss) (else=0) into protid.  
recode protid (sysmiss =-99).  
mis val protid (-99).
```

## Protest Activity

This variable is identical with Welzel's index of "social movement activity (SMA)," yielding an additive multi-point scale of a respondent's non-participation (coded 0), anticipated participation (coded 0.33) and actual participation (coded 1.0) in each of the following three activities: peaceful demonstrations, consumer boycotts and civic petitions. The index intends to measure a person's *psychological protest repertoire*, with a premium on actual over anticipated protest. The coding procedures are described in detail in Welzel (2013, Online Appendix: pp. 35-37). The appendix is accessible via the following link: [www.cambridge.org/de/download\\_file/473755/](http://www.cambridge.org/de/download_file/473755/).

## Overrating Democracy

For one part, this variable uses WVS round-six question V141:

V141. And how democratically is this country being governed today? Again using a scale from 1 to 10, where 1 means that it is "not at all democratic" and 10 means that it is "completely democratic," what position would you choose? [Interviewer: code one number only!]:

Not at all democratic										Completely democratic	
1	2	3	4	5	6	7	8	9	10		

To normalize the original scale into a 0-to-1 index of democracy rating, we use the following syntax:

```
compute demrate=(v141-1)/(10-1).
recode demrate (sysmiss=-99).
mis val demrate (-99).
```

For the second part, we use the update of Alexander, Inglehart and Welzel's (2012) "effective democracy index" (EDI), measured over a five-year average spanning the five years before the round-six WVS was fielded in a given country. The data for the EDI are provided by the Quality of Government Institute's annual data release at Gothenburg University, Sweden at: <http://qog.pol.gu.se/data/datadownloads>.

The EDI is a *conditional* democracy measure, indicating the extent of democratic rights on the condition that rule of law puts these rights into effect. To measure this conditionality, the authors use a multiplicative combination, weighting democratic rights (measured on a percentage scale from 0 for the smallest scope to 100 for the broadest) for the strength of rule of law (measured on a weighting scale from 0 for the weakest rule of law to 1 for the strongest, with decimal fractions indicating intermediate positions). The democratic rights measure uses Freedom House's combined "civil liberties" and "political rights" ratings (averaging, inverting and rescaling the original scores into a percentage scale). The rule of law measure uses the World Bank's "control of corruption" and "rule of law" estimates (averaging and rescaling them into a weighting index). Alexander, Inglehart and Welzel (2012) defended the EDI against misplaced criticism and have re-validated it in multiple ways. For further confirmation, it should be noted that the EDI in 2012 (and any given year) correlates at  $R = 0.92$  ( $N = 160$ ) with the highly acclaimed "liberal democracy" and the "egalitarian democracy" estimates by the "Varieties of Democracy (V-Dem)" project at Gothenburg University, Sweden.

In order to bring the EDI into the same 0-to-1 scale range as the survey respondents' subjective democracy ratings ("demrate"), we divide the original EDI scores by 100. Then we subtract from each respondent's own democracy rating the respective country's normalized EDI-

score, which then tells us to what extent a respondent *overrates* her/his country's democraticness (in case of *positive* differences) or to what extent s/he *underrates* it (in case of *negative* differences):

```
compute edin=edi/100.  
compute overrate=demrate-edin.  
recode overrate (sysmiss=-99).  
mis val overrate (-99).
```

When repeating this procedure with V-Dem's measures of "liberal" or "electoral" democracy, we obtain almost identical results. Hence, our findings are not an artifact of the EDI, which anyways correlates at  $R = .92$  ( $N = 178$ ) with the V-Dem measures.

## Female Sex

This variable is based on WVS round-six question V240:

```
V240. [Interviewer: code respondent's sex by observation]:  
1      Male  
2      Female
```

The following syntax transforms the original scale into a 0-1 dummy variable:

```
recode v240 (1=0) (sysmiss=sysmiss) (2=1) into sex.  
recode sex (sysmiss = -99).  
val lab sex "female" 0 "male".  
mis val sex (-99).
```

## Biological Age

This variable is based on WVS round-six questions V241 and V242 in which respondents are asked to indicate their year of birth, followed by their respective age:

```
V241. "Can you tell me your year of birth, please? 19____ [Interviewer: write in last two digits]"  
V242. "This means you are ____ years old [Interviewer: write in age in two digits]."
```

We standardize answers into a 0-to-1 index, using the following syntax:

```
compute age = (v242-16)/(99-16)  
recode age (sysmiss = -99).  
mis val age (-99).
```

## Missing Responses

This is a dummy variable assigning interviewees code 1 when they did not respond to at least two of the items used to calculate the AND-index and 0 otherwise. To do so, we employ the following command syntax, based on previously created variables:

```
if (ands=-99) misresp=1.  
if (ands ne -99) misresp=0.
```

## Contradictory Responses

This is a dummy variable assigning interviewees code 1 when they answered two questions on the importance of politics in one's life and one's political interest in the most contradictory way, using WVS round-six questions V7 and V84:

For each of the following, indicate how important it is in your life. Would you say it is (read out and code one answer for each):

	Very important	Rather important	Not very important	Not at all important
V7. Politics	1	2	3	4

V84. How interested would you say you are in politics? Are you (read out and code one answer):

- 1 Very interested
- 2 Somewhat interested
- 3 Not very interested
- 4 Not at all interested

The syntax to create the contradictory response index reads as follows:

```
if ((v7=1) and (v84=4)) or ((v7=4) and (v84=1)) contresp=1.  
recode contresp (sysmiss=0).
```

## Affirmative Responses

This is a continuous variable measuring the extent to which respondents tend to take the most affirmative (agreeable) option on four questions about the importance of science-vs.-religion, despite the fact that the polarity of these four questions points two times in favor of science and another two times in favor of religion:

Please tell us if you strongly agree, agree, disagree, or strongly disagree with the following statements:

		Strongly agree	Agree	Disagree	Strongly disagree	DK
V153	Whenever science and religion conflict, religion is always right.	1	2	3	4	-1
V154	The only acceptable religion is my religion.	1	2	3	4	-1
V155	All religions should be taught in our public schools.	1	2	3	4	-1
V156	People who belong to different religions are probably just as moral as those who belong to mine	1	2	3	4	-1

The syntax to create the affirmative response index reads as follows:

```
compute affirm=((v153+v154+v155+v156)-4)/(16-4).
```

## Duplicate Responses

Duplicate cases refer to respondents who give identical answers over a defined set of variables. We identify duplicate cases over the first 65 substantive variables in the country-pooled individual-level dataset of the round-six WVS, using the SPSS procedure outlined below. Duplicate respondents are indicated by a dummy variable, using code 1 for duplicate respondents and 0 for unique respondents. Based on this dummy we aggregate the proportion of duplicate

responses separately for each population sample. Here follows the command syntax of the identification procedure in SPSS:

\* Identify Duplicate Cases.

```
SORT CASES BY V4(A) V5(A) V6(A) V7(A) V8(A) V9(A) V10(A) V11(A) V12(A) V13(A) V14(A) V15(A) V16(A)
V17(A) V18(A) V19(A) V20(A) V21(A) V22(A) V23(A) V24(A) V25(A) V26(A) V27(A) V28(A) V29(A) V30(A)
V31(A) V32(A) V33(A) V34(A) V35(A) V36(A) V37(A) V38(A) V39(A) V40(A) V41(A) V42(A) V43(A) V44(A)
V45(A) V46(A) V47(A) V48(A) V49(A) V50(A) V51(A) V52(A) V53(A) V54(A) V55(A) V56(A) V57(A) V58(A)
V59(A) V60(A) V61(A) V62(A) V63(A) V64(A) V65(A).
```

MATCH FILES

```
/FILE=*
/BY V4 V5 V6 V7 V8 V9 V10 V11 V12 V13 V14 V15 V16 V17 V18 V19 V20 V21 V22 V23 V24 V25 V26 V27 V
28
```

```
V29 V30 V31 V32 V33 V34 V35 V36 V37 V38 V39 V40 V41 V42 V43 V44 V45 V46 V47 V48 V49 V50 V51 V5
2 V53
```

```
V54 V55 V56 V57 V58 V59 V60 V61 V62 V63 V64 V65
```

```
/FIRST=PrimaryFirst1
```

```
/LAST=PrimaryLast.
```

DO IF (PrimaryFirst1).

```
COMPUTE MatchSequence1=1-PrimaryLast.
```

ELSE.

```
COMPUTE MatchSequence1=MatchSequence1+1.
```

END IF.

LEAVE MatchSequence1.

```
FORMATS MatchSequence1 (f7).
```

```
COMPUTE InDupGrp=MatchSequence1>0.
```

```
SORT CASES InDupGrp(D).
```

MATCH FILES

```
/FILE=*
```

```
/DROP=PrimaryFirst1 InDupGrp MatchSequence1.
```

VARIABLE LABELS PrimaryLast 'Indicator of each last matching case as Primary'.

VALUE LABELS PrimaryLast 0 'Duplicate Case' 1 'Primary Case'.

VARIABLE LEVEL PrimaryLast (ORDINAL).

FREQUENCIES VARIABLES=PrimaryLast.

Recode PrimaryLast (1=0) (0=1).

Val lab PrimaryLast 1"duplicate case" 0""unique case".

AGGREGATE

```
/OUTFILE=* MODE=ADDVARIABLES
```

```
/BREAK=ctrnum
```

```
/PrimaryLast_mean=MEAN(PrimaryLast).
```

## COUNTRY-LEVEL VARIABLES

### Electoral Democracy

The Varieties of Democracy (V-Dem) project uses the most advanced methods of expert coding to create more differentiated indicators of democracy than those having been in use so far, most notably Polity and Freedom House. Data and documentation are available online at [www.vdem-net.org](http://www.vdem-net.org). We test two of V-Dem's most prominent measures, including the indices of "electoral" and "liberal" democracy. The V-Dem codebook (Coppedge, Gerring & Lindberg 2017: 50) describes the "electoral component index" as follows: "The electoral principle of democracy seeks to achieve responsiveness and accountability between leaders and citizens through the mechanism of competitive elections. This is presumed to be achieved when suffrage is extensive; political and civil society organizations can operate freely; elections are clean and not marred by fraud or systematic irregularities; and the chief executive of a country is selected (directly or indirectly) through elections. [...] The electoral component index is operationalized as a chain



defined by its weakest link. Specifically, the index is formed by multiplying indices measuring freedom of association (thick) (v2x\_frassoc\_thick), clean elections (v2xel\_frefair), freedom of expression (v2x\_freexp\_thick), elected executive (v2x\_elecoff), and suffrage (v2x\_suffr).” The resulting index scores range from 0 for the complete absence of electoral democracy to 1 for its complete presence, with decimal fractions of 1 indicating intermediate positions. We average each country’s score in electoral democracy over the decade preceding the year in which the respective survey measuring authoritarian notions of democracy has been fielded.

## **Liberal Democracy**

The V-Dem codebook (Coppedge, Gerring & Lindberg 2017: 51) describes the “liberal component index” as follows: “The liberal principle of democracy emphasizes the importance of protecting individual and minority rights against the tyranny of the state and the tyranny of the majority. The liberal model takes a “negative” view of political power insofar as it judges the quality of democracy by the limits placed on government. This is achieved by constitutionally protected civil liberties, strong rule of law, an independent judiciary, and effective checks and balances that, together, limit the exercise of executive power. [...] This index is formed by averaging the following indices: equality before the law and individual liberties (v2xcl\_rol), judicial constraints on the executive (v2x\_jucon), and legislative constraints on the executive (v2xlg\_legcon).” The resulting index scores range from 0 for the complete absence of electoral democracy to 1 for its complete presence, with decimal fractions of 1 indicating intermediate positions. We average each country’s score in electoral democracy over the decade preceding the year in which the respective survey measuring authoritarian notions of democracy has been fielded.

## **Democracy Stock**

Democracy stock is a measure of democratic traditions by Gerring, Thacker and Alfaro (2012). The measure is based on the -10 to +10 "autocracy-vs.-democracy" index from the Polity IV dataset. Scores are summed up over the last hundred years (1900-2000) applying a one percent depreciation rate. Thus, the index measures a country’s historically accumulated experience with democracy, with a premium on more recent experience. We standardize the index into a normalized scale range from a minimum of 0 for absent democratic traditions to a maximum of 1 for the longest democratic traditions, with decimal fractions of 1 indicating intermediate positions.

Two countries, Palestine and Taiwan, as well as Hong Kong have no data entry. We assign a score of 0 to Palestine and Hong Kong because they are not independent states in which the people could exert democratic sovereignty. To Taiwan we assign the same score as that available for South Korea (0.64) because Taiwan's democratic transition began at about the same time as South Korea's (i.e., in the late 1980s) and because both countries can be considered consolidated democracies ever since.

## **Democracy Factor**

To summarize electoral democracy, liberal democracy and democracy stock, we extract their joint variance in a factor score variable yielding a z-standardized scale. The following SPSS-syntax does the job:

```
FACTOR
```

```

/VARIABLES elecdem libdem demstock
/MISSING PAIRWISE
/ANALYSIS elecdem libdem demstock
/PRINT INITIAL EXTRACTION
/FORMAT SORT BLANK(.10)
/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PC
/ROTATION NOROTATE
/SAVE REG(ALL)
/METHOD=CORRELATION.
compute F_Democ=fac1_2.

```

Factor loadings are .87, .89 and .91 for democracy stock, electoral democracy and liberal democracy in this order. The three indicators share 79% variance on the first principal component.

### **Political Connectivity**

We use Dreher, Gaston and Maarten's (2008) measures of the countries' political, economic and cultural connectivity, which they advocate as "globalization" measures under the label "KOF" indices. Political connectivity ("political globalization" in these authors' terminology) indicates a country's cumulative memberships in international organizations and participation in United Nations activities. It is measured based on a weighted combination the following indicators:

- Embassies in Country,
- Membership in International Organizations,
- Participation in U.N. Security Council Missions,
- International Treaties.

Data and documentation are available online at [www.kof.ethz.ch](http://www.kof.ethz.ch). We standardize scores into a range from minimum 0 to maximum 1 and average each country's score in political connectivity over the decade preceding the year in which the respective survey measuring authoritarian notions of democracy has been fielded.

### **Economic Connectivity**

Economic connectivity captures a country's wealth generated by international trade. Dreher, Gaston and Maarten's (2008) measure it based on a weighted combination the following indicators:

- Trade (percent of GDP),
- Foreign Direct Investment, flows (percent of GDP),
- Foreign Direct Investment, stocks (percent of GDP),
- Portfolio Investment (percent of GDP),
- Income Payments to Foreign Nationals (percent of GDP),
- Hidden Import Barriers,
- Mean Tariff Rate,
- Taxes on International Trade (percent of current revenue),
- Capital Account Restrictions.

Data and documentation are available online at [www.kof.ethz.ch](http://www.kof.ethz.ch). We standardize scores into a range from minimum 0 to maximum 1 and average each country's score in economic

connectivity over the decade preceding the year in which the respective survey measuring authoritarian notions of democracy has been fielded.

## **Cultural Connectivity**

Cultural connectivity captures a country's exposure to tourism, immigration, international media and global communication flows wealth generated by international trade. Dreher, Gaston and Maarten's (2008) measure it based on a weighted combination the following indicators:

- Telephone Traffic,
- Transfers (percent of GDP),
- International Tourism,
- Foreign Population (percent of total population),
- International letters (per capita),
- Internet Users (per 1000 people),
- Television (per 1000 people),
- Trade in Newspapers (percent of GDP),
- Number of McDonald's Restaurants (per capita),
- Number of Ikea (per capita),
- Trade in books (percent of GDP).

Data and documentation are available online at [www.kof.ethz.ch](http://www.kof.ethz.ch). We standardize scores into a range from minimum 0 to maximum 1 and average each country's score in cultural connectivity over the decade preceding the year in which the respective survey measuring authoritarian notions of democracy has been fielded.

## **Connectivity Factor**

To summarize political, economic and cultural connectivity, we extract their joint variance in a factor score variable yielding a z-standardized scale. The following SPSS-syntax does the job:

```
FACTOR
/VARIABLES polcon ecocon culcon
/MISSING PAIRWISE
/ANALYSIS polcon ecocon culcon
/PRINT INITIAL EXTRACTION
/FORMAT SORT BLANK(.10)
/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PC
/ROTATION NOROTATE
/SAVE REG(ALL)
/METHOD=CORRELATION.
compute F_Connec=fac1_3.
```

Factor loadings are .14, .92 and .94 for political, economic and cultural connectivity in this order. The three indicators share 58% variance on the first principal component.

## **Fear-Anger Factor**

For the individual-level variables violence anxiety, existential anxiety and violence tolerance (all scaled from minimum 0 to maximum 1), we calculate population averages for each country. To

summarize these country-level aggregations into a single variable, we extract their joint variance in a factor score variable yielding a z-standardized scale. The following SPSS-syntax does the job:

```
FACTOR
/VARIABLES violanx existanx violtol
/MISSING PAIRWISE
/ANALYSIS violanx existanx violtol
/PRINT INITIAL EXTRACTION
/FORMAT SORT BLANK(.10)
/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PC
/ROTATION NOROTATE
/SAVE REG(ALL)
/METHOD=CORRELATION.
compute F_FearAng=fac1_4.
```

Factor loadings are .95, .93 and .84 for violence anxiety, existential anxiety and violence toleration in this order. The three indicators share 72% variance on the first principal component.

### **Political Violence**

We measure political violence using Gibney, Cornett, Wood, Haschke and Arnon's (2015) "political terror scale" (PTS). The PTS provides a 5-point ordinal scale based on the annual reports of human rights violations by (a) Amnesty International (AI) and (b) the US State Department. Since the AI is more patchy than the US measure, we rely on the latter. The PTS measures physical repression on two accounts: the frequency of political repression over a given period of time and the size of the population affected by the abuse. Coding focuses on actual violations of physical integrity carried out through state agencies, rather than on non-state actors. Data and documentation are available online at [www.politicalterrorsscale.org](http://www.politicalterrorsscale.org). We standardize scores into a range from minimum 0 to maximum 1 and average each country's score in political violence over the decade preceding the year in which the respective survey measuring authoritarian notions of democracy has been fielded.

### **Human Rights Violations**

In contrast to Gibney et al. (2015), Cingranelli and Richards (2016) use different coding rules and coders and rely less on US-sources to provide for each country an annual index of "physical integrity rights," which the authors describe as follows: "This is an additive index constructed from the Torture, Extrajudicial Killing, Political Imprisonment, and Disappearance indicators. It ranges from 0 (no government respect for these four rights) to 8 (full government respect for these four rights)." Data and documentation are available online at [www.humanrightsdata.org](http://www.humanrightsdata.org). We revert the polarity of the scores, so that higher numbers indicate a more severe violation, instead of protection, of human rights. Then we standardize scores into a range from minimum 0 to maximum 1 and average each country's score in human rights violation over the decade preceding the year in which the respective survey measuring authoritarian notions of democracy has been fielded.

### **Media Censorship**

We measure *media censorship* using the *Reporters sans Frontiers*' (2015) "press freedom index." Data and documentation are available online at [www.rsf.org](http://www.rsf.org). Counter-intuitively, higher scores on this

index indicate more severe, not less severe, censorship. Hence, the index scores are provided in the polarity that we need. We only standardize the scores into a range from minimum 0 to maximum 1, with decimal fractions for intermediate positions. We average each country's score in media censorship over the decade preceding the year in which the respective survey measuring authoritarian notions of democracy has been fielded.

## Repression Factor

To summarize political violence, human rights violations and media censorship, we extract their joint variance in a factor-score variable yielding a z-standardized scale. The following SPSS-syntax does the job:

```
FACTOR
/VARIABLES polvio rightsrepr censor
/MISSING PAIRWISE
/ANALYSIS polvio rightsrepr censor
/PRINT INITIAL EXTRACTION
/FORMAT SORT BLANK(.10)
/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PC
/ROTATION NOROTATE
/SAVE REG(ALL)
/METHOD=CORRELATION.
compute F_Repress=fac1_5.
```

Factor loadings are .84, .94 and .95 for media censorship, political violence and human rights violations in this order. The three indicators share 83% variance on the first principal component.

## Religion Factor

We calculated population averages of the individual-level variables religiosity, Muslim denomination and Protestant denomination (all scaled in a 0-1 format) for each country. To summarize these country-level aggregations into a single variable, we extract their joint variance in a factor score variable yielding a z-standardized scale. The following SPSS-syntax does the job:

```
FACTOR
/VARIABLES religiosity muslid protid
/MISSING PAIRWISE
/ANALYSIS religiosity muslid protid
/PRINT INITIAL EXTRACTION
/FORMAT SORT BLANK(.10)
/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PC
/ROTATION NOROTATE
/SAVE REG(ALL)
/METHOD=CORRELATION.
compute F_Relig=fac1_6.
```

Factor loadings are -.71, .76 and .82 for the share of Protestants, Muslims and average religiosity in this order. The three indicators share 58% variance on the first principal component.

### **EV-Factor<sub>CL</sub> (country level)**

We calculated population averages separately for Welzel's individual-level "choice," "equality" and "defiance" (all scaled in a 0-1 format) for each country. To summarize these country-level aggregations into a single variable, we extract their joint variance in a factor-score variable yielding a z-standardized scale. The following SPSS-syntax does the job:

```
FACTOR
/VARIABLES choiceCL equalityCL defianceCL
/MISSING PAIRWISE
/ANALYSIS choiceCL equalityCL defianceCL
/PRINT INITIAL EXTRACTION
/FORMAT SORT BLANK(.10)
/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PC
/ROTATION NOROTATE
/SAVE REG(ALL)
/METHOD=CORRELATION.
compute F_Relig=fac1_7.
```

Factor loadings are .78, .88 and .94 for defiance, equality and choice in this order. The three indicators share 76% variance on the first principal component.

### **Overrating Democracy**

Country scores on this index are displayed on the vertical axis of the right-hand diagram of Figure 6 in our article. The index provides the arithmetic population mean per country of the identically labeled individual-level variable. The index shows how strongly, on average, a given population over- or underrates its country's actual democraticness. In theory, scores can range from -1, for the hypothetical case that every respondent of a national sample maximally underrates her/his country's actual democraticness, to +1, for the hypothetical case that every respondent of a sample maximally overrates her/his country's democraticness. Approximations to 0 indicate increasingly accurate democracy ratings among population samples.

## SECTION III: DESCRIPTIVE STATISTICS

OA-Table 2. Descriptives for Individual-Level Variables

		Male Subsamples			Female Subsamples		
		N	Mean	Std. Dev.	N	Mean	Std. Dev.
Authoritarian Notions of Democracy		39,546	0.46	0.26	42,200	0.46	0.26
Liberal Notions of Democracy		40,051	0.74	0.23	43,270	0.75	0.23
Educational Level		40,745	0.61	0.29	44,647	0.58	0.31
Information Intake		40,740	0.61	0.23	44,641	0.55	0.24
Political Interest		40,806	0.50	0.32389	44,660	0.42	0.31
EV-Factor <sub>IL</sub>		38,309	-0.10	0.99	41,227	0.10	0.98
Violence Anxiety		39,919	0.60	0.35	43,442	0.62	0.35
Violence Toleration		39,641	0.16	0.21	43,515	0.14	0.20
Religiosity		41,037	0.54	0.31694	45,047	0.55	0.29

**OA-Table 3. Descriptives for Country-Level Variables**

	N	Mean	SD	Min.	Max.
Authoritarian Notions of Democracy	60	0.45	0.12	0.16 (Germany)	0.85 (Pakistan)
Electoral Democracy	58	0.41	0.21	0.03 (Qatar)	0.89 (NZ)
Cultural Connectivity	57	0.56	0.18	0.23 (Nigeria)	0.92 (Singapore)
EV-Factor <sub>CL</sub>	60	0.00	1.00	-1.58 (Egypt)	2.70 (Sweden)
Fear-Anger Factor	55	0.00	1.00	-2.25 (NL)	2.31 (Rwanda)
Repression Factor	59	0.00	1.00	-1.73 (NZ)	1.61 (China)
Religion Factor	60	0.00	1.00	-2.68 (Sweden)	1.63 (Morocco)
Missing Responses	60	0.09	0.10	0.00 (Malaysia)	0.41 (China)
Contradictory Responses	60	0.10	0.05	0.03 (Poland)	0.29 (India)
Affirmative Responses	60	0.26	0.02	0.23 (Sweden)	0.29 (Libya)
Duplicate Responses	60	0.04	0.07	0.00 (Australia)	0.39 (India)
OVERRATING Democracy	60	0.19	0.26	-0.27 (Slovenia)	0.60 (Rwanda)

NL: Netherlands; NZ: New Zealand



**OA-Table 4. Country-Level Correlation Matrix**

	AND	EV-Factor	Religion Factor	Repression Factor	Electoral Democracy	Fear-Anger Factor
EV-Factor	-0.85					
Religion Factor	0.77	-0.87				
Repression Factor	0.76	-0.75	0.65			
Electoral Democracy	-0.74	0.80	-0.73	-0.72		
Fear-Anger Factor	0.69	-0.74	0.59	0.68	-0.71	
Cultural Connect.	-0.63	0.64	-0.49	-0.73	0.59	-0.75

*Note:* Entries are Pearson R correlations. Number of countries varies from 56 to 60. All correlations significant at  $P < 0.001$ .

**OA-Table 5. Country-Level Correlations between Substantive and Response-Quality Variables**

	Missing Responses	Contradictory Responses	Affirmative Responses	Duplicate Responses
Authoritarian Notions	0.07	0.38**	0.56***	-0.26*
EV-Factor <sub>CL</sub>	-0.09	-0.34**	-0.59***	-0.24*
Religion Factor	0.11	0.33**	0.46***	-0.29*
Repression Factor	-0.05	0.40**	0.38**	-0.30*
Fear-Anger Factor	0.07	0.55***	0.51***	-0.25*
Electoral Democracy	-0.16	-0.28*	-0.50***	0.16
Cultural Connectivity	-0.07	-0.33**	-0.38**	0.31**

*Note:* Entries are Pearson R correlations. Number of countries is 60 in all cells. Significance levels (2-tailed): \*\*\*  $P < 0.001$ , \*\*  $P < 0.005$ , \*  $P < 0.050$ .

Our explanatory influences are uncorrelated with missing responses and duplicate responses. Correlations with contradictory and above all affirmative responses are more often significant and of moderate size. It is noteworthy that, especially in the case of affirmative responses, the strongest correlation exists with emancipative values ( $R = -0.59$ ). The direction of this correlation makes sense: publics in which emancipative value are widespread are more critical—thus less inclined to be affirmative. This finding and other correlations in *OA-Table 5* document that response-style variables are not necessarily to be considered as non-attitudes or cultural artifacts but reflect truly belief-anchored tendencies. Hence, belief-related variables such as emancipative values incorporate these response-style tendencies, for which reason the latter show no

independent effect in any regression model. We tested this in dozens of regressions. Besides, it might be interesting to note that when we regress affirmative responses simultaneously on authoritarian notions of democracy and emancipative values, only the latter show a significant effect (which is negative).

## **SECTION IV: DATA DOWNLOAD LINK**

Below follow the links to download our data from the Internet. The data are available from the Dataverse website of this journal, at: [www.\\_\\_\\_\\_.org](http://www.____.org). We provide individual-level and country-level data in two separate files, offering them in SPSS as well as STATA and Excel formats. The name of the individual-level dataset is "DemocMisund\_IL" while the country-level dataset is labeled "DemocMisund\_CL."

## SECTION V: SUPPLEMENTARY RESULTS

The following regressions replicate the country-level predictions of Model 4 in *Table 4* of our article, using additional controls to test whether the AND-index meets the criterion of “compositional substitutability” introduced by Welzel and Inglehart (2016). The criterion is met when cross-country variability in (a) the most popular single AND-item, in (b) the single AND-items’ salience and in (c) their dimensional coherence do not affect coefficient estimates, nor the overall model fit. *OA-Table 6* tests criterion (a) by introducing two dummy-variables indicating whether the army-related or the religious-related AND-item is most popular in a country (i.e., the reference category is the obedience-related AND-item being the most popular). *OA-Table 7* tests criterion (b) by introducing three continuous variables measuring the per-country factor loadings of each AND-item on their underlying first principal component, which is indicative of cross-country variability in the single items’ salience. *OA-Table 8* tests criterion (c) by introducing a single continuous variable measuring per country the three AND-items’ dimensional coherence by their summed factor loadings on the first principal component. As is obvious, coefficient estimates are unaffected in size and significance by these controls, and so is the model fit. Consequently, the overall AND-index meets the criterion of “compositional substitutability” in almost perfection: the predictiveness of average country-level scores in ANDs is entirely unaffected by cross-country variability in the within-country item popularity, item salience and inter-item cohesion. This is a formidable example of the fact that the criteria by which structural equation modelers test the comparability of an overall construct’s country means (namely, invariance in inter-item cohesion) are entirely irrelevant for the functioning of these country means when the overall construct is characterized by “compositional substitutability.”

**OA-Table 6. Explaining ANDs Controlling Cross-country Variability in ANDs’ Single Item Popularities**

PREDICTORS	B (regression coefficient)	T-Ratio
Constant	0.43	53.62***
EV-Factor	-0.67	-6.17***
Repression Factor	0.24	2.15**
AND-Army Most Popular (1/0)	-0.07	-0.80
AND-Religion Most Popular (1/0)	-0.05	-0.69
Adjusted R <sup>2</sup>	0.71	
N (countries)	58	

*Notes:* Entries are standardized regression coefficients with their T-values in parentheses. Test statistics for all for models indicate that they don’t violate standard OLS assumptions. Specifically, test statistics for multicollinearity (variance inflation factors) are consistently below the critical threshold of 5.0. The White-Test shows in all models an insignificant chi<sup>2</sup> value, indicating the absence of heteroskedasticity. Regression residuals pass the White-Pagan as well Kolmogorov-Smirnov normal distribution test. All tests for omitted variable bias available in STATA 14 (“ovtest,” “hettest” and “linktest”) are negative. For measurement details, see pp. 7-21 in this appendix. Significance levels (2-tailed): \*\*\* P < 0.001, \*\* P < 0.005, \* P < 0.050.

**OA-Table 7. Explaining ANDs Controlling Cross-country Variability in ANDs' Single Item Loadings**

PREDICTORS	B (regression coefficient)	T-Ratio
Constant	0.31	4.14***
EV-Factor	-0.62	-5.88***
Repression Factor	0.34	3.33***
AND-Army Saliency	-0.04	-0.54
AND-Religion Saliency	0.12	1.72
AND-Obedience Saliency	-0.10	-1.42
Adjusted R <sup>2</sup>	0.75	
N (countries)	58	

*Notes:* Entries are standardized regression coefficients with their T-values in parentheses. Test statistics for all for models indicate that they don't violate standard OLS assumptions. Specifically, test statistics for multicollinearity (variance inflation factors) are consistently below the critical threshold of 5.0. The White-Test shows in all models an insignificant chi<sup>2</sup> value, indicating the absence of heteroskedasticity. Regression residuals pass the White-Pagan as well Kolmogorov-Smirnov normal distribution test. All tests for omitted variable bias available in STATA 14 ("ovtest," "hettest" and "linktest") are negative. For measurement details, see pp. 7-21 in this appendix. Significance levels (2-tailed): \*\*\*  $P < 0.001$ , \*\*  $P < 0.005$ , \*  $P < 0.050$ .

**OA-Table 8. Explaining ANDs Controlling Cross-country Variability in ANDs' Inter-Item Coherence**

PREDICTORS	B (regression coefficient)	T-Ratio
Constant	0.49	7.25***
EV-Factor	-0.62	-5.87***
Repression Factor	0.30	2.89***
AND's Dimensional Coherence	-0.04	-0.54
Adjusted R <sup>2</sup>	0.74	
N (countries)	58	

*Notes:* Entries are standardized regression coefficients with their T-values in parentheses. Test statistics for all for models indicate that they don't violate standard OLS assumptions. Specifically, test statistics for multicollinearity (variance inflation factors) are consistently below the critical threshold of 5.0. The White-Test shows in all models an insignificant chi<sup>2</sup> value, indicating the absence of heteroskedasticity. Regression residuals pass the White-Pagan as well Kolmogorov-Smirnov normal distribution test. All tests for omitted variable bias available in STATA 14 ("ovtest," "hettest" and "linktest") are negative. For measurement details, see pp. 7-21 in this appendix. Significance levels (2-tailed): \*\*\*  $P < 0.001$ , \*\*  $P < 0.005$ , \*  $P < 0.050$ .

## SECTION VI: ENDOGENEITY TESTS

**PROBLEM:** The regression models in our article are designed such that emancipative values (EV-Factor) influence authoritarian notions of democracy (ANDs), under control of other influences. But we could also switch the position of the EV-Factor and ANDs under these controls, defining ANDs as a treatment and the EV-Factor as the outcome. This might give us a model with an equally good fit. If so, how can we decide which model specifies the flow of impact between emancipative values and ANDs in the right direction?

**SOLUTION:** We can probe into this question with the help of an endogeneity test. Even with cross-sectional data, applying third-variable controls in two opposite directions of impact can reveal, if one of the two variables in question is endogenous to the other one, and if the reverse is not true. If this is indeed the test result, our models are specified correctly, if the endogenous variable is specified as a treatment and the non-endogenous one as the outcome. The test to check this, is known as the *Durbin-Wu-Hausman Test*. We apply this test in two opposite directions, first testing whether the EV-Factor is endogenous to ANDs and then whether ANDs are endogenous to the EV-Factor, controlling in both cases for the only other significant influence in our models (Model 4 of Table 4 in the manuscript): the repression factor. We conduct this tests with the following notations:

**RESULT:**  $A$  denotes ANDs,  $E$  the EV-Factor,  $R$  the repression factor,  $c$  the constant,  $a_1$  and  $a_2$  as well  $b_1$  and  $b_2$  the regression coefficients and  $e$  the error term.

### Equation System I:

$$(1) \quad E = c + a_1 R + e$$

$$(2) \quad A = c + b_1 E + e$$

We estimate equation (1), save the residuals of  $E$  ( $E_{\text{res}}$ ) and augment equation (2) by including  $E_{\text{res}}$ , thus estimating:

$$(3) \quad A = c + b_1 E + b_2 E_{\text{res}} + e$$

If the  $b_2$ -coefficient for  $E_{\text{res}}$  has a significant effect in equation (3), then  $E$  is endogenous to  $A$  and the system is invalid. If  $E$  is not endogenous to  $A$ , the system is valid. Estimating equation (3), our regression yields a coefficient of  $b_2 = 0.12$ , which is clearly insignificant at  $P = 0.256$  ( $N = 59$ ). Hence,  $E$  is **not** endogenous to  $A$ , which renders Equation System I valid.

### Equation System II:

$$(4) \quad A = c + a_1 R + e$$

$$(5) \quad E = c + b_1 A + e$$

We run regression (4), save the residuals of  $A$  ( $A_{\text{res}}$ ) and augment equation (5) by including  $A_{\text{res}}$ , thus estimating:

$$(6) \quad E = c + b_1 A + b_2 A_{\text{res}} + e$$

If the  $b_2$ -coefficient for  $A_{\text{res}}$  is significant in equation (6), then  $A$  is endogenous to  $E$  and the system is invalid. If  $A$  is not endogenous to  $E$ , the system is valid. Estimating equation (6), our regression yields a coefficient of  $b_2 = -0.70$ , which is highly significant at  $P = 0.005$  ( $N = 59$ ). Hence,  $A$  is endogenous to  $E$ , which renders Equation System II *invalid*.

The result of this test indicate that, under control of repression, it is appropriate to specify emancipative values as the treatment and authoritarian notions of democracy as the outcome, but not the other way around.

*Reference:* Davidson, R. & J.G. MacKinnon (1993). *Estimation and Inference in Econometrics*. New York: Oxford University Press.

York:

## SECTION VII: LINKS TO REMOTE HISTORICAL DRIVERS

Murray, Schaller and Suedfeld (2013) relate contemporary liberalism/authoritarianism (country means) to the historic incidence of communicable diseases, showing that high historic disease threat predisposes populations to authoritarianism, whereas a low threat predisposes them to liberalism. Similar relationships exist with respect to individualism/collectivism, with high disease threat predisposing populations to collectivism and low threat predisposing them to individualism. These findings are in accordance with existential threat explanations of authoritarianism/collectivism because disease threat is existential.

The findings also relate to the juxtaposition of "fast" life histories (high mortalities and fertilities) and "slow" life histories (low mortalities and fertilities): life is a source of threats and sufferings under "fast" life histories and a source of opportunities and thriving under "slow" life histories. In Welzel's terms (2013: chapter 11), societies climb the "utility ladder of freedoms" when the nature of life turns from a source of threats into a source of opportunities, or from fast to slow.

Against this backdrop, it is plausible to assume that early historic manifestations of life threats-vs-opportunities set societies already before the Industrial Revolution on pro-emancipatory trajectories with a long-term orientation towards liberal outcomes (in case of life opportunities being the dominant condition), or on anti-emancipatory trajectories with a long-term orientation towards authoritarian outcomes (in case of life threats being the dominant condition).

Now, Welzel identifies an even more remote, geo-climatic configuration that has been a signature feature of Western cultures' predominant thermo-hydrological environment: the cool water condition. This condition combines cool seasonal temperatures with water abundance—with profound consequences for social organization. The cool water condition allows for a form of agriculture under which small family households can autonomously work relatively large plots of arable land—which is abundant under this condition (once forests are cleared and swamps drained). Also, the ubiquitous availability of fresh water under this condition exempts a vital life resource from elite control. For all these reasons, Welzel argues that the cool water condition incentivized some key features of social grassroots organization that are typical of the West (and to some degree also Japan).

In light of these rationales, it is plausible to assume that both contemporary emancipative values and authoritarian notions of democracy relate back to these historic manifestations of life opportunities-vs-threats, yet it in inverse ways: what favors emancipative values should disfavor authoritarian notions of democracy, and vice versa. Now, with respect to the causal direction in the relationship between emancipative values and authoritarian notions of democracy, the key question is whether either of these two is obviously more deeply rooted in the remote historic manifestations of life opportunities-vs-threats. If so, this one is most likely the driver in the relationship between the two. The correlations shown in *OA-Table 8* (next page) give a straightforward answer to this question: emancipative values are more deeply rooted in remote historic circumstances and, hence, more likely to be the driver in the relationship with authoritarian notions of democracy.

**OA-Table 9. Differential Links to Remote Historical Drivers**

CORRELATES:	Emancipative Values	Authoritarian Notions of Democracy
Cool Water Condition (timeless) <sup>a)</sup>	0.85*** (60)	-0.76*** (60)
Human Capital Formation 1900 <sup>b)</sup>	0.80*** (55)	-0.69*** (55)
Female Reproductive Choice 1800 <sup>c)</sup>	0.82*** (58)	-0.68*** (58)
Cousin Marriage Practice (historic) <sup>d)</sup>	-0.75*** (38)	0.63*** (38)
Disease Threat (pre-industrial) <sup>e)</sup>	-0.59*** (58)	0.49*** (58)
White Settler Mortality (logged) <sup>f)</sup>	-0.55*** (39)	0.33** (39)
Western European Descendants <sup>g)</sup>	0.49*** (56)	-0.36** (56)

Notes: Entries are Pearson's R correlations with number of observations (countries) in parentheses. Variables are ordered along descending correlations. Significance levels (2-tailed): \*\*\*  $P < 0.001$ , \*\*  $P < 0.005$ , \*  $P < 0.050$ .

<sup>a)</sup> The *Cool Water Condition* is from Welzel (2013: chapter 11). It is an additively combined measure of (1) temperate-to-cold seasonal temperatures, (2) continuous rainfall over the seasons and (3) access to navigable waterways (all country averages). As explicated by Welzel, in pre-industrial times the Cool Water Condition is supposed to incentivize smaller household size, nuclear family arrangements, autonomous family farming and female reproductive choice--conditions that became important in setting Western cultures on a trajectory towards emancipatory outcomes, including the emancipative values.

<sup>b)</sup> *Human Capital Formation* in 1900 is a latent variable, measuring a single dimension unifying (1) the earliness of the onset of the fertility decline, (2) inverse fertility in 1900, (3) inverse child mortality in 1900 and (4) mean years of schooling in 1870. The idea is that the combination of low fertilities and widespread education represents well the predominance of a "quality-building" over a "quantity-breeding" reproduction strategy (and also of a slow instead of a fast life history), which contributes to human capital formation. Data for the single variables are from Murtin (2013).

<sup>c)</sup> *Female Reproductive Choice* in 1800 is a latent variable, measuring a single dimension unifying (1) a five-point scale ordering historic family types from most collectivistic to most individualistic, (2) inverse fertility in 1800, (3) inverse child mortality in 1800 and (4) inverse disease threat (historic, see below). The idea is that the combination of these components left women with more choice with regards to reproductive decisions, such as when and whom to marry. Data are from Gapminder ([www.gapminder.org](http://www.gapminder.org)), Dilli (2015) and Woodley and Bell (2012).

<sup>d)</sup> *Cousin Marriage Practice* measures the historic prevalence of clan-reproducing marriage patterns, also known as "consanguinity." Data are from Woodley and Bell (2012).

<sup>e)</sup> *Disease Threat* measures the historic presence of a list of seven pathogens, such as malaria, dengue fever, yellow fever. Data are from Murray and Schaller (2010).

<sup>f)</sup> The *White Settler Mortality* provides estimates of the mortality of white settlers in former colonies. Data are from Acemoglu, Johnson and Robinson (2002).

<sup>g)</sup> *Western European Descendants* gives estimates of the population in a country that is of Western European descent. Data are from Bentzen, Karsen and Wingender (2012).

Data and further documentation are available upon request. Please, write to \_\_\_\_.

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## SECTION VIII: RESPONSE SECTION

This section summarizes comments by three anonymous reviewers to a previous version of our article. Each comment is followed by a response, telling how we dealt with the comment in question. Doing so is not only a way to pay tribute to the reviewers' thoughtful input but also allows interested readers to see how this research developed through academic exchange. Furthermore, the comment-response dialogue offers a deeper discussion of certain points for which there was not enough space in the manuscript. Where suitable, footnotes in the manuscript guide readers to various of the discussion here.

### REVIEWER ONE

#### Comment RI-1

After congratulating us for a highly innovative and important contribution, R1's first and most important suggestion is to drop the interpretation of authoritarian notions of democracy as "mis-understandings" of democracy. R1 justifies this suggestion in providing a detailed and thorough elaboration. To summarize her/his rationale in a few sentences, the key point is that democracy is a contested concept, and always has been. In the course of history, the meaning of democracy has changed several times and continues to evolve. In political theory as well as in reality, philosophers and practitioners have advocated conflicting concepts of democracy. In conclusion, there is no authoritative definition of democracy that could disqualify other definitions as deviating mis-understandings. There are just "alternative" understandings and we should treat them that way in our writing.

#### Response RI-1

We actually agree with the gist of this thoughtful reasoning and are grateful to R1 that s/he has outlined it. This offers us a welcome opportunity to clarify our own position and make it explicit in the manuscript (p. 3, 2<sup>nd</sup> para of the revision). R1's argument is to the point in our eyes when it comes to state that democracy has changed its meaning in the course of history and that thinkers and activists have pursued different conceptions of democracy. Having said that, the question for us, however, is whether this accurate characterization can really be taken so far to conclude that democracy is an altogether futile concept—so futile indeed that it is compatible with any notion of it. Here, we would respectfully disagree and argue that this position would take the conclusion too far to the relativist side. A relativist view of democracy might have the charm of appearing normatively neutral but its downside is that, taken to the extreme, relativism turns democracy into an empty concept about which no meaningful communication is possible. Aside from that, we believe that the contemporary state of democracy research justifies an at least moderately essentialist position. Despite all the differences in definitions of democracy that one has to admit, in contemporary political theory, constitutional law and empirical democracy measurement there is nevertheless a consensual semantic core centering on universal suffrage, electoral contestation, vertical accountability, horizontal checks and civil rights. This consensual core has established scholarly standards in democracy measurement that lead to largely similar assessments of which countries in the world are most and which ones are least democratic. The new V-Dem project, for instance, considers it a matter of cross-validation that their different measures of democracy correlate strongly with those by Freedom House and Polity.

To conclude the point, we maintain that the existence of a recognizable semantic core of what democracy means, which is almost universally acknowledged in contemporary scholarship, cannot be ignored in assessing ordinary people's notions of democracy. Quite the contrary, the existence of this semantic core makes it a natural question to ask how much ordinary people's notions of democracy deviate from the core and what explains these deviations. Authoritarian

notions of democracy are definitely deviations from democracy's semantic core because they conflict clearly with every acknowledged definition of democracy in contemporary scholarship. As real as we treat authoritarian notions of democracy empirically, normatively they cannot be judged as compatible with democracy, unless one outrightly denies all acknowledged scholarly definitions of the term.

However, we clarify on p. 3 of the revision that our primary interest is not to stigmatize authoritarian notions of democracy but to understand which factors favor and which ones disfavor them. We also follow R1's suggestion insofar as we have eliminated the term "misunderstanding" throughout most of the manuscript, although not in the title which we would like to retain a somewhat provocative bite. We placed a footnote on p. 3 of the revision (fn. 2), referring to this discussion in the Response Section of the OA. We come back to this point in Response RI-6, where we refer to p. 21 of the revised manuscript (fn. 11).

#### **Comment RI-2**

We should define earlier in the manuscript what authoritarian notions of democracy are.

#### **Response RI-2**

We have done so on p. 2 (last para) to p. 3 (1<sup>st</sup> para) of the revision where we also define liberal notions of democracy.

#### **Comment RI-3**

"Emancipatory Drives" is an overblown term and should be dropped.

#### **Response RI-3**

We have replaced this term throughout the manuscript with the well-established concept of "emancipative values," which is the measure we actually use.

#### **Comment RI-4**

"Cognitive mobilization" is a loaded and misleading term and should be replaced.

#### **Response RI-4**

Done: we decomposed the measure into its two components, information intake and education level, and keep them separate in using their proper names.

#### **Comment RI-5**

The correlations reported in Table 2 are low, the highest being  $R = .33$ , and this should make one suspicious about the empirical linkages behind them.

#### **Response RI-5**

The point of Table 2 is not the absolute magnitude of a given correlation but rather their relative size in comparison to each other. Thus, the analysis is not so much about how large a share of variance a given construct explains but whether the share is larger than that explained by each single component of the same construct. Moreover, the largest correlation in Table 2 is  $R = -.79$ , which applies to the country level where, as is usual, all correlations are by a large magnitude bigger. Only at the individual-level do correlations reach a maximum of  $R = .33$ , which is actually quite respectable for individual-level data. Over decades of experience in analyzing survey data, we have never seen an individual-level correlation much above  $R = .40$ , even with almost identical questions asked close to each other. We placed a footnote on p. 12 of the revision (fn.

7), referring to this discussion in the Response Section of the OA.

#### **Comment RI-6**

The analysis of “over-estimations” of democracy embodies the same epistemological problem as the “mis-understood” frame because it evaluates people’s notions of democracy against the yardstick of the Western liberal model and, thus, continues to treat authoritarian notions of democracy as normatively incompatible with democracy.

#### **Response RI-6**

In Response R1-1, we outlined that authoritarian notions of democracy are indeed incompatible with every scholarly acknowledged definition of democracy. And the undeniable existence of established scholarly standards justifies it in our eyes to evaluate people’s subjective notions of democracy against these standards and to ask empirical questions such as when and why people’s notions deviate from these standards. That these standard are, historically speaking, of Western origin is a to-be-recognized matter of fact that does not a priori disqualify the scholarly standards of democracy but, instead, raises the intriguing question of how cross-culturally transferable the concept of democracy is in its liberal scholarly definition. We placed a footnote on p. 21 of the revision (fn. 11), referring to this discussion in the Response Section of the OA, which also relates back to Response RI-1.

#### **Comment RI-7**

“While the writing is generally good, the paper needs a careful edit.”

#### **Response RI-7**

We have carefully edited the manuscript.

## **REVIEWER TWO**

#### **COMMENT RII-1**

R2 expresses concerns whether the word “democracy” is properly translated into the different languages and whether it might be a shortcut for “good governance.”

#### **Response RII-1**

To address the translation issue, we spot-checked the questionnaires of major languages, including Mandarin, Hindi, Russian, Arabic, Turkish, Spanish and French and found no indication that the word “democracy” is translated in unusual ways.

Second, as concerns “good government,” we also went back to the questionnaire looking for indications that the respondents might misunderstand the meaning of democracy question as a question asking for the characteristics of “good government.” We are grateful for having done so because actually we found a lot of counter-indications to this suspicion. To begin with, the question itself couldn’t be more explicit in its focus on democracy as it mentions this term four times and then again twice on the showcard. Moreover, the meaning of democracy question is asked in the direct vicinity of other regime-related questions that also have an explicit focus on democracy. Finally, the meaning of democracy question is explicit in telling the respondents not to think about good governance but indeed about democracy by reading out the introductory statement “Many things are desirable, but not all of them are essential characteristics of democracy.” For all these reasons, it is plausible to assume that respondents are cognitively primed, and quite strongly so, to really say what they think about democracy.

Third, we admit that priming respondents' attention to the word "democracy" does not preclude that many of them equate democracy with good governance. In fact, this assumption is supported by the observation that more than eighty percent of all respondents express support for democracy and that this support level does not vary at all with the different notions of democracy that the respondents report. We cannot see, however, how this finding compromises our analyses of different notions of democracy. On the contrary, knowing that almost everyone supports democracy, what people think democracy is tells us what exactly they support when they say to support democracy. We placed a footnote on pp. 8-9 of the revision (fn. 3), referring to this discussion in the Response Section of the OA.

#### **COMMENT RII-2**

R2 raises concern about whether the word "democracy" has different, culture-specific connotations across nations.

#### **Response RII-2**

This is another important point. Throughout the entire revision, we emphasize that we actually assume different connotations across different cultures and regimes and that this is the main reason why we examine notions of democracy across cultures and regimes, expecting to find exactly such differences, like the difference between liberal and authoritarian notions of democracy and the different ways of how they relate to each other (to this point see our explanation of Revision #3 towards the end of this document). Also, in trying to explain these differences, we operationalize cultures and regimes using variables such as level of democracy, state repression or religious heritage and level of religiosity. Since this message transpires through the entire revision, we did not address it in a separate paragraph or footnote.

#### **COMMENT RII-3**

R2 raises concerns about the comparability of notions of democracy across different regimes, especially in the context of repressive autocratic regimes where people might report authoritarian notions of democracy not because they truly believe them but to "stay out of trouble."

#### **Response RII-3**

We share this concern and deal with it throughout the entire Plausibility Test section on pp. 20-26 of the revision, and then again more specifically on pp. 21-22 where we directly address the "public lies – private truths" interpretation. The latter, we believe, phrases the essence of R2's concern (see also our Response RIII-6, further below). Although we cannot directly test this issue (as there is no way to look into people's mind), we find some rather convincing indirect indications that people who express authoritarian notions of democracy truly believe them.

To begin with, if respondents who endorse authoritarian notions of democracy do not really believe in these notions when they live in an authoritarian regime, or believe the less in them, the more authoritarian their regime is, then these notions should only be weakly affected by belief-related variables, once we control for degrees of authoritarianism, which should capture the "stay out of trouble" motive, if this motive drives people to report authoritarian notions of democracy. However, authoritarian notions of democracy associate systematically (and negatively) with emancipative values, and they do so no matter if we split countries at the median of our electoral democracy scale into more and less authoritarian regimes. Moreover, we can use the inverse of our democracy measure as a direct indicator of degrees of authoritarianism. Then we can model each country's average endorsement of authoritarian notions of democracy as a function of its degree of authoritarianism as well as the population's overall support for emancipative values, using ordinary least squares regression. Doing so, degrees of authoritarianism show no significant effect at all on authoritarian notions of democracy, whereas

emancipative values retain a highly significant negative effect ( $N = 59$ ;  $R^2_{\text{adj.}} = .73$ ). Since emancipative values are an intimately belief-related variable, the finding that they retain a strongly negative effect on authoritarian notions of democracy, no matter how authoritarian the regime is in which these notions are reported, is incompatible with the idea that people do not believe in these notions when they report them in an authoritarian regime.

Moreover, if hiding an alternative regime preference for democracy is the primary concern of people in authoritarian countries, then they should refrain from expressing support for democracy in the first place. But they express such support in large numbers (with little missing response) and no less than respondents in democracies. The only logical conclusion from these findings is that respondents in authoritarian societies do not consider democracy as an alternative regime when they equate democracy with authoritarianism. This equation is also what authoritarian propaganda tries to indoctrinate into people by re-defining democracy as some form of guardianship by wise leaders who rule unrestrictedly in the best of people's interest.

These points are all now outlined in the revision on pp. 20-26. In addition, we placed a footnote on p. 23 of the revision (fn. 15), referring to this discussion in the Response Section of the OA.

#### **COMMENT RII-4**

R2 criticizes that we treat liberal democracy as a single dimension at the individual level because country-level measures of liberal democracy, such as Freedom House, treat it as two dimensions.

#### **Response RII-4**

This is an interesting point. According to our knowledge, Freedom House provides two measures of “freedoms” (i.e., civil liberties and political rights) for conceptual reasons. Empirically, however, the two measures are so highly correlated that they load on a single dimension. Many authors, therefore, summarize the civil liberties and political rights scores in a single variable. The Polity- and V-Dem projects also provide one-dimensional measures of democracy, including specifically liberal democracy in the case of V-Dem. Hence, we see no contradiction to our one-dimensional measure of liberal notions of democracy, which turns out as one-dimensional in the factor analyses of Table 1, both at the individual and the country level. Against this background, we see no criterion of how to divide the three items indicating liberal notions of democracy into two different dimensions that don't exist in the data. Hence, we gave this thought no further consideration and did not address it to avoid unnecessary side-tracks of discussion.

#### **COMMENT RII-5**

R2 criticizes that some of our abstract measures are theoretically under-specified and not properly defined. S/he refers among others to Enlightenment Forces and the Patrimonial State.

#### **Response RII-5**

We agree. We have dropped the concept of Enlightenment Forces altogether and only retained emancipative values as one of its well-defined components. Also, we dropped the Patrimonial State concept because its measurement did not show up with any significant effects. This helped us clearing up the analyses. As already mentioned in our Responses RI-2 to RI-4, we deliver proper conceptual definitions of authoritarian and liberal notions of democracy earlier in the manuscript, on p. 2 (last para) and p. 3 (1<sup>st</sup> para) of the revision.

#### **COMMENT RII-6**

R2 sees an improper treatment of measurement error in our analyses and recommends the use of

structural equation modeling to cure this problem.

### **Response RII-6**

We explicitly refrain from using structural equation models because to do so one needs to decide for the “dimensional” option in the choice between “dimensional” and “combinatory” logics of index construction. We refrain from the dimensional logic because it involves too rigid assumptions by schematically treating all non-overlapping variance among the constituents of an index as measurement error. This assumption is questionable when the non-overlapping variance components of a construct’s constituents complement each other, such that their very combination expands the strength of the overall construct’s linkages to its expected antecedents, consequences and concomitants beyond that of each of its single constituents. As detailed by Welzel and Inglehart (2016), in such a situation it is appropriate to summarize the constituents into a “combinatory” index, in spite of the fact that the constituents might only be weakly inter-correlated. Accordingly, we tested all our summary measures for whether they fulfill the “combinatory” criterion of superior linkage strength and used them only if they do. We describe this logic on pp. 10-12 of the revision.

On a more general note, the presence of measurement error is always captured by the error term of a correlation or regression, which is the unexplained residual part of the variance. The size of that part is always known from the inverse of the model fit (1 minus the  $R^2$ ). Given that measurement error is embodied in the residual part but not in the fitting part of a relationship, measurement error can never enhance but only reduce the fit of a model. Thus, when the model fit is reasonably large, concerns about an error-inflated fit are futile. Our models reach up to 79 percent of an explained variance, so the error term is at about twenty percent. Even if we attribute this residual term entirely to measurement error (rather than to omitted variables), its size is rather modest.

Besides the size of the error term, its shape is a concern. In ordinary least squares (OLS), errors must be normally distributed. In the revision, we tested all our OLS-models whether the residuals are normally distributed, using the Shapiro-Wilk and Kolmogorov-Smirnov tests, and this was always the case. Furthermore, we subjected our models to all available tests for appropriateness, running standard tests for (a) influential cases, (b) multicollinearity, (c) heteroskedasticity and (d) omitted variable bias (as reported in the footer of Table 4). All these tests confirm the appropriateness of our models. This result is further supported by the series of checks in the Plausibility Test section (pp. 20-26), such as the endogeneity test, as well as by the fact that we checked the influence of response error variables, from duplicate to contradictory to missing responses. In the light of all these tests, we truly believe that we have done all one can do to assure the statistical appropriateness of our models and to cope with measurement error, albeit not in structural equation framework (see also the last para in Response RIII-3 below as well as “Revision #5” towards the end of this document, which outlines when a structural equation framework is inappropriate).

We placed a footnote referring to this entire elaboration here on p. 10 of the revision (fn. 4).

### **COMMENT RII-7**

R2 remarks that the authoritarian notions of democracy in Figure 1 are not normally distributed because of the spike on low scores and recommends the use of a normality test.

### **Response RII-7**

We are grateful for this suggestion. We corrected the passage towards “close to a normal distribution” on p. 11 (2<sup>nd</sup> para) of the revision, reporting the Kolmogorov-Smirnov normality test, which indicates a significant but small deviation from normality at the individual level and no such deviation at the country level. We wish to remark in this context that a deviation from

normality in the univariate distribution of the dependent variable is tolerable for ordinary least squares. The important point is that the error term (i.e., residuals) is normally distributed, which we found to be the case in all OLS models (reported in the footer of Table 4). Fn. 5 on p. 11 of the revision mentions this point.

## **REVIEWER THREE**

### **COMMENT RIII-1**

R3 remarks "... I fear that the choice to use the term 'enlightenment forces' will bring more heat than light onto the processes the author(s) wishes to elucidate."

### **RESPONSE RIII-1**

R3 derives this conclusion from a thoughtful line of argumentation to which we can only agree after having giving it a serious consideration. So, as mentioned already in Response RII-5, we drop the term and revert the overblown concept of Enlightenment Force back to one of its narrower and established components—emancipative values.

### **COMMENT RIII-2**

If we got it right, R3's comment under the header "normative vs. descriptive" is supposed to tell us that, if a respondent endorses authoritarian notions of democracy strongly, we do not know which of the following two motives drives this endorsement. For one, it might be that respondents express an authoritarian notion of democracy because they think that this is the correct definition of democracy, no matter whether or not they like democracy in its correct definition (the descriptive option). Or respondents express such a notion because this is what they would like democracy to be if they themselves had the authority to define it (the normative option).

### **RESPONSE RIII-2**

In our eyes, this is a quite sophisticated and important consideration that took us some time to think through. Admittedly, since we cannot look into people's mind, there is no way to know for sure which of these two interpretations is closer to reality and whether this differs between respondents and across countries. But we can at least search for some indirect hints of what the more likely interpretation might be.

Looking into how the meaning of democracy question is designed, it clearly asks respondents of what they think the correct meaning of democracy is, no matter if subjectively they like it or not. From this point of view, it might seem a little far-fetched to claim that the question is triggering a normative instead of a factual statement. On the other hand, as clear as the distinction between factual and normative is logically speaking, we know from cognitive psychology that human cognition frequently blends facts and norms: we often believe as facts what we like to believe. Hence, normative and factual aspects of perception might easily mingle in people's democracy responses—no matter how we strongly we try to prime them to give a purely factual response. If so, the distinction between descriptive and normative response elements becomes futile.

From the mere question wording, it is impossible to decide whether people's notions of democracy reflect believed facts or normative desires. But the explanatory patterns of our analyses shed some light on this issue. The observation that people refuse to endorse authoritarian notions of democracy when they believe in emancipative values clearly indicates that people tend to define democracy in ways that accord with their normative preference structure. Considering that emancipative values trump cognitive variables, such as education and



information, in shaping notions of democracy underlines this suggestion further. And the fact that overwhelming majorities of people express support for democracy, no matter what notion of democracy they endorse, also suggests that people tend to fill the term democracy with whatever they wish democracy to be like. By contrast, the alternative interpretation that people equate the meaning of democracy with however they perceive the regime reality of their country would suggest that regime characteristics, especially the level of democracy, shapes people's notions of democracy most powerfully. However, as reported in Response RII-3, this is not the case: the level of democracy (or its inverse, autocracy) shows no significant effect on authoritarian notions of democracy once we control for emancipatory beliefs.

However, the conclusion that people's notions of democracy embody a strong, and even dominant, moment of normative desire strengthens our whole point that these notions are truly believed and that they are insightful as they tell us what people truly support when they say to support democracy. We placed a footnote on p. 8-9 of the revision (fn. 3), referring to this discussion in the Response Section of the OA.

### **COMMENT RIII-3**

Referring to Charles Kurzman's Washington Post blog "Lost in Translation," R3 suggests that translation problems with our authoritarian notions of democracy measure need to be carefully checked.

### **RESPONSE RIII-3**

As indicated in Response RII-1, we have probed into this issue, at least by spot-checking the world's major languages, including Arabic in particular. We've found no indication of major translation problems. Besides, Kurzman's WP blog is not a serious academic publication and is cherry-picking cases for his claims, which is easy with a project that has been asking some 300 questions in more than a hundred countries over now almost forty years. A more serious scientific critique is Aléman and Woods' 2016 article in *Comparative Political Studies* in which they use "multi-group confirmatory factor analyses" (MGFCA) to prove major WVS concepts incomparable across countries. But this piece encountered a powerful refutation by Welzel and Inglehart (2016) who show that MGCFA is flawed in declaring concepts cross-culturally incomparable when country-level aggregates of these constructs, most notably emancipative values, show cross-national correlations of .80 and higher with key social indicators from completely different data sources, including prosperity, democracy, security, peace and sustainability. On pp. 8-9 (fn. 3) of the revision, we refer to this debate as an illustration that WVS data cannot be sweepingly declared invalid.

Besides, there is a forthcoming article (which, unfortunately we cannot cite at the moment without compromising our anonymity) in which we demonstrate both mathematically and empirically that goodness of fit indices for latent constructs inevitably turn unsatisfactory in countries in which the mean-levels of the involved variables are close to the lower or upper endpoint of the underlying scale, that is, in countries which the publics are rather consensual on the conservative or progressive end of a given belief-scale. In such cases, unsatisfactory fitness scores are the artifact of a mathematical law (i.e., floor and ceiling effects on closed-ended scales) and cannot be taken to indicate measurement error (see also Response RII-6, above).

We are grateful R3's questions on Egypt, which prompted us to thoroughly re-check our data. As a result, it turned out that the outstandingly high score for Egypt in the first version of the manuscript has been the result of a mistake in the aggregation syntax. For the revision, we double- and triple-checked all coding and aggregation procedures to assure accuracy, which is part of why our revision took that long.

**COMMENT RIII-4**

R3 appreciates our historical drivers analysis but remarks that taking into account regional histories might be more appropriate.

**RESPONSE RIII-4**

In trying to capture this point, we use the historically grounded categorization of the world's countries into eleven culture zones by Welzel (2013). Based on this classification, we re-ran the regression models in Table 4 with standard errors clustered by culture zones to account for spatial non-independence. This did not change the estimates (as mentioned in the footer of Table 4), lending further credibility to the appropriateness of the model specifications.

Given R3's doubts, we shortened the section referring to the remote historic drivers test. We still mention it in the revision (p. 26, second-last para), but leave it with a reference to the OA. The reason is that we have thoroughly re-designed the entire Plausibility Test section (pp. 20-26), dedicating a whole new series of additional and, we believe, more conclusive tests (see point #3 and #4 under Further Revision, below). These tests render the historic drivers analysis less central.

**COMMENT RIII-5**

R3 relates us to the second edition of Markoff's *Waves of Democracy* as supporting evidence for the diffusion of the word "democracy" into non-democratic regimes.

**RESPONSE RIII-5**

We gratefully incorporate the citation in our revision, see p. 5 (2<sup>nd</sup> para).

**COMMENT RIII-6**

R3 finds our attempt to deal with preference falsification laudable but insufficient and suggests to be explicit about the limitations of WVS data in this respect and use this as an encouragement to inspire further research using survey experiments.

**RESPONSE RIII-6**

In following this advice, we have dedicated most of the entire Plausibility Test section (pp. 20-26, especially pp. 21-23) to the "public lies – private truths" point of view (see also Response RIII-2, above). We agree that there is no directly conclusive test of this problem and that survey experiments are required to resolve it conclusively. However, three pieces of evidence in the available data are suggestive at least. If people in authoritarian regimes endorse authoritarian notions to hide an alternative regime preference for democracy (because of fear of repression), three patterns should be observed: (a) people should abstain from expressing a preference for democracy, either refusing democracy as the preferred type of regime or denying to answer the respective question; (b) across countries, fear from violence should show a powerful enhancing effect on authoritarian notions of democracy; (c) since authoritarian notions of democracy reflect no true belief in authoritarian contexts, belief-embodying variables, most notably emancipative values, should show little, if any effect, on authoritarian notions of democracy. In none of these three instances is this what we observe. Instead, we observe the exact opposite: (a) respondents in authoritarian countries express support for democracy in large shares and no less than respondents in democratic societies and response refusal is low and not significantly higher; (b) fear from violence does not enhance authoritarian notions of democracy; (c) emancipative values show the most powerful effect—even in autocratic countries. The revision includes a reference to this elaboration here on p. 23 (fn. 15).

### **COMMENT RIII-7**

R3 remarks that most sociologists would doubt a strong link between a snapshot of mass regime preferences and whether a country is autocratic or democratic at the moment. S/he suggests that we spell out in more detail the micro-macro link.

### **RESPONSE RIII-7**

We are grateful for this hint and have revised the manuscript accordingly. On p. 1 of the revision (fn. 1), we outline that our view of the micro-macro link is informed by the legitimacy framework of “congruence theory.” Due to Inglehart and Welzel’s (2005) version of congruence theory, legitimacy is a source of regime-stability because, in occurring conflicts between pro- and anti-regime forces, it channels mass support towards the pro-regime forces. By the same token, illegitimacy is a source of regime breakdown as it channels mass support towards regime-opposing forces, once they become visible. In the long run at least, these channeling effects operate as a selective force in regime evolution that generates a tendency towards congruence between mass regime preferences and actual regime structures. From the congruence point of view, the lasting coexistence between mass support for democracy and the latter’s persistent absence is unexpected—hence the “paradox of democracy.” Fn. 1 on p. 1 of the revision references this elaboration here.

## **FURTHER REVISIONS**

We have revised the manuscript and the analyses in additional ways beyond the reviewers’ suggestions. In the following, we list these revisions.

### **Revision #1**

We have broadened the number of indicators in each thematic category of variables, trying to assure a wider and more reliable coverage of the competing explanations. Thus, Table 3 now reports correlations for twenty-eight instead of only about ten indicators in the previous version. To minimize collinearity problems, we summarize indicators of the same thematic category in a factor-score variable, which we use in the subsequent regressions as the main representative of the category, if Welzel and Inglehart’s (2016) “compositional substitutability” criterion is met, namely when the summary indicator embodies more explanatory power than each of its single components. Otherwise, the most predictive single component is used to represent the category in subsequent regressions.

### **Revision #2**

We extended the number and complexity of models in Tables 4 and 5 and also report more statistical tests of model appropriateness (see footer of Table 4), in an attempt to lend more credibility to our analyses.

### **Revision #3**

Our revised analyses take into account massive variability in the strength and direction of the link between liberal and authoritarian notions of democracy. This variability divides countries into positive-link countries in which people endorse both liberal and authoritarian notions at the same time, and negative-link countries in which people reject authoritarian notions when they endorse liberal ones. We find that emancipative values powerfully moderate the direction and strength of the liberal-authoritarian link, such that liberal notions turn increasingly into a depressor of authoritarian ones as emancipative values grow stronger. In line with this insight, we also find that authoritarian notions of democracy always associate negatively with emancipative values. Liberal notions of democracy, by contrast, associate positively with emancipative values but only

in negative-link countries, whereas they are entirely unrelated to emancipative values in positive-link countries. Put differently, while authoritarian notions of democracy always have a firm belief basis in people's values, liberal notions have a firm belief basis only where they imply the rejection of authoritarian notions of democracy. In conclusion, authoritarian notions of democracy provide a key qualifier telling us how firm a belief basis there is in expressed liberal notions, which is only firm when they imply the rejection of authoritarian notions but not when they imply the endorsement of authoritarianism. In the latter case, liberal notions of democracy lack a proper understanding of their contradiction to authoritarianism and are, hence, void of an authentic commitment.

Against this backdrop, the multilevel models in Table 5 pay particular attention to the individual-level link between liberal and authoritarian notions of democracy and how country-level characteristics, especially emancipative values, moderate this link.

#### **Revision #4**

We amended the Plausibility Test section (pp. 24-26) by a quasi-experimental, difference-in-difference test. First, we created a new variable measuring support for democracy conditionally, that is, democratic support to the extent to which it is tied to authoritarian notions of democracy. Thus, we measure the seemingly paradoxical concept of “authoritarian support for democracy,” which—surprisingly as it may sound—is prevalent in many countries. And the more prevalent it is, the lower is the level of democracy—providing a strong case for regime-culture congruence (new Figure 6, left-hand diagram). To test whether this negative association between the prevalence of authoritarian support for democracy and the level of democracy is likely to be causal, we conduct a quasi-experimental difference-in-difference test, looking at whether countries whose authoritarian support was larger than prior democracy suggested (treatment group) experienced democratic backsliding and whether this was different in countries with lesser authoritarian support than prior democracy suggested (non-treatment group). Indeed, while the non-treatment group experienced a democratic upgrading of .10 scale points on average, the treatment group experienced a downgrading of -.06 on average, which amounts to a highly significant difference-in-difference of .16 scale points between the treatment and non-treatment group (see new Figure 7). Since this setting frees authoritarian notions of democracy from endogeneity to the prior level of democracy, this test does not penultimately prove but at least it suggests a causal connection. Ideally, this test should be serially repeated in a continuous time series but such data are inexistent. Hence, this is the closest to a causality test we can get with the evidence available.

#### **Revision #5**

We thoroughly revised the supplementary analyses in Section V of the OA, in trying to provide a more conclusive test of the criterion of “compositional substitutability” with respect to the overall index of authoritarian notions of democracy. Specifically, we devised additional regressions (OA-Tables 6-8, pp. 33-34 in this document) to test the index's insensitivity to cross-country variability in the popularity, salience and inter-connectedness of its single items. The three regression analyses testing these three aspects of “compositional substitutability” show in unequivocal clarity that this criterion is fulfilled. This finding provides additional confirmation that the main criteria guiding the “structural equation” approach to measurement equivalence, namely cross-country invariance in inter-item cohesion, is irrelevant for the functioning of an overall construct when this construct is characterized by “compositional substitutability.” Our decision to refrain from subjecting our overall construct a typical “structural equation” invariance test, and to test for “compositional substitutability” instead, seems altogether appropriate for these reasons.

#### **Revision #6**

On p. 5 of the revision we phrased a new paragraph in which we outline the premises of our

argumentation. We placed this paragraph in front of the discussion of the various possible influences on authoritarian notions of democracy. It reads like this:

The following paragraphs discuss the most plausible influences on the presence and absence of ANDs and how these are supposed to vary the AND-LND relationship. Our argumentation involves a couple of, we hope, plausible premises that we wish to spell out here. To begin with, most authoritarian regimes in the world characterize themselves as democracies in their propaganda (Marquez 2016: 12-14; Markoff 2009). The typical narrative denounces Western democracy as a perversion of “true” democracy, which is re-defined as a form of guardianship by which the “wise” ruler governs unrestrictedly in the best of all people’s interest. Re-defining democracy as unchecked rule by wise leaders to whom people owe obedience constitutes the definitional core of ANDs (Brown 2001). Consequently, we presume that ANDs are shaped (a) by people’s exposure to authoritarian propaganda as well as (b) by their cognitive and moral capacities to resist this propaganda’s intention. Based on these premises, we consider the following set of specific influences as most plausible in shaping ANDs.