

What drives citizens' evaluation of democratic performance? The interaction of citizens' democratic knowledge and institutional level of democracy

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Abstract Alongside citizens' belief in the legitimacy of democracy, public support for the political regime is crucial to the survival of (democratic) political systems. Yet, we know fairly little about the relationship between citizens' democratic knowledge and their evaluation of democratic performance from a global comparative perspective. In this article, we argue that the cognitive ability of citizens to distinguish between democratic and authoritarian characteristics constitutes the individual yardstick for assessing democracy in practice. Furthermore, we expect that the effect of citizens' democratic knowledge on their evaluation of democratic performance is moderated by the institutional level of democracy. We test these assumptions by combining data from the sixth and seventh wave of the World Values Survey and the third pre-release of the European Values Study 2017, resulting in 114 representative samples from 80 countries with 128,127 respondents. Applying multilevel regression modeling, we find that the higher a country's level of democracy, the more positive the effect of democratic knowledge on citizens' assessment of democratic performance. In contrast, we find that the lower the level of democracy in a country, the more negative the effect of citizens' democratic knowledge on their evaluation of democracy. Thus, this study shows that citizens who are more knowledgeable about democracy are most cognitively able to assess the level of democracy in line with country-level measures of democracy. These results open up new theoretical and empirical perspectives for related research on support for and satisfaction with democracy as well as research on democratization.

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Was beeinflusst die individuelle Bewertung der Performanz der Demokratie? Die Interaktion zwischen dem demokratischen Wissen der Bürgerinnen und Bürger und dem institutionellen Niveau der Demokratie

Zusammenfassung Die zentralen Werte und Normen, die das Überleben eines (demokratischen) politischen Systems sichern, sind neben dem Glauben der Bürgerinnen und Bürger an die Legitimität der Demokratie ihre öffentliche Unterstützung für das politische Regime. Allerdings wissen wir aus einer vergleichenden globalen Perspektive noch recht wenig über die Beziehung zwischen dem demokratischen Wissen der Bürgerinnen und Bürger und ihrer Einschätzung der demokratischen Performanz. In diesem Artikel argumentieren wir, dass die kognitive Fähigkeit der Bürgerinnen und Bürger, zwischen demokratischen und autoritären Merkmalen zu unterscheiden, den individuellen Maßstab für die Beurteilung der Demokratie in der Praxis darstellt. Wir erwarten zudem, dass der Effekt des demokratischen Wissens der Bürgerinnen und Bürger hinsichtlich ihrer Bewertung der demokratischen Performanz durch das institutionelle Niveau der Demokratie moderiert wird. Wir testeten diese Annahmen unter Verwendung von Individualdaten aus der sechsten und siebten Welle des World Values Survey und des dritten pre-release der European Values Study 2017, woraus 114 repräsentative Stichproben aus 80 Ländern mit insgesamt 128.127 Befragten resultieren. Basierend auf der Anwendung von Mehrebenenmodellen kommen wir zu dem Ergebnis, dass der Einfluss des demokratischen Wissens auf die Bewertung der demokratischen Performanz durch die Bürgerinnen und Bürger umso positiver ist, je höher das Niveau der Demokratie eines Landes ist. Im Gegensatz dazu stellen wir fest, dass sich das demokratische Wissen der Bürgerinnen und Bürger umso negativer auf ihre Einschätzung der Demokratie auswirkt, je niedriger das Niveau der Demokratie in einem Land ist. Mit dieser Studie zeigen wir folglich, dass Bürgerinnen und Bürger, die über mehr Wissen über die Demokratie verfügen, kognitiv am ehesten in der Lage sind, das Niveau der Demokratie in Übereinstimmung mit Bewertungen der Demokratie auf der Länderebene zu beurteilen. Die Ergebnisse eröffnen darüber hinaus neue theoretische und empirische Perspektiven für die verwandte Forschung zur Unterstützung und Zufriedenheit mit der Demokratie sowie zur Demokratisierung.

Demokratie · Politische Kultur · Regimeunterstützung · Demokratisches Wissen · Mehrebenenmodelle · Cross-level Interaktion

1 Introduction

Recent developments indicate that democracy is facing challenges across the world. While some established democracies are backsliding due to the erosion of liberal principles such as civil liberties and the rule of law (Abramowitz and Repucci 2018;

Mechkova et al 2017; Repucci 2020; Schenkkan and Repucci 2019), governmental attacks on the media and freedom of expression are accelerating and deepening the third wave of autocratization (Lührmann and Lindberg 2019; Lührmann et al 2019; Maerz et al 2020). These developments are accompanied by the global rise of (right-wing) populist parties and authoritarian leaders that embody alternative concepts of democracy and oppose fundamental liberal principles and democratic procedures (Galston 2018; Heinisch and Wegscheider 2020; Huber and Schimpf 2017; Mudde 2007; Norris and Inglehart 2019; Pappas 2016; Plattner 2019).

Studies on the global support for democracy highlight the uncertain future of democratic governance and raise the question whether democracy is (still) “the only game in town” (Linz and Stepan 1996, 15): Recent research suggests that citizens' support for democracy has declined, while openness to illiberal and authoritarian alternatives has increased (Foa and Mounk 2016, 2017a,b; Global Barometer Surveys 2018; Howe 2017). These findings are particularly worrying in light of evidence that indicates that public support for democracy helps democracy to survive (Claassen 2020), while a lack of democratic support and openness to illiberal and authoritarian alternatives is associated with democratic backsliding (Foa and Mounk 2019).

Alongside citizens' belief in the legitimacy of democracy, however, public support for the political regime is crucial to the survival of (democratic) political systems (Easton 1965, 1975; Norris 1999, 2011; Pickel 2016). Yet, several long-term trends and observations indicate high levels of distrust towards political institutions and dissatisfaction with their democratic performance (Armingeon and Guthmann 2014; Crozier et al 1975; Dalton 2004; Global Barometer Surveys 2018; Klingemann 1999; Norris 2011; Pharr and Putnam 2000; Wike and Fetterolf 2018). While some scholars argue that this lack of regime support is an expression of a growing assertive and critical citizenry with higher expectations and demands on political institutions (Dalton and Welzel 2014; Norris 1999, 2011; Welzel 2013), others argue that it is rooted in a lack of belief in fundamental principles of democracy and a widespread openness to illiberal and authoritarian alternatives among younger cohorts (Foa and Mounk 2016, 2017a,b, 2019).

At the heart of this discussion lies the question which democratic norms and values citizens have internalized through their political socialization, thus constituting their democratic knowledge, and how this understanding of democracy affects their evaluation of their country's political regime. This question is particularly important given that substantial gaps between citizens' democratic knowledge and perceived democratic practice may foster potential pro- or anti-democratic mobilizations (Stark 2019; Welzel and Klingemann 2008). However, besides a few studies focusing primarily on established democracies in Europe (Ferrín 2016; Heyne 2019b; Markowski 2016; Pickel 2016, 2017; Torcal and Trechsel 2016; Weßels 2016), we know fairly little about the relationship between citizens' democratic knowledge and their evaluation of democratic performance from a global comparative perspective.

In this article, we argue that citizens' democratic knowledge constitutes the individual yardstick for assessing democracy in practice. In other words, we expect that the extent to which citizens are cognitively able to distinguish between democratic and authoritarian characteristics entails different evaluations of political institutions. This argument is based on the assumption that citizens' support for political objects

is rooted in a certain understanding of democracy which is the result of the political socialization process (Pickel 2016). In this case, the understanding of democracy is operationalized through citizens' knowledge of the academic distinction between democratic and authoritarian regime principles. Accordingly, we expect that the extent of citizens' democratic knowledge affects whether and to what extent they are satisfied with the level of democracy provided by the country.

However, we further argue that citizens tend to evaluate democracy in their country more positively if political institutions meet their knowledge about democracy. We therefore anticipate that the effect of citizens' democratic knowledge on their evaluation of democratic performance is moderated by the institutional level of democracy. While we expect the effect of democratic knowledge on citizens' assessment of democratic performance to be more positive the higher a country's level of democracy, we assume the effect to be more negative the lower a country's level of democracy. Accordingly, our research question is *how citizens' democratic knowledge and the institutional level of democracy affect their evaluation of democratic performance?*

To answer this research question, the remainder of this article is structured as follows: First, we give a brief overview of the importance of citizens' assessment of democracy within the concept of political support and explain why it is essential to consider citizens' democratic knowledge and the institutional level of democracy. After presenting our hypotheses, we operationalize the theoretical concepts using data from the sixth and seventh wave of the World Values Survey and the third pre-release of the European Values Study 2017. Using data from 114 representative samples of 80 countries with a total of 128,127 respondents, we test our hypotheses by applying multilevel regression modeling. In the final section, we conclude with important theoretical and empirical considerations for further research.

2 Theoretical Framework

In this article, we argue that citizens' evaluation of democratic performance is significantly shaped by their democratic knowledge and that this relationship is moderated by their country's level of democracy. To highlight the relevance of this assumption for political culture research, we begin by locating citizens' assessment of democracy within the concept of political support. In a second step, we explain the need to consider the knowledge of democracy that citizens have acquired during their political socialization, since this specific understanding of democracy is considered the foundation of support for the political system (Pickel 2016). In a final step, we outline how the relationship between citizens' democratic knowledge and their evaluation of democracy is influenced by their country's level of democracy. We assume that citizens who have a distinct knowledge of democracy but live under different political regimes hold different perceptions of how democratic their country is. The following section provides a framework for this study and outlines our assumptions.

2.1 Political Support and Citizens' Assessment of Democratic Performance

The significance of people's political attitudes and values for the stability of political systems has been theorized in detail since the civic culture study by Almond and Verba (1963). Accordingly, the persistence of a political system is largely determined by citizens' cognitive, affective and evaluative orientations towards political objects. Easton defines these orientations as political support, "an attitude by which a person orients himself to an object either favorably or unfavorably, positively or negatively" (Easton 1975, 436). However, a political object only receives support if it corresponds to the value orientations and attitudes as well as the expectations and knowledge of the people (Pickel 2016). While citizens may have positive or negative views towards political authorities and the political community, public support for the political regime and belief in the legitimacy of democracy are crucial for the survival of (democratic) political systems (Claassen 2020).

Regime support is frequently measured using citizens' satisfaction with or evaluation of the democratic performance, as these indicators are available in most surveys and therefore well suited for comparative studies (Dalton 2004; Klingemann 1999; Martini and Quaranta 2020; Norris 1999, 2011; Torcal and Montero 2006). Several studies have shown that while these indicators tap into multiple dimensions of political support and also cover the evaluation of non-democratic aspects (e.g. economic wealth), they still provide an acceptable measure for citizens' assessment of democracy (Canache et al 2001; Ferrín 2016; Linde and Ekman 2003; Quaranta 2018). Thus, these indicators provide an evaluation of the extent to which democratic institutions and their functioning in practice meet the preferences of citizens. These preferences for democracy are shaped by the knowledge about fundamental principles, institutions and procedures associated with the concept of democracy that people acquire in the course of their political socialization. Accordingly, democratic knowledge refers to the cognitive dimension of attitudes towards democracy, which is synonymous with the understanding of democracy (Shin and Kim 2018). Citizens' assessment of democracy should therefore be considered in the light of their knowledge about democratic procedures.

Despite this explicit connection, only few studies consider the gap between attitudes towards democracy and democratic practice when explaining citizens' satisfaction with or evaluation of democratic performance (Ferrín 2016; Heyne 2019b; Markowski 2016; Torcal and Trechsel 2016; Weßels 2016). Overall, the results show that citizens' attitudes towards democracy significantly influence their evaluation of democracy in their country. However, these studies mainly refer to established democracies in Europe, which significantly reduces the variance in the level of democracy at the country level. As a result, we still know fairly little about the relationship between citizens' democratic knowledge and their assessment of democratic performance within different institutional settings ranging from highly democratic to authoritarian regimes.

2.2 The Concept of Democratic Knowledge

As Galston argues, democracies “require democratic citizens, whose specific knowledge, competences, and character would not be as well suited to nondemocratic politics” (Galston 2001, 217). Yet alongside good education, literacy and access to free media, the type of political regime and its historical development of democracy in particular give rise to distinctive democratic knowledge and competences among citizens (Cho 2014, 2015; Kirsch and Welzel 2019; Kruse et al 2019; Norris 2011; Welzel 2013; Welzel and Alvarez 2014). Accordingly, what people know about democracy is closely linked to the process of political socialization, because “political knowledge, behavioral norms, and cultural values are acquired from formative experiences occurring during earliest childhood through adolescence and beyond” (Norris 2011, 143–144). Hence, the yardstick by which citizens evaluate democratic institutions does not only depend on the acquired democratic knowledge, but also on the democratic or authoritarian context in which this knowledge was conveyed.

While ordinary citizens may lack knowledge about what constitutes a democracy, political scientists have established distinct criteria that characterize democratic regimes. The normative core of every procedural definition of democracy is determined by the integrity of the electoral process (Diamond and Morlino 2005; Ferrín and Kriesi 2016a; Held 2006; Norris 2014). A representative democracy can only generate legitimacy among its citizens if the electoral competition is protected by additional measures aimed at accountability and responsiveness (Bühlmann and Kriesi 2013). Proceeding from this electoral dimension, the concept of democracy can be expanded by a liberal, social or direct dimension if certain elements such as the rule of law and civil liberties, protection against poverty or direct popular participation are included (Coppedge et al 2011; Ferrín and Kriesi 2016a; Hernández 2016; Kriesi et al 2016).

While some scholars argue that these concepts of democracy are too complex and controversial to be clearly identified by ordinary citizens (Schaffer 1998), others add the methodological criticism that attitudes towards democracy are in general difficult to measure with surveys (Converse 2006). Furthermore, the mere focus on democratic principles is criticized since citizens only really know about democracy if they are cognitively able to identify authoritarian principles as undemocratic (Schedler and Sarsfield 2007; Schmitter and Karl 1991). In contrast to Ferrín and Kriesi (2016b) or Heyne (2019b), who measure support for the electoral, liberal, social and direct dimensions of democracy, we thus focus on citizens’ democratic knowledge as their cognitive ability to distinguish democratic from authoritarian regime principles. This ties in with previous research, according to which citizens are knowledgeable about democracy only if they are also able to recognize and reject authoritarian regime characteristics (Cho 2014, 2015; Kirsch and Welzel 2019; Norris 2011; Welzel 2013; Welzel and Alvarez 2014). Furthermore, this simplification allows us to examine knowledge about democracy from a cross-cultural perspective that covers the entire spectrum from highly democratic countries to authoritarian regimes.

2.3 The Interaction of Citizens' Democratic Knowledge and Institutional Level of Democracy

In addition to citizens' knowledge about democracy, previous research emphasized to consider the influence of macro-level factors on the evaluation of democracy. Thus, recent studies show that the individual assessment of democracy largely depends on a country's historical experience with democracy (Kruse et al 2019; Heyne 2019b,a; Norris 2019), the number of parties (Berggren et al 2004), the quality of government (Martini and Quaranta 2020) and the economic performance (Daoust and Nadeau 2020; Pennings 2017).

Despite these findings, only few studies have examined causes of citizens' assessment of democracy outside established (Western) democracies and have included non-Western democracies and authoritarian regimes. In addition, the institutional level of democracy has rarely been considered as a moderating variable. Consequently, we consider the level of democracy across different democratic and authoritarian regimes, which enables us to examine to what extent a country's level of democracy meets citizens' democratic knowledge and whether this influences their evaluation of the democratic performance. This further allows us to assess the extent to which citizens' evaluation of democracy results from a gap between democratic knowledge and democratic practice.

To sum up, we argue that the cognitive ability of citizens to distinguish between democratic and authoritarian characteristics constitutes their individual yardstick for the evaluation of democratic performance in their country. Yet, citizens should be more likely to support the political regime in their country, the more the level of democracy corresponds to their knowledge of democracy. This implies that the evaluation of democracy is also determined by the institutional framework, and that citizens with high knowledge of democracy should be most cognitively able to assess the level of democracy in line with country-level measures of democracy. Citizens with high levels of democratic knowledge should therefore evaluate democracy in their country higher in highly democratic countries, as these political regimes are most likely to meet their knowledge about democracy. In contrast, citizens with a high level of democratic knowledge should evaluate democracy lower the more authoritarian a country is, since this increases the gap between democratic knowledge and democratic practice. Accordingly, *we expect the effect of democratic knowledge on citizens' assessment of democratic performance to be more positive the higher a country's level of democracy (H1), while we expect the effect to be more negative the lower a country's level of democracy (H2).*

3 Data and Methods

We test these hypotheses by combining survey data from the sixth and seventh wave of the *World Values Survey* (WVS) (Haerpfer et al 2020; Inglehart et al 2014) and the third pre-release of the *European Values Study* (EVS) 2017 (EVS 2020). The WVS and EVS use a common questionnaire and include representative samples from almost one hundred countries, making it the largest cross-national survey project on

Table 1 Measuring Democratic Knowledge

Theoretical dimension	Item	Factor	
		1	2
Democratic regime principles	People choose their leaders in free elections	0.812	-0.053
	Women have the same rights as men	0.789	-0.047
	Civil rights protect people from state oppression	0.789	0.058
Authoritarian regime principles	The army takes over when government is incompetent	-0.052	0.770
	Religious authorities ultimately interpret the laws	-0.159	0.763
	People obey their rulers	0.221	0.712
Explained Variance		33%	28%
Eigenvalue		1.981	1.692
Cronbach's α		0.72	0.61
Kaiser-Meyer-Olkin (KMO)		0.67	
Respondents (<i>N</i>)		128,127	

Notes: Results are from a principal component analysis with oblique rotation ("promax") using the *psych* package in *R*. Parallel analysis suggests two components.

people's value orientations and attitudes. The most recent surveys¹ are particularly well suited as they contain questions both on citizens' assessment of their country's democratic performance and on their cognitive skills to distinguish between democratic and authoritarian characteristics. In addition, the combination of these surveys allows covering respondents from the whole range of highly democratic countries such as Sweden, New Zealand, Uruguay and Germany to authoritarian regimes like Nicaragua, Tajikistan, Libya and Rwanda. Given that some countries are included in both the sixth and the seventh wave of the WVS or the EVS 2017, we use the year in which the survey was conducted as a suffix (country-year) for unique identification. After deleting observations with missing values for the variables of interest described below, the final data include 114 representative samples from 80 countries with a total of 128,127 respondents. Table 3 in the Appendix lists all country samples included in the analysis.

Table 4 in the Appendix provides further information on all variables used in our analyses, such as question wording and coding. We normalize all variables within a range from 0 to 1.0 to allow for comparison of coefficients and simplify the interpretation of our analyses. The dependent variable is citizens' assessment of their country's democratic performance and thus their individual perception of the functioning of democratic institutions in practice. We measure this evaluation by the extent to which respondents indicate how democratically their country is governed, on a ten-point scale ranging from *not at all democratic* (0) to *completely democratic* (1.0).

The main explanatory variable is citizens' democratic knowledge and thus their cognitive abilities to distinguish democratic from authoritarian regime principles. As outlined in the theoretical section, we expect that the extent of democratic knowledge provides the individual yardstick for the evaluation of the functioning of democratic

¹ While the sixth wave of the WVS was conducted between 2010 and 2014, the seventh wave of the WVS and the third pre-release of the EVS 2017 cover the years 2017 to 2020.

institutions in practice. We measure citizens' democratic knowledge using the six indicators summarized in Table 1. Respondents are asked how essential they consider each characteristic for democracy² on a ten-point scale from *not an essential characteristic of democracy* (0) to *an essential characteristic of democracy* (1.0)³. Drawing on previous research (Kirsch and Welzel 2019; Norris 2011; Welzel 2013; Welzel and Alvarez 2014), we assign three characteristics each to either democratic or authoritarian regime principles: While we consider free elections, gender equality and the protection of people through civil rights to be essential democratic principles, we assign preferences for a military coup, a theocratic regime and an obedient society to authoritarian regime principles.

The results of the principal component analysis, as presented in Table 1, confirm the theoretical dimensions of democratic and authoritarian regime principles. We measure citizens' democratic knowledge using their cognitive ability to distinguish between these democratic and authoritarian characteristics. For this purpose, we first calculate an additive index, measuring knowledge of democratic regime principles by adding the values of the three indicators for each respondent and normalizing the resulting index between 0 and 1.0. Here the value of 1.0 indicates the respondent's ability to identify all three democratic regime principles as essential characteristics for democracy. In contrast, we add the inverted values of the three authoritarian characteristics and normalize the index between 0 and 1.0, with 1.0 representing a comprehensive knowledge of authoritarian regime principles as non-essential characteristics of democracy. Following the logic of non-compensatory index construction (Wuttke et al 2020)⁴, we multiply both indices. This results in an index of citizens' democratic knowledge between 0 and 1.0, where 1.0 indicates a comprehensive knowledge about democratic principles as essential characteristics for democracy and of authoritarian regime principles as non-essential characteristics of democracy. When interpreting this index, it should be noted that this index only reflects citizens' cognitive ability to distinguish between democratic and autocratic characteristics. Evaluating authoritarian characteristics as essential for democracy does not necessarily mean that citizens support them, but rather that they lack democratic knowledge⁵.

In addition, we include a number of control variables that we consider important for the individual assessment of democratic performance. We use general life

² The exact wording of the question is 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.

³ In the seventh wave of the WVS and the EVS 2017, the category *it is against democracy* (0) was additionally coded. In order to compare the questions across countries, we recoded all values of 0 into 1 (not an essential characteristic of democracy).

⁴ We prefer a multiplicative index because we argue that low knowledge of authoritarian regime principles as non-essential characteristics of democracy cannot be compensated by high knowledge about democratic ones. As a robustness test, we perform the analysis using an additive combination of indicators. As shown in Tables 6 and 8, results remain substantially the same.

⁵ In contrast to Kirsch and Welzel (2019), we refrain from using the term liberal (notions of) democracy because we believe that the employed items are too thin to measure a concept as complex as liberal democracy.

satisfaction and household income as proxies for the evaluation of the perceived effectiveness and general performance of a country. We measure general life satisfaction on a ten-point scale ranging from *completely dissatisfied* (0) to *completely satisfied* (1.0) and household income on a ten-point scale from *lowest income group* (0) to *highest income group* (1.0). For political ideology, we use the self-positioning on a ten-point scale from *left* (0) to *right* (1.0). We measure cognitive skills using political interest on a four-point scale from *not at all interested* (0) to *very interested* (1.0) and the highest educational level on a nine-point scale from *no formal education* (0) to *university-level education with degree* (1.0). We also control for the gender and age of respondents.

To measure a country's level of democracy, we rely on data from the tenth version of the *Varieties of Democracy Project* (V-Dem) (Coppedge et al 2020; Pemstein et al 2020). V-Dem takes into account the multidimensionality of the concept of democracy (Coppedge et al 2011) and provides indices based on multiple indicators and sub-components coded by country experts, thereby reducing the measurement error (Teorell et al 2019). We use the liberal democracy index (*v2x_libdem*), which measures a country's level of democracy on a scale from *low* (0) to *high levels of liberal democracy* (1.0). This index takes into account the extent to which electoral principles such as freedom of association and expression, universal suffrage and free and fair elections are implemented (*v2x_polyarchy*), as well as compliance with liberal principles such as the rule of law and protection of individual and minority rights (*v2x_liberal*). We use the value of the liberal democracy index for the year in which the survey was conducted in the respective country. For those countries surveyed in 2020, we use the value of the liberal democracy index from 2019. As an additional robustness test and to control for short-term fluctuations, we measure the level of democracy using the arithmetic mean of the values for the year in which the survey was conducted and the four previous years⁶.

We test our hypotheses by applying multilevel regression modeling. This method has the advantage that it takes into account the hierarchical structure of our data from respondents nested in countries (Hox 2010; Steenbergen and Jones 2002). Applying multilevel modeling allows us to analyze the expected different slopes in the relationship between democratic knowledge and citizens' assessment of democratic performance. Most importantly, it enables us to test our hypotheses about the cross-level interaction between democratic knowledge and the level of democracy. We provide further information such as descriptive statistics (Table 5) and distributions of the variables measuring citizens' assessment of democratic performance (Fig. 3), democratic knowledge (Fig. 4) and level of democracy (Fig. 5) in the Appendix.

4 Empirical Analysis

Using the described data, measurements and methods, we analyze in this section how democratic knowledge and the level of democracy interact in influencing citizens' assessment of democratic knowledge. We begin by analyzing the shape of the

⁶ As shown in Tables 7 and 8, results remain substantially the same.

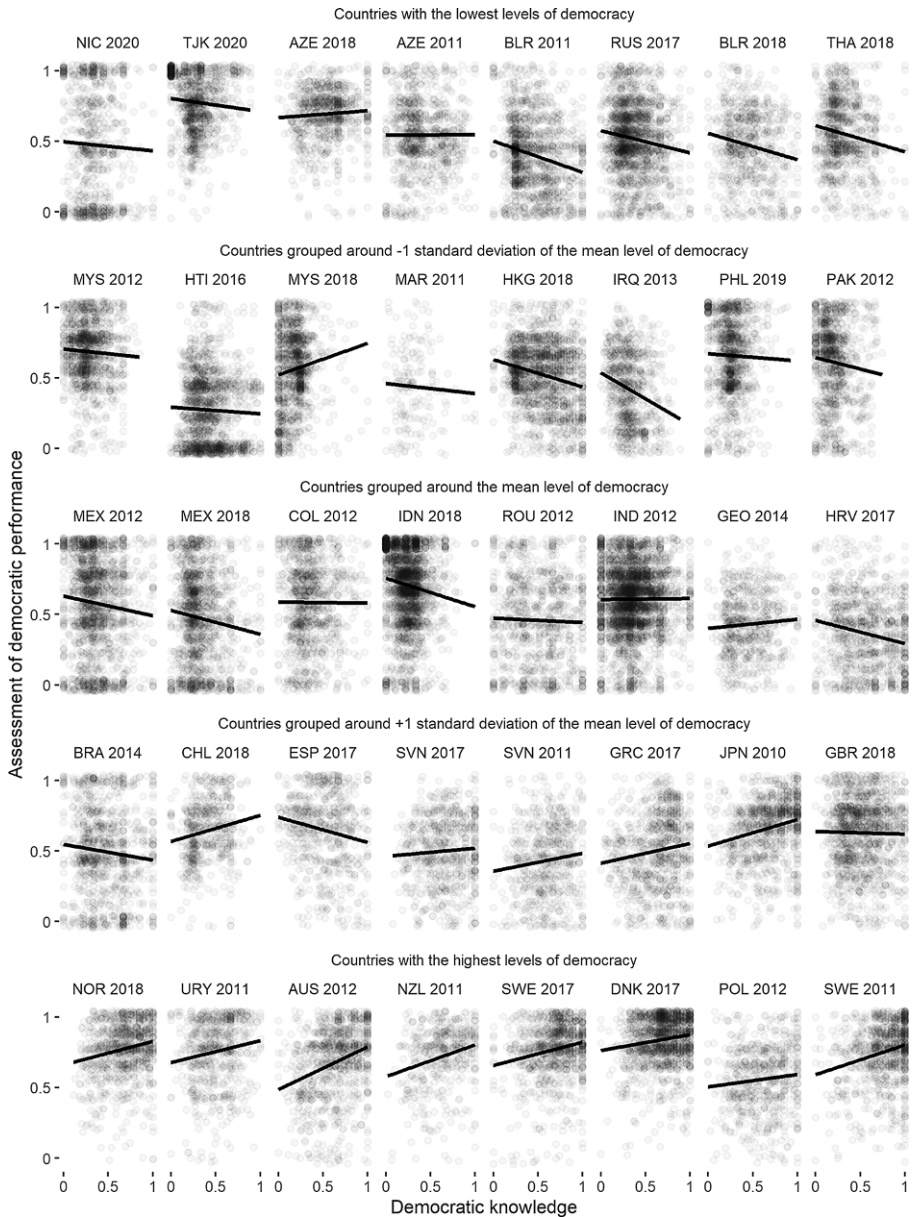


Fig. 1 Bivariate relationship between assessment of democratic performance and democratic knowledge. Notes: *Darker areas* in the scatterplots illustrate higher clustering of observations. *Black lines* visualize linear regression. Country samples are labelled with ISO-3 country codes

Table 2 Multilevel Regression Models Explaining Citizens' Assessment of Democratic Performance

Variables	Model 1	Model 2	Model 3	Model 4
<i>Individual level</i>				
(Intercept)	0.56*** (0.01)	0.36*** (0.01)	0.36*** (0.01)	0.36*** (0.01)
Democratic knowledge		-0.01** (0.00)	-0.01 (0.01)	-0.01 (0.01)
Life satisfaction		0.14*** (0.00)	0.14*** (0.00)	0.14*** (0.00)
Left-right scale		0.10*** (0.00)	0.10*** (0.00)	0.10*** (0.00)
Political interest		0.04*** (0.00)	0.04*** (0.00)	0.04*** (0.00)
Education		-0.01*** (0.00)	-0.02*** (0.00)	-0.02*** (0.00)
Income		0.06*** (0.00)	0.06*** (0.00)	0.06*** (0.00)
Gender (female)		0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
Age		0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)
<i>Country level</i>				
Level of democracy		0.18*** (0.04)	0.06 (0.03)	0.16*** (0.04)
<i>Cross-level interaction</i>				
Level of democracy X Democratic knowledge				0.30*** (0.04)
AIC	22857.55	17964.23	16442.76	16410.28
BIC	22886.83	18081.36	16579.41	16556.69
Log Likelihood	-11425.78	-8970.11	-8207.38	-8190.14
Observations	128,127	128,127	128,127	128,127
Groups (country-year)	114	114	114	114
<i>Random effects</i>				
Var: Intercept (country-year)	0.02	0.01	0.01	0.01
Var: Residual	0.06	0.06	0.06	0.06
Var: Democratic knowledge			0.02	0.01

Notes: Results are unstandardized regression coefficients of restricted maximum likelihood (REML) multilevel regression models with standard errors in parentheses using the *lme4* package in *R*. All models include random intercepts (country-year). Models 3 and 4 include random slopes for democratic knowledge. Variables for level of democracy and democratic knowledge are grand-mean centered. Intraclass correlation coefficient (ICC) for the null model (Model 1) is 0.195. Random effects from Model 4 are shown in Fig. 6 for the intercept and in Fig. 7 democratic knowledge. Samples are weighted according to known population distributions.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

relationship between citizens' democratic knowledge and their evaluation of democracy. As outlined in the theoretical section, we expect this relationship to be either positive or negative, depending on a country's level of democracy. Specifically, we hypothesized that the higher a country's level of democracy, the more positive is the effect of citizens' democratic knowledge on their assessment of democratic performance (H1). In contrast, we expect the effect to be more negative the lower the level of democracy of a country (H2).

Figure 1 illustrates the bivariate relationship for a sample of forty countries. The eight countries in each of the five rows represent a group with a comparable level of democracy: While the first row comprises the eight countries with the lowest level of democracy in our data, the last row covers the most democratic countries. The row in the center shows the bivariate relationship for the eight countries grouped around the average level of democracy. The second and fourth rows show the eight countries grouped by minus and plus one standard deviation from the mean level of democracy.

The scatterplots show remarkable differences across countries in the relationship between citizens' knowledge of democracy and their assessment of democratic performance. For the countries in the first two rows with comparatively low levels of democracy, we observe mainly negative correlations. Accordingly, citizens with high democratic knowledge living in more authoritarian regimes seem to evaluate the democratic performance more negatively. In the sample of countries with a medium level of democracy, we also find rather negative correlations, although less clear and with a flattening effect. In contrast, we find mainly positive relationships for the countries in the last two rows with comparatively high levels of democracy. Hence, citizens with a high level of democratic knowledge in highly democratic countries seem to evaluate democratic performance more positively. Alongside initial descriptive evidence for our assumptions, the differences in intercepts and slopes illustrate the importance of multilevel modeling for testing our hypotheses.

We follow a stepwise approach in building nested models to ensure that each more complex model adds substantial explanatory power. Table 2 summarizes the results of our analysis. Model 1 represents the null model and only includes the varying intercepts at the country level. The intraclass correlation coefficient (ICC) is 0.195, which means that about 19% of the variance at the individual level can be explained by country level differences. Model 2 includes all independent variables, while we add a random slope for democratic knowledge in Model 3, which allows us to take into account the differences in the relationship between citizens' democratic knowledge and their assessment of democratic performance. In the final Model 4, we also add the cross-level interaction between citizens' democratic knowledge and a country's level of democracy. All the following substantive interpretations refer to our final Model 4.

The first thing to note is that we do not find a general effect of democratic knowledge on citizens' evaluation of democracy. When we include the random effect for democratic knowledge in Model 3 and thus control for the different slopes of the effect between countries, the effect turns out to be not significant. In other words, we find no evidence that there is an effect of democratic knowledge on citizens' assessment of democratic performance that is independent of a country's

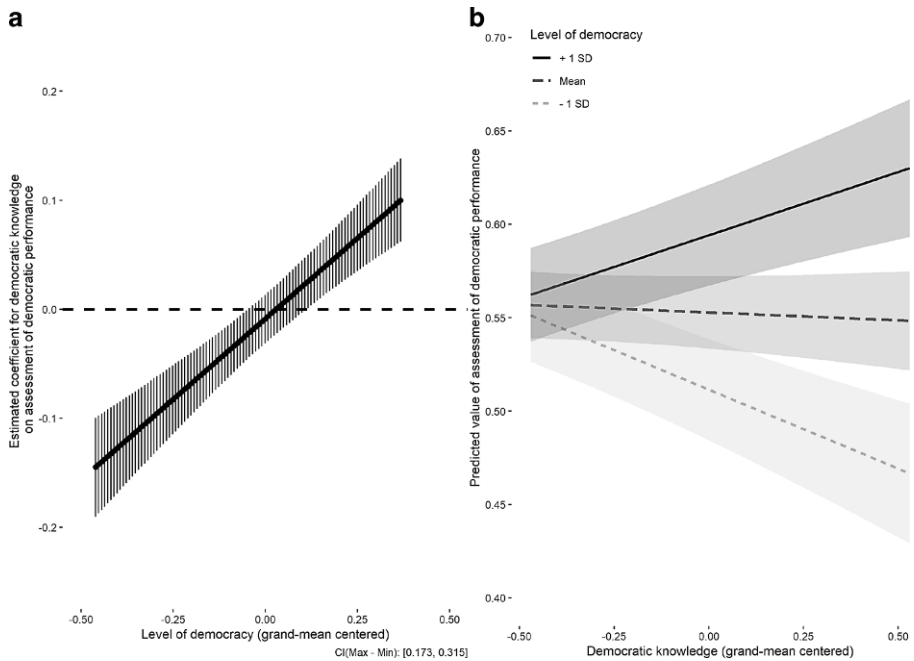


Fig. 2 Cross-Level Interaction between Level of Democracy and Democratic Knowledge. Notes: Left-hand figure (a) shows the estimated coefficients (marginal effects) of democratic knowledge on assessment of democratic performance dependent on different levels of democracy. Right-hand figure (b) shows the predicted values of assessment of democratic performance at different levels of democratic knowledge (x-axis) and levels of democracy (+1 standard deviation of the mean level of democracy; mean level of democracy; -1 standard deviation of the mean level of democracy). Coefficients are from Model 4 in Table 2 with 95% confidence intervals

level of democracy. However, we find a significant positive effect of the level of democracy. The higher the level of democracy of a country, the higher citizens evaluate its democratic performance. In terms of effect sizes, a citizen living in the most democratic country rates the democratic performance on average about 0.16 points higher than someone living in the most authoritarian country included in our data. Thus, citizens across the globe seem to be quite well aware of how democratic their country really is. Indeed, they seem to be able to judge the level of democracy in their country based on the freedoms and opportunities it provides, although there are significant differences in accuracy between citizens (Kruse et al 2019).

Our main argument is that these differences can be explained by citizens' democratic knowledge, which provides the individual yardstick for evaluating the functioning of democratic institutions in practice. According to this, citizens assess the democratic performance of their country based on their knowledge of democracy in relation to the perceived level of democracy. Consequently, citizens with a high democratic knowledge should be more likely to hold positive views about democracy in their country within a highly democratic context, whereas they should have a more negative view of the political institutions within an authoritarian context.

The significant positive coefficient of the cross-level interaction between citizens' democratic knowledge and their country's level of democracy confirms our hypotheses. Accordingly, a person with high democratic knowledge in the most democratic country in our data evaluates the democratic performance on average about 0.3 points higher than a person with high democratic knowledge in the most authoritarian country. We visualized the effects of the cross-level interaction in Fig. 2 to facilitate the interpretation. As the left-hand figure (2a) shows, the estimated effect of democratic knowledge becomes more positive the higher a country's level of democracy. Accordingly, citizens who are knowledgeable about democracy rate the democratic performance in their country more positively the higher the actual level of democracy (H1). While we find no significant effect of democratic knowledge around the mean level of democracy, the estimated coefficient of democratic knowledge becomes more negative the lower a country's level of democracy. Correspondingly, citizens with the cognitive abilities to distinguish between democratic and authoritarian regime principles evaluate the democratic performance of their country lower the more authoritarian it is (H2).

These results are further verified by the predicted values of the assessment of democratic performance shown in the right-hand figure (2b) of Fig. 2. For citizens living in countries with an above-average level of democracy, the assessment of democratic performance turns out to be higher with increasing democratic knowledge (H1). In contrast, citizens living in countries with a below-average level of democracy rate democracy in their country lower with increasing democratic knowledge (H2). As stated before, we find no significant effect of democratic knowledge for countries with an average level of democracy. Depending on the specific process of democratization or autocratization that these regimes are facing, it seems likely to find both positive and negative effects in this group of countries, resulting on average in a null effect.

Another important finding is that the level of democracy appears to make no difference at all for citizens who are less aware about democracy. Thus, we find that citizens with a lack of democratic knowledge evaluate democracy in their country regardless of the context in which they live. This raises an important question for further research, namely the criteria by which citizens who are less aware of democracy assess the democratic performance of their country. Furthermore, this study also shows that citizens who are knowledgeable about democracy are most cognitively able to assess the level of democracy in line with country-level measures of democracy (Pickel et al 2016). These results open up new theoretical and empirical perspectives for related research on support of and satisfaction with democracy as well as research on democratization.

5 Conclusion

We analyzed in this study how democratic knowledge and the level of democracy interact in influencing citizens' assessment of democratic performance. We started from the point that both citizens' belief in the legitimacy of democracy and their support for the political regime are crucial to the survival of a (democratic) politi-

cal system. Our main argument was that the cognitive ability of citizens to distinguish between democratic and authoritarian characteristics constitutes the individual yardstick for the assessment of democracy in practice and that this relationship is moderated by the institutional level of democracy.

Our results show that citizens' evaluation of democracy varies significantly depending on their democratic knowledge and their country's level of democracy. We find that the more authoritarian the regime, the more negative the evaluation of democratic performance by people who are more knowledgeable about democracy. In contrast, we find that the more democratic the regime, the more positive is the assessment of democracy by people with high democratic knowledge. These results show that citizens who are knowledgeable about democracy are most cognitively able to assess the level of democracy in line with country-level measures of democracy.

The results are less clear in regimes located between highly democratic and authoritarian regimes. For these countries, we find on average no significant effect of citizens' democratic knowledge on their evaluation of democracy. This is quite reasonable from an empirical perspective, given that this group includes both positive and negative effects, which on average results in a null effect. From a theoretical perspective, it seems likely that unstable or changing political conditions also lead to different effects of democratic knowledge on the evaluation of democracy among the population. Further research should address not only the question of what kind of understanding of democracy prevails among citizens in these regimes, but also the resulting political consequences.

Hence, our results provide some important theoretical and empirical implications for further research. First, they prepare the ground for further research on the legitimacy and stability of authoritarian regimes. Follow-up studies could examine the mechanisms between democratic knowledge and regime support within authoritarian regimes in more detail (e.g. Kirsch and Welzel 2019). Second, further studies could look more closely at cohort effects within countries. Older cohorts that were socialized under a more authoritarian regime can be expected to have different evaluations of political institutions than younger generations that grew up in a more democratic context. Third, the use of time series data can be used to study changes in the effect of democratic knowledge on regime support due to changes in the level of democracy. If the effect of democratic knowledge on regime support changes as a result of the democratization or autocratization of a country, this has far-reaching consequences for the mobilization of pro- and anti-democratic movements (Stark et al 2017; Stark 2019; Welzel and Klingemann 2008). This brings us to a fourth possible application for party competition and electoral behavior: If political parties can mobilize voters based on a certain conception of democracy, and if this is a sufficient reason for people to support these parties, this represents both a potential and a threat to democratization.

Following the topic of this special section on measuring meanings of democracy, further reflection is needed on how to measure citizens' attitudes towards democracy from a global comparative perspective. While we focus on the cognitive dimension of citizens' attitudes towards democracy, and thus a certain understanding of democracy, its theoretical and empirical relationship to specific preferences for democratic

procedures is still under-researched. While this requires a systematic review of the theoretical concepts and terms, taking into account available empirical items and scales (e.g. Shin and Kim 2018), it allows further advances and important insights for this field of comparative politics.

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Appendix

Table 3 Country Coverage and Sample Sizes

Country (year)	Respondents (<i>N</i>)	Country (year)	Respondents (<i>N</i>)
Albania (2018)	879	Algeria (2014)	459
Argentina (2013)	708	Argentina (2017)	672
Armenia (2011)	525	Armenia (2018)	1160
Australia (2012)	961	Australia (2018)	1523
Austria (2018)	1199	Azerbaijan (2011)	1001
Azerbaijan (2018)	889	Bangladesh (2018)	1176
Belarus (2011)	1416	Belarus (2018)	760
Bolivia (2017)	1583	Bosnia and Herzegovina (2019)	1178
Brazil (2014)	1011	Brazil (2018)	902
Bulgaria (2017)	868	Chile (2012)	542
Chile (2018)	572	Colombia (2012)	1073
Colombia (2018)	1498	Croatia (2017)	1034
Cyprus (2011)	776	Cyprus (2019)	254
Czech Republic (2017)	1010	Denmark (2017)	1544
Ecuador (2013)	1120	Ecuador (2018)	1042
Estonia (2011)	1082	Estonia (2018)	675
Ethiopia (2020)	556	Finland (2017)	940
France (2018)	1309	Georgia (2014)	688
Georgia (2018)	1254	Germany (2013)	1731
Germany (2018)	2967	Ghana (2012)	1552
Greece (2017)	884	Haiti (2016)	1596
Hong Kong (2014)	928	Hong Kong (2018)	1840

Table 3 (Continued)

Country (year)	Respondents (<i>N</i>)	Country (year)	Respondents (<i>N</i>)
Hungary (2018)	964	Iceland (2017)	1302
India (2012)	3353	Indonesia (2018)	2621
Iraq (2013)	888	Italy (2018)	1176
Japan (2010)	1012	Japan (2019)	675
Kazakhstan (2011)	1500	Kyrgyzstan (2011)	1401
Lebanon (2013)	757	Libya (2014)	1184
Lithuania (2018)	734	Malaysia (2012)	1299
Malaysia (2018)	1300	Mexico (2012)	1765
Mexico (2018)	1482	Montenegro (2019)	378
Morocco (2011)	177	Netherlands (2012)	1259
Netherlands (2017)	540	New Zealand (2011)	476
New Zealand (2020)	658	Nicaragua (2020)	870
Nigeria (2012)	1759	Nigeria (2018)	1100
North Macedonia (2019)	547	Norway (2018)	978
Pakistan (2012)	1124	Palestine (2013)	659
Peru (2012)	892	Peru (2018)	1050
Philippines (2012)	1185	Philippines (2019)	1199
Poland (2012)	639	Poland (2017)	778
Romania (2012)	955	Romania (2018)	1386
Russia (2011)	1129	Russia (2017)	1887
Rwanda (2012)	1527	Serbia (2018)	1511
Slovakia (2017)	793	Slovenia (2011)	613
Slovenia (2017)	678	South Africa (2013)	2839
South Korea (2010)	1147	South Korea (2018)	1245
Spain (2011)	821	Spain (2017)	647
Sweden (2011)	991	Sweden (2017)	1016
Switzerland (2017)	2705	Taiwan (2012)	1012
Taiwan (2019)	1219	Tajikistan (2020)	1189
Thailand (2013)	1088	Thailand (2018)	994
Trinidad and Tobago (2010)	451	Tunisia (2013)	583
Tunisia (2019)	950	Turkey (2012)	1374
Ukraine (2011)	1500	United Kingdom (2018)	1372
United States (2011)	1988	United States (2017)	2047
Uruguay (2011)	664	Yemen (2014)	198
Zimbabwe (2012)	1500	Zimbabwe (2020)	1090

Notes: Table shows the number of respondents in each country sample after excluding observations with missing values for the variables of interest.

Table 4 Variables, Question Wording and Original Coding

Variables			Question wording	Original coding
WVS7	WVS6	EVS		
Q251	V141	v143	How democratically is this country being governed today?	Ten-point scale: 1 (Not at all democratic) – 10 (Completely democratic)
Q242	V132	v134	Religious authorities ultimately interpret the laws	Ten-point scale: 1 (Not an essential characteristic of democracy) – 10 (An essential characteristic of democracy)
Q243	V133	v135	People choose their leaders in free elections	
Q245	V135	v137	The army takes over when government is incompetent	
Q246	V136	v138	Civil rights protect people from state oppression	
Q248	V138	v140	People obey their rulers	
Q249	V139	v141	Women have the same rights as men	
Q49	V23	v39	How satisfied are you with your life as a whole these days?	Ten-point scale: 1 (Completely dissatisfied) – 10 (Completely satisfied)
Q240	V95	v102	In political matters, people talk of “the left” and “the right.” How would you place your views on this scale, generally speaking?	Ten-point scale: 1 (Left) – 10 (Right)
Q199	V84	v97	How interested would you say you are in politics?	Four-point scale: 1 (Very interested) – 4 (Not at all interested)
Q275	V248	v243	Highest educational level	Nine-point scale: 1 (No formal education) – 9 (University-level education, with degree)
Q288	V239	v261	Household income	Ten-point scale: 1 (Lowest group) – 10 (Highest group)
Q260	V240	v225	Gender	1 (Male); 2 (Female)
Q262	V242	v226	Age	16 – 103

Notes: WVS7 World Values Survey Wave 7, WVS6 World Values Survey Wave 6, EVS European Values Study 2017. All variables are normalized for the analyses within a range from 0 to 1.0. The variable concerning political interest is inverted from low to high political interest.

Table 5 Descriptive Statistics

Variable	N	Mean	SD	Median	Minimum	Maximum
<i>Individual level</i>						
Assessment of democratic performance	128,127	0.57	0.28	0.67	0.00	1.00
Democratic knowledge	128,127	0.47	0.27	0.43	0.00	1.00
Life satisfaction	128,127	0.68	0.24	0.67	0.00	1.00
Left-right scale	128,127	0.51	0.26	0.44	0.00	1.00
Political interest	128,127	0.48	0.32	0.33	0.00	1.00
Education	128,127	0.53	0.28	0.50	0.00	1.00
Income	128,127	0.44	0.25	0.44	0.00	1.00
Gender (female)	128,127	0.51	0.50	1.00	0.00	1.00
Age	128,127	0.32	0.20	0.30	0.00	1.00
<i>Country level</i>						
Level of democracy	114	0.52	0.26	0.54	0.06	0.89

Notes: N Number of respondents, SD Standard deviation.

Table 6 Robustness check using an additive index of democratic knowledge

Variables	Model 1	Model 2	Model 3	Model 4
<i>Individual level</i>				
(Intercept)	0.56*** (0.01)	0.36*** (0.01)	0.36*** (0.01)	0.36*** (0.01)
Democratic knowledge (additive index)		0.01* (0.00)	0.02 (0.02)	0.02 (0.02)
Life satisfaction		0.14*** (0.00)	0.14*** (0.00)	0.14*** (0.00)
Left-right scale		0.10*** (0.00)	0.10*** (0.00)	0.10*** (0.00)
Political interest		0.04*** (0.00)	0.04*** (0.00)	0.04*** (0.00)
Education		-0.02*** (0.00)	-0.02*** (0.00)	-0.02*** (0.00)
Income		0.06*** (0.00)	0.06*** (0.00)	0.06*** (0.00)
Gender (female)		0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
Age		0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)
<i>Country level</i>				
Level of democracy		0.18*** (0.04)	0.03 (0.03)	0.15*** (0.04)
<i>Cross-level interaction</i>				
Level of democracy X Democratic knowledge (additive index)				0.42*** (0.07)
AIC	22857.55	17966.18	16376.31	16349.80
BIC	22886.83	18083.31	16512.96	16496.21
Log Likelihood	-11425.78	-8971.09	-8174.15	-8159.90
Observations	128,127	128,127	128,127	128,127
Groups (country-year)	114	114	114	114
<i>Random effects</i>				
Var: Intercept (country-year)	0.02	0.01	0.01	0.01
Var: Residual	0.06	0.06	0.06	0.06
Var: Democratic knowledge (additive index)			0.04	0.03

Notes: Results are unstandardized regression coefficients of restricted maximum likelihood (REML) multilevel regression models with standard errors in parentheses using the *lme4* package in *R*. All models include random intercepts (country-year). Models 3 and 4 include random slopes for democratic knowledge. Variables for level of democracy and democratic knowledge are grand-mean centered. Intraclass correlation coefficient (ICC) for the null model (Model 1) is 0.195. Samples are weighted according to known population distributions.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Table 7 Robustness check using five-year arithmetic mean of level of democracy

Variables	Model 1	Model 2	Model 3	Model 4
<i>Individual level</i>				
(Intercept)	0.56*** (0.01)	0.36*** (0.01)	0.36*** (0.01)	0.36*** (0.01)
Democratic knowledge		-0.01** (0.00)	-0.01 (0.01)	-0.01 (0.01)
Life satisfaction		0.14*** (0.00)	0.14*** (0.00)	0.14*** (0.00)
Left-right scale		0.10*** (0.00)	0.10*** (0.00)	0.10*** (0.00)
Political interest		0.04*** (0.00)	0.04*** (0.00)	0.04*** (0.00)
Education		-0.01*** (0.00)	-0.02*** (0.00)	-0.02*** (0.00)
Income		0.06*** (0.00)	0.06*** (0.00)	0.06*** (0.00)
Gender (female)		0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
Age		0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)
<i>Country level</i>				
Level of democracy (five-year arithmetic mean)		0.18*** (0.04)	0.07 (0.03)	0.16*** (0.04)
<i>Cross-level interaction</i>				
Level of democracy (five-year arithmetic mean) X				0.27***
Democratic knowledge				(0.04)
AIC	22857.55	17964.42	16441.92	16415.60
BIC	22886.83	18081.55	16578.57	16562.02
Log Likelihood	-11425.78	-8970.21	-8206.96	-8192.80
Observations	128,127	128,127	128,127	128,127
Groups (country-year)	114	114	114	114
<i>Random effects</i>				
Var: Intercept (country-year)	0.02	0.01	0.01	0.01
Var: Residual	0.06	0.06	0.06	0.06
Var: Democratic knowledge			0.02	0.01

Notes: Results are unstandardized regression coefficients of restricted maximum likelihood (REML) multilevel regression models with standard errors in parentheses using the *lme4* package in *R*. All models include random intercepts (country-year). Models 3 and 4 include random slopes for democratic knowledge. Variables for level of democracy and democratic knowledge are grand-mean centered. Intraclass correlation coefficient (ICC) for the null model (Model 1) is 0.195. Samples are weighted according to known population distributions.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Table 8 Robustness check using an additive index of democratic knowledge and five-year arithmetic mean of level of democracy

Variables	Model 1	Model 2	Model 3	Model 4
<i>Individual level</i>				
(Intercept)	0.56*** (0.01)	0.36*** (0.01)	0.36*** (0.01)	0.36*** (0.01)
Democratic knowledge (additive index)		0.01* (0.00)	0.02 (0.02)	0.02 (0.02)
Life satisfaction		0.14*** (0.00)	0.14*** (0.00)	0.14*** (0.00)
Left-right scale		0.10*** (0.00)	0.10*** (0.00)	0.10*** (0.00)
Political interest		0.04*** (0.00)	0.04*** (0.00)	0.04*** (0.00)
Education		-0.02*** (0.00)	-0.02*** (0.00)	-0.02*** (0.00)
Income		0.06*** (0.00)	0.06*** (0.00)	0.06*** (0.00)
Gender (female)		0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
Age		0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)
<i>Country level</i>				
Level of democracy (five-year arithmetic mean)		0.17*** (0.04)	0.04 (0.03)	0.15*** (0.04)
<i>Cross-level interaction</i>				
Level of democracy (five-year arithmetic mean) X Democratic knowledge (additive index)				0.38*** (0.07)
AIC	22857.55	17966.42	16375.75	16354.08
BIC	22886.83	18083.55	16512.40	16500.49
Log Likelihood	-11425.78	-8971.21	-8173.87	-8162.04
Observations	128,127	128,127	128,127	128,127
Groups (country-year)	114	114	114	114
<i>Random effects</i>				
Var: Intercept (country-year)	0.02	0.01	0.01	0.01
Var: Residual	0.06	0.06	0.06	0.06
Var: Democratic knowledge (additive index)			0.04	0.03

Notes: Results are unstandardized regression coefficients of restricted maximum likelihood (REML) multilevel regression models with standard errors in parentheses using the *lme4* package in *R*. All models include random intercepts (country-year). Models 3 and 4 include random slopes for democratic knowledge. Variables for level of democracy and democratic knowledge are grand-mean centered. Intraclass correlation coefficient (ICC) for the null model (Model 1) is 0.195. Samples are weighted according to known population distributions.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

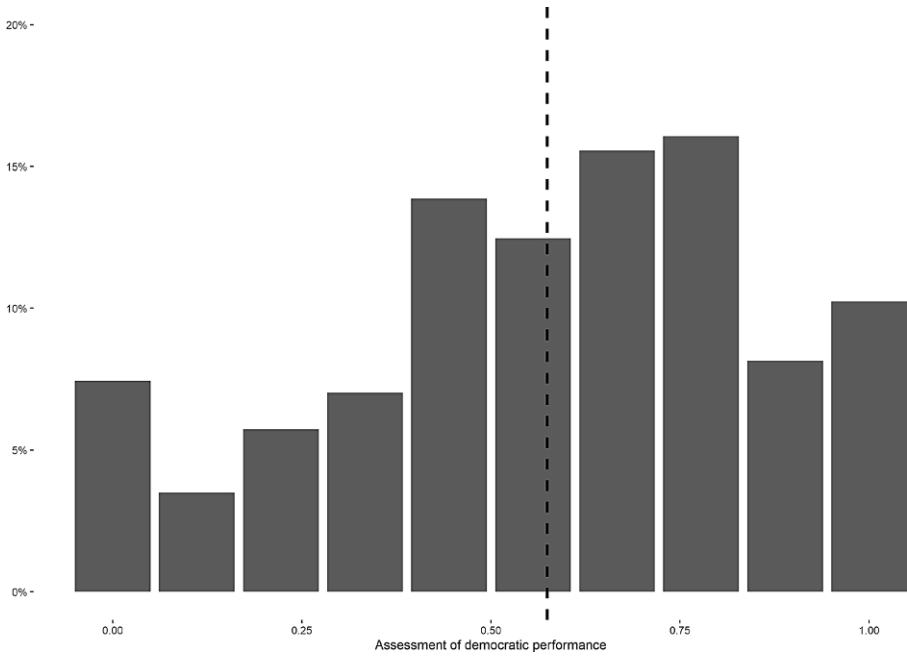


Fig. 3 Distribution of Assessment of Democratic Performance. Notes: *Black dashed line* shows the mean value of assessment of democratic performance

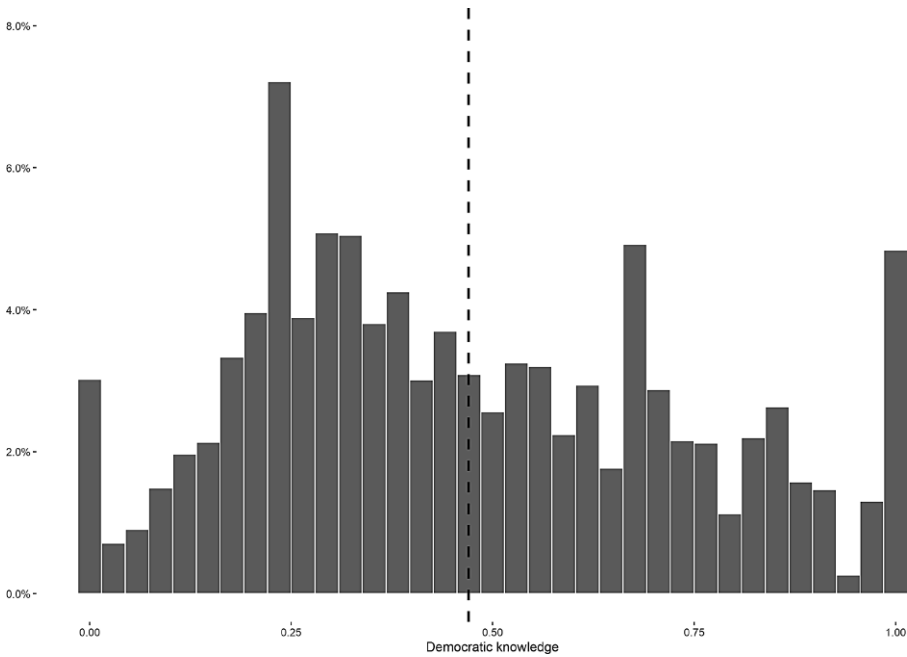


Fig. 4 Distribution of Democratic Knowledge. Notes: *Black dashed line* shows the mean value of democratic knowledge

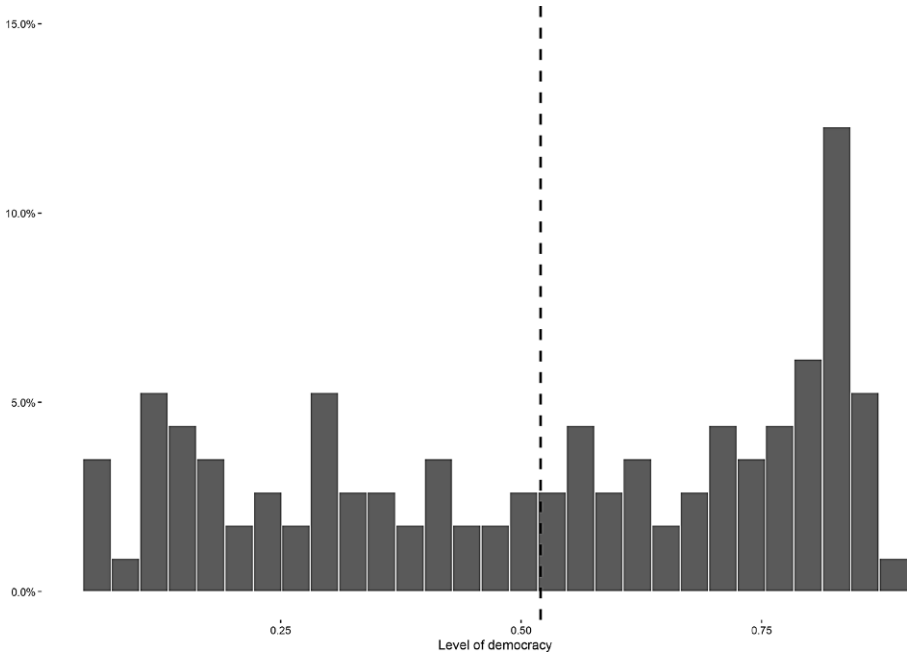


Fig. 5 Distribution of Level of Democracy. Notes: *Black dashed line* shows the mean value of level of democracy

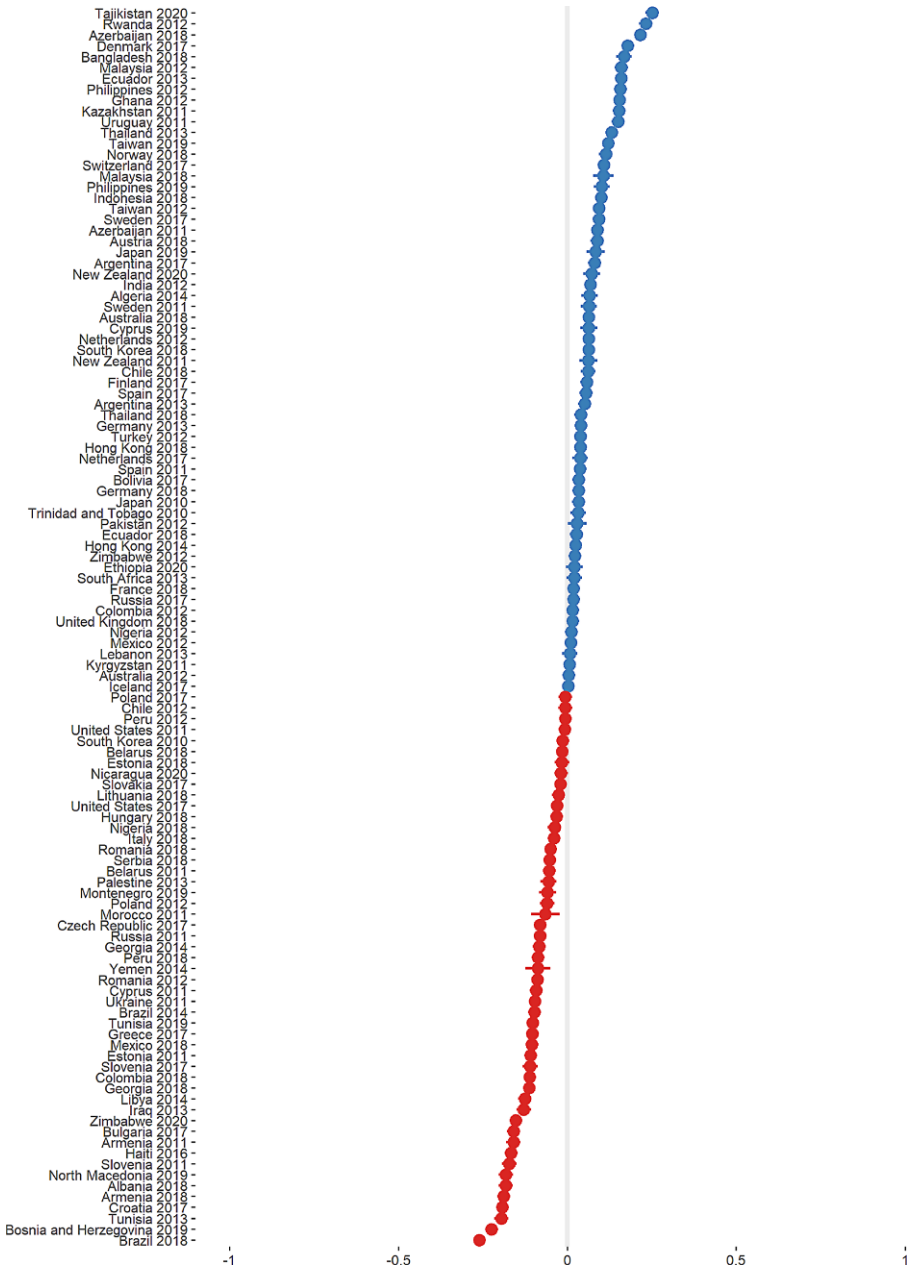


Fig. 6 Random Effects of the Intercept. Notes: Coefficients are from Model 4 in Table 2 with 95% confidence intervals. If the point estimate or the 95% confidence intervals cross the horizontal line drawn at 0, the estimated coefficient is not significant. Blue points indicate a positive and red points a negative effect

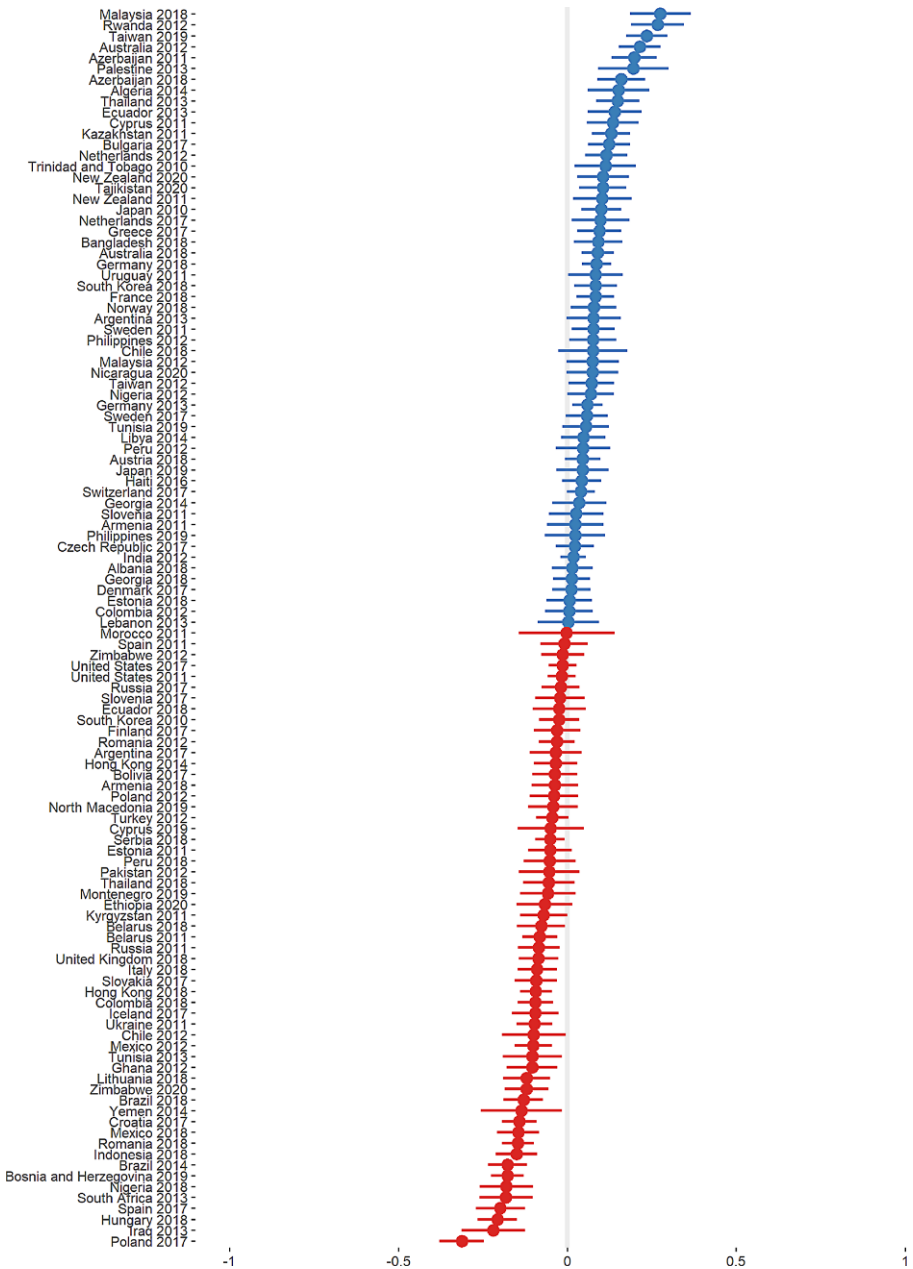


Fig. 7 Random Effects of Democratic Knowledge. Notes: Coefficients are from Model 4 in Table 2 with 95% confidence intervals. If the point estimate or the 95% confidence intervals cross the horizontal line drawn at 0, the estimated coefficient is not significant. Blue points indicate a positive and red points a negative effect

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