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# (Successful) Democracies Breed Their Own Support

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Using large-scale survey data covering more than 110 countries and exploiting within-country variation across cohorts and surveys, we show that individuals with longer exposure to democracy display stronger support for democratic institutions, and that this effect is almost entirely driven by exposure to democracies with successful performance in terms of economic growth, control of corruption, peace and political stability, and public goods provision. Across a variety of specifications, estimation methods, and samples, the results are robust, and the timing and nature of the effects are consistent with our interpretation. We also present suggestive evidence that democratic institutions that receive support from their citizens perform better in the face of negative shocks.

Key words: Democracy, Economic growth, Institutions, Support for democracy, Values

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#### 1. INTRODUCTION

"Our nation stands for democracy and proper drains." John Betjeman (Poet Laureate of the UK, 1972–1984).

With many voters expressing dissatisfaction with the democratic system, misinformation and extremism spreading rapidly, and authoritarian-leaning populist parties on the rise in many Western countries, concerns about the future viability of democracy have multiplied. Repucci and Slipowitz (2021) report that there have now been 15 consecutive years during which democracy

has been in retreat globally. Against the backdrop of a possible twilight of democratic institutions around the world, a critical factor that may shape the future of democracy is the support from those who have lived under democratic institutions.<sup>1</sup>

The idea that democracy needs to be defended if it is to survive goes back at least to ancient Athens (Ober, 2015). In more recent times, when asked whether the newly-formed United States was a republic or a monarchy, Benjamin Franklin's reportedly quipped: "A Republic, if you can keep it" (Anishanslin, 2019). Naturally, if citizens have a good experience with democracy, they should be more willing to support it. This was one of the main arguments for President Franklin D. Roosevelt's New Deal program. In his 14 April 1938 fireside chat, he argued:

In recommending this program I am thinking not only of the immediate economic needs of the people of the Nation, but also of their personal liberties—the most precious possession of all Americans. I am thinking of our democracy and of the recent trend in other parts of the world away from the democratic ideal.

Democracy has disappeared in several other great nations—not because the people of those nations disliked democracy, but because they had grown tired of unemployment and insecurity, of seeing their children hungry while they sat helpless in the face of government confusion and government weakness through lack of leadership in government (Peters and Woolley, 2022).

President Joe Biden returned to the same theme in 2021, motivating his infrastructure and fiscal plans with the argument that "we have to prove democracy still works—that our government still works and we can deliver for our people," and adding that in the first 100 days of his administration "we have acted to restore the people's faith in our democracy to deliver" (Biden, 2021).

Despite their long pedigree, these ideas have not been systematically investigated. To the best of our knowledge, little is known about whether there is indeed more public support for democratic institutions when they are more successful. In this paper, we show that those who live under democracy tend to support democracy and oppose authoritarian and army rule. We then document that these effects are driven almost entirely by those who have personal experience of "successful performance" of democratic institutions in terms of GDP growth, control of corruption, peace and political stability, public expenditure, and inequality. In contrast, we do not find much evidence that exposure to successful nondemocracies boosts support for nondemocratic regimes.<sup>2</sup>

Our empirical strategy leverages variation across age groups, countries, and surveys controlling for a host of fixed effects—by country, age, cohort, year of interview, and survey wave. Put simply, we look at whether age groups that have been exposed to longer (successful) democratic spells express greater support for democracy relative to other age groups in the same country, the same age groups in other countries, and themselves in earlier or later surveys. This strategy exploits differences in the timing of democratization and democratic reversals in

<sup>1.</sup> On misinformation and extremism, see among others (Sunstein, 2018; Castillo *et al.*, 2019; Marantz, 2020). On populism, see Judis (2016), Müller (2017), Edwards (2019), and Guriev and Papaioannou (2020). On the future viability of democracy, see Applebaum (2020), Levitsky and Ziblatt (2018), Snyder (2017), and Stanley (2018), as well as Deneen (2019) and Mishra (2017), who argue that the (liberal) democratic project has been a failure. On the importance of support for democracy, see Easton (1965), Booth and Seligson (2009), and Norris (2011), and for a general discussion of democratic survival, see Acemoglu and Robinson (2019) and Iversen and Soskice (2019).

Throughout the paper, we use the terms autocracy and nondemocracy interchangeably. Our main index of support for democracy is relative to support for autocracy, and thus a decline in support for democracy can be interpreted as an increase in support for autocracy.

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combination with variation in economic and social outcomes under democracy, which generate within-country variation in the exposure of different individuals to democracy and successful democratic performance.

Though our empirical strategy zeroes in on an attractive source of within-country variation in democratic exposure, it does not dispel all endogeneity and reverse causality concerns. We deal with these concerns in four complementary ways. First, we document that a country's overall or successful democratic experience before an individual is born has no significant impact on their support for democracy or views about autocracy. Second, we show that exposure to democracy or successful democracy has no significant impact on a number of non-political attitudinal questions related to family and neighbours. These two exercises alleviate concerns about our results being driven by general social changes that affect both democratization and political views. Third, we also estimate similar effects with an instrumental variables (IV) strategy exploiting exposure to regional democratization waves (as in Acemoglu *et al.*, 2019, but adapted to focus on individual exposure). Finally, we document analogous results in a sample of immigrants whose democratic exposure is a function of the history of democratic institutions in their country of origin and the age at which they migrate.

Our estimates are broadly similar across multiple measures of support for democracy. They are also fairly robust with different measures of democracy, in datasets covering different continents and different survey questions, and across a variety of additional specification checks.

The effects we estimate are not just statistically significant and stable, but quantitatively meaningful as well. In terms of exposure to overall democracy, our baseline estimates imply that 10 additional years of exposure to democracy increases support for democracy by about 4% of its standard deviation—more than one-fourth of the difference in support for democracy between Hong Kong and mainland China, or between the U.S. and Argentina.

The results for exposure to democracy are almost entirely explained by exposure to successful democracy. The effects of exposure to successful democracy are similar, and if anything larger, to those for exposure to democracy: 10 more years of exposure to economically successful democracy increases support for democratic institutions by between 4% and 8% of its standard deviation. Meanwhile, exposure to unsuccessful democracy does not significantly increase support for democratic institutions. Overall, our results show robust evidence that citizens who have experienced successful operation of democratic institutions tend to support democracy—a pattern that we do not find for autocracies.

Conceptually, we interpret these results as working through a "generalized learning" channel—learning dynamics where individuals update positively following good outcomes but do not necessarily satisfy Bayesian restrictions. Individuals who experience successful functioning of democratic institutions become more supportive of democracy, because they develop a more favourable outlook of what democracy can deliver. The effects we estimate are not confined to a particular age group (such as those in their impressionable years) and do not strongly depend on the history of democracy or individual experiences. Moreover, we do not find analogous effects from exposure to unsuccessful democracies and from successful or unsuccessful autocracies. This configuration of results suggests that support for democracy is not a fixed cultural attribute that is acquired at a critical point and persists throughout one's life. Nor do these patterns support a strictly Bayesian interpretation, since responsiveness to additional successful performance does not slow down after more evidence of democratic success accumulates, and there is no effect from unsuccessful performance.

In the last section of the paper, we complement our main results with evidence that support for democracy matters for the functioning of democratic institutions. We use a strategy adapted from Nunn *et al.* (2018), though focusing on support for democracy instead of the trust measures in their work. We show that greater support for democracy makes political instability and coups

less likely and economic growth more robust in the face of negative economic shocks. Although these results should be interpreted as suggestive correlations, we find no similar relationship between support for democracy and economic and political outcomes in nondemocratic regimes. Nor do we find any evidence of pre-trends. These results bolster our interpretation that survey responses on support for democracy are relevant for the public's active support for democracy.

Our paper is related to several literatures. First, there is by now a sizable literature on democratic consolidation and coups against democracy. Early theoretical work in this area is summarized in Acemoglu and Robinson (2006). Acemoglu and Robinson (2008), Fearon (2011), Bidner and François (2013), and Svolik (2013) develop models in which collective action by citizens is critical for the defense of democracy, while Maeda (2010), Svolik (2015) and Bermeo (2016) provide related empirical evidence. Some of the more recent work in this area focuses on the emergence of electoral authoritarianism and hybrid regimes because of democratic failures (*e.g.* Schedler, 2006; Gandhi, 2008; Geddes *et al.*, 2018). We contribute to this literature by highlighting the importance of exposure to successful democracy for the population's support for democratic institutions.

A long-running empirical debate focuses on whether high-education and high-income countries are insulated from coups and democratic collapse. The modernization literature, spearheaded by Lipset (1959), emphasized the link between economic modernization and democracy, and subsequent work, especially (Przeworski et al., 2000), argued that high-income countries do not suffer coups. Yet these claims have not withstood the test of time and evidence. The recent literature, cited in footnote 1, starts from the premise that democracies in advanced nations are vulnerable as well, and Acemoglu et al. (2008, 2009) documented that the oft-claimed relationship between country income per capita and democracy (or income and lack of coups) is due to a failure to control for country heterogeneity. Indeed, including fixed effects or other types of country-level controls removes any relationship between the level of income per capita or education and democracy (or its survival). The literature on populism and other anti-democratic movements in industrialized nations also embraces the perspective that these countries' democracies can be fragile, despite their very high levels of income (see, e.g. Funke et al., 2016, 2020; Guriev and Papaioannou, 2020). Relevant to these debates, we provide novel evidence pointing to support for democracy emanating not from income or education, but rather from experience under democratic institutions that deliver in terms of economic growth, peace and political stability, control of corruption, and public goods provision.

The general themes explored in this paper are also related to the determinants of civic culture. A common perspective in the literature emphasizes the importance of civic culture in the emergence and functioning of democracy (*e.g.* Almond and Verba, 1963; Putnam, 1993). In contrast, an argument going back to at least (Inglehart and Welzel, 2005) hypothesizes that democratic institutions impact civic culture as well, and several empirical works have found an association between democratic experiences and prosocial preferences (Bardhan, 2000; Grosjean and Senik, 2011; Rustagi, 2018). We contribute to this literature by providing systematic evidence on the importance of exposure to democracy on one important aspect of political attitudes—support for democracy. Several scholars, including Easton (1965), Lipset (1959), William and Rose (1999), Booth and Seligson (2009), and Norris (2011), have emphasized the role of people's attitudes toward and support for democracy in the survival of democratic regimes. Although the earlier literature did not find a clear relationship between self-reported support and political behaviour (*e.g.* Welzel, 2007), there is some recent work estimating such a link (see, *e.g.* Claassen, 2020a). Our last set of results on the role of support for democracy in the face of negative shocks adds to this emerging literature.

Most importantly, we build on a number of prior works exploring the relationship between democratic experience and support for democracy. This idea is related to Persson and Tabellini's

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(2009) notion of "democratic capital," which they proxy with the number of years a country spends as a democracy. They report cross-country positive correlations between this measure and democratic consolidation. Recent papers by Fuchs-Schündeln and Schündeln (2015), Brum (2018) and Besley and Persson (2019) are even more closely connected as they go beyond cross-country analysis and explore the cross-cohort relationship between exposure to democracy and political preferences. Our main contribution relative to this literature is to focus on the effects of exposure to successful democracies and establish that this accounts for almost the entire association between exposure to democracy and support for democracy. In addition, our empirical strategy is different from previous work, as we exploit more fine-grained variation by including a series of interacted fixed effects, and bolster our interpretation with an extensive set of placebo exercises.

Another paper exploring similar themes is Buera et al. (2011), who develop a Bayesian framework in which a representative agent within each country learns from her own experience as well as the experiences of neighbouring countries about whether an open or closed economy is better for economic growth. A similar framework applied to democracy would imply that a more successful democratic experience increases support for democracy—one of our main results. We are not aware of other works that develop this perspective in the context of democracy (though Brender and Drazen, 2009, provide a related model). We do not impose an explicit Bayesian framework for the reasons explained above—our finding of fairly constant effects throughout an individual's life and lack of responsiveness to negative signals are not straightforward to reconcile with Bayesian updating.

The rest of the paper is organized as follows. The next section describes our main data sources. Section 3 details the construction of our Exposure to democracy variable and outlines the empirical strategy. Section 4 presents our main results on the relationship between exposure to democracy or exposure to successful democracy, on the one hand, and various measures of support for democracy, on the other. Section 5 documents the robustness of these estimates to a battery of tests and provides several placebo exercises and additional results. Section 6 explores the implications of support for democracy for economic and political outcomes under democratic institutions. Section 7 concludes, while the Supplementary Material, Appendix contains several additional robustness checks and estimates.

## 2. DATA

This section describes our main data sources and the construction of our measures of democracy.

#### 2.1. Survey data on democratic values

Our analysis uses individual survey data from eleven waves of the Integrated Value Surveys (IVS), which harmonizes the European Values Study and the World Value Survey. The resulting data set provides nationally representative surveys from 110 countries, covering around 560,000 respondents between 1981 and 2018. Interviews are conducted in the local languages and questions are designed to assess respondents' attitudes on a range of issues, including views about democracy and social and economic attitudes.

In our main analysis, we focus on five measures of support for democracy that are present in multiple waves of the IVS.3 The first is the level of agreement of the respondent with the

<sup>3.</sup> Although there are a few more outcomes measuring support for democracy, these are asked in less than four of the eleven waves of the IVS. Since part of the identifying variation we use in our regressions comes from changes

statement "Democracy may have problems but it's better than any other form of government." The other four questions are based on the individual's assessment of how well various types of political systems work. These are: "Having a democratic political system"; "Having a strong leader who does not have to bother with parliament and elections"; "Having the army rule"; and "Having experts, not government, make decisions according to what they think is best for the country." We adjust the response values to have higher values indicating higher support for democracy and refer to these questions as *Democracy is Better*, *Democratic System*, *Opposes Strong Leader*, *Opposes Army Rule*, and *Government above Experts*, respectively (see Supplementary Material, Appendix Table A-1). We combine the latter four measures into an index, which we refer to as *Support for Democracy Index*. We also explore people's views on how successful democracies are in economic management using information from respondents' disagreement with the statement "In democracy, the economic system runs badly." We refer to this measure as *Perceived Economic Success of Democracy* (with higher values expressing stronger disagreement).

We additionally use information on a range of respondents' personal characteristics, including country of birth, country of residence, year of birth, year of interview, and year of migration to construct individual exposure to democracy. We also use information on gender, language, and size of town as controls.

Finally, we confirm our results using complementary measures from Asianbarometer, the Latin American Public Opinion Project (LAPOP) and the Latinobarometer. The Asianbarometer covers 14 Asian countries and 70,693 individuals surveyed between 2000 and 2016. LAPOP covers 33 countries from Latin America and 305,838 respondents between 2004 and 2019, and the Latinobarometer covers 19 countries from the same region and 407,945 respondents from 1995 to 2017.

# 2.2. Data on democracy

It is a priori unclear whether the intensive or the extensive margin of democracy, or both, matter in shaping support for democracy. For this reason, we present two complementary measures of exposure to democracy, one constructed from a dichotomous index of democracy, thus focusing on the extensive margin, and the other based on a continuous measure of democracy, so that we are exploiting both intensive and extensive margin variation. In an effort to reduce measurement error, our dichotomous variable combines information from several datasets, including Cheibub et al. (2010), Boix et al. (2018), and Acemoglu et al. (2019), Freedom House, and Polity IV. We construct an unbalanced panel comprising 203 polities (including all countries with data on the IVS) with information from 1800 to 2019, though the earliest data we use in this paper is from 1891. In Supplementary Material, Appendix A.1, we explain in more detail the construction of this measure.

Our continuous index of democracy comes from the Varieties of Democracy (V-DEM) dataset, a recent project that has constructed consistent and high-quality measures of the extent

within the same age group across different points in time, having sufficiently many waves is important for our empirical strategy. All of the outcome questions we focus on in the IVS were introduced in 1994 or later.

<sup>4.</sup> The last question is useful because it contrasts non-elected *technocracy* to democratically-elected governments. This type of "rule by experts" was used in the past as a justification for dictatorships (*e.g.* in Chile under Pinochet; see Silva, 2009).

<sup>5.</sup> We do not include the first measure in this index since it is available for a smaller sample.

<sup>6.</sup> Recall that we are using information about democracy from the time a respondent was six years old. For 96% of the individuals in our sample, we only need information on political institutions from 1930. Our results are very similar if we exclude the remaining 4% of the sample.

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of democracy for 178 countries from 1789 to 2019. V-DEM collects information on a wide range of characteristics (around 400 indicators), including factual information directly coded from official documents, such as constitutions and government records, and more subjective assessments on topics like political practices and compliance with de jure rules coded from multiple experts.<sup>7</sup>

These indicators are used as input for building five indices, each ranging between zero and one, and identifying a distinct dimension of democracy: electoral, liberal, participatory, deliberative, and egalitarian. We construct our continuous measure of democracy by averaging these five components.

These dichotomous and continuous measures have independent and relevant information on the evolution of democracy around the world. For example, the United States is coded as a democratic country throughout the 20th century according to our dichotomous measure. However, as we show in Supplementary Material, Appendix Figure A-1, V-DEM captures more fine-grained information about US institutions; its democracy score increases from 59% in 1900 to 84% in 2000. A significant part of this increase (about 12.4 percentage points) takes place during the late 1960s in conjunction with the 24th Amendment and the 1965 Voting Rights Act, which removed barriers to the electoral participation of Black Americans in the South. The same figure also illustrates granular information on the V-DEM scores of the United Kingdom, Spain, and Argentina.

## 2.3. Data on successful performance

We homogenized the available information from several sources to construct a panel dataset of different measures of performance, spanning the lifetime of our survey participants. Our measure of real GDP growth relies on information from the Maddison Project (Bolt and Van Zanden, 2020), the Penn World Tables (Feenstra et al., 2015) and the World Bank national accounts data. This measure is available for 188 countries and 18,760 country-year pairs.<sup>9</sup>

- 7. V-DEM was released in 2014 for 68 countries, and it has gradually expanded to 202 polities (version 10). Despite its recent release, the dataset has been widely used in political science research (Dahlum et al., 2019; Singh, 2019; Claassen, 2020a, 2020b; Lührmann et al., 2020). For more information on variable construction, see Coppedge et al. (2020). For a more detailed comparison of V-DEM with other democracy indices (including the ones used for our dichotomous measure) in terms of definition, sources, coverage, and reliability, see Coppedge et al. (2017).
- 8. The electoral component incorporates measures of whether leaders are appointed through popular elections, the share of population with suffrage, the absence of electoral irregularities (registration fraud, electoral violence, vote buying), and the extent to which parties (including the opposition), press, and civil organizations are able to form and operate freely. The liberal principle comprises measures of the capability of government agencies (e.g. comptroller general, general prosecutor, judiciary) to exercise oversight over the executive and act independently, the extent of the executive's respect for the laws, citizen access to justice, secure property rights, freedom of religion, freedom from forced labour, freedom of movement, physical integrity rights, and the number of chambers of the legislature. The participatory principle measures the involvement of civil society organizations, the decentralization of candidate selection and discrimination against women in parties, the extent to which direct popular vote is utilized (e.g. referendums, plebiscites), whether there exist elected local and regional governments, and their degree of autonomy from unelected officials. The deliberative component combines information on how open public deliberations for important policy changes are, whether the elite justify their policy positions publicly and whether they do so in terms of the common good, and whether they acknowledge and respect counterarguments. The egalitarian principle measures the percentage of the population living in areas where government officials' respect for civil liberties is significantly weaker, whether some social groups are in favourable positions in terms of such liberties or political power, and how universal mean-tested programs, education, healthcare, and infrastructural spending are in the national budget.
- 9. When information in Maddison is not available, we impute growth rates from the other sources following a similar procedure to the dichotomous measure of democracy discussed in Supplementary Material, Appendix A.1. Our results are robust to excluding imputed observations and to using Penn World Tables as our primary measure.

Our corruption index is from V-DEM and is coded from the answer to the question: "How pervasive is political corruption." This variable, which ranges from 0 to 1, is available for 177 countries from 1789 to 2021 and covers 28,024 country-year pairs.

For peace and political stability, we use data on conflict from the UCDP/PRIO Armed Conflict Dataset (Harbom *et al.*, 2008), and proxy for this variable using the number of internal conflicts producing at least 25 battle-related deaths in a given country-year with one party in the conflict being the government. This variable is available since 1946 and for 168 countries (12,264 country-year pairs), and indicates that there is conflict in 13% of our sample observations.

Our measure of government expenditure relative to GDP combines information from the IMF Fiscal Affairs Departamental Data and the UNESCO Institute for Statistics. This variable is available for 170 countries, but only for a limited number of countries before 1980, giving us a total of 5,514 country-year pairs.

Finally, we consider two measures of inequality based on data from the World Inequality Database: the shares of income of the richest 1% and 10% of the population. These measures of inequality are available for 184 countries (9,377 country-year pairs), although with relatively narrow coverage before 1980. These data rely on extensive imputations and the dataset itself warns that they are imperfect, motivating us to relegate results using these data to the Supplementary Material, Appendix.

In Supplementary Material, Appendix Figure A-2, we depict the evolution and the extent of variation in several key variables—specifically, democracy scores, our measure of successful democracy in terms of GDP growth, and our main index of support for democracy.

#### 3. EXPOSURE TO DEMOCRACY AND EMPIRICAL STRATEGY

We now describe the construction of our Exposure to democracy and Exposure to successful democracy variables, and introduce our main empirical strategies.

We define Exposure to democracy for an individual of age a in country c observed in (interview) year s as:

Exposure to democracy<sub>c,s,a</sub> = 
$$\sum_{t=s-a+k}^{s} D_{c,t}$$
, (1)

where  $D_{ct}$  is either our dichotomous or continuous measure of democracy for country c in year t. The summation is over the lifetime of an individual of age a starting when they were k years old, all the way to the present year, s. This measure therefore represents an individual's time under democracy; in our baseline, we set k = 6 so that democratic exposure starts being measured from around the time an individual begins schooling. <sup>10</sup>

Our empirical strategy exploits variation across age group, countries, and years in the history of democracy in order to estimate the relationship between Exposure to overall or successful democracy and support for democratic institutions. To study the effects of (overall) Exposure to

10. The results are very similar if we set k=0 (individual being influenced by Exposure to democracy from the time of birth), or if we set it as k=18 (individuals being influenced by exposure only during their adult life). We prefer k=6, since exposure during the first years of life is less likely to be understood or internalized by individuals, but we still can account for potential effects during schooling. Our results are also robust if we allow Exposure to democracy to depreciate as in Fuchs-Schündeln and Schündeln (2015).

democracy, we estimate

Outcome<sub>$$i,w,c,s,a$$</sub> =  $\beta$  Exposure to Democracy <sub>$c,s,a$</sub>  +  $\gamma' X_{i,w,c,s,a} + \varepsilon_{i,w,c,s,a}$ , (2)

where i, w, c, s and a denote, respectively, individual, wave-survey, country, year of interview, and age. *Outcome* is one of the measures of contemporaneous democratic support discussed in the previous section. In addition,  $X_{i,w,s,a}$  is a vector of individual controls always included in our empirical specifications: a full set of country, year of interview, age (in years), cohort (defined by year of birth), and wave-survey fixed effects as well as gender and dummies of categories identifying the size of the city. The inclusion of country and age fixed effects in these specifications ensures that we are comparing a particular age group to individuals from the same age group in other countries, to other age groups from the same country, and to itself over time as its own experience of democracy evolves.

In additional specifications, we also include country×year of interview and either age×subregion fixed effects or age×country and age×year×subregion fixed effects, in all cases with broadly similar results. In essence, these specifications remove the source of variation coming from the comparison to other age groups from the same country, and thus focus on an age group's comparison to the same age group in other, similar countries (with the former set of controls), or on changes in its support for democracy as its own exposure to democracy evolves over time (with the latter set of controls).

Our full model separates Exposure to successful democracy, Unsuccessful democracy, and Unsuccessful autocracy, leaving successful autocracy as the omitted category (where success is defined on the basis of economic performance, control of corruption, peace and political stability, and public good provision, as we explain below). <sup>12</sup> This model can be written as

Outcome<sub>$$i,w,c,s,a$$</sub> =  $\bar{\beta}_1$ Exposure to successful democracy <sub>$c,s,a$</sub>  +  $\bar{\beta}_2$ Exposure to unsuccessful democracy <sub>$c,s,a$</sub>  +  $\bar{\beta}_3$ Exposure to unsuccessful autocracy <sub>$c,s,a$</sub>  +  $\bar{\gamma}'X_{i,w,c,s,a}$  +  $\bar{\varepsilon}_{i,w,c,s,a}$ , (3)

where the exposure variables are calculated separately for periods of successful and unsuccessful performance. Specifically,

Exposure to successful democracy<sub>i,c,s,a</sub> = 
$$\sum_{t=s-a+k}^{s} D_{c,t} \times M_{c,t}$$

- 11. Our measure of subregion follows the ISO 3,166 classification, which corresponds to about five countries per subregion, on average. This enables us to compare fairly similar countries in these additional specifications. Our results are similar if we instead use the broader region definition.
- 12. In the presence of age and cohort fixed effects, we cannot simultaneously include the four regime variables (Successful democracy, Unsuccessful democracy, Unsuccessful autocracy, and Successful autocracy). Economically, the interesting hypotheses are whether the coefficient on successful democracy is statistically distinguishable from the omitted category, successful autocracy, and whether it is statistically different from the estimated effects of Exposure to unsuccessful democracy. In these specifications, the t-statistic on Exposure to successful democracy provides a test of the former hypothesis, and we report *p*-values for the latter hypothesis. An earlier version of our paper controlled for Exposure to successful performance instead of Exposure to unsuccessful autocracy. While all coefficients in the new specification are linear combinations of the coefficients in our earlier specification, the current version makes it easier to directly compare the four regime categories by allowing a common counterfactual (Successful autocracy).

Exposure to unsuccessful democracy<sub>i,c,s,a</sub> = 
$$\sum_{t=s-a+k}^{s} D_{c,t} \times (1 - M_{c,t})$$
Exposure to unsuccessful autocracy<sub>i,c,s,a</sub> = 
$$\sum_{t=s-a+k}^{s} (1 - D_{c,t}) \times (1 - M_{c,t}),$$
 (4)

where  $M_{c,t}$  is a dummy variable taking the value of one when country c is successful at time t according to the chosen criterion (e.g. economic expansion versus recession).

Unless stated otherwise, in all regressions, the error term is allowed to be correlated among individuals within the same country and within the same year of interview, and we compute heteroscedasticity-robust standard errors that allow for these two sources of clustering (random effects).

For brevity, we focus on estimating equation (3) using exposure measures constructed from our dichotomous index of democracy, which makes interpretation more straightforward. Results using the continuous index of democracy, which are very similar, are presented in the Supplementary Material, Appendix.

The key identifying assumption in both equations (2) and (3) is that, absent differences in exposure to overall or successful democracy, the support for democracy of the same age group is on parallel trends across countries. Although there is no foolproof way of checking the validity of this identifying assumption, we deploy several strategies to probe it. First, we show that our estimates are very similar across different specifications, regardless of whether we control for interactive fixed effects at the level of age×year×subregion or age×country. Second, we document that pre-birth exposure to either successful or overall democracy of an age group has no correlation with support for democracy, bolstering our confidence that these groups are on parallel trends. Third, we verify that a battery of non-political variables is uncorrelated with exposure to democracy. Fourth, in the Supplementary Material, Appendix we use an instrumental-variables strategy, exploiting individuals' exposure to regional democratization waves, which leads to very similar estimates. Finally, we also report similar results in the subsample of immigrants, whose exposure to democracy is in their country of birth.

## 4. EXPOSURE TO (SUCCESSFUL) DEMOCRACY AND SUPPORT FOR DEMOCRACY

In this section, we present our main estimates from equations (2) and (3). The robustness of these estimates to alternative strategies, including various placebo exercises, is explored in the following section. Summary statistics for the main variables used throughout our analysis are provided in Supplementary Material, Appendix Table A-2.

Before moving to our results, it is useful to illustrate the main ideas with a comparison of the trajectories of support for democracy across three Latin American countries: Argentina, Chile, and Venezuela. The first two experienced democratization in 1983 and 1990, respectively, while Venezuelan democracy has completely collapsed over the last three decades. Supplementary Material, Appendix Figure A-3 shows that, consistent with our regression estimates, support for democracy has risen in Argentina and Chile, and has declined in Venezuela. Moreover, the increase in positive attitudes towards democracy is much more pronounced in Chile than in Argentina, which has underperformed in terms of economic growth and control of corruption. Supplementary Material, Appendix Figures A-4 and A-5 provide additional illustrative examples from Southern Europe and North Africa.

TABLE 1
Exposure to democracy and support for democracy

	(1)	(2)	(3)	(4)	(5)	(6)
	Support for	Democracy	Democratic	Opposes Strong	Opposes Army	Government
	Democracy Index	is Better	System	Leader	Rule	above Experts
Panel A. Dichotomous.						
Exposure to democracy	0.069	0.097	0.048	0.031	0.037	0.080
	(0.019)	(0.018)	(0.017)	(0.019)	(0.015)	(0.016)
Observations	343,115	188,479	390,349	386,476	385,830	377,214
Countries	107	81	107	107	107	107
Panel B. Continuous.						
Exposure to democracy	0.123	0.130	0.080	0.055	0.075	0.126
	(0.024)	(0.022)	(0.024)	(0.025)	(0.018)	(0.021)
Observations	344,722	187,858	391,990	388,091	387,490	378,934
Countries	104	79	104	104	104	104

*Notes*: This table reports OLS coefficient estimates of Exposure to democracy in equation (2) using our baseline sample from IVS. Exposure to democracy is defined in equation (1). Each column corresponds to one of our measures of support for democracy. Panels A and B display results for the dichotomous and the continuous democratic score, respectively. All regressions include a full set of country, year of interview, age, cohort, and wave-survey fixed effects as well as gender dummies and dummies for city size categories. All coefficients are standardized (beta coefficients). Standard errors are computed with two-way clustering at the country and year levels and are robust against heteroscedasticity.

# 4.1. Exposure to overall democracy

Table 1 reports our baseline estimation for  $\beta$  from equation (2). Our sample in this analysis excludes immigrants, whom we study separately in the Supplementary Material, Appendix. The first column of Table 1 is for our Support for Democracy Index, while the second column provides results for the Democracy is Better measure. The remaining four columns present the results separately for the four components that make up the Support for Democracy Index, which are: Democratic System, Opposes Strong Leader, Opposes Army Rule, and Government above Experts (see Section 2).

Panel A reports results for our main specification with Exposure to democracy constructed from our dichotomous measure of political regime. Panel B displays estimates with the Exposure to democracy measure constructed from the continuous index from V-DEM. Throughout, to facilitate comparisons across variables and specifications, we report beta coefficients (computed as changes in standard deviation units of the outcome variable for a one standard deviation increase in the independent variable).

The pattern revealed by Table 1 is clear: Exposure to democracy has a stable and statistically significant effect on all our measures of support for democracy across all panels (the estimates are significant at less than 5% except for *Opposes Strong Leader* in Panel A, which is at the margin of significance at 10%). The implied effects are quantitatively sizable as well. For instance, for the *Support for Democracy Index* in column 1, we have a coefficient of 0.069 (with a standard error of 0.019) in Panel A. The same coefficient estimate is larger and slightly less precise in Panel B, 0.123 (with a standard error of 0.024).

The estimated effects are not only statistically significant and stable, but also quantitatively meaningful. For example, focusing on the *Support for Democracy Index* and the estimate in Panel A, a 10-year difference in exposure is predicted to increase this variable by 4% of its standard deviation. This magnitude is slightly above one-fourth of the difference in the average of the same variable between South Korea (or Hong Kong) and mainland China (5.9% and 6.5% of a standard deviation respectively), or that between the US and Argentina (6.7% of a standard

deviation). It is also over one-fifth of the gap in support for democracy between individuals in our sample with less than high school or equivalent education and those with completed high school or more (approximately 20% of the standard deviation of the *Support for Democracy Index*).

Our results suggest that both the dichotomous and continuous democracy indices contain relevant information, though the continuous measure tends to have greater predictive power. We confirm this point in Supplementary Material, Appendix Table A-3, where we include Exposure to democracy constructed from the dichotomous and continuous measures at the same time.

Figure 1 reports binned scatterplots (with 15 bins) of the conditional correlations of the support for democracy index with the two measures of Exposure to democracy. Supplementary Material, Appendix Figure A-6 shows analogous graphs for our other measures of support for democracy. These figures confirm the positive relationship documented in Table 1, and show that our results are not explained by outliers. The fairly linear progression in the figure also clarifies that our estimates are not driven by a comparison of individuals that were never exposed to democracy to those that lived mostly under democracy. Put differently, partial exposure leads to more support for democracy than no exposure but less than full exposure.

Although our sample has a relatively broad coverage (including 108 countries between 1994 and 2018), it is tilted towards European countries because of the inclusion of the European Values Surveys in IVS. To confirm that this sample frame is not responsible for our results and to underscore their external validity, we estimated similar models on questions related to support for democracy from the Asianbarometer, the Latin American Public Opinion Project (LAPOP) and the Latinobarometer. These estimates, summarized in Table 2, are very similar to our baseline results.

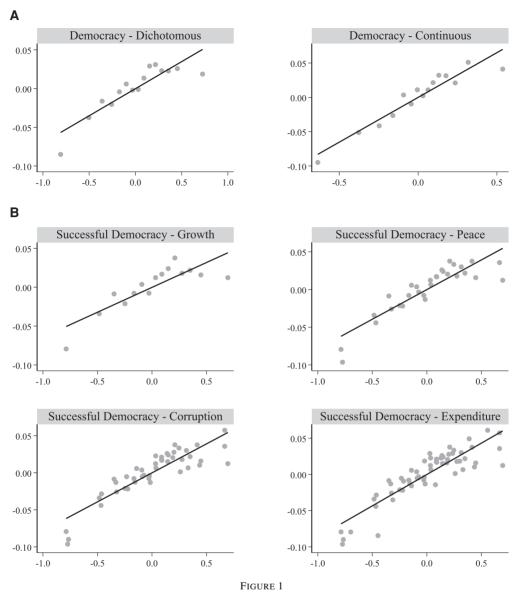
## 4.2. Successful democracies breed their own support

We now establish that the relationship between exposure to democracy and support for democracy is almost entirely driven by individuals with exposure to democratic institutions that have performed well in terms of economic growth, control of corruption, peace and political stability, and public good provision, and (in the Supplementary Material, Appendix) low inequality. In contrast, exposure to democracies that are unsuccessful in these dimensions does not boost support for democracy, and we do not find any evidence that successful performance in autocracies matters for the support that these regimes receive. As already mentioned, in our main specifications we focus on exposure measures constructed from the dichotomous indices of democracy, which facilitates the interpretation of the estimates.

**4.2.1. Economic growth.** We start by distinguishing periods of bad economic performance from normal times. Specifically, we set  $M_{c,t} = 1$  in equation (4) if country c's GDP growth rate at time t is more than the average growth rate minus one standard deviation in our sample (which is close to the 25th percentile of the distribution), and  $M_{c,t} = 0$  otherwise. Thus, our first measure captures the contrast between periods of bad economic performance and normal times.

Panel A in Table 3 presents the results. The coefficient on Exposure to successful democracy is positive and statistically significant in all specifications (the estimates are significant at less than 5% except for *Opposes Strong Leader* and *Opposes Army Rule* variables in Panel A, which are significant at 9%). This means in particular that we can reject the hypothesis that the effects of exposure to successful democracy and successful autocracy are the same.

We also see that the coefficients on Exposure to unsuccessful democracy (as well as Exposure to unsuccessful autocracy) are much smaller and not statistically different from zero in all specifications. At the bottom of each panel, we report the p-value of a test for the equality of



Binned Scatterplots of the relationship between exposure to (successful) democracy and support for democracy (a) Exposure to democracy and support for democracy (b) Exposure to successful democracy and support for democracy *Notes:* This figure presents binned scatterplots of the relationship between support for democracy and exposure to democracy (Panel A), and the relationship between support for democracy and Exposure to successful democracy (Panel B). Exposure to democracy is defined in equation (1) in the text. Exposure to successful democracy is defined in equation (4). Panel B presents the result for our main measures of successful performance (growth of GDP per capita, corruption, peace and political stability, and public expenditure). Each panel plots the residualized values of our *Support for Democracy Index* using the set of covariates as in regression equation (2), which are a full set of country, year of interview, age, cohort, and wave-survey fixed effects as well as gender dummies and dummies for city size categories

the coefficients of Exposure to successful democracy and Exposure to unsuccessful democracy. In Panel A this hypothesis is comfortably rejected, except in column 5 for *Opposes Army Rule*. These estimates imply that successful and unsuccessful democratic performance lead to very

different views on democracy. In sum, these results suggest that voters do not become more supportive of unsuccessful democracies; nor do they become more supportive of autocracies when these regimes perform well. The latter result may be because citizens already have fairly settled views about what autocracies are likely to deliver, or because they have different, lower expectations from them. It may also be because autocracies systematically hide or obfuscate evidence of unsuccessful performance.

Figure 1 displays the binned scatterplots of the conditional correlations of our *Support for Democracy Index* with the measures of exposure to successful democracy, confirming that the relationship once again appears linear and does not show any evidence of disproportionate influence of outliers (see Supplementary Material, Appendix Figure A-6 for other measures of support for democracy).

The quantitative magnitudes of our estimates are sizable. For example, the coefficient estimate for *Support for Democracy Index* is 0.069 (with a standard error of 0.020). Recall that with our main estimates from Table 1, 10 more years of exposure to democracy increases support for democracy by about 4% of its standard deviation. This is also exactly the effect of 10 more years of exposure to successful democracy (relative to 10 years of exposure to autocracy). This sizable impact highlights the importance of exposure to successful economic performance under democracy for garnering support for democratic institutions. <sup>13</sup>

Alternatively, we can evaluate the importance of successful democratic performance on support for democracy by comparing the marginal effect of an additional year of exposure to successful democracy times the relative likelihood of successful democracy (compared to overall democracy) to the marginal effect of an additional year of exposure to democracy. These two magnitudes are roughly equal, which implies that exposure to successful democracy explains essentially all of the quantitative effect of overall Exposure to democracy in Table 1.

**4.2.2. Corruption.** Another important dimension of success for democracies is the control of corruption. In our sample, a one standard deviation increase in the perception of corruption is associated with a 0.12 standard deviation decrease in support for democracy, which may reflect the dissatisfaction that citizens feel with democracies that they consider incapable of controlling corruption.

To explore these issues, we reestimate equation (4) by setting  $M_{c,t} = 1$  when country c's corruption level at time t is below the median level in our sample and  $M_{c,t} = 0$  otherwise.

The results from this exercise are presented in Panel B and are very similar to those in Panel A. Exposure to democracies with low levels of corruption is always positive and statistically significant, implying that low levels of corruption in democracies and autocracies have very different effects on people's views of democracy (and there is no support for the notion that autocracies that control corruption gain greater legitimacy). We also find that exposure to democracies with high levels of corruption has small and inconsistent effects on support for democracy, and we can again comfortably reject the hypothesis that successful and unsuccessful democracies have the same implications for support for democracy (again with the exception of *Opposes Army Rule* variable in column 5, and the partial exception for *Opposes Strong Leader* in column 4, where the equality of these coefficients can be rejected only marginally).

<sup>13.</sup> A little care is necessary in this comparison, since the estimates in Table 1 are relative to all autocracies, while those in Table 3 are relative to successful autocracies. In practice, this does not matter, since we find no discernible differences between successful and unsuccessful autocracies.

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Effect of exposure to democracy on support for democracy across different surveys—Asianbarometer, Lapop, and Latinobarometer TABLE 2

	(1)	(2) Acionh	(3) A cianharameter	(4)	(5)	(9)	(7) I official	(8)
		Asiant	arometer		La	dod	Fatilloo	arometer
	Opposes one man rule	Opposes strong leader	Opposes army rule	Government above experts	Democracy is better	Opposes strong leader	Democracy is better	Democracy preferable
Panel A. Dichotomous.								
Exposure to democracy	0.154	0.207	0.236	0.184	0.094	0.020	0.055	0.010
	(0.028)	(0.022)	(0.031)	(0.019)	(0.024)	(0.015)	(0.026)	(0.029)
Observations	57,717	52,690	55,558	56,004	272,276	153,143	269,738	357,999
Countries	14	14	14	14	33	26	19	19
Panel B. Continuous.								
Exposure to democracy	0.165	0.222	0.254	0.204	-0.010	-0.024	0.068	0.028
	(0.037)	(0.016)	(0.039)	(0.026)	(0.009)	(0.017)	(0.022)	(0.031)
Observations	60,503	55,435	58,365	58,754	205,831	146,458	269,275	357,162
Countries	14	14	14	14	28	26	19	19

Notes: This table reports OLS coefficient estimates of Exposure to democracy in equation (2) using samples constructed from Asianbarometer, Lapop, and Latinobarometer. Exposure to democracy is defined in equation (1). Each column corresponds to one of the measures of support for democracy from the indicated data set. Panels A and B use the dichotomous and dummies for city size categories. All coefficients are standardized (beta coefficients). Standard errors are computed with two-way clustering at the country and year levels and are robust the continuous democracy scores, respectively. All regressions include a full set of country, year of interview, age, cohort, and wave-survey fixed effects as well as gender dummies and against heteroscedasticity.

TABLE 3
Exposure to successful democracy and support for democracy

	Exposure to successfut aemocracy and support for aemocracy	uemocracy ana si	איזיטייט וטן ווטקץ	c,		
	(1)	(2)	(3)	(4)	(5)	(9)
	Support for	Democracy	Democratic	Opposes Strong	Opposes Army	Government
	Democracy Index	is Better	System	Leader	Rule	above Experts
Panel A. Economic growth.						
Exposure to successful democracy	0.069	0.106	0.061	0.034	0.027	0.078
	(0.020)	(0.021)	(0.020)	(0.019)	(0.015)	(0.020)
Exposure to unsuccessful democracy	-0.031	0.007	-0.010	-0.031	-0.001	-0.018
	(0.021)	(0.017)	(0.013)	(0.020)	(0.015)	(0.019)
Exposure to unsuccessful autocracy	-0.005	0.023	0.013	0.005	-0.018	0.002
	(0.014)	(0.023)	(0.012)	(0.013)	(0.013)	(0.014)
Observations	320,290	185,613	364,126	360,446	360,388	352,021
Countries	106	80	106	106	106	106
<i>P</i> -value for $H_0$ : Exp. to Suc. Dem. = Exp. to Uns. Dem.	0.002	0.002	900.0	0.024	0.230	0.009
Panel B. Corruption.						
Exposure to successful democracy	0.096	0.121	0.075	0.047	0.057	0.079
	(0.022)	(0.022)	(0.022)	(0.020)	(0.018)	(0.019)
Exposure to unsuccessful democracy	-0.021	0.013	0.008	-0.018	-0.005	-0.012
	(0.032)	(0.022)	(0.012)	(0.030)	(0.050)	(0.018)
Exposure to unsuccessful autocracy	0.014	0.021	0.030	0.011	0.017	-0.025
	(0.021)	(0.022)	(0.019)	(0.017)	(0.019)	(0.014)
Observations	337,270	184,421	383,746	380,041	379,299	371,031
Countries	103	79	103	103	103	103
<i>P</i> -value for $H_0$ : Exp. to Suc. Dem. = Exp. to Uns. Dem.	0.002	0.000	0.001	0.057	0.199	0.003
Panel C. Peace and political stability.						
Exposure to successful democracy	0.086	0.085	0.049	0.046	0.038	0.105
	(0.020)	(0.022)	(0.020)	(0.019)	(0.016)	(0.018)
Exposure to unsuccessful democracy	0.033	0.029	0.001	0.041	0.015	0.041
	(0.022)	(0.019)	(0.022)	(0.014)	(0.022)	(0.016)
Exposure to unsuccessful autocracy	0.017	0.053	0.014	0.013	0.004	0.020
	(0.028)	(0.034)	(0.019)	(0.022)	(0.018)	(0.025)
Observations	305,709	160,147	346,394	342,759	341,494	335,132
Countries	101	79	101	101	101	101
<i>P</i> -value for $H_0$ : Exp. to Suc. Dem. = Exp. to Uns. Dem.	0.087	0.058	0.142	0.792	0.421	0.006
						(continued)

REVIEW OF ECONOMIC STUDIES

(continued)

TABLE 3
Continued.

	3	6	6	4	í	3
	( <u>T</u> )	(2)	(3)	(4)	<u>(S</u> )	(9)
	Support for	Democracy	Democratic	Opposes Strong	Opposes Army	Government
	Democracy Index	is Better	System	Leader	Rule	above Experts
Panel D. Public expenditure.						
Exposure to successful democracy	0.136	0.091	0.079	0.050	0.089	0.137
	(0.030)	(0.019)	(0.025)	(0.033)	(0.025)	(0.020)
Exposure to unsuccessful democracy	0.019	0.006	0.005	0.012	0.002	0.017
	(0.010)	(0.014)	(0.007)	(0.014)	(0.014)	(0.009)
Exposure to unsuccessful autocracy	0.009	0.008	-0.003	0.001	-0.004	0.012
	(0.017)	(0.014)	(0.008)	(0.015)	(0.013)	(0.011)
Observations	123,432	81,001	138,037	136,113	138,338	133,155
Countries	64	52	2	64	2	64
<i>P</i> -value for $H_0$ : Exp. to Suc. Dem. = Exp. to Uns. Dem.	0.000	0.018	0.004	0.165	0.001	0.000

Notes: This table reports OLS coefficient estimates of Exposure to successful democracy, unsuccessful democracy, and unsuccessful autocracy in equation (3) using our baseline sample from IVS. Exposures to successful democracy, unsuccessful democracy, and Unsuccessful Autocracy are defined in equation (4). Each column corresponds to one of our measures of respectively (see Section 4.2). All regressions use the dichotomous democracy score and include a full set of country, year of interview, age, cohort, and wave-survey fixed effects as well as gender dummies and dummies for city size categories. All coefficients are standardized (beta coefficients). Standard errors are computed with two-way clustering at the country and year levels and are robust against heteroscedasticity. The last row of each panel reports the p-value for a two-sided test of the null hypothesis that the coefficients on Exposure to support for democracy. Panels A, B, C, and D define successful performance in terms of growth of GDP per capita, low corruption, peace and political stability, and public expenditure, successful democracy and Exposure to unsuccessful democracy are equal. The quantitative magnitudes of the exposure to successful democracy effects are again sizable and can explain the impact of exposure to overall democracy entirely. For example, the estimate in column 1 is 0.096 (with a standard error of 0.022), which implies that 10 more years of exposure to successful democracy raise support for democracy by about 4.5% of its standard deviation—an effect that is even larger than the overall impact of democracy on support for democracy.

**4.2.3. Peace and political stability.** Citizens also greatly care about whether democratic institutions deliver peace and stability. For example, the Philippines is classified as a democracy for most of the last 40 years, but has been mired by an ongoing armed conflict between government forces and Maoist rebels. Even though the Filipino economy has performed well for most of this period, many citizens may have formed an unfavourable opinion of its democracy. Indeed, support for democracy in the Philippines has remained as one of the lowest in our sample. We now explore whether lack of peace and political stability systematically prevents exposure to democracy from increasing support for democracy.

To investigate this question, we set  $M_{c,t}$  in equation (4) to be equal to 1 if country c at time t does not experience a conflict. The estimation results are presented in Panel C of Table 3 and show a very similar pattern to the one we saw for economic growth and corruption: all of the coefficients for Exposure to successful democracy are positive and statistically significant, while the coefficients for Exposure to unsuccessful democracy are typically much smaller and in most cases statistically indistinguishable from zero (though because they are less precisely estimated in this case, we cannot always reject that they are the same as the coefficients on Exposure to successful democracy).

The implied quantitative magnitudes for the impact of successful democratic performance on support for democracy are again sizable. For example, the estimate in column 1 is 0.086 (with a standard error of 0.020), which implies that 10 more years of exposure to successful democracy (again relative to 10 years of exposure to autocracy) increase support for democracy by about 5% of its standard deviation. This is similar and if anything larger than the effect of overall exposure to democracy. With a similar calculation to the one reported for economic growth and corruption, the effect of successful democracy accounts for almost all of the impact of exposure to democracy on support for democracy documented in Table 1.

Overall, these results imply that in the case of peace and political stability, too, what builds support for democracy is the successful functioning of democracy.

**4.2.4. Public expenditure.** Besides economic growth, control of corruption, and peace and political stability, most citizens also expect public services and some amount of redistribution from a democratic government. Because we do not have access to a comprehensive measure of the quantity and quality of public services and redistributive policies, we focus on whether there is a high level of public expenditure relative to GDP.<sup>14</sup> We set  $M_{c,t} = 1$  in equation (4) when country c's government expenditure (as proportion of GDP) at time t is above a cutoff given by the average level minus one standard deviation in our sample, and  $M_{c,t} = 0$  otherwise.

The results from this exercise are presented in Panel D and show another strong contrast between exposure to successful democracy and exposure to unsuccessful democracy, as well as

<sup>14.</sup> For the subsample of countries for which we have a comparable and reliable measure of social security payments as a fraction of GDP (from the IMF Fiscal Affairs Department), we find that this variable is robustly correlated with public expenditure as a fraction of GDP (with a correlation coefficient know 0.59).

unsuccessful autocracy. Exposure to democracy with high expenditure is always positive and statistically significant (with the exception of the variable *Opposes Strong Leader*), while the other exposure variables are typically small and insignificant. The *p*-values reported at the bottom indicate that the hypothesis that the effects of exposure to successful and unsuccessful democracy are the same can be comfortably rejected in all cases, except for *Opposes Strong Leader* in column 4.

The quantitative magnitudes are again sizable and explain the relationship between overall exposure to democracy and support for democracy. For example, the estimate in column 1 is 0.136 (with standard error of 0.030), which implies that 10 more years of exposure to successful democracy increases support for democracy by about 8% of its standard deviation and explains the effects of overall exposure to democracy estimated in Table 1.

**4.2.5. Inequality.** Another relevant dimension is whether democracies redistribute and reduce inequality. Because inequality data are less reliable, we present these results as supplemental evidence in the Appendix. We consider two measures of inequality from the World Inequality Database, the shares of income of the richest 1% and 10% of the population. For both measures, we define success— $M_{c,t} = 1$  in equation (4)—as country c's measure of inequality in period t being below the median value of the same variable in our sample.

Supplementary Material, Appendix Table A-4 shows a similar pattern of results to those presented above: democracies that keep inequality low receive greater support, while there is no significant effect for democracies that do not perform well or for autocracies. The quantitative magnitudes are once again sizable and explain the relationship between overall exposure to democracy and support for democracy.

- **4.2.6. Asian and Latin American data.** Table 4 explores the role of successful and unsuccessful democratic performance with data from the Asianbarometer and the two Latin American data sets we mentioned above. The results are broadly similar to those from our main sample. Twenty-five of the 32 coefficient estimates for successful democracy are significant at 5% or less. In contrast, only eight of the 32 estimates for unsuccessful democracy are significant, and in most cases they are much smaller than and statistically different from the estimates for successful democracy. Additionally, none of the 32 estimates for unsuccessful autocracy are significant.
- **4.2.7. Perceived success of democracies.** To bolster our interpretation that exposure to successful democracy makes individuals believe that democratic institutions are likely to deliver the type of growth and services that they desire, we also looked at the relationship between our three exposure variables and people's perception of democracies' economic success. The results, reported in Supplementary Material, Appendix Table A-5, show that exposure to successful democracy—and crucially again not exposure to unsuccessful democracy or unsuccessful autocracy—significantly increases the perceived economic success of democracy.

Overall, the results in this section establish a robust association between exposure to democracy and support for democracy, and more importantly, they show that this association is almost entirely driven by exposure to *successful* democracy. Specifically, individuals with exposure to successful democracy—and only those individuals—report to support democratic institutions. They also have more positive views about the economic success of democracies. There appears to be no similar effect from exposure to successful or unsuccessful autocratic performance.

Exposure to successful democracy and support for democracy—Asianbarometer, Lapop and Latinobarometer TABLE 4

	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)
		Asianb	Asianbarometer		La	Lapop	Latinobarometer	rometer
	Opposes one man rule	Opposes strong leader	Opposes army rule	Government above experts	Democracy is better	Opposes strong leader	Democracy is better	Democracy preferable
Panel A. Economic growth.								
Exposure to successful democracy	0.197	0.225	0.272	0.194	0.102	0.032	0.065	0.016
	(0.045)	(0.026)	(0.041)	(0.026)	(0.025)	(0.012)	(0.027)	(0.028)
Exposure to unsuccessful democracy	0.012	-0.006	0.030	0.046	-0.027	-0.017	-0.025	0.036
	(0.012)	(0.012)	(0.016)	(0.020)	(0.013)	(0.014)	(0.027)	(0.035)
Exposure to unsuccessful autocracy	0.033	-0.001	900.0	-0.013	-0.001	0.008	0.012	0.027
	(0.016)	(0.007)	(0.011)	(0.013)	(0.00)	(0.017)	(0.000)	(0.014)
Observations	55,254	50,843	53,199	53,576	241,894	151,046	268,582	356,510
Countries	14	14	14	14	33	26	19	19
$P$ -value for $H_0$ : Exp. to Suc. Dem. = Exp. to Uns. Dem.	0.001	0.000	0.000	0.002	0.003	0.049	0.040	0.743
Panel B. Corruption.								
Exposure to successful democracy	0.206	0.228	0.259	0.222	0.163	0.067	0.098	0.069
	(0.025)	(0.016)	(0.030)	(0.024)	(0.039)	(0.022)	(0.026)	(0.032)
Exposure to unsuccessful democracy	0.095	0.088	0.132	-0.015	0.085	0.038	0.080	0.035
	(0.040)	(0.021)	(0.035)	(0.093)	(0.033)	(0.019)	(0.025)	(0.034)
Exposure to unsuccessful autocracy	0.086	0.025	0.038	0.028	0.016	0.027	0.023	0.038
	(0.044)	(0.017)	(0.038)	(0.026)	(0.020)	(0.021)	(0.025)	(0.025)
Observations	57,717	52,690	55,558	56,004	264,231	151,072	269,738	357,999
Countries	14	14	14	14	26	25	19	19
$P$ -value for $H_0$ : Exp. to Suc. Dem. = Exp. to Uns. Dem.	0.038	0.000	0.012	0.044	0.010	0.322	0.499	0.049
Panel C. Peace and political stability.								
Exposure to successful democracy	0.214	0.218	0.251	0.184	0.104	0.028	0.058	0.004
	(0.039)	(0.016)	(0.047)	(0.019)	(0.023)	(0.015)	(0.033)	(0.037)
Exposure to unsuccessful democracy	-0.026	0.036	0.023	0.053	0.028	0.015	0.035	0.005
	(0.034)	(0.026)	(0.091)	(0.045)	(0.022)	(0.013)	(0.014)	(0.015)
Exposure to unsuccessful autocracy	0.071	0.027	0.017	0.005	900.0	0.024	-0.008	0.015
	(0.034)	(0.013)	(0.033)	(0.020)	(0.020)	(0.015)	(0.017)	(0.018)
								(F;

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TABLE 4
Continued.

			ommuea.						
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	
		Asianb	Asianbarometer		La	Lapop	Latinoba	Latinobarometer	
	Opposes one man rule	Opposes strong leader	Opposes army rule	Government above experts	Democracy is better	Opposes strong leader	Democracy is better	Democracy preferable	
Observations	53,215	48,556	50,963	51,475	238,608	146,780	254,258	327,428	
Countries	13	13	13	13	28	56	19	19	
<i>P</i> -value for $H_0$ : Exp. to Suc. Dem. = Exp. to Uns. Dem.	0.001	0.000	0.046	0.027	0.040	0.390	0.264	0.988	
Panel D. Public expenditure.									
Exposure to successful democracy	0.105	0.176	0.205	0.102	0.133	0.028	0.045	-0.005	_
	(0.024)	(0.020)	(0.032)	(0.076)	(0.046)	(0.031)	(0.018)	(0.047)	
Exposure to unsuccessful democracy	0.020	0.017	0.043	0.013	0.082	0.030	0.022	0.013	
	(0.000)	(0.008)	(0.003)	(0.013)	(0.012)	(0.019)	(0.008)	(0.020)	
Exposure to unsuccessful autocracy	-0.008	-0.001	0.019	-0.004	0.012	0.002	0.005	-0.008	
	(0.014)	(0.00)	(0.013)	(0.015)	(0.019)	(0.018)	(0.000)	(0.020)	
Observations	19,049	18,721	19,081	19,140	70,717	61,276	133,666	193,209	
Countries	13	13	13	13	19	18	16	16	
<i>P</i> -value for $H_0$ : Exp. to Suc. Dem. = Exp. to Uns. Dem.	0.007	0.000	0.001	0.203	0.202	0.890	0.154	0.567	
			•	,				,	

Notes: This table reports OLS coefficient estimates of Exposure to successful democracy, unsuccessful democracy, and unsuccessful autocracy in equation (3) using samples constructed from Asianbarometer, Lapop, and Latinobarometer. Exposures to successful democracy, unsuccessful democracy, and unsuccessful autocracy are defined in equation (4). Each column corresponds to one of the measures of support for democracy from the indicated data set. Panels A, B, C, and D define successful performance in terms of growth of GDP per capita, low corruption, peace and political stability, and public expenditure, respectively (see Section 4.2). All regressions use the dichotomous democracy score and include a full set of country, year errors are computed with two-way clustering at the country and year levels and are robust against heteroscedasticity. The last row of each panel reports the p-value for a two-sided test of of interview, age, cohort, and wave-survey fixed effects as well as gender dummies and dummies for city size categories. All coefficients are standardized (beta coefficients). Standard the null hypothesis that the coefficients on Exposure to successful democracy and Exposure to unsuccessful democracy are equal.

## 5. ROBUSTNESS, PLACEBOS, AND ADDITIONAL SPECIFICATIONS

In this section, we demonstrate the robustness of the estimates from equations (2) and (3) to various alternative empirical strategies and samples, and present placebo exercises as well as instrumental-variables (IV) estimates.

## 5.1. Robustness of baseline estimates

The results reported in Tables 1 and 3 are similar across a variety of different specifications, different samples and controls, and are not driven by outliers.

We start with the robustness of the results on overall Exposure to democracy. Supplementary Material, Appendix Table A-6 documents that the results are similar when we focus on even more fine-grained variation by including country×year of interview and either age×subregion, age×year×subregion, or age×country fixed effects. Unsurprisingly, some of the estimates are a little noisier, but they are quite consistent with the results reported in Table 1. Supplementary Material, Appendix Figure A-7 additionally verifies that our results are robust to dropping each subregion one at a time, showing that no single subregion is critical for our results.

Supplementary Material, Appendix Table A-7 shows that the results are also similar if we cap the number of years in democracy to 40, so that there is "saturation" in exposure to democracy after a while. Supplementary Material, Appendix Table A-8, in turn, breaks down the exposure to democracy variable into a number of components representing exposure at different ages and shows that it is not exposure only during "impressionable years" or youth in general, but throughout an individual's life that matters for support for democracy. Supplementary Material, Appendix Table A-9 documents that the effects of exposure to successful democracy are fairly uniform during different stages of one's life. In sum, individuals become more supportive of democracy, regardless of their age or their past experiences with democracy. <sup>16</sup> These results imply that, in contrast to the implications of a Bayesian framework as in Buera et al. (2011), there is no evidence that the effects are getting smaller as an individual accumulates more information during his or her lifetime. Lack of any effects from exposure to unsuccessful democracy is also difficult to reconcile with the Bayesian framework, since such performance should be a negative signal about successful functioning of democracy. These results, together with those reported in Supplementary Material, Appendix Table A-5, make us lean towards a "generalized" or "behavioural" learning interpretation, whereby individuals update their assessment of democracy's success when confronted with evidence of successful performance, but most likely do so using simple heuristics and do not necessarily follow other implications of Bayesian updating.

Next, we address the concern that our fixed effect estimators could be biased due to heterogeneous effects across different events, as highlighted by De Chaisemartin and D'Haultfoeuille (2022) and Roth *et al.* (2023) and others. In Supplementary Material, Appendix Tables A-10 and A-11, we confirm that these issues are not driving our results. We build on Wooldridge (2021) and estimate a version of equation (2) that incorporates event-specific treatment effects. In this exercise, we use the binary measure of democracy in order to identify specific democratization events. In Panel A of Supplementary Material, Table A-10, we allow the effects of exposure

<sup>15.</sup> Seven of the 36 coefficients are not distinguishable from zero at the 95% level (*Democratic system*, Panel E; *Opposes strong leader*, Panels A and C; *Opposes army rule*, Panels B, D, and F; and *Government above experts*, Panel E), but the estimated effects are positive in all cases.

<sup>16.</sup> We also confirmed that our results are very similar when we use V-DEM's electoral democracy index, which focuses on the most basic principle of democracy, instead of our baseline continuous measure, which combines the electoral democracy index with information on the liberal, participatory, deliberative, and egalitarian dimensions of democracy.

to democracy to differ across 140 unique democratic transitions, and then average these estimates using weights inversely proportional to their variance. In Panel B, we additionally allow the effects to be heterogeneous by an individual's length of exposure to democracy (using five-year bins of exposure); this gives 669 heterogeneous coefficients, which are then aggregated analogously. The results in both cases are very similar to those in Table 1. Lastly, Supplementary Material, Appendix Table A-11 shows similar results to those in Table 3, focusing on the estimator with event-specific heterogeneity.

Supplementary Material, Appendix Table A-12 establishes that our results on Exposure to successful democracy are robust when we focus on the continuous measure of democracy. Additionally, Supplementary Material, Appendix Table A-13 presents analogous estimates to Table 3 and Supplementary Material, Appendix Table A-12, but also includes country×year of interview and age×subregion fixed effects, with very similar results. Supplementary Material, Appendix Tables A-14 and A-15 further add age×year ×subregion or age×country fixed effects and also present analogous specifications with exposure measures computed from continuous democracy indices. Once again, the results are very similar to those reported in Table 3.

In Supplementary Material, Appendix Table A-16, we verify that the specific definition of the thresholds for successful performance does not matter for our results. For economic growth, Panel A confirms that the results are similar when  $M_{c,t}$  is defined relative to each country's own average growth rate in the sample rather than the sample average. Panels B through D show that they are also broadly similar when we define economic failure as periods with negative growth, with a growth rate less than -1%, or with a growth rate less than -2%. Panel E verifies that they are robust when we define the threshold for corruption in terms of the country median instead of the cross-country sample median. Panel F confirms that the results of peace and political stability are robust when we define unsuccessful performance as periods of civil war (conflicts with at least 1,000 battle-related deaths). Similarly, Panel G confirms that our public expenditure results are similar when  $M_{c,t}$  is defined relative to a country's own level of public expenditure, rather than in comparison to the whole sample. Finally, Panel H shows that the results for public expenditure are also consistent when the measure of success is defined relative to the median.

Overall, we conclude that the results presented in the previous section are quite robust to a variety of reasonable variations.

# 5.2. Placebo checks

In this subsection, we report two sets of placebo exercises, bolstering the case that our results are not driven by failure of cross-cohort parallel trends or because of some other concurrent social changes.

A salient concern with our empirical strategy is that different age groups within the same country may be on differential trends in terms of their social and political views, even absent differences in exposure to democracy. We check for this possibility by investigating whether there are individual-level pre-trends—that is, whether pre-birth "exposure" has an effect on an individual's support for democracy. Specifically, we extend equation (2) by including a variable constructed analogously to our exposure to democracy measure, but from information on the democratic experience of a country during the 10 years before the individual in question is born (the results are very similar if we use a window of 25 years). If our estimates were capturing differential secular trends in the views about democracy of an age group across countries, then we would expect to find pre-birth exposure to be correlated with these trends.

Figure 2, reassuringly, shows that this is not the case, starting with overall exposure. This figure depicts placebo point estimates for pre-birth exposure and 95% confidence intervals for

each of our left-hand side variables. These estimates are from regressions similar to those in Table 1, except that we now add pre-birth exposure variables as well. We also report specifications that include additional controls for country × year of interview and age × subregion fixed effects as in Supplementary Material, Appendix Table A-6. The left-hand side panel uses the dichotomous measure of democracy, while the right-hand side panel is for the continuous measure. For comparison, we also plot the point estimates of the effects of our baseline (post-birth) exposure to democracy variable in the same specifications. For ease of inspection, these estimates are shown by solid black circles and triangles when they are statistically different from the placebo (pre-birth) estimates, and they are marked as hollow circles and triangles when they are statistically indistinguishable from the placebo estimates. The figure demonstrates that all coefficients for pre-birth exposure to democracy are insignificant and much smaller than the estimates for exposure to democracy, and in 22 out of 24 cases, the hypothesis that they are equal to the placebo estimates can be rejected at 5% or less. Overall, these results suggest not only that there are no pre-trends but also that there is limited intergenerational transmission of support for democracy, since pre-birth exposure for an individual tends to be correlated with the exposure of his or her parents and extended family. This pattern is consistent with our interpretation that support for democracy is not a "deep" cultural characteristic and instead appears to be a response to citizens' experience with democracy and democracy's success. 17

Another possible concern is that our estimates of the effects of exposure to democracy could be confounded by general social changes, which may be correlated with transitions to democracy. To address this issue, our second placebo exercise turns to a number of non-political attitudinal questions related to neighbours, family and general social attitudes. These include questions on whether individuals dislike their neighbours depending on their characteristics (such as religion, race, immigration status, ethnicity, civil status, etc.), as well as questions on living arrangements and family relations. We did not consider political questions (such as attitudes towards neighbours) that depend on political alignment, or variables related to other institutions, which may be directly impacted by democratic exposure. Because many cultural traits are likely to be interlinked, there are no perfect measures for this placebo exercise. Nevertheless, the evidence is quite clear that exposure to democracy does not shift non-political attitudes. We establish this result by reestimating equation (2) with a battery of non-political attitudinal questions. The results, reported in Figure 3, confirm that there is no relationship between these variables and Exposure to democracy in any of our specifications (corresponding to each one of the panels in Table 1). Out of the 24 estimates, only one is marginally significant, which is consistent with sampling variation. We tentatively conclude that the association between exposure to democracy and support for democracy is unlikely to be related to other social changes.

Figures 4 and 5 present analogous placebo exercises for exposure to successful democracy, focusing on the same four dimensions of success and two specifications (the baseline in Table 3 and the specification that additionally includes country×year of interview and age×subregion fixed effects from Supplementary Material, Appendix Table A-13). Supplementary Material, Appendix Figures A-10 and A-11 conduct the same placebo exercises (for pre-birth exposure

<sup>17.</sup> Supplementary Material, Appendix Figure A-8 repeats these placebo exercises for specifications in which the pre-birth exposure variables are included by themselves (rather than alongside the post-birth exposure variables). This is a more demanding specification, since correlation between pre- and post-birth exposure can lead to significant placebo estimates. Nevertheless, the results in these Supplementary Material, appendix figure show no evidence of pre-birth exposure effects, and the hypothesis that pre- and post-exposure variables have the same impact can be rejected at 5% or less in almost all cases. Supplementary Material, Appendix Figure A-9 reports this version of the placebo exercises for the specifications in Figure 4 (for the effects of exposure to successful democracy).

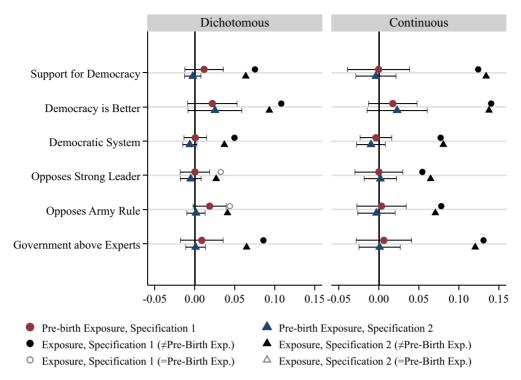
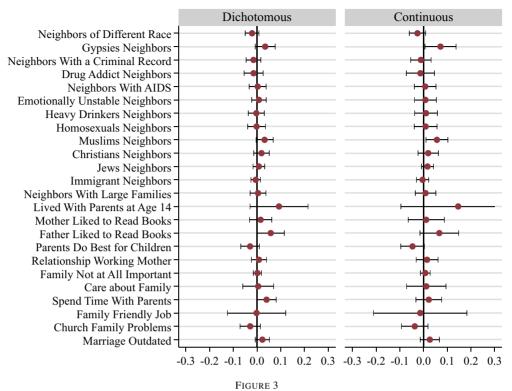


FIGURE 2
Pre-birth exposure to democracy and support for democracy

Notes: This figure plots OLS coefficient estimates for each one of our measures of support for democracy of an extended version of equation (2) that simultaneously includes Exposure to democracy and Pre-birth exposure to democracy. Pre-birth exposure to democracy is constructed using a country's democracy score before the relevant cohort's birth, using a variant of equation (1) (see text for details). The left-hand side panel uses the dichotomous democracy score, while the right-hand side panel uses the continuous measure. For each outcome, in each panel, we show the placebo estimate (Pre-birth exposure to democracy) and its confidence interval from both our baseline specification (specification 1), which includes a full set of country, year of interview, age, cohort, and wave-survey fixed effects as well as gender dummies and dummies for city size categories (circles), and an extended specification (specification 2) which additionally includes country x year of interview and age x subregion fixed effects (triangles). We also report the estimates for exposure to democracy from the same specifications for comparison. When the estimates for exposure to democracy are statistically different from the estimates for Pre-birth exposure to democracy at 5%, we depict them in solid circles and triangles; when they are not statistically different, we depict them in hollowed circles and triangles. The whiskers indicate the 95% confidence intervals. All coefficients are standardized (beta coefficients). See text for additional details

and non-political attitudinal questions, respectively) for unsuccessful democracy and unsuccessful autocracy as well. These placebo exercises confirm that years of successful democracy (or unsuccessful democracy and autocracy) before one's birth have no impact on one's support for democracy and on our various non-political attitude measures. Overall, we find that out of 432 placebo estimates in these figures, 49 are significant at 5% or less. This 11% rejection rate is a little more than what we would expect from a two-sided test on the basis of sampling variation. However, as we argue next, this is most likely because of multiple hypothesis testing.

Finally, Supplementary Material, Appendix Table A-17 explores the implications of testing multiple hypotheses for both our main estimates and the falsification checks. It reports the proportion of variables that are statistically significant using the sharpened False Discovery Rate (FDR) q-values, which follows Anderson (2008) and takes into account the expected fraction of type I errors (for reference, we also report the proportion of variables that are statistically significant using conventional *p*-values). Using this approach, exposure to democracy has a robust



Exposure to democracy and non-political attitudinal variables

Notes: This figure plots OLS coefficient estimates of Exposure to democracy in equation (2) for various non-political attitudinal questions. Exposure to democracy is defined in equation (1). The left-hand side panel uses the dichotomous democracy score, while the right-hand side panel uses the continuous measure. For each outcome, in each panel, we show estimates from a baseline specification, which includes a full set of country, year of interview, age, cohort, and wave-survey fixed effects as well as gender dummies and dummies for city size categories. The whiskers indicate the 95% confidence intervals. All coefficients are standardized (beta coefficients). See text for additional details

and statistically significant impact on support for democracy, with rejection rates very similar to conventional *p*-values used in our baseline analysis. In contrast, with the FDR q-values there is no longer any evidence of significant effects from pre-treatment exposure variables or on non-political attitudinal questions, discussed in the previous paragraph. These results bolster our confidence in the reliability of the source of variation we are exploiting.

# 5.3. IV estimates

Our placebo exercises notwithstanding, the main concern remains that exposure to democracy could be correlated with deeper social changes that undergird political regime dynamics. As an alternative line of attack against this concern, in the Supplementary Material, Appendix, we exploit a plausibly exogenous source of variation in democracy coming from regional democratization waves, as in Acemoglu *et al.* (2019). We adapt their approach to our setting, generating sources of variation in an age group's exposure to democracy or successful democracy.

The exclusion restriction is essentially the same one used and supported in Acemoglu *et al.* (2019): conditional on our controls, past regional democratization waves among countries with

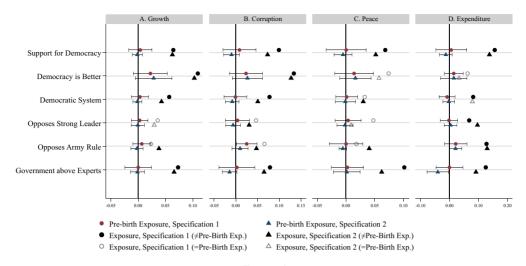


FIGURE 4
Pre-birth exposure to successful democracy and support for democracy

Notes: This figure plots OLS coefficient estimates for each one of our measures of support for democracy of an extended version of equation (3) that simultaneously includes the baseline (post-birth) and the pre-birth measures of exposure to successful democracy, unsuccessful democracy, and unsuccessful autocracy. The pre-birth exposures are constructed from a country's democracy score before the relevant cohort's birth, using a variant of equation (1) (see text for details). Each panel presents the result for a measure of successful performance (growth of GDP per capita in Panel A, corruption in Panel B, peace and political stability in Panel C, and public expenditure in Panel D). For each outcome, in each panel, we show the placebo estimate (Pre-Birth Exposure to successful democracy) and its confidence interval from both our baseline specification (specification 1), which includes a full set of country, year of interview, age, cohort, and wave-survey fixed effects as well as gender dummies and dummies for city size categories (circles), and an extended specification (specification 2), which additionally includes country × year of interview and age × subregion fixed effects (triangles). We also report the estimates for Exposure to successful democracy for comparison. When the estimates for Exposure to successful democracy are statistically different from the estimates for Pre-Birth Exposure to successful democracy at 5%, we depict them in solid circles and triangles; when they are not statistically different, we depict them in hollowed circles and triangles. Supplementary Material, Appendix Figure A-10 reports the estimates for Pre-Birth Exposure to unsuccessful democracy and unsuccessful autocracy. The whiskers indicate the 95% confidence intervals. All coefficients are standardized (beta coefficients). See text for details

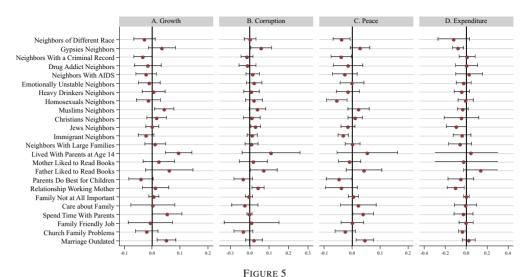
the same political history in the same region do not directly impact an individual's social attitudes and support for democracy. We provide further evidence consistent with this exclusion restriction below. Supplementary Material, Appendix Table A-18 presents the first-stage regression of our 2SLS estimation, which includes one lag of the instrument and delivers a very strong first-stage F-statistic, as shown at the bottom. <sup>18</sup>

Supplementary Material, Appendix Table A-19 presents the 2SLS estimates. The coefficient estimates are comparable to the OLS estimates in Table 1 and are positive and statistically significant across different measures of support for democracy and for both the dichotomous and the continuous measures of democracy. Supplementary Material, Table A-20 presents 2SLS

18. We estimate equation (2) with 2SLS using the predicted values from the following first-stage regression:

Exposure to democracy<sub>i,w,c,s,a</sub> = 
$$\sum_{j=1}^{p} \alpha_j Z_{c,s,a,j} + \pi' X_{i,w,c,s,a} + v_{i,w,c,s,a}$$

where  $Z_{c,s,a,j} = \sum_{t=s-a+k}^s Z_{c,t-j}$  and  $Z_{c,t}$  is the average level of democracy in year t for countries in the same region and with the same political history as country c. Intuitively,  $Z_{c,s,a,0}$  represents the predicted Exposure to democracy that an individual would have had during her lifetime if living in a different country from the same region and with the same political history as her actual country. This amounts to instrumenting democratic exposure of each individual with the regional democratization waves faced by age groups preceding this individual.



Exposure to successful democracy and non-political attitudinal variables

Notes: This figure plots OLS coefficient estimates of Exposure to successful democracy in equation (3) for various non-political attitudinal questions. Exposure to successful democracy is defined in equation (4) (see text for details). Each panel presents the result for a measure of successful performance (growth of GDP per capita in Panel A, corruption in Panel B, peace and political stability in Panel C, and public expenditure in Panel D). For each outcome, in each panel, we show estimates from our baseline specification, which includes a full set of country, year of interview, age, cohort, and wave-survey fixed effects as well as gender dummies and dummies for city size categories. Supplementary Material, Appendix Figure A-11 reports the estimates for exposure to unsuccessful democracy and unsuccessful autocracy. The whiskers indicate the 95% confidence intervals. All coefficients are standardized (beta coefficients). See text for details

estimates of the impact of Exposure to successful democracies, focusing on the dichotomous measure of democracy. The four panels again correspond to the four dimensions of success considered above. The results are once more very similar to the OLS estimates reported in Table 3 and indicate that Exposure to successful democracy has a sizable impact on support for democracy, while the other two Exposure variables do not. Moreover, with these IV estimates, too, the effects of exposure to democracy are almost entirely explained by exposure to successful democratic performance.

Although we find regional democratization waves to be an attractive source of variation for our purposes, there are several reasons why our exclusion restriction may be violated. Most importantly, different regions may be on differential trends in terms of their social attitudes. Or, economic and political developments in neighbouring polities may have a direct impact on a country's democracy and the population's support for democratic institutions. The placebo exercises for these IV estimates are reassuring—they indicate that pre-birth exposure to regional democratization waves has no impact on support for democracy or non-political social attitudes, and thus they suggest that countries impacted by different regional waves are not on differential social trends. In particular, Supplementary Material, Appendix Figures A-12, A-13, and A-14 show no evidence of a systematic relationship between the IV for pre-birth exposure to democracy or successful democracy, and support for democracy.

Likewise, Supplementary Material, Appendix Figures A-15, A-16, and A-17 confirm that the vast majority of the non-political social attitudes are unrelated to the instrumental variables for Exposure to overall or successful democracies. In sum, these figures show similar rejection rates of the placebos compared to those presented in the main analysis. Finally, in columns 3 and 4

of Supplementary Material, Appendix Tables A-17 we show that correcting for joint-hypothesis testing tends to corroborate and, if anything, strengthen our results.<sup>19</sup>

# 5.4. Support for democracy among immigrants

Finally, we report results from a complementary empirical strategy focusing only on immigrants. This strategy exploits variation in the political institutions of immigrants' countries of origin until their year of immigration. We use information from two waves of the IVS in which it is possible to identify the country of birth and the year of immigration. We also restrict the sample to individuals who were at least 12 years old at the time of emigration and emigrated to a European country that has been a democracy throughout our sample.<sup>20</sup>

The estimating equations are identical to (2) and (3), except that we now additionally control for country of birth and language fixed effects. We further include a full set of country of residence×subregion of birth×year of migration (though the results are similar without these controls). We cluster the standard errors by country of residence. The Exposure to democracy and to successful democracy variables are defined as before, but only using the history of institutions in each immigrant's country of birth.<sup>21</sup>

Despite the very different sample and source of variation, the estimates for our immigrant sample are similar to our baseline estimates, even if less precise. In Supplementary Material, Appendix Table A-21, which displays results for overall exposure to democracy, more than half of the Exposure to democracy variables are statistically significant at 10% or less. In Supplementary Material, Appendix Table A-22, we find that Exposure to successful democracy has a consistently larger coefficient estimate than Exposure to unsuccessful democracy, even if only about half of these estimates are statistically significant. Overall, we view these results as broadly consistent with and supplementing our main results.

#### 6. DOES SUPPORT FOR DEMOCRACY MATTER?

In this section, we explore whether the self-reported support for democracy measures actually impact the functioning of democratic institutions. Like in Nunn *et al.* (2018)'s analysis of the consequences of political trust, we consider a country-year panel and look at interactions between support for democracy and negative economic shocks. We then trace the effects of these on the survival of democratic institutions and economic outcomes, using this estimating equation with country-year pairs as units of observation:

Outcome<sub>ct</sub> = 
$$\delta_c + \delta_t + \eta \text{Negative shock}_{c,t-1} + \alpha \text{Negative shock}_{c,t-1}$$
  
× Support Democracy<sub>c</sub> +  $\nu_{ct}$ , (5)

- 19. In the working version of this paper, we also present a battery of additional tests verifying the validity of the exclusion restriction of this IV approach. We show for instance that our results are robust to controlling for shocks that affect a country's neighbours, or to directly controlling for the neighbours' exposure to democracy or support for democracy. The 2SLS estimates are also robust to the inclusion of additional interactive fixed effects as in Section 3.
- 20. This list comprises Austria, Belgium, Denmark, Finland, France, Germany, Iceland, Italy, Ireland, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and U.K.
- 21. Namely, Exposure to democracy  $c_b$ , s,  $s_m$ ,  $a = \sum_{t=s-a+k}^{s_m} D_{c_b,t}$ , where  $D_{c_b,t}$  is our measure of democracy in country  $c_b$  at year t, and  $s_m$  is the year of immigration. This implies that we are not including Exposure to the democratic institutions of the country of residence. This is without loss of generality when using the dichotomous measure of democracy, since in our sample the democratic institutions of the host country are at their maximal level, and thus conditional on age effects, there is no variation coming from exposure to these institutions.

30

where c and t denote country and year. Outcome $_{ct}$  is an indicator for growth of GDP per capita, conflict, or coups against democracy. We define Negative shock $_{c,t-1}$  as a dummy that equals one if country c's GDP growth rate at time t is less than one standard deviation below average growth in our sample (which is the same as the definition of unsuccessful economic performance in Section 4.2). As an alternative definition, we also use a dummy that equals one if country c's GDP growth rate at time t is below the 25 percentile of its own growth rate distribution. Support Democracy $_c$  is defined as our Support for Democracy Index averaged across all periods for country c (or, alternatively, as the country fixed effect estimated in equation (2)).  $\delta_c$  and  $\delta_t$  represent country and year fixed effects. The coefficient of interest is the one for the interaction term,  $\alpha$ . Standard errors are clustered at the country level. We estimate separate regressions for historical democracies and historical nondemocracies, with the expectation that support for democratic institutions should not matter much in historical nondemocracies.

The results are presented in Table 5. In columns 1–3, we use our baseline measure of support for democracy, computed as average support for democracy in a country. One concern with these estimates is that our support for democracy measure does not predate the outcomes on the left-hand side of this equation (because we do not have sufficient survey data to construct a consistent measure of support for democracy from prior periods). To partially redress this problem, in columns 4–6, we measure support for democracy using the country fixed effects estimated in equation (2). This strategy purges the impact of later exposure to democracy on our index for support for democracy and comes closer to proxying for the historically determined component of attitudes towards democratic institutions.

Panels A and B present the results for the sample of historical democracies, using our two definitions of negative shocks. The interaction between support for democracy and negative shocks is positive and significant for the growth of GDP per capita, and negative and significant for coups and conflict. These results indicate that when support for democracy is stronger, negative shocks are less likely to lead to protracted economic downturns and to conflict, or coups. The estimates are quantitatively sizable: for example, an increase in support for democracy equivalent to the difference between mainland China and Hong Kong (about one eighth of this variable's standard deviation) ameliorates the effect of a negative economic shock on GDP, conflict and coups by 16%, 11%, and 25%, respectively.

Panels C and D display the results for historical nondemocracies using the two definitions of negative shocks. Consistent with our expectations, greater support for democratic institutions does not translate into better economic or political performance in this sample. Specifically, the coefficient on the interaction term is insignificant and considerably smaller than the estimates in Panels A and B for historical democracies.

Robustness checks for these specifications are presented in the Supplementary Material, Appendix. Supplementary Material, Table A-23 shows as an additional placebo that interactions with leads of the negative shock and support for democracy are insignificant and have much smaller magnitudes. Supplementary Material, Table A-24 documents that controlling for the interaction between negative shocks and trust—the main variable in Nunn *et al.* (2018)—does not change the results, though some estimates become noisier.

22. We classify countries that have been democratic for less than the mean duration of democracy between 1920 and 2020 as historical nondemocracies; the rest are historical democracies. The series of GDP per capita growth and conflict are the same as described in Section 2. Our measure of coups is from the Archigos database (version 4.1, see Goemans *et al.*, 2009) and is defined as a dummy variable corresponding to the presence of an irregular leader transition. The observations used in the estimation of equation (5) go from 1842 until present times (with only a small share corresponding to the 19th century).

TABLE 5
Support for democracy and economic and political outcomes

	(1)	(2)	(3)	(4)	(5)	(6)
	Supp	ort for Demo Measure 1	ocracy	Suppo	ort for Demo Measure 2	cracy
	GDP growth	Conflict	Coup	GDP growth	Conflict	Coup
A. Historical Democracies, Negative Shock Measu	ıre 1.					
Negative Shock $_{c,t-1}$	-0.002	0.011	0.003	-0.002	0.011	0.002
Negative Shock <sub>c,t-1</sub> × Support for Democracy <sub>c</sub>	(0.001) 0.002	(0.005) $-0.010$	(0.002) $-0.005$	(0.001) 0.001	(0.005) $-0.009$	(0.003) $-0.005$
	(0.001)	(0.007)	(0.002)	(0.001)	(0.007)	(0.003)
Observations Countries	7,873 58	3,951 56	5,763 56	7,873 58	3,951 56	5,763 56
				50		20
B. Historical Democracies, Negative Shock Measure Negative Shock <sub>C,t-1</sub>	re 2. -0.002	0.006	0.005	-0.002	0.006	0.005
Negative Shock $_{c,t-1}$	-0.002 $(0.001)$	(0.005)	(0.003)	-0.002 $(0.001)$	(0.004)	(0.003)
Negative Shock <sub>c,t-1</sub> × Support for Democracy <sub>c</sub>	0.001)	-0.003	-0.004	0.001)	-0.003	-0.005
rieganie snoeme, i=1 w support for Bemoeracy	(0.001)	(0.006)	(0.002)	(0.001)	(0.007)	(0.002)
Observations	7,873	3,951	5,763	7,873	3,951	5,763
Countries	58	56	56	58	56	56
C. Historical Nondemocracies, Negative Shock Me	easure 1.					
Negative Shock $_{c,t-1}$	0.000	0.019	0.012	0.000	0.019	0.012
	(0.003)	(0.007)	(0.005)	(0.003)	(0.007)	(0.005)
Negative Shock <sub>c,t-1</sub> × Support for Democracy <sub>c</sub>	-0.001	0.005	0.008	-0.002	0.001	0.012
	(0.002)	(0.007)	(0.006)	(0.002)	(0.008)	(0.006)
Observations	4,413	3,065	2,739	4,413	3,065	2,739
Countries	46	45	45	46	45	45
D. Historical Nondemocracies, Negative Shock Ma	easure 2.					
Negative Shock $_{c,t-1}$	-0.001	0.016	0.010	-0.001	0.016	0.010
	(0.002)	(0.007)	(0.005)	(0.002)	(0.007)	(0.005)
Negative Shock <sub>c,t-1</sub> $\times$ Support for Democracy <sub>c</sub>	-0.001	-0.001	0.001	-0.002	-0.006	0.006
	(0.002)	(0.006)	(0.004)	(0.002)	(0.007)	(0.004)
Observations	4,413	3,065	2,739	4,413	3,065	2,739
Countries	46	45	45	46	45	45

Notes: This table reports OLS coefficient estimates of the interaction between support for democracy and negative economic shocks, and the dependent variables are GDP growth, Conflict, and Coups. The unit of observation is a country-year pair. Panels A and B (Panels C and D) report the results for historical democracies (nondemocracies), which are defined as the set of countries that have been in a democratic regime for more (less) than the mean duration of democracy between 1920 and 2020. In Panels A and C, a negative shock is defined as a dummy equal to one if the GDP growth rate is less than one standard deviation below the average growth rate in our sample (see Section 4.2), while in Panels B and D, it is defined as a dummy equal to one if the GDP growth rate is less than the 25th percentile of the country's own distribution. In columns 1–3, Support for Democracy is measured as the country-average support for democracy (using our main index described in Section 2); in columns 4–6, it is defined as the country fixed effects from equation (2). For the definition of GDP growth and Conflict, see Section 2. Coup is a dummy equal to one if the country experienced an irregular change of who is in power (Archigos v. 4.1). All regressions include country and time-fixed effects. Standard errors are computed with clustering at the country and are robust against heteroscedasticity.

Overall, we interpret this set of results as preliminary evidence that support for democracy matters for the functioning and longevity of democratic institutions, and thus successful democracies not only breed their own support but also improve their own functioning.

#### 7. CONCLUSION

Many commentators view our age as the twilight of democracy (e.g. Mishra, 2017; Deneen, 2019) and surveys reporting dwindling support for democratic institutions have multiplied recently. Regardless of the exact cause of democracies' problems, the public support they receive may be critical for their survival. In this paper, we have documented that support for democracy increases significantly when individuals have been exposed to democratic institutions, especially when these democratic institutions have delivered in terms of economic growth, peace and political stability, control of corruption, public expenditure, and low inequality.

We have built this case by using several empirical strategies, approaches, and datasets. Our baseline approach compares individuals in the same age group that have had different democratic experiences—both in terms of length and whether democracies have performed successfully—across countries as well as different age groups within the same country and the same age group across different points in time. In all cases, an increase in exposure to (successful) democracy makes an individual more likely to support democracy, oppose a strong leader, oppose army rule, become more willing to defend the democratic system, and put more trust in the government rather than non-elected experts.

Across a variety of specifications, samples, and estimation strategies, these patterns are robust and their timing (*e.g.* pre-birth exposure having no effect) is consistent with our interpretation that our strategy estimates the impact of exposure to successful democracy, rather than a spurious correlation or the influence of omitted variables. We have also documented that exposure to overall or successful democracy does not influence non-political attitudes. These placebo exercises assuage, at least partially, concerns about our results being driven by general social changes that simultaneously impact a country's democratic status and its citizens' views about democracy.

Our results have implications for policy discussions. They suggest, for example, that the ability of democratic regimes to deliver prosperity, low corruption, peace and political stability, and redistribution, as well as the availability of credible information on democracy's positive effects may be important to secure democratic stability. The relevance of these considerations becomes more salient in a context of recent anti-democratic trends around the world.

The rise of populist politics and anti-democratic movements in recent times may seem at odds with our findings, since exposure to democracy has grown until recently. There is no contradiction, however. In our interpretation, had it not been for expanding exposure to democracy, we would see even *less* support for democratic institutions today. Moreover, according to several relevant metrics, democracies have not been very successful lately. For instance, inequality has surged in many countries, and there is a growing sense that this reflects a failure of democratic governance (see, *e.g.* Wolf, 2023). There are also other dimensions of successful performance that we have not considered in our analysis—*e.g.* many democracies have failed to take action against climate change and other global threats—which may have also affected young generations' assessment of their success. Democracies today have to deal with more complex problems caused by rising aspirations, rapid automation and globalization, and new patterns of political communication brought about by the spread of social media. Exploring the causes of the recent surge in populist politics and anti-democratic attitudes in the context of the broader determinants of support for democracy is, obviously, an important direction for future research.

There are several other fruitful areas for future research that may shed further light on the impact of the history of institutions on political attitudes, values and culture. First, while we presented preliminary evidence that support for democracy matters for the survival and efficient functioning of democratic institutions, much more work on this linkage is necessary to obtain a more holistic understanding of what types of attitudes and behaviours matter more. For

instance, it would be interesting to investigate whether individuals who become more supportive of democracy take actions to actively protect democratic institutions or engage in greater democratic discourse.

Second, the specific mechanisms linking exposure to democracy and support for democracy need to be explored further. Our results suggest that the main channel may be through exposure to successful policies and public good provision by democracies, but these mechanisms need to be studied using more extensive microdata on which individuals and communities benefit more from democratic institutions.

Third, it would be interesting to exploit variation at more granular levels, such as across municipalities, since in many cases the quality of democratic institutions and their success varies greatly across different parts of the country, and support for democracy may well start at the local level.

Finally, another important research area is to investigate whether *perceptions* of the success of democracy also matter. This question has become more salient as the amount of misinformation and polarized media reporting has multiplied over the last two decades. This trend raises the question of whether support for democracy is declining in part because of incorrect or biased reporting about the achievements and shortcomings of democratic regimes.

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#### **Supplementary Data**

Supplementary data are available at Review of Economic Studies online.

#### Data availability statement

The replication package available on Zenodo at https://dx.doi.org/10.5281/zenodo.10569266 provides the code and the publicly available data underlying this research, as well as details on how to access the data that are not publicly available.

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