Original Research Reports

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Social and Economic Determinants of Support for a Strong Non-Democratic Leader in Democracies Differ From Non-Democracies

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Abstract

A growing body of evidence suggests that support for a strong non-democratic leader is driven, in part, by low economic development and economic inequality at the country level, and low income and interpersonal trust at the individual level. In the current research, we tested the hypothesis that although such a pattern predicts support for a strong non-democratic leader in democracies, it should produce decreased support for a strong non-democratic leader in non-democracies (where the presence of such leaders is the political status quo). Using three waves of World Values Survey data (2005-2020), as predicted, we found that in democracies, low economic development, high inequality, and low interpersonal trust predicted support for a strong non-democratic leader. However, in non-democracies, support for a strong non-democratic leader was higher in more economically developed countries and among individuals with higher social trust. These results contradict modernization theory's proposition that development promotes support for democratic rule and suggest that economic development reinforces support for the existing political system.

Keywords

strong leaders, social capital, modernization, authoritarianism, democracy

The recent rise in strong leaders assuming power globally has drawn attention to understanding popular support for such leaders (Chong & Gradstein, 2018; Miller, 2017; Sprong et al., 2019). To date, however, the extant literature has overlooked predictors of continued support for strong non-democratic leaders in non-democracies. The present research aims to fill this gap by comparing predictors of support for strong non-democratic leaders across different levels of democracy. Such investigations are important for understanding political preferences as well as to inform advocates of pro-democracy reform whom should be mindful of contextual factors that might impact the efficacy of their actions.

According to Miller (2017), among others (Krieckhaus et al., 2014), economic and social problems (e.g., high inequality, low living standards and low social cohesion) lead to political unrest and discontent with the current political system as citizens' system-justifying beliefs erode. Outcomes of this unrest include voting out political incumbents (Newman & Hayes, 2019), protests, and support for alternative forms of governance (Chong & Gradstein, 2018). The purpose of the current research was to compare democratic and non-democratic countries in terms of factors that predict support for a strong non-democratic leader. We hypothesized that support for a strong non-democratic leader—one who is willing to subvert democratic processes to achieve their goals—in historically democratic countries (i.e., support for an alternative form of governance) is marked by high income inequality, low living standards and low social cohesion. Conversely,

in non-democracies these same problems should be associated with resentment with the current political system (see Isemann et al., 2019; Roßteutscher, 2010) and erode support for strong non-democratic leaders. We examined these hypotheses using data from the World Values Survey.

Support for Strong Non-Democratic Leaders

According to Acemoglu and Robinson (2006), a country is considered democratic when citizens are free to elect a government that promotes civil liberties, and non-democratic when its leaders do not represent their citizens nor promote civil liberties (Acemoglu & Robinson, 2006).[1] Of course, strong non-democratic leaders can thrive in both political contexts (Chong & Gradstein, 2018). In the current research, we operationally defined a strong non-democratic leader to be a leader of a non-democratic country (e.g., President Xi Jinping of China) or a leader of a democratic country who undermines its own democratic institutions (e.g., elected parliaments) and circumvents legislative and constitutional constraints (e.g., President Erdogan of Turkey). In so doing, a strong non-democratic leader can devastate civil liberties regardless of the political system through which they rose to power. Non-democratic regimes restrict freedom of expression (e.g., Duffy, 2015), repress minorities (Hierman, 2007; Rørbæk & Knudsen, 2017), and censor, arrest, and murder political opponents (e.g., Mochtak & Holzer, 2017; Pereira, 2003). Similarly, strong non-democratic leaders in democratic countries constrain political freedoms (Bermeo, 2016; Inglehart & Norris, 2017) and censor and arrest political opponents (Esen & Gumuscu, 2016; Kaufman & Haggard, 2019).

Alarmingly, despite the reduction in civil liberties that accompany non-democratic leadership, the prevalence of strong non-democratic leaders on the world-stage is on the rise (Foa, 2018). The percentage of the world's population living in some form of democracy fell from 49.3% to 47.7% in 2018, and only 4.5% of the world's population lives in a fully functional democracy (Economist Intelligence Unit, 2019). This trend suggests that popular support for strong non-democratic leaders has increased in democratic countries (Mechkova et al., 2017). However, the factors that promote support for this leadership style differ between democratic and non-democratic countries.

Economic Predictors of Support for Strong Non-Democratic Leaders

Although there is considerable research on predictors of public opinion toward strong non-democratic leaders in democratic countries (e.g., Chong & Gradstein, 2018; Miller, 2017; Sprong et al., 2019), there is a lack of research that has compared and contrasted such support with non-democratic countries. In fact, non-democratic countries (which are often non-Western) are underrepresented in political psychology. Even when such countries are included in a larger sample (e.g., Miller, 2017), research has not assessed whether social and economic variables function differently in non-democratic and democratic countries. We believe that failure to do so has masked significant differences between democratic and non-democratic countries in the relation between economic and societal conditions, individual socioeconomic status, and support for strong non-democratic leaders.

We contend that differences in support for strong non-democratic leaders stem, in part, from different outcomes that known social psychological processes may have in democracies and non-democracies. Social dominance theory (SDT; Sidanius et al., 1994), for example, posits that high-status groups legitimize existing social hierarchies more than low-status groups. Extensive research supports this supposition by demonstrating that individuals from more powerful social groups (e.g., men, white Americans) support social hierarchies more than individuals from less powerful social groups (e.g., women, racialized Americans; see Lee et al., 2011, for a meta-analysis). Relatedly, realistic group conflict theory (RCT; LeVine & Campbell, 1972; Sherif et al., 1961) advanced the contention that intergroup conflict arises from groups acting in their own self-interest. By applying this theory to competition over economic resources, Esses, Jackson, and Armstrong (1998) found that individuals will support systems and policies that support their group's economic interests. Based on SDT and RCT, individuals who benefit from a system, especially economically, should be more likely to support it. Furthermore, when individuals think of their group as their nation, they will be more likely to support

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[1] Although we acknowledge that countries exist along a democratic continuum, for rhetorical simplicity we discuss this continuum in a binary manner (i.e., democracies and non-democracies).

the existing societal system when their country is succeeding economically. In line with this supposition, Vargas-Salfate and colleagues (2018) found that individuals high in social status are more likely to justify the existing social system, and that this effect is stronger in developed nations. On the other hand, support for political reform is higher when economic conditions are perceived to be poor (Boldero & Higgins, 2011), and this support exists across the political spectrum when individuals disapprove of the status quo (Proch et al., 2019).

Herein, we put forth the idea that economic development supports citizens' faith in the existing political system, regardless of whether it is democratic or non-democratic, because it may lead to feeling advantaged relative to other nations. More specifically, in the current research we hypothesized that economic development and democratic categorization should interact to predict support for a non-democratic leader. Economic development will be related to lower support for a strong non-democratic leader in democracies but higher support for a non-democratic leader in non-democracies (H1).

The aforementioned hypothesis is in contrast with modernization theory (an influential theory of democratization in political science; Lipset, 1959; Rostow, 1971), which posits that once a country reaches a critical level of wealth it will not revert to an authoritarian regime (Przeworski & Limongi, 1997). The idea is that economic development supports citizens' faith in democracy. Our contention that economic development in non-democratic countries results in greater support for a non-democratic leader conflicts with the notion that increasing economic development leads to increasing social cohesion and tolerance (see Przeworski & Limongi, 1997; Sullivan & Transue, 1999), and thereby democracy. Although political science typically frames economic growth as a hallmark of democratization, there are currently numerous examples of economically successful non-democratic regimes (e.g., China, Singapore). Economic development in non-democratic countries may therefore discourage citizens from supporting a move to an alternative political system by strengthening their support for the status quo.

Economic performance is one path through which authoritarian regimes achieve legitimacy in the eyes of their citizens (Dukalskis & Gerschewski, 2017; von Haldenwang, 2017). By creating economic growth (Foa, 2018) and publicly emphasizing their successes (von Soest & Grauvogel, 2017), non-democratic regimes can consolidate support for their form of political leadership (Mishler & Rose, 2001). Citizens in a non-democracy (e.g., China) may believe that their strong non-democratic leader is the only person who can maintain economic growth and prosperity (see Dickson, Shen, & Yan, 2017). In such a context, citizens may prioritize economic stability over their democratic rights. On the other hand, citizens of poor non-democratic countries should be more likely to experience discontent with their political system when it fails to deliver the wealth they were promised—events that arguably resulted in the Arab Spring (Campante & Chor, 2012).

Turkey is particularly problematic for modernization theory because it is a wealthy democracy that has demonstrated broad support for a strong non-democratic leader (i.e., President Erdogan; Sarfati, 2017). Kaufman and Haggard (2019) argued that support for strong non-democratic leaders in wealthy democracies tends to follow a period of political dysfunction and economic upheaval. Support for these leaders may stem from a concern about economic stagnation and the belief that a strong non-democratic leader can bring prosperity by implementing a coherent economic plan unencumbered by the bureaucracy of democratic institutions.

Inequality is another factor that can promote support for a strong non-democratic leader in democracies. Economic inequality, which can increase feelings of dissatisfaction and unhappiness (Oishi et al., 2011), has been shown to be an especially robust predictor of both reduced support for democracy (Andersen, 2012; Krieckhaus et al., 2014) and increased support for a strong non-democratic leader (Chong & Gradstein, 2018; Miller, 2017; Sprong et al., 2019). This is in line with relative deprivation theory (Smith & Pettigrew, 2015) because income inequality is often thought of as an aggregate indicator of relative deprivation (Yitzhaki, 1979) which is a predictor of collective action (Smith et al., 2012) and lower support for existing political institutions (Isemann et al., 2019). By contrast, when extended to non-democracies, these results imply that inequality will reduce support for a strong non-democratic leader in non-democratic countries through increased relative deprivation and reduced support for the existing political system. Therefore, we hypothesized that economic inequality would interact with democracy level such that it would be associated with support for a strong non-democratic leader in non-democracies and negatively associated with support for such leaders in democracies (H2).

At the individual level, we hypothesized that income has differential effects on support for a strong non-democratic leader in democracies and non-democracies. Again, in line with SDT and RCT, individual income should increase support for the current political system (see Dettrey, 2013; Kramer, 1971; Lewis-Beck & Stegmaier, 2013). This, however, contradicts predictions that could be derived from system justification theory (SJT; Jost et al., 2004), which argues that low-status individuals are apt to justify the existing social system. We argue that low-income individuals are likely to grow frustrated with the existing system and support alternatives that promise them better economic outcomes. Wealthy individuals in democracies and non-democracies alike are less likely to desire significant political change—change that may threaten their economic position (i.e., they experience a "fear of falling"; Jetten et al., 2017). However, in non-democracies, support for the status quo would manifest as support for a strong non-democratic leader and systems that benefit the wealthy either in their roles as government officials or through other formal (e.g., business partnerships) or informal (e.g., corruption) means. In this light, we hypothesized that there would be an interaction between individual income and democracy level such that income would be negatively related to support for a strong non-democratic leader in democracies (Chong & Gradstein, 2018; Miller, 2017) and positively related in non-democracies (H3).

Social Capital and Education

Economic factors are not the only predictors of support for a strong non-democratic leader, nor are they the only predictors that should differ in strength and direction between democracies and non-democracies. We sought to highlight some differences in determinants of support for strong non-democratic leaders between democracies and non-democracies by examining the effects of social capital and education. These variables both have demonstrated effects on support for strong non-democratic leaders in democracies (Chong & Gradstein, 2018; Roßteutscher, 2010) that we believe would differ in non-democracies.

Social capital is a broad concept popularized by Putnam (2000) that reflects the value of social networks to the individual, which can be used "to strengthen their communities, to mobilize resources needed to solve social problems, and to make their voices heard in larger political arenas" (p. 63). Social capital is often thought to be a core tenet of democratic societies (Putnam et al., 1993). The concept generally consists of several sub-categories including social and political trust and membership in voluntary organizations. We focused on interpersonal trust, which Uslaner (2000) called the "foundation of a civil society." (p. 572). Supporting this notion, previous research has found a robust relation between interpersonal trust and democratic support in democratic countries (Miklikowska, 2012; Roßteutscher, 2010). In non-democracies, Roßteutscher (2010) found that social trust reduces support for democracy, and Jamal (2007) demonstrated it enhances confidence in non-democratic political institutions in Arab states. Therefore, we hypothesized that interpersonal trust is negatively related to support for a strong non-democratic leader in democratic countries but positively related to support for a strong non-democratic leader in non-democratic countries (H4).

Education has also been found to reduce support for a strong non-democratic leader (see Chong & Gradstein, 2018; Miller, 2017), however, this research has combined participants across democracies and non-democracies, which potentially obscures differences between the two political realities. In democratic countries, higher education has consistently been linked with reduced authoritarianism (Altmeyer, 1996; Pavlović et al., 2019), likely because liberal values are enhanced in higher education in Western societies (Van Hiel et al., 2018). In non-democratic countries, the link is less clear. Because these educational systems are less likely to emphasize liberal values, we hypothesized that education would interact with democratization. Specifically, education will be negatively related to support for a strong non-democratic leader in democracies and be unrelated (or have a small positive effect) in non-democracies (H5).

All materials and code are publicly available via the Open Science Framework (OSF): https://osf.io/6puam/. Raw data were not posted due to imposed restrictions on data sharing but may be downloaded online from www.worldvaluessurvey.org.

Method

Participants and Data Source

We tested our hypotheses using data from the World Values Survey (WVS), an international survey conducted on nationally representative samples from almost 100 countries every five to ten years (Inglehart et al., 2014). Importantly, the survey includes a large sample of non-Western countries that are typically underrepresented in social and political psychology research. The WVS covers topics that include political and religious beliefs, personal well-being, and attitudes towards marginalized groups. We used data collected in Waves 5 (2004-2009), 6 (2010-2014) and 7 (2017-2020) of the WVS because they were the most recent at the time of data analysis. Earlier waves were not included because they did not include variables related to interpersonal trust, and our measure of democracy was not available for prior years. A total of 243,118 individuals were surveyed across 88 countries in 166 distinct country-years. Data from 2020, as well as data from Japan, Tunisia and the Philippines in 2019 were excluded because reliable estimates of the Gini index were unavailable and data from two country-years (Rwanda in 2007 and Qatar in 2010) were removed from the analysis because support for strong non-democratic leaders was not assessed. Therefore, the final sample consisted of 222,436 individuals from 81 countries in 149 country-years (see Table S1 in the Supplementary Materials for a full list of country-years and Ns). Given the large sample size, statistical power was not a concern. Respondents ranged from 15 to 102 years of age (M = 42.0, SD = 16.4) and 47.85% were female.

Measures

Country-Year-Level Independent Variables

Three country-year-level independent variables were included: democracy level, economic development, and economic inequality. Countries' democracy level was measured by the Democracy Index (DI; M = 6.25, SD = 1.90) from the Economist Intelligence Unit (EIU), a common measure of democracy in international political psychological research (e.g., Pratto et al., 2013; Cichocka et al., 2018) for the year previous to the survey year (or 2006 for countries surveyed prior to 2007 because this Index was not previously published). The EIU classifies countries that score above a 6.0 (on a scale from 0-10), as "full democracies" or "flawed democracies" (N = 91) and those scoring below a 6.0 as "hybrid regimes" or "authoritarian" (N = 58). Andorra's DI, which is not computed by the EIU, was imputed as 8.16, the predicted value based on a simple regression of DI on Freedom House's Freedom scores (R^2 = 0.84).

Gross Domestic Product (GDP) per capita, adjusted for purchasing power parity and measured in constant 2017 international dollars, was used as an indicator of economic development. These data were retrieved from the World Bank World Development Indicators database (World Bank, 2019). It ranged from $929 to $81,399 ($M$ = $23,035, SD = $17,761) prior to log-transformation. Economic inequality was measured using the previous year's after-tax and transfer Gini coefficient (or the most recent observation if data was unavailable for the previous year). These data were retrieved from the Standardized World Income Inequality Database (SWIID; Solt, 2019). Kuwait and Uzbekistan did not have recent income inequality data available in the SWIID, so estimates were retrieved from the University of Texas Inequality Project (Galbraith, 2017), and a World Bank (2016) report, respectively. The Gini index has a theoretical range of 0 (every individual in the country earns the same income) to 1 (one individual earns all the income in the country) but in our sample ranged from .23 to .61 (M = .37, SD = .08).

Individual-Level Independent Variables

Three individual-level independent variables were included in our model. We included interactions of the Democracy Index with each of these variables. First, household income was measured on a scale from 1 (lowest) to 10 (highest). Respondents indicated their income in local currency and this value was then converted into their income decile within their country (M = 4.72, SD = 2.16).

Next, interpersonal trust was assessed using the 6-item trust sub-scale of the World Values Survey Social Capital Scale developed by Elgar et al. (2011). This scale includes the dichotomous variable, "Would you say that most people can be trusted or that you need to be very careful in dealing with people?", and five variables on a 4-point scale

indicating one's level of trust towards people in their neighborhood, people they know personally, people they meet for the first time, people of another religion and people of another nationality. The dichotomous variable was transformed so that a 0 indicated lower trust and a 3 indicated higher trust, and then the scale was constructed by taking the arithmetic mean of the six items (M = 1.32, SD = 0.66, α = .75).

Educational attainment was also measured at the individual-level. The scale used to measure education changed between Waves 6 and 7 of the WVS so a hybrid scale that ranges from 1-6 was constructed to combine both measures. Among our sample, 6.5% did not complete primary education, 13.7% completed primary education, 16.3% completed some secondary education, 35.3% completed secondary education, 9.5% completed some post-secondary education and 18.8% attained a university degree.

Dependent Variable

The dependent variable was the extent to which respondents thought that "Having a strong leader who does not have to bother with parliament and elections" was a good form of governance for their country. Responses were classified on a 4-point ordinal scale anchored at 1 (*very bad*) and 4 (*very good*). This variable was converted to a ridit variable that ranged from 0.14 to 0.92 for the main analyses (Bross, 1958). Similar to a percentile rank, the ridit is the weighted cumulative proportion of responses in all lower categories plus one-half the proportion of cases in the category itself.

Control Variables

We controlled for age, gender, political orientation, and emancipative values because previous research found that they significantly correlated with support for a strong non-democratic leader (Chong & Gradstein, 2018; Letsa & Wilfahrt, 2018; Miller, 2017). Political orientation was measured using a single-item 10-point scale ranging from 1 (*left*) to 10 (*right*; M = 5.68, SD = 2.37). Finally, we included only the choice sub-scale of the emancipative values index (referred to as "emancipative values"; Welzel, 2013; M = 3.89, SD = 2.63, α = .82) because Sokolov (2018) recently raised concerns regarding the cross-national validity of the other sub-scales, especially in non-Western countries. This scale assesses individuals' attitudes towards freedom of choice on issues such as abortion and gay marriage and ranges from 1 (*never justifiable)* to 10 (*always justifiable*).

Data Analysis

All data analysis was conducted using STATA 16.1. A significant portion of the data were missing. Overall, our model had 4.6% missingness, with political orientation (28.4%) and support for strong non-democratic leaders (8.2%) containing the most missing data. Listwise deletion resulted in a sample of 137,881 (62% of the original sample). This method can cause inefficient and biased estimates when data are not missing completely at random (Rubin, 1976). Little's test showed that our data were not missing completely at random. Therefore, we used multiple imputation with chained equations (Azur et al., 2011) to account for missing data. Variables which were not included in our analysis models, including interest in politics and support for democracy, were included in the imputation model to improve the imputed estimates (Azur et al., 2011). We generated 10 imputed datasets, in line with Lall's (2016) suggestion that the number of imputed datasets should be equal to the average percentage of missing-data across all variables in the imputation model, and simulations by Graham and colleagues (2007) that show very little increase in power past 10 datasets with 10% missingness. Interaction variables were imputed using the "Just another variable" approach because it reduces bias in estimates of coefficients (von Hippel, 2009). We estimated our models, and corresponding marginal effects, by collapsing estimates across these 10 datasets using Rubin's rules (Rubin, 1976).

Given the ordinal nature of the dependent variable, we attempted to estimate a multilevel ordinal logistic model. However, models which included random effects at the country and country-year level did not converge. We instead transformed the dependent variable to continuous ridit scores (Bross, 1958) which allowed us to fit linear models that accounted for the appropriate country and country-year random effects as well as year fixed effects (not accounting for random effects at the year level can lead to biased estimates of standard errors of year fixed effects but that does not bias other estimates; Schmidt-Catran & Fairbrother, 2016). The ridit transformation is an intuitive and efficient means to convert ordinal data of any kind for statistical tests that assume an interval scale (Donaldson, 1998). We also

included random slopes at the country-year level for the individual-level effects included in cross-level interactions. As robustness checks we estimated ordinal logistic models with country-year random effects and linear models using listwise deletion and excluding control variables. Finally, we limited our sample to countries with at least two waves of data available and used societal growth curve modelling (Fairbrother, 2014) to decompose the effects of income inequality and economic development on support for a strong non-democratic leader into cross-sectional and longitudinal components. Both variables were decomposed into a country mean (cross-sectional effect) and a difference from their country mean in any given year (longitudinal effect).

Results

Table 1

Multilevel Linear Models of Support for a Strong Non-Democratic Leader

Variable	Model 1			Model 2		
	B	95% CI	*p*	*B*	95% CI	*p*
Male	0.003	[-0.00, 0.01]	.19	0.003	[-0.00, 0.01]	.19
Age	-0.01**	[-0.01, -0.00]	< .01	-0.01**	[-0.01, -0.00]	< .01
Political Orientation	0.01**	[0.01, 0.01]	< .01	0.01**	[0.01, 0.01]	< .01
Emancipative values	-0.01**	[-0.02, -0.01]	< .01	-0.01**	[-0.02, -0.01]	< .01
Income	0.00	[0.00, 0.00]	.52	0.00	[0.00, 0.00]	.53
Education Level	-0.02**	[-0.02, -0.02]	< .01	-0.02**	[-0.02, -0.02]	< .01
Trust	-0.00	[-0.01, 0.00]	.63	-0.00	[-0.01, 0.00]	.63
Democracy Index (DI)	-0.01	[-0.04, 0.02]	.56	-0.01	[-0.03, 0.01]	.40
Income inequality	-0.02**	[0.00, 0.04]	.02	-0.00	[-0.02, 0.01]	.71
Log GDP per capita	0.02	[-0.01, -0.04]	.28	-0.01	[-0.04, 0.02]	.50
Income * DI	-0.003*	[-0.01, 0.00]	.05	-0.003*	[-0.01, 0.00]	.05
Education Level * DI	-0.01**	[-0.01, -0.01]	< .01	-0.01**	[-0.01, -0.01]	< .01
Trust * DI	-0.01**	[-0.01, -0.01]	< .01	-0.01**	[-0.01, -0.01]	< .01
Income inequality * DI	0.02*	[0.00, 0.04]	.02	-0.00	[-0.02, 0.01]	.62
Log GDP per capita * DI				-0.06**	[-0.08, -0.04]	< .01
Country SD	0.08	[0.06, 0.10]		0.06	[0.04, 0.09]	
Country-year SD	0.06	[0.04, 0.09]		0.06	[0.04, 0.09]	
Income SD	0.01	[0.01, 0.02]		0.01	[0.01, 0.02]	
Education SD	0.02	[0.01, 0.02]		0.02	[0.01, 0.02]	
Trust SD	0.02	[0.02, 0.03]		0.02	[0.02, 0.03]	
Residual SD	0.25	[0.24, 0.26]		0.25	[0.24, 0.26]	
# of countries	82			82		
# of country-years	149			149		
N	222,436			222,436		
AIC	17,225	[16,773, 17,676]		17,195	[16,743, 17,647]	
BIC	17,585	[17,134, 18,037]		17,628	[17,176, 18,080]	

Note. CI = confidence interval; AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion. Standardized coefficients presented for continuous variables and standard errors are adjusted for clustering at the country level. Year fixed effects included but not reported.
*$p < .05$. **$p < .01$.

Cross-Sectional Results

Table 1 displays the results of multilevel linear models of support for a strong non-democratic leader. Given that the dependent variable is a ridit variable, coefficients can be interpreted as the percentage change in support for a strong non-democratic leader relative to the rest of the sample. Model 1 includes all effects except the interaction between GDP

and Democracy Index (DI).[2] In this model, income inequality interacted with DI, B = 0.02, p < .01, 95% CI [0.00, 0.04]. Income inequality also exhibited a significant main effect, B = 0.02, p = .02, 95% CI [0.00, 0.04]. In accordance with H2, income inequality was related to higher support for a strong non-democratic leader in democratic countries, B = 0.04, p < .01, 95% CI [0.02, 0.06]. Income inequality was not significant in non-democracies.

The interaction between GDP per capita and DI was added in Model 2 and mitigated the interaction between income inequality and DI. Because of this finding, we tested for multicollinearity but it was not evident (VIF < 3 for both interactions). Model fit statistics indicate that Model 1 and Model 2 had roughly the same fit to the data. The individual-level relations were identical across both models so the remainder of the reported results are from Model 2. As predicted, country-year-level wealth interacted with DI, B = -0.06, p < .01, 95% CI [-0.08, -0.04]. Marginal effects analyses showed that higher GDP per capita was related to lower support for a strong non-democratic leader in democracies, B = -0.07, p < .01, 95% CI [-0.11, -0.03], and higher support for such a leader in non-democracies, B = 0.05, p < .01, 95% CI [0.02, 0.07]. Figure 1 plots the simple slopes of the effect of income inequality by DI in Model 1 and the effect of GDP per capita by DI in Model 2 (a table of marginal effects is presented in Table S2 in the Supplementary Materials).

Figure 1

Marginal Effects of Inequality and GDP Per Capita on Support for a Strong Non-Democratic Leader by Democracy Index
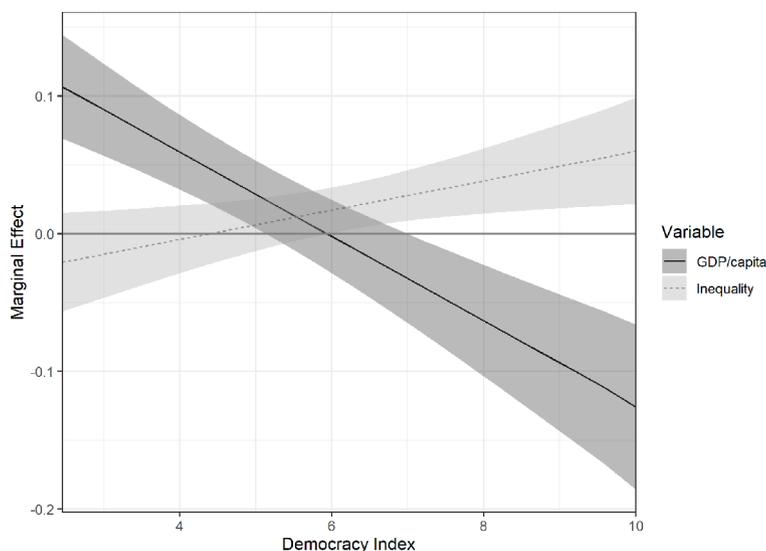
Note. This figure displays the marginal effect of income inequality on support for a strong non-democratic leader by DI for Model 1 and the marginal effect of GDP per capita by DI for Model 2. Bands represent 95% confidence intervals.

Because of the challenges with estimating standard errors of marginal effects of interaction variables imputed using the "just another variable" approach, we instead report the descriptive predicted ridit score of support for a strong non-democratic leader at levels of individual-level independent variables one standard deviation above and below their mean. Income had a small, marginally significant interaction with DI in the hypothesized direction, B = -0.003, p = .05, 95% CI [-0.01, 0.00]. Its main effect was not significant. Predicted support for a strong non-democratic leader was 0.01 lower among high-income individuals than low-income individuals in democracies, while it was 0.01 higher among high-income individuals compared to low-income individuals in non-democracies.

Trust interacted with DI, B = -0.01, p < .01, 95% CI [-0.01, -0.01], and did not have a main effect. Individuals with high interpersonal trust in democracies showed less support for a strong non-democratic leader (0.48) than individuals with

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2) Note that we also estimated a model with the GDP by DI interaction that excluded the inequality by DI interaction. Results were very similar to Model 2 so we have not reported it here (see Table S4 in the Supplementary Materials).

low trust (0.51), whereas in non-democracies, high trust individuals had higher support for a strong non-democratic leader (0.53) than low trust individuals (0.51). Individual-level education also interacted with DI, $B = -0.01$, $p < .01$, 95% CI [-0.01, -0.01]. However, education also exhibited a significant main effect, $B = -0.02$, $p < .01$, 95% CI [-0.02, -0.02]. As a result, higher education was related to lower support for a strong non-democratic leader in both democracies (0.47 versus 0.53) and non-democracies (0.51 versus 0.53), although the magnitude of the relation was smaller in non-democracies.

As robustness checks, we fit both models using a multilevel ordinal logistic model (see Table S3 in the Supplementary Materials) and listwise deletion (see Table S4 in the Supplementary Materials). The only difference in significance between these models and those reported here was that the interaction between income inequality and DI was not significant when using listwise deletion. Results were also robust to the exclusion of control variables (see Table S5 in the Supplementary Materials).

Figure 2

Forest Plot of the Effect of Income on Support for a Strong Non-Democratic Leader

Country - year	B (95% CI)	DI
Sweden (2006)	-0.01 [-0.02, 0.01]	9.88
Sweden (2011)	-0.01 [-0.03, 0.01]	9.50
Norway (2007)	-0.00 [-0.02, 0.01]	9.55
Netherlands (2006)	0.00 [-0.01, 0.02]	9.66
Netherlands (2012)	-0.01 [-0.03, 0.01]	8.99
Finland (2005)	-0.01 [-0.03, 0.01]	9.25
New Zealand (2004)	-0.02 [-0.04, -0.00]	9.01
New Zealand (2011)	-0.02 [-0.03, 0.00]	9.26
Australia (2005)	-0.00 [-0.01, 0.01]	9.09
Australia (2012)	-0.02 [-0.03, -0.00]	9.22
Australia (2018)	-0.01 [-0.02, 0.01]	9.09
Canada (2006)	-0.01 [-0.02, 0.01]	9.07
Switzerland (2007)	-0.00 [-0.02, 0.01]	9.02
Germany (2006)	-0.02 [-0.04, -0.00]	8.82
Germany (2013)	-0.00 [-0.02, 0.02]	8.34
Germany (2018)	-0.01 [-0.03, 0.00]	8.61
Spain (2007)	0.01 [-0.02, 0.03]	8.34
Spain (2011)	-0.00 [-0.03, 0.02]	8.16
Andorra (2005)	-0.01 [-0.03, 0.01]	8.16
Andorra (2018)	0.00 [-0.02, 0.03]	8.16
United States (2006)	0.00 [-0.02, 0.02]	8.22
United States (2011)	0.01 [-0.01, 0.02]	8.18
United States (2017)	0.01 [-0.00, 0.02]	7.98
Japan (2005)	-0.00 [-0.02, 0.01]	8.15
Japan (2010)	-0.00 [-0.01, 0.01]	8.08
United Kingdom (2005)	-0.02 [-0.03, 0.00]	8.08
France (2006)	-0.01 [-0.03, 0.01]	8.07
Uruguay (2006)	-0.00 [-0.03, 0.02]	7.96
Uruguay (2011)	0.01 [-0.01, 0.03]	8.10
South Korea (2005)	-0.02 [-0.03, -0.00]	7.88
South Korea (2010)	-0.00 [-0.02, 0.01]	8.11
South Korea (2018)	0.01 [-0.01, 0.03]	8.00
South Africa (2006)	0.02 [0.01, 0.03]	7.91
South Africa (2013)	0.03 [0.02, 0.04]	7.79
Slovenia (2005)	-0.01 [-0.03, 0.01]	7.96
Slovenia (2011)	-0.02 [-0.03, 0.00]	7.69
Chile (2006)	-0.01 [-0.03, 0.01]	7.89
Chile (2012)	-0.00 [-0.02, 0.02]	7.54
Chile (2018)	0.01 [-0.01, 0.04]	7.84
Italy (2005)	0.00 [-0.02, 0.02]	7.73
Estonia (2011)	-0.01 [-0.02, 0.01]	7.68
Taiwan ROC (2006)	-0.00 [-0.02, 0.01]	7.82
Taiwan ROC (2012)	0.01 [-0.02, 0.03]	7.46
Taiwan ROC (2019)	-0.00 [-0.02, 0.02]	7.73
Cyprus (2006)	0.01 [-0.01, 0.03]	7.60
Cyprus (2011)	0.01 [-0.01, 0.03]	7.29
Cyprus (2019)	0.00 [-0.02, 0.03]	7.59
India (2006)	-0.01 [-0.03, 0.01]	7.68
India (2012)	0.00 [-0.01, 0.01]	7.30
Hungary (2009)	-0.01 [-0.04, 0.01]	7.44
	-0.00 [-0.01, 0.00]	

Country - year	B (95% CI)	DI
Greece (2017)	-0.01 [-0.03, 0.01]	7.23
Poland (2005)	-0.01 [-0.03, 0.01]	7.30
Poland (2012)	0.00 [-0.02, 0.02]	7.12
Trinidad and Tobago (2006)	-0.00 [-0.02, 0.01]	7.18
Trinidad and Tobago (2010)	0.01 [-0.01, 0.03]	7.16
Brazil (2006)	-0.00 [-0.02, 0.01]	7.38
Brazil (2014)	-0.00 [-0.02, 0.01]	7.12
Brazil (2018)	0.01 [-0.00, 0.03]	6.86
Bulgaria (2006)	-0.01 [-0.03, 0.02]	7.10
Argentina (2006)	-0.00 [-0.02, 0.02]	6.63
Argentina (2013)	-0.00 [-0.02, 0.02]	6.84
Argentina (2017)	-0.00 [-0.03, 0.02]	6.96
Romania (2005)	0.00 [-0.01, 0.02]	7.06
Romania (2012)	0.01 [-0.00, 0.03]	6.54
Romania (2018)	-0.01 [-0.03, 0.01]	6.44
Mexico (2005)	-0.01 [-0.02, 0.01]	6.67
Mexico (2012)	0.00 [-0.01, 0.01]	6.93
Mexico (2018)	0.01 [-0.00, 0.02]	6.41
Ukraine (2006)	0.01 [-0.01, 0.03]	6.94
Ukraine (2011)	-0.01 [-0.03, 0.00]	6.30
Serbia (2006)	-0.01 [-0.02, 0.01]	6.62
Serbia (2017)	0.00 [-0.02, 0.02]	6.57
Colombia (2005)	-0.00 [-0.02, 0.01]	6.40
Colombia (2012)	0.00 [-0.01, 0.02]	6.63
Colombia (2018)	0.01 [-0.00, 0.02]	6.67
Moldova (2006)	-0.01 [-0.02, 0.01]	6.50
Indonesia (2006)	-0.01 [-0.03, 0.01]	6.41
Indonesia (2018)	0.01 [-0.00, 0.02]	6.39
Peru (2006)	-0.00 [-0.02, 0.02]	6.11
Peru (2012)	0.00 [-0.02, 0.02]	6.59
Peru (2018)	-0.00 [-0.02, 0.01]	6.49
Hong Kong SAR (2005)	-0.02 [-0.04, 0.00]	6.03
Hong Kong SAR (2014)	0.02 [0.00, 0.04]	6.42
Hong Kong SAR (2018)	0.02 [0.00, 0.03]	6.31
Malaysia (2006)	0.02 [0.00, 0.03]	5.98
Malaysia (2012)	0.00 [-0.01, 0.01]	6.19
Malaysia (2018)	-0.02 [-0.03, -0.00]	6.54
Philippines (2012)	0.01 [-0.00, 0.02]	6.12
Guatemala (2004)	-0.00 [-0.03, 0.02]	6.07
Mali (2007)	0.01 [-0.01, 0.03]	5.99
Ecuador (2013)	0.03 [0.01, 0.04]	5.78
Ecuador (2018)	0.01 [-0.01, 0.02]	6.02
Singapore (2012)	0.01 [-0.00, 0.03]	5.89
Ghana (2007)	-0.01 [-0.02, 0.01]	5.35
Ghana (2012)	0.02 [0.00, 0.04]	6.02
Tunisia (2013)	-0.00 [-0.02, 0.02]	5.67
Bolivia (2017)	0.01 [-0.00, 0.03]	5.63
Thailand (2007)	0.02 [0.00, 0.03]	5.67
Thailand (2013)	0.01 [-0.00, 0.02]	6.55
Thailand (2018)	-0.01 [-0.03, 0.01]	4.63
	0.00 [-0.00, 0.01]	

Country - year	B (95% CI)	DI
Turkey (2007)	0.02 [0.00, 0.03]	5.70
Turkey (2011)	0.03 [0.01, 0.04]	5.73
Turkey (2018)	0.02 [0.01, 0.04]	4.88
Bangladesh (2018)	-0.02 [-0.04, -0.01]	5.43
Georgia (2009)	0.00 [-0.02, 0.02]	4.62
Georgia (2014)	-0.01 [-0.03, 0.01]	5.95
Zambia (2007)	0.02 [0.01, 0.04]	5.25
Lebanon (2013)	-0.00 [-0.02, 0.02]	5.05
Lebanon (2018)	-0.04 [-0.05, -0.02]	4.72
Libya (2014)	-0.01 [-0.02, 0.00]	4.82
Palestine (2013)	0.00 [-0.02, 0.02]	4.80
Ethiopia (2007)	0.01 [-0.01, 0.02]	4.72
Pakistan (2012)	-0.00 [-0.02, 0.01]	4.55
Pakistan (2018)	0.03 [0.01, 0.04]	4.26
Kyrgyzstan (2011)	0.01 [-0.01, 0.02]	4.31
Russian Federation (2006)	0.00 [-0.01, 0.02]	5.02
Russian Federation (2011)	0.01 [-0.01, 0.04]	4.26
Russian Federation (2017)	-0.02 [-0.03, 0.00]	3.24
Nigeria (2012)	0.02 [0.01, 0.03]	3.83
Nigeria (2018)	0.01 [-0.01, 0.02]	4.44
Armenia (2011)	-0.01 [-0.03, 0.01]	4.09
Iraq (2006)	0.01 [-0.01, 0.02]	4.01
Iraq (2013)	0.01 [-0.00, 0.03]	4.10
Iraq (2018)	0.01 [-0.01, 0.02]	4.09
Haiti (2016)	0.01 [-0.01, 0.02]	3.94
Jordan (2007)	-0.01 [-0.03, 0.00]	3.92
Jordan (2014)	0.01 [-0.01, 0.02]	3.76
Jordan (2018)	0.01 [-0.01, 0.02]	3.87
Morocco (2007)	-0.02 [-0.04, 0.00]	3.90
Morocco (2011)	0.02 [0.00, 0.04]	3.79
Algeria (2014)	-0.00 [-0.03, 0.02]	3.83
Kuwait (2014)	-0.00 [-0.02, 0.01]	3.78
Egypt (2008)	-0.00 [-0.02, 0.01]	3.89
Egypt (2013)	-0.01 [-0.02, 0.01]	3.95
Egypt (2018)	0.01 [-0.01, 0.04]	3.36
Burkina Faso (2007)	0.01 [-0.01, 0.03]	3.72
Belarus (2011)	0.02 [0.01, 0.04]	3.34
Rwanda (2012)	0.04 [0.03, 0.06]	3.25
Kazakhstan (2011)	0.01 [-0.01, 0.02]	3.30
Kazakhstan (2018)	-0.01 [-0.04, 0.01]	3.06
Azerbaijan (2011)	-0.01 [-0.03, 0.01]	3.15
China (2007)	0.01 [-0.01, 0.04]	2.97
China (2013)	0.00 [-0.01, 0.02]	3.00
China (2018)	-0.00 [-0.02, 0.01]	3.10
Iran (2007)	-0.00 [-0.01, 0.01]	2.93
Yemen (2014)	-0.00 [-0.02, 0.02]	2.79
Vietnam (2006)	-0.00 [-0.02, 0.02]	2.75
Zimbabwe (2012)	0.03 [0.01, 0.04]	2.68
Uzbekistan (2011)	0.01 [-0.01, 0.04]	1.74
	0.00 [0.00, 0.01]	

To explore how the effects of key individual-level variables vary across countries and across time, Figure 2, Figure 3, and Figure 4 display forest plots of the effects of income, education and trust, respectively, on support for a strong

non-democratic leader by country-year and sorted by democracy index averaged across each country's observations. The relation between income and support for a strong non-democratic leader does not appear to be affected by democracy level. Income was most strongly positively related to support for a strong non-democratic leader in Rwanda in 2012, $B = 0.04$, 95% CI [0.03, 0.06]. At the other end of the spectrum, in Lebanon, $B = -0.04$, 95% CI [-0.05, -0.02], income is strongly negatively related to support for a strong non-democratic leader. Another notable result is Hong Kong, which saw the effect of income switch from negative to positive between 2005, $B = -0.02$, 95% CI [-0.04, 0.00], and 2014, $B = 0.02$, 95% CI [0.00, 0.04].

Figure 3

Forest Plot of the Effect of Education on Support for a Strong Non-Democratic Leader
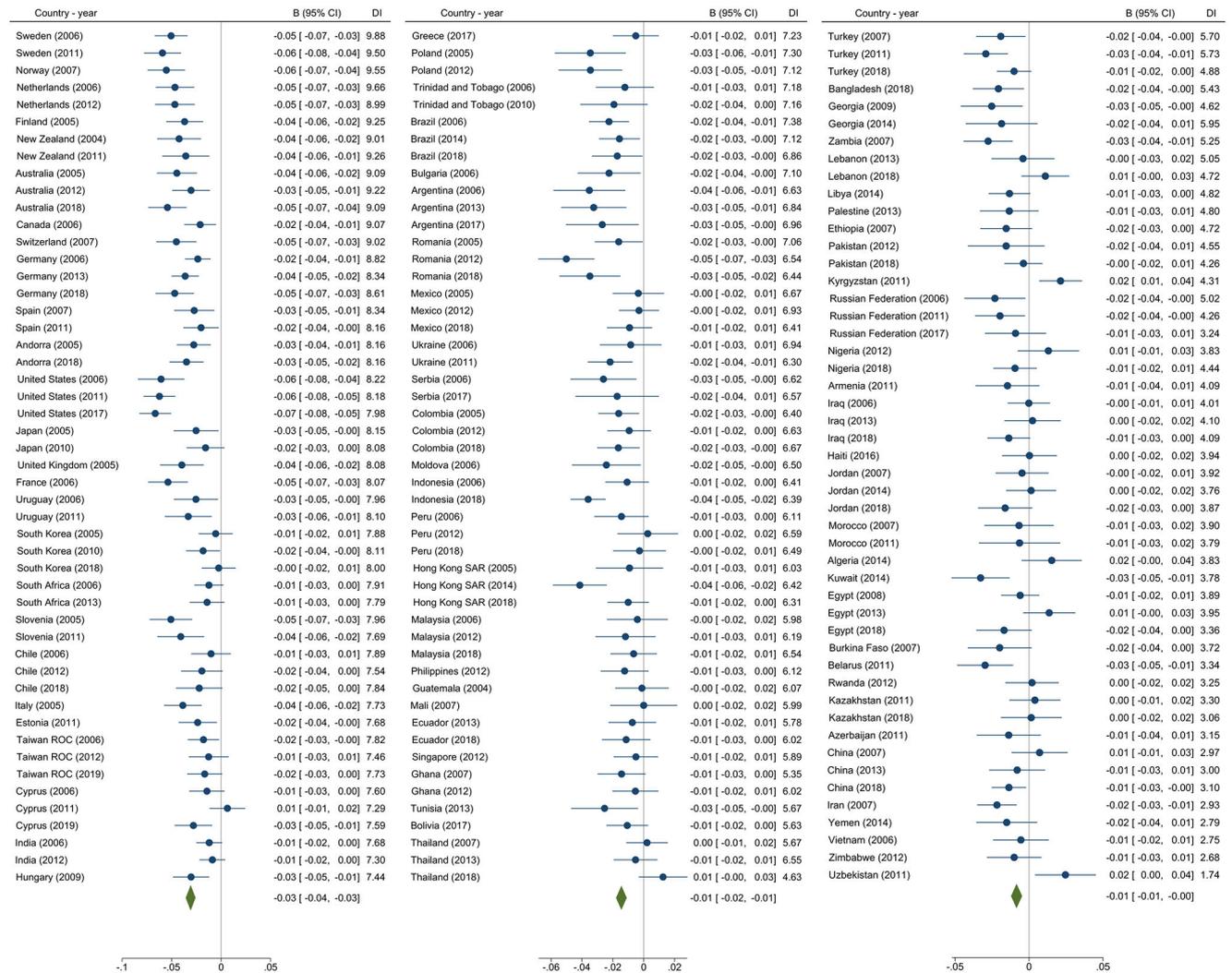
Figure 4

Forest Plot of the Effect of Trust on Support for a Strong Non-Democratic Leader
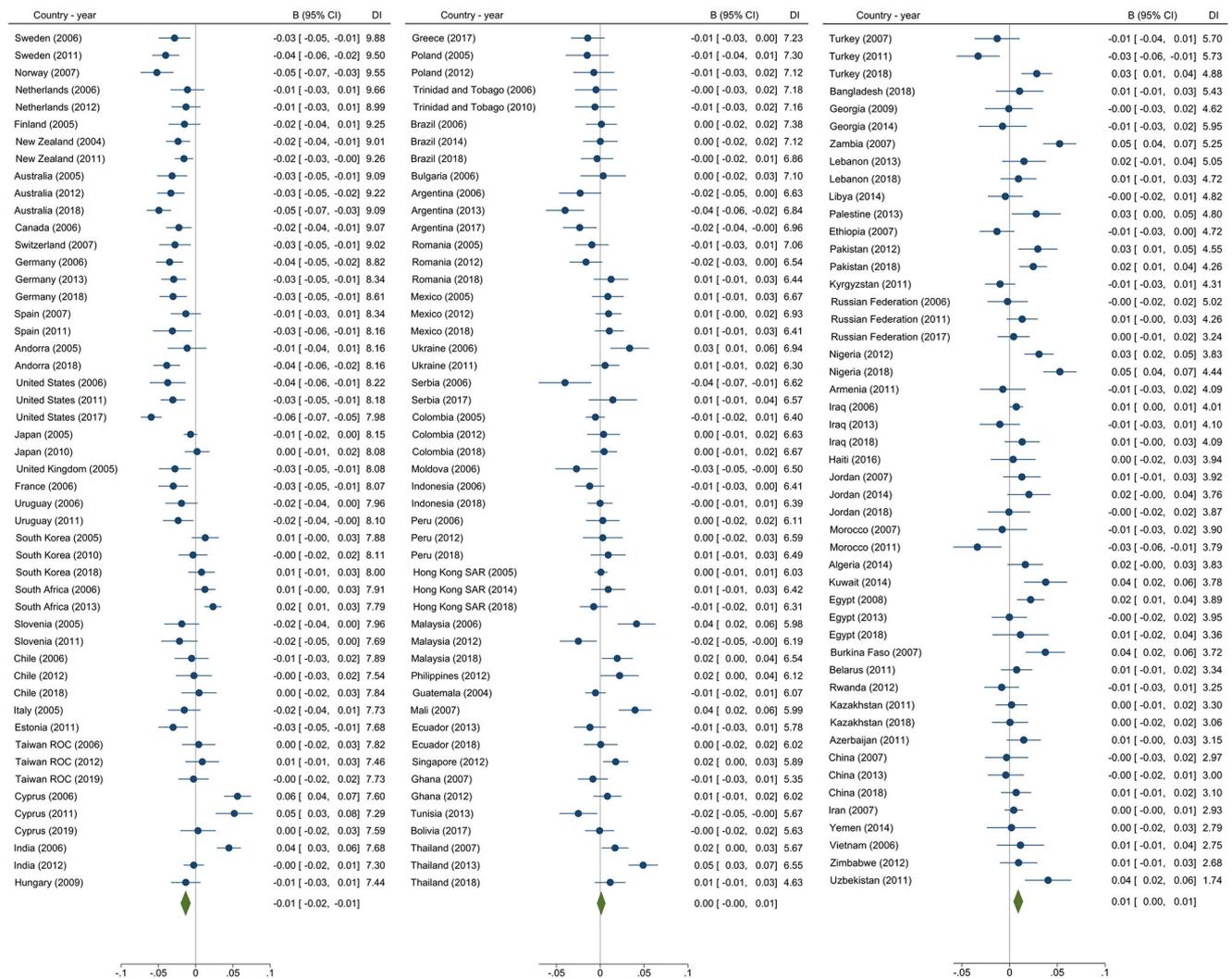
Figure 3 shows that the relation between education and support for a strong non-democratic leader is affected by democracy level. The most democratic countries exhibit consistent negative relations between education and support for a strong non-democratic leader. The strongest relation was found in the United States in 2017 during the Trump presidency, *B* = -0.07, 95% CI [-0.08, -0.05]. There is high variance among less democratic countries, with some non-democratic countries having significant positive effects of education, including Kyrgyzstan, *B* = 0.02, 95% CI [0.01, 0.04], and Uzbekistan in 2011, *B* = 0.02, 95% CI [0.00, 0.04]. As shown in Figure 4, the relation between interpersonal trust and support for a strong non-democratic leader is also related to democracy level. The relation is negative among the most democratic countries, with the strongest relations found in Norway in 2007, *B* = -0.05, 95% CI [0.51, 0.72], and the United States in 2017, *B* = -0.06, 95% CI [0.05, 0.07]. Non-democratic countries are more likely to have positive relations between interpersonal trust and support for a strong non-democratic leader, but significant positive relations are also found among democratic countries such as Cyprus in 2006. Asian countries including South Korea, Taiwan, Hong Kong, Indonesia and China exhibit no relationship between trust and support for a strong non-democratic leader.

Table 2

Societal Growth Curve Models of Support for a Strong Non-Democratic Leader

	Model 1			Model 2		
Variable	B	95% CI	p	B	95% CI	p
CM income inequality	0.01	[-0.02, 0.03]	.73	0.00	[-0.03, 0.02]	.73
Change in income inequality	0.00	[-0.01, 0.01]	.45	0.00	[-0.01, 0.01]	.62
CM log GDP per capita	0.00	[-0.05, 0.05]	.89	0.01	[-0.03, 0.05]	.76
Change in log GDP per capita	0.00	[-0.02, 0.01]	.85	-0.01	[-0.03, 0.01]	.33
CM income inequality * DI	0.02	[0.00, 0.04]	.11	-0.02	[-0.04, 0.00]	.09
Change in income inequality * DI	0.01	[-0.02, 0.03]	.50	0.00	[-0.02, 0.02]	.99
CM log GDP per capita * DI				-0.08**	[-0.11, -0.05]	< .01
Change in log GDP per capita * DI				-0.01	[-0.02, 0.01]	.27
Constant	0.46**	[0.42, 0.51]	< .01	0.50**	[0.46, 0.54]	< .01
Country SD	0.07	[0.05, 0.10]		0.05	[0.03, 0.08]	
Country-year SD	0.06	[0.04, 0.09]		0.06	[0.04, 0.09]	
Income SD	0.01	[0.01, 0.02]		0.01	[0.01, 0.02]	
Education SD	0.01	[0.01, 0.02]		0.01	[0.01, 0.02]	
Trust SD	0.02	[0.02, 0.03]		0.02	[0.02, 0.03]	
Residual SD	0.25	[0.24, 0.26]		0.25	[0.24, 0.26]	
# of countries	45			45		
# of country-years	112			112		
N	170,983			170,983		
AIC	11,196	[10,932, 11,460]		11,178	[10,900, 11,456]	
BIC	11,568	[11,304, 11,832]		11,570	[11,292, 11,848]	

Note. CM = country mean; CI confidence interval; AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion. Standardized coefficients presented for continuous variables and standard errors are adjusted for clustering at the country level.
*$p < .05$. **$p < .01$.

Societal Growth Curve Analyses

Finally, we fit societal growth curve models to examine how changes in inequality and GDP per capita affected support for a strong non-democratic leader. We separated each of these variables into a country mean component and a difference component representing the change over time. The sample was restricted to 45 countries that had at least two waves of data available.

Results of the societal growth curve models were similar to the cross-sectional results so only coefficients of new variables are presented in Table 2 (full results can be found in Table S6 in the Supplementary Materials). As in the cross-sectional models, Model 1 excludes the interaction effects between democracy and GDP per capita. Neither the interaction effect between a country's mean income inequality and Democracy Index, nor the interaction between changes in income inequality over time and Democracy Index were significant, although the cross-sectional effect was trending in the hypothesized direction. This implies that the interaction between income inequality and Democracy Index is cross-sectional in nature, not longitudinal. None of the main effects of mean income inequality, changes in income inequality, mean GDP per capita, or changes in GDP per capita were significant.

Model 2 includes the interaction effects between country mean GDP per capita and democracy, and changes in GDP per capita and democracy. Model 2 had roughly the same fit to the data as Model 1. The interaction effect between country mean GDP per capita and Democracy Index was significant, $B = -0.08$, $p < .01$, 95% CI [-0.11, -0.05]. Changes in GDP per capita over time did not have a significant effect on support for a strong non-democratic leader. This suggests the effect of economic development is also cross-sectional, not longitudinal. Marginal effects analyses showed that increased country mean GDP per capita was related to lower support for strong non-democratic leaders in democracies, $B = -0.07$, $p < .01$, 95% CI [-0.02, -0.12], and higher support for such leaders in non-democracies, $B = 0.08$, $p < .01$, 95% CI

[0.03, 0.13]. As a robustness check, we fit multilevel ordered logit models which only accounted for country-year-level random effects and the results were qualitatively similar (see Table S7 in the Supplementary Materials).

Discussion

This research investigated the social and economic determinants of popular support for a strong non-democratic leader in democratic compared to non-democratic countries. We predicted that whereas support for a strong non-democratic leader in democratic countries is driven, in part, by low economic development and income inequality at the country-year-level, and low income, education and social capital at the individual-level, the opposite pattern would emerge in non-democracies. We tested this idea using three waves of the WVS. To our knowledge, this is the first paper to assess the predictors of popular support for a strong non-democratic leader in non-democracies at an international level. Taken together, our results demonstrate that predictors of support for such a leader in democratic countries cannot be generalized to non-democratic countries.

One of our most important findings is that contrary to modernization theory, higher economic development relates to more popular support for a strong non-democratic leader in non-democratic countries. This result supports the argument that individuals' support and resistance toward societal change are shaped by their approval of the status quo (Proch et al., 2019). It is possible that individuals in non-democratic countries are willing to forego additional political rights in exchange for stable, effective economic governance. On the other hand, economic development was related to lower support for a strong non-democratic leader in democracies. However, we found that these effects were cross-sectional, not longitudinal. That is, although support for a strong non-democratic leader is shaped by a country's development level and democracy level, short-term changes in a country's economic fortunes do not appear to have an effect. Overall, these results support H1 and imply that economic development is related to higher popular support for the current political system (i.e., increased system-justifying beliefs). In line with the SDT/RCT perspective and in contrast with system justification theory, citizens of wealthy countries are more likely to support the existing political system, be it democratic or non-democratic.

Our hypothesis that income inequality would be related to lower support for the current political system (H2) was only partially supported. In line with relative deprivation theory, income inequality relates to greater support for a strong non-democratic leader in democracies, but shows no such association in non-democracies. Furthermore, societal growth curve models revealed that this link was cross-sectional. Short-term changes in income inequality may be difficult for individuals to detect but have long-term consequences on political preferences over time. Nonetheless, this result demonstrates that motivators of support for political leaders among populations in non-democratic countries differ greatly from those found in democratic countries. The lack of a relation with inequality in non-democratic countries could reflect that authoritarian governments intentionally try to blur the link between their regime and inequality either through repression of the press or legitimation strategies such as attributing inequality to foreign sanctions (Grauvogel & von Soest, 2014). In contrast to previous research, the relation between inequality and support for a strong non-democratic leader in democracies was no longer apparent when the interaction between economic development and democracy was included.

At the individual level, H3 was at best cautiously supported. The interaction between personal income and democracy was only marginally significant. Furthermore, forest plots showed that income was unrelated to support for a strong non-democratic leader in most democratic and non-democratic countries. Jetten and colleagues (2017) presented a potential explanation for this finding: relative gratification (the perception of having more than those around you) increases fear of falling (i.e., fear of losing economic ground to others), especially during periods of political disruption. This fear could lead to support for a strong non-democratic leader who is capable of quelling democratic demands for wealth redistribution. If both individuals at the top and bottom of the income distribution were more likely to support a strong non-democratic leader, this could explain the null relation of income found here.

As hypothesized in H4, interpersonal trust negatively predicted support for a strong non-democratic leader in democracies and predicted support for a strong non-democratic leader in non-democracies. This finding suggests that interpersonal trust strengthens support for the current political system, not for democracy per se. Interpersonal trust

may legitimize non-democratic governments and act as a buffer against political unrest and protest. As expected, education was related to lower support for a strong non-democratic leader in democracies, however, the same (albeit weaker) relation appeared in non-democracies (contrary to H5). Further research should explore whether education in non-democratic countries does reduce support for non-democratic governance, or, whether this finding is caused by a significant portion of students acquiring their education abroad in Western universities.

Overall, these findings demonstrate that the determinants of support for strong non-democratic leaders differ widely in democratic and non-democratic countries. In line with Proch and colleagues (2019), we found that individuals were more likely to support a non-democratic leader in democracies and rebuke a non-democratic leader in non-democracies when the status quo was not working for them. Results were robust to different model specifications and based on representative samples of a diverse array of countries.

Implications

For actors interested in understanding recent rises in support for strong non-democratic leaders in democracies, our results suggest that these trends are more likely in less wealthy countries and among less educated and less trusting individuals. On the other hand, continued support for strong non-democratic leaders in non-democracies can be better understood through national wealth and social trust.

Our research also has implications for political psychological theory. According to system justification theory (Jost et al., 2004), and a substantial body of research (see Friesen et al., 2019 for a review), people – particularly those who are underprivileged – are motivated to legitimize the social and political structure of the society in which they live (Jost & Hunyady, 2003; van der Toorn et al., 2015). The theory posits that people's need to live in a controllable and predictable environment translates into a motivation to defend and justify the status quo and see it as just and fair (Jost & Andrews, 2011). Our findings do not support system justification theory's prediction that those who are economically disadvantaged are more apt to justify the status quo. Instead, we found that underprivileged groups in non-democratic states are less likely to support a strong leader who wants to maintain a social system that oppresses them. Conversely, citizens in less wealthy democracies are more likely to support a leader who purports a desire to "drain the swamp" from the current social system. These results align with social dominance theory's prediction that individuals will support existing hierarchies when they benefit from them. Azevedo and colleagues (2017) as well as Wohl and colleagues (2020) have argued that support for strong leaders in democratic countries stems, in part, from some citizens perceiving that their social system has already undergone too much change and that they prefer the social stability of the past. In this view, the rise in support for strong leaders in democracies may be the result of nostalgizing (i.e., sentimentally longing) for the social system of old coupled with rhetoric from a strong non-democratic leader that reflects their ability (and their ability alone) to reclaim the social system of old and thus make their society great again.

Limitations and Directions for Future Research

Some limitations of the current research should be noted. Before activists and policymakers can put these results into practice to strengthen support for democracy, researchers should investigate whether there are causal links between education, trust, and support for strong non-democratic leaders. Second, although we were able to assess the longitudinal effects of some country-year-level variables, we had only two or three observations per country. Increased observations per country can significantly improve the efficiency of estimates of longitudinal effects in societal growth curve models (Fairbrother, 2014). Future research could use an increased number of survey waves or experimental methods (i.e., running identical experiments manipulating perceptions of macroeconomic conditions or trust in democratic and non-democratic countries) in order to assess causal effects. Next, we did not examine the link between changes in democracy level and support for a strong non-democratic leader. Although our research identified differences in predictors of support for such leaders in democracies and non-democracies, these categories are not static over time. Such research is especially important to help us understand support for strong non-democratic leaders in the context of the restrictions on democratic freedoms implemented due to the COVID-19 pandemic.

The psychological processes that link macro-level variables to changes in attitudes merit further research. Does economic development lead to increased support for a strong non-democratic leader in non-democracies through enhanced

confidence in the current regime, or through feelings of relative gratification that produce a fear of falling? Another potential avenue for future research is examining whether there is a threshold level of wealth where wealthy individuals begin to prioritize post-materialist values over materialist values (Inglehart, 1997). Given the strong interaction effect we found between economic development and democracy level, when and how would a country transition from development being related to increased support for a strong non-democratic leader to development being related to reduced support for a strong non-democratic leader? Finally, our research is limited in its ability to identify contextual factors affecting support for strong non-democratic leaders in specific countries.

Conclusion

In the current research, we demonstrated that understanding of support for a strong non-democratic leader must distinguish between democratic and non-democratic countries. In contrast to conventional modernization theory, and in support of recent political psychology research, we found that economic development is related to increased support for a strong non-democratic leader in non-democratic countries. Furthermore, we found that income inequality only predicts support for a strong non-democratic leader in democracies, unlike previous research which implied that income inequality predicts support for a strong non-democratic leader around the world. We also found that interpersonal trust has opposing effects in democratic and non-democratic countries, and that education is a stronger negative predictor of support for a strong non-democratic leader in democracies. These findings indicate that proponents of democracy must find alternative ways to increase popular support for democracy under non-democratic regimes because previously popular methods such as promoting economic development and inspiring social cohesion are likely ineffective.

Supplementary Materials

All materials and code are publicly available via the Open Science Framework (OSF). The supplementary materials also contain additional information regarding the sample used in this manuscript and robustness checks using other model specifications (for access see Index of Supplementary Materials below).

Index of Supplementary Materials

Xuereb, S., Wohl, M. J. A., Stefaniak, A., & Elgar, F. J. (2021). *Supplementary materials to "Social and economic determinants of support for a strong non-democratic leader in democracies differ from non-democracies"* [Materials and code]. OSF. https://osf.io/6puam/

Xuereb, S., Wohl, M. J. A., Stefaniak, A., & Elgar, F. J. (2021). *Supplementary materials to "Social and economic determinants of support for a strong non-democratic leader in democracies differ from non-democracies"* [Additional information and analyses]. PsychOpen GOLD. https://doi.org/10.23668/psycharchives.5053

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