The Association between Subjective Well-being and Regime Type across 78 countries: the moderating role of Political Trust

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Abstract

This study investigates the association between regime type, political trust, and subjective well-being (SWB) in 78 countries. Differently from previous works, democracy was conceptualized in terms of a multidimensional model (i.e., regime type), rather than a bipolar continuum ranging from authoritarian regimes to full democracies. The first question was raised as to whether regime characteristics would be nonlinearly related to SWB. A second question was examined as to whether political trust could moderate the relationship between regime type and well-being, such that under conditions of high or low trust in the government the differences in well-being across the type of regimes would be reduced. Data from the European Values Study as well as from the World Value Survey were used. Moreover, regime types were defined according to the Varieties of Democracy as well as the Economist Intelligence Unit. Multilevel analyses revealed that life satisfaction scores were lower for electoral autocracy compared to closed autocracy and liberal democracy. Moreover, happiness scores were significantly higher for full democracies compared to authoritarian regimes and flawed democracies. Finally, political trust moderated the association between regime type and SWB. Specifically, at higher or lower levels of political trust, the relationship between regime type and well-being tended to decrease. Overall, the findings support the conclusion that the relationship between democracy and subjective well-being is nonlinear, and that the role of political trust is as important as the role of democracy.

Keywords Life satisfaction · Happiness · Well-being · Democracy · Autocracy · Anocracy · Trust

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Subjective well-being (SWB) has received increasing attention as an indicator of national well-being, with the aim of complementing indicators of material well-being such as the gross domestic product (e.g., Delhey & Kroll 2013). SWB (usually operationalized as happiness or life satisfaction) has been linked to factors such as personality, gender, income, marriage, health, or level of education (e.g., Diener et al., 1999). Although most of the research on well-being has focused on its individual correlates, there is evidence that SWB is linked to factors at the macro level such as social trust and democracy (e.g., Neira et al., 2021).

The primary aim of this study was to investigate whether people's SWB would be differentially associated with the kind of political system they live in. According to a long tradition of Western thought, people who live in a democratic system are more likely to have a reason to report higher levels of well-being (Dorn et al., 2007; Frey & Stutzer, 2002; Inglehart, 1988) coined the expression "civic culture" to denote a syndrome of SWB, interpersonal trust, political satisfaction, and support for the existing social order. Moreover, Inglehart (1988) claimed that life satisfaction is far more strongly linked with stable democracy than political satisfaction because the former reflects enduring cultural traits while the latter is a relatively fluctuating variable representing the evaluation of a given government at a given moment.

In addition to political culture, there are theoretical distinctions between democracies and other types of regimes such as autocracies that may account for differences in SWB (Abdur Rahman & Veenhoven, 2018; Besley & Kudamatsu, 2006; Dorn et al., 2007; Frey & Stutzer, 2002; Wullert & Williamson, 2016). First, life satisfaction may be higher among people living in democratic regimes because they have the power to select their politicians (in principle, competent and honest leaders) and, therefore, their preferred political outcomes. Second, politicians are motivated to rule according to citizens' interests without disregarding their wishes. Third, democratic leaders are expected to be more accountable to citizens which can ultimately decide whether to renew the mandate. Fourth, happiness and life satisfaction may be associated with the perceived procedural fairness of the democratic process. Fifth, representation in democracies can offer greater inclusion and lower inequalities.

The effect of democracy on happiness was particularly found in wealthy nations (Abdur Rahman & Veenhoven, 2018), in countries with an established democratic tradition (Dorn et al., 2007), and with direct democracy (Frey & Stutzer, 2000a, b, 2002; Radcliff & Shufeldt, 2016; Yonk & Reilly, 2012). Other studies revealed an association between well-being and subjective indicators of democracy such as the importance of living in a democracy (Loubser & Steenekamp, 2017), democratic satisfaction (Neira et al., 2021; Orviska et al., 2014), and democratic attitudes (Tov & Diener, 2009). However, some studies did not find an association between democracy and well-being when controlling for other covariates (Bjørnskov, 2003; Dorn et al., 2008; Inglehart & Klingemann, 2000; Schyns, 1998; Sujarwoto et al., 2018; Veenhoven, 2000).

Previous research has not reached a consensus on the association between democracy and SWB. The inconsistent nature of previous findings could reflect the underlying conceptualization of the relationship between democracy and well-being. While there is theoretical support for a linear relationship, democracy and well-being may not be related in a linear fashion (Wullert & Williamson, 2016). Moreover, the litera-

ture on the process of democratization suggests that institutions and democratization may be conceptualized in terms of a multidimensional model, rather than a bipolar continuum ranging from authoritarian regimes to full democracies (e.g., Diamond 2002; Epstein et al., 2006; Merkel, 2004). For instance, pseudodemocratic, hybrid, electoral authoritarian, or anocratic regimes are terms used to denote those governments that are neither conventionally authoritarian nor clearly democratic.

Recently, four regime types —closed and electoral autocracies; electoral and liberal democracies — have been identified (Lührmann et al., 2018; Mechkova et al., 2017). Based on Robert Dahl's conceptualization of polyarchy as electoral democracy (Dahl, 1998), what differentiates autocracy from democracy is the minimal fulfillment of institutional prerequisites of democracy (e.g., freedom of association, freedom of expression, suffrage, clean elections, an elected executive). In a closed autocracy, the chief executive or the legislature is either not elected or there is no de facto free and fair competition in elections. An electoral autocracy holds de-jure multiparty elections to elect the chief executive; however, due to limitations on party competition, significant irregularities, or other violations, these elections fail to achieve Dahl's institutional requisites for democracies. The conceptualization of electoral autocracy builds on work on electoral authoritarianism (Schedler, 2002) as well as on the notion of competitive authoritarianism (Levitsky & Way, 2010). Electoral democracy and liberal democracy are thought to be different because the latter satisfies the liberal principles of respect for personal liberties and the rule of law and has effective legislative and judicial oversight of the executive. (Levitsky & Way, 2010). The notions of electoral democracy and liberal democracy are based on the distinction between consolidated liberal democracies and defective democracies (Merkel, 2004).

Electoral autocracy or hybrid regimes are characterized by inherent tensions, instability, crisis, and conflict (Levitsky & Way, 2002, 2010). Regime instability has a negative relationship with health indicators (e.g., life expectancy and prevalence of diseases) through a lower quality of the health care sector (Klomp & de Haan, 2009). Moreover, there is evidence of a curvilinear relationship between democracy and outcomes such as political violence (Chenoweth, 2013), infant mortality (Wullert & Williamson, 2016), and political repression (Regan & Henderson, 2002) with electoral autocracy or hybrid regimes reporting the highest levels of these outcomes. Therefore, based on this evidence, a nonlinear relationship between categories of regime and well-being may be expected:

Research question 1 (RQ1): Are regime characteristics nonlinearly related to SWB?

The moderating role of Trust in Government

Contrary to the notion that authoritarian settings prevent trust in government from being developed, studies of political trust in authoritarian settings revealed the seeming paradox of authoritarian systems displaying quite high levels of political trust (Kim, 2010; Mishler & Rose, 2001; Rivetti & Cavatorta, 2017; van der Meer, 2017a). In addition, such studies support the idea that the democratization process

does not necessarily increase trust in government (Rivetti & Cavatorta, 2017). Trust in regimes seems to be interrelated with perceived governmental performance or satisfaction with economic governance and policies rather than formal procedures and their fairness (Kim, 2010; Mishler & Rose, 2001; van der Meer, 2017a). In addition, trust in institutions whose leaders are elected depends at least as much on the quality of government as on the capability of the established representative system to generate effective representation (Rothstein, 2009, 2011). Therefore, even where there is an arbitrary exercise of state power and no political accountability, citizens can trust authoritarian forms of governance that operate outside the bounds of the rule of law and are a-moral, unethical, and arbitrary (Rivetti & Cavatorta, 2017). Given the importance of institutional trust for well-being (Fu, 2018; Helliwell et al., 2018; Hudson, 2006), it is possible to argue that trust in the government is of crucial importance for their well-being regardless of the type of political system. If we accept the idea that trust in the government impacts upon well-being and if we further accept that trust in the government is developed at the output side of the political system (e.g., performance of those institutions) rather than at its input side (e.g., effective representation or fairness of the procedures), then it also follows that at high or low levels of trust in the government authoritarian or democratic political system might be similarly associated with well-being. In other words, an interaction between trust in the government and type of political system would be expected such that high levels of trust in the government may compensate for the input side of authoritarian forms of governance (e.g., lack of quality of elections or political representation). At low levels of political trust, the input side of democratic forms of governance may be not sufficient for differentiating itself from authoritarian forms of governance in terms of SWB. Thus:

Research question 2 (RQ2). Does trust in the government moderate the relationship between the type of political system and well-being, such that under conditions of high or low trust in the government the differences in well-being based on the type of political system will be reduced?

Purpose of the Present Study

With the above background, the present study builds on the literature by examining the relationship between regime types and SWB and whether such association is moderated by political trust. The focus is on distinct regimes at a particular point in time rather than a continuous spectrum of democracy. Specifically, four regime types (closed and electoral autocracies and electoral and liberal democracies; Lührmann et al., 2018; Mechkova et al., 2017) based on the Varieties of Democracy (V-Dem) project (Coppedge et al., 2021) were considered. Given that the choice of the measure of democracy may have possible consequences for the conclusions of a given study, the recommendation to validate the findings with another measure of democracy was followed (Vaccaro, 2021). The Democracy Index provided by the Economist Intelligence Unit (EIU) was used. This index was used to identify four types of regimes: full democracy, flawed democracy, hybrid regime, and authoritarian regime (Economist Intelligence Unit, 2021).

Method

Data and methods

In the present study, we examined the relationship between regime types and SWB in 78 countries around the world. To measure SWB and political trust, this study uses data from the European Values Study (EVS) and the World Values Survey (WVS), two large-scale survey research programs (EVS/WVS, 2021)[1]. Specifically, data from the European Values Study 2017 (EVS, 2020) as well as from the 7th wave (2017–2021) of the World Value Survey (Haerpfer et al., 2020) were used. To measure subjective well-being, participants were asked the following two questions:

- All things considered, how satisfied are you with your life as a whole these days? (Life satisfaction)
- Taking all things together, would you say that you are very happy, rather happy, not very happy, or not at all happy? (Happiness)

As regards life satisfaction, a ten-point response format ranging from 1 (*completely dissatisfied*) to 10 (*completely satisfied*) was provided. Response options for happiness ranged from 1 (*very happy*) to 4 (*not at all happy*). Using reverse scoring, responses to this question were re-coded so that a high value indicates higher happiness.

To measure confidence in the government (i.e., political trust), the following question was used: "I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?". For the present study, the responses provided to the government (which was one of the listed organizations) were used. Response options for confidence in the government ranged from 1 (*A great deal*) to 4 (*None at all*). Using reverse scoring, responses to this question were re-coded so that a high value indicates higher confidence in the government.

The operationalization of four regime types (closed and electoral autocracies and electoral and liberal democracies; Lührmann et al., 2018; Mechkova et al., 2017) was based on data from a large number of indicators provided by the Varieties of Democracy (V-Dem) project (Coppedge et al., 2021). Specifically, data for the year 2020 were used for the present study. The V-Dem and EVS/WVS datasets were integrated. The integrated datasets provided data for 78 countries around the world including 131,846 participants.

Given that numerous indicators have been proposed to assess types of regimes, to evaluate the robustness of the findings using data from the 13th edition of the Democracy Index (2020) which evaluates the state of democracy worldwide in 165 independent states and two territories (Economist Intelligence Unit, 2021). The EIU project conceptualizes four regime categories: full democracy, flawed democracy, hybrid regime, or authoritarian regime. An overview of countries, number of partici-

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[1] The complete questionnaires as well as an explanation of the structure of the common EVS/WVS dataset is freely available for consultation at the GESIS Data Archive: https://doi.org/10.4232/1.13737.

pants, and classification of regime type using both the V-Dem and the EIU regime types is reported in Appendix Tables S1 and S2.

In addition to the variables of interest, potential confounding factors from the macro and micro-levels were included as control variables. On the individual level, age, gender, marital status, level of education, employment status, and income were included in the analyses. On the macro-level, analyses were controlled for the effects of country income and geographic region as defined by the World Bank (2021). Using the World Bank Atlas method, the World Bank classifies economies/countries into four income groups: low, lower-middle, upper-middle, and high income.

Statistical analysis

The research questions were answered using hierarchical linear modeling (also known as multilevel analysis or mixed models). IBM SPSS v.26 was used. Given the large sample size and the need to shift from overreliance on statistical significance, SWB and political trust were considered meaningful predictors when they explained at least 1% of the Level 1 variance in SWB[2]. As the measure of effect size in multilevel analysis, R^2(S&B) was chosen because it is straightforward and intuitive to interpret (LaHuis et al., 2019). Following the thresholds defined by Cohen (1992), small, medium, and large effects correspond to $\Delta R^2 = 0.02$, 0.13, and 0.26, respectively. Missing data were present for all study variables[3]. To deal with the missing data, multiple imputations were used to create 10 complete data sets. If the variables showed a monotone pattern of missing values, the monotone method was used as the imputation method; otherwise, the fully conditional specification was used.

Results

Means, standard deviations, and ANOVA results are reported in Table 1. To examine the intraclass correlation coefficient, two null models were estimated. The intraclass correlation coefficients for life satisfaction and happiness were 0.12 and 0.08, respectively. The design effect was greater than 2 (Lai & Kwok, 2015) for both life satisfaction and happiness. Taken together, these results suggested the need to account for the clustered structure in the data.

Results from the multilevel analysis using the V-Dem classification are presented in Table 2, while model parameters were reported in Appendix Table S3. In the analysis predicting life satisfaction, there were significant effects of both types of regimes, $F(3, 78) = 3.10$, $p = .032$, and political trust, $F(3, 129,986) = 452.53$, $p < .001$. In addition, happiness was predicted by both types of regimes, $F(3, 78) = 3.07$, $p = .033$, and political trust, $F(3, 129,987) = 474.74$, $p < .001$. However, the R^2 (S&B) of regime type in predicting happiness was very small (0.001). Therefore, the relationship

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[2] This criterion was not used to remove the predictor from the respective analysis.

[3] A complete variable report that presents all data including the occurrence of missing values is freely available for consultation at the GESIS Data Archive: https://doi.org/10.4232/1.13737.

Table 1 Means and Standard Deviations for Scores on Life satisfaction and Happiness as a Function of Types of Regimes and Confidence in the Government

	Life satisfaction[a]		Happiness[b]	
	M	SD	M	SD
Types of regimes (V-Dem)				
Closed autocracy	7.11	2.07	3.12	0.65
Electoral autocracy	6.82	2.34	3.09	0.72
Electoral democracy	7.23	2.32	3.13	0.71
Liberal democracy	7.51	1.85	3.17	0.64
ANOVA	$F(3,131844)=710.230, p<.001, \eta^2=0.02$		$F(3,131844)=104.373, p<.001, \eta^2=0.00$	
Types of regimes (EIU)				
Authoritarian	6.66	2.45	3.06	0.73
Hybrid	6.99	2.31	3.13	0.73
Flawed democracies	7.24	2.16	3.11	0.68
Full democracies	7.63	1.80	3.20	0.62
ANOVA	$F(3,131844)=1023.184, p<.001, \eta^2=0.02$		$F(3,131844)=226.258, p<.001, \eta^2=0.01$	
Confidence in the government				
A great deal	7.50	2.35	3.29	0.70
Quite a lot	7.37	2.01	3.19	0.63
Not very much	7.18	2.07	3.11	0.66
None at all	6.88	2.41	3.02	0.76
ANOVA	$F(3,131844)=405.420, p<.001, \eta^2=0.01$		$F(3,131844)=634.269, p<.001, \eta^2=0.01$	

Note. [a] range 1–10; [b] range 1–4

Table 2 Model Parameters from Multilevel Models Predicting Life Satisfaction and Happiness using V-Dem Regime Type

Predictors	Life satisfaction				Happiness			
	b(SE)	p	95% CI	R^2	b(SE)	p	95% CI	R^2
	Fixed effects				Fixed effects			
Intercept	4.73(0.40)	<0.001	3.94, 5.52		2.77(0.13)	<0.001	2.51, 3.03	
Types of regimes (V-Dem)				0.02				0.00
Closed autocracy	-0.01(0.28)	0.967	-0.56, 0.54		-0.11(0.09)	0.224	-0.29, 0.07	
Electoral autocracy	-0.53(0.20)	0.009	-0.93, -0.13		-0.20(0.07)	0.003	-0.32, -0.07	
Electoral democracy	-0.24(0.18)	0.175	-0.58, 0.11		-0.13(0.06)	0.021	-0.24, -0.02	
Liberal democracy[a]	—	—	—	—	—	—	—	—
Confidence in the government				0.01				0.01
A great deal	0.76(0.02)	<0.001	0.71, 0.80		0.25(0.01)	<0.001	0.24, 0.27	
Quite a lot	0.44(0.02)	<0.001	0.41, 0.48		0.14(0.01)	<0.001	0.12, 0.15	
Not very much	0.19(0.02)	<0.001	0.16, 0.22		0.06(0.01)	<0.001	0.05, 0.07	
None at all[a]	—	—	—	—	—	—	—	—
	Random parameters				Random parameters			
Level-1 residuals (e_{ij})	4.01(0.02)	<0.001	3.97, 4.04		0.41(0.00)	<0.001	0.41, 0.41	
Level-2 residuals (u_{0j})	0.20(0.03)	<0.001	0.14, 0.27		0.02(0.00)	<0.001	0.01, 0.03	

Note. Standard errors are in parentheses. CI=confidence interval; [a] reference category. The R^2 refers to types of regimes or confidence in the government. Analyses were controlled for gender, age, education, immigrant status, marital status, income, and country classifications by income level and region

between V-Dem regime type and happiness was not considered in further analysis (i.e., marginal means and moderation).

Figure 1 (top panel) displays estimated marginal means for life satisfaction by types of regimes after adjustment for covariates. Pairwise comparisons revealed that the estimated marginal means for electoral autocracy were significantly lower than those for closed autocracy ($p=.047$) and liberal democracy ($p=.011$). In addition, pairwise comparisons indicated that the difference between electoral autocracy and electoral democracy was close to being statistically significant ($p=.076$).

To examine the effects of types of regimes on life satisfaction with varying degrees of political trust, the V-Dem regime type by political trust interaction in predicting life satisfaction was tested using a multilevel model. To evaluate the incremental explanatory power, the change in loglikelihood fit indices with and without the inclusion of the interaction was tested. Results from the multilevel model revealed that
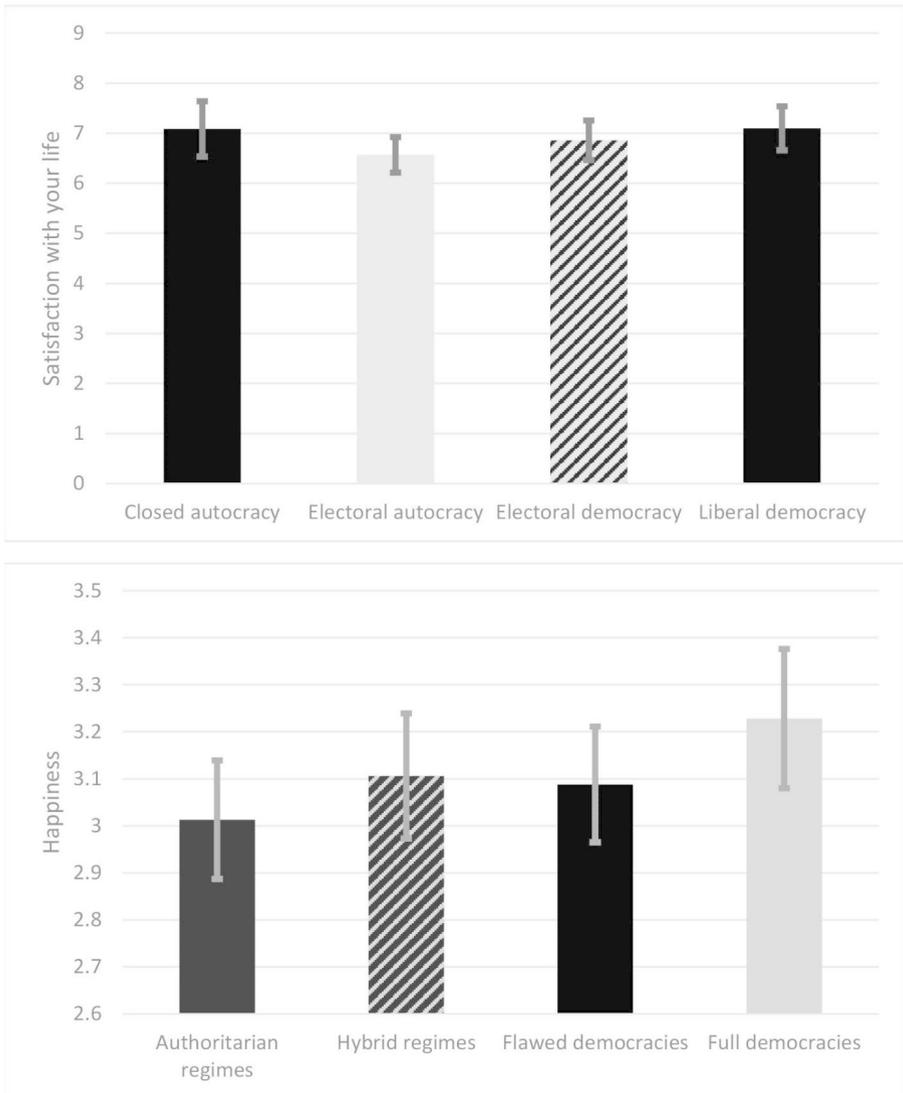
Fig. 1 Estimated marginal means for subjective well-being (top panel: life satisfaction; bottom panel: happiness) by regime types (top panel: V-DEM; bottom panel: EIU). Note. Error bars represent 95% confidence interval. Bars of a different color are statistically significant from one another

model fit improved with the inclusion of the interaction, $\Delta LL_{(9)} = 139.825$, $p < .001$. The V-Dem regime type by political trust interaction in predicting life satisfaction (Fig. 2) was significant, $F(9, 129{,}915) = 12.891$, $p < .001$. Pairwise comparisons revealed that when participants expressed "a great deal" of confidence in the government, electoral autocracy had lower estimated marginal means for life satisfaction compared to closed autocracy ($p = .017$). When participants indicated "quite a lot" of confidence in the government, electoral autocracy scored lower on life satisfac-
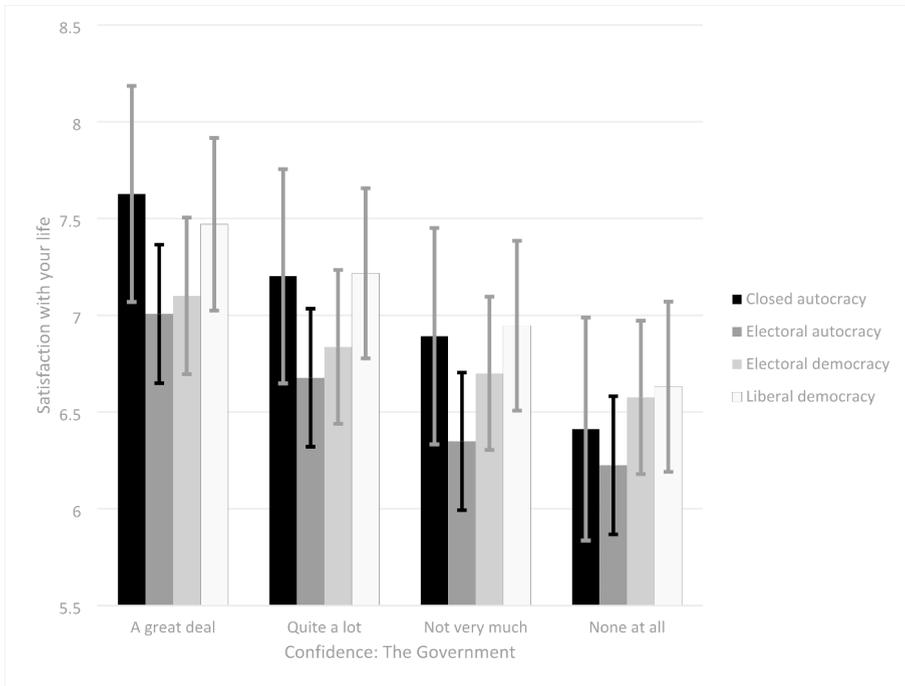
Fig. 2 Estimated marginal means for life satisfaction by regime type (V-Dem) and by political trust. Note. Error bars represent 95% confidence interval.

tion compared to liberal democracy ($p=.011$). When participants expressed "not very much" confidence in the government, electoral autocracy had lower estimated marginal means for life satisfaction compared to liberal democracy ($p=.004$). Finally, when participants reported "not at all" confidence in the government, the estimated marginal means for life satisfaction were not statistically different across the different regimes. None of the remaining pairwise comparisons were statistically significant ($p>.05$). Table 3 displays the model parameters from the multilevel model after adding the V-Dem regime type by political trust interaction. A regression table in the Appendix shows the interaction effects (Appendix Table S5).

The same analyses were repeated using the EIU classification of types of regimes. Findings from the multilevel analysis using the EIU classification are presented in Table 3, while model parameters were reported in Appendix Table S4. Political trust, $F(3, 129,986)=424.99$, $p<.001$, predicted life satisfaction, whereas the main effect of regime type, $F(3, 76)=2.63$, $p=.056$, was close to significance. While the main effect of types of regimes was close to being statistically significant, the simple effects of types of regimes (Table 4) were significant. Moreover, the R^2 (S&B) of types of regimes was very small (0.005). Thus, the relationship between EIU regime type and life satisfaction was not considered in the follow up analysis (i.e., marginal means and moderation). Table 4 also shows that happiness was predicted by both EIU type of regime, $F(3, 78)=3.44$, $p=.021$, and political trust, $F(3, 129,987)=477.45$, $p<.001$.

Figure 1 (bottom panel) displays estimated marginal means for happiness by EIU regime type controlling for covariates. Pairwise comparisons revealed that the estimated marginal means for full democracies were significantly higher than those for authoritarian regimes ($p=.040$) and flawed democracies ($p=.041$).

The change in loglikelihood fit indices with and without the inclusion of the EIU regime type by political trust interaction in predicting happiness indicated that model fit improved, $\Delta LL_{(9)}=65.881$, $p<.001$. The EIU regime type by political trust interaction in predicting happiness was significant, $F(9, 129,915)=7.261$, $p<.001$. Figure 3 displays the estimated marginal means. Pairwise comparisons revealed that when participants expressed "a great deal" of confidence in the government, differences in happiness based on regime type were not statistically significant. When participants indicated "quite a lot" of confidence in the government, flawed democracies had lower estimated marginal means for happiness compared to full democracies ($p=.004$). When participants expressed "not very much" confidence in the government, authoritarian regimes had lower estimated marginal means for happiness compared to full democracies ($p=.028$). Finally, when participants reported "not at all" confidence in the government, the estimated marginal means for life satisfaction were not statistically different across the different types of regimes. Table 5 displays the model parameters from the multilevel model after adding the EIU regime type by
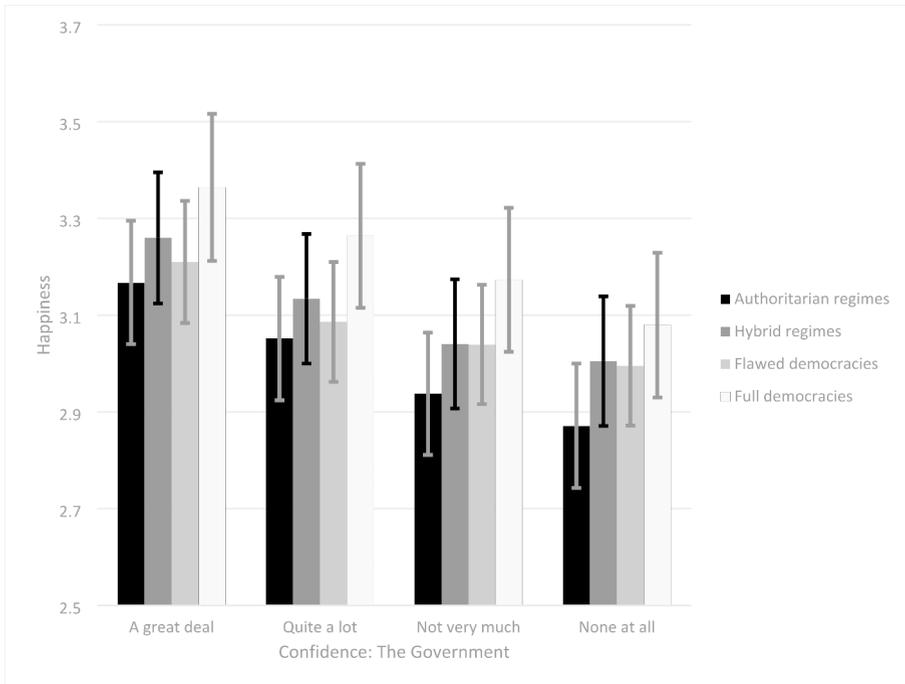

Fig. 3 Estimated marginal means for life satisfaction by regime type (EIU) and by political trust. Note. Error bars represent 95% confidence interval

Table 3 Model Parameters from a Multilevel Model Predicting Life Satisfaction using V-Dem Regime Type after Adding the V-Dem Regime Type by Political Trust Interaction	Predictors	Life satisfaction		
		b(SE)	*p*	95% CI
		Fixed effects		
	Intercept	4.68(0.40)	<0.001	3.89, 5.47
	Types of regimes (V-Dem)			
	Closed autocracy	-0.22(0.29)	0.449	-0.79, 0.35
	Electoral autocracy	-0.41(0.20)	0.047	-0.81, 0.00
	Electoral democracy	-0.05(0.18)	0.759	-0.40, 0.29
	Liberal democracy[a]	—	—	—
	Confidence in the government			
	A great deal	0.84(0.05)	<0.001	0.74, 0.94
Note. Standard errors are in parentheses. CI=confidence interval; [a] reference category. The R^2 refers to types of regimes or confidence in the government. Analyses were controlled for gender, age, education, immigrant status, marital status, income, and country classifications by income level and region	Quite a lot	0.59(0.03)	<0.001	0.53, 0.65
	Not very much	0.32(0.03)	<0.001	0.26, 0.37
	None at all[a]	—	—	—
		Random parameters		
	Level-1 residuals (e_{ij})	4.00(0.02)	<0.001	3.97, 4.03
	Level-2 residuals (u_{0j})	0.20(0.03)	<0.001	0.14, 0.26

political trust interaction. A regression table in the Appendix displays the interaction effects (Appendix Table S6).

Robustness checks

To check the robustness of the findings, some additional analyses were conducted. The main findings (i.e., those reported in Tables 2 and 4) are robust when (1) using the Mundlak's (1978) approach (Appendix Tables S7 and S8), (2) using the listwise deletion method (Appendix Tables S9 and S10), (3) using a random-effects ordered probit model (Appendix Tables S11 and S12), (4) using Bayesian analysis (Appendix Tables S13 and S14), and (5) using various additional covariates (i.e., GDP per capita, GDP growth, Gini index, and the percent of individuals using the Internet; Appendix Tables S15 and S16).

Table 4 Model Parameters from Multilevel Models Predicting Life Satisfaction and Happiness using EIU Regime Type

Predictors	Life satisfaction				Happiness			
	b(SE)	p	95% CI	R^2	b(SE)	p	95% CI	R^2
	Fixed effects				Fixed effects			
Intercept	5.02(0.42)	<0.001	4.20, 5.84		2.80(0.13)	<0.001	2.53, 3.06	
Types of regimes (EIU)				0.00				0.01
Authoritarian	-0.66(0.24)	0.006	-1.14, -0.19		-0.22(0.08)	0.005	-0.37, -0.06	
Hybrid	-0.52(0.23)	0.023	-0.97, -0.07		-0.12(0.07)	0.097	-0.27, 0.02	
Flawed democracies	-0.36(0.16)	0.024	-0.67, -0.05		-0.14(0.05)	0.006	-0.24, -0.04	
Full democracies[a]	—	—	—	—	—	—	—	—
Confidence in the government				0.01				0.01
A great deal	0.76(0.02)	<0.001	0.72, 0.81		0.25(0.01)	<0.001	0.24, 0.27	
Quite a lot	0.44(0.02)	<0.001	0.41, 0.48		0.13(0.01)	<0.001	0.12, 0.15	
Not very much	0.19(0.02)	<0.001	0.15, 0.22		0.05(0.01)	<0.001	0.04, 0.06	
None at all[a]	—	—	—	—	—	—	—	—
	Random parameters				Random parameters			
Level-1 residuals (e_{ij})	4.00(0.02)	<0.001	3.97, 4.03		0.41(0.00)	<0.001	0.41, 0.41	
Level-2 residuals (u_{0j})	0.20(0.03)	<0.001	0.14, 0.27		0.02(0.00)	<0.001	0.01, 0.03	

Note. Standard errors are in parentheses. CI=confidence interval; [a] reference category. The R^2 refers to types of regimes or confidence in the government. Analyses were controlled for gender, age, education, immigrant status, marital status, income, and country classifications by income level and region

Discussion

The current study aimed to investigate the relationship between regime type and SWB and to examine the moderating role of political trust. By analyzing a relatively large dataset of 78 countries, the present work builds upon previous theoretical attempts to shed new empirical light on the relationship between regime type and SWB. The contribution of the current work can be summarized essentially in three main points.

First, the relationship between regime type and SWB was small in magnitude and became very small when controlling for covariates. Therefore, the claims that democracy is strongly associated with well-being were not supported, especially when other covariates were taken into account. The idea that the process of democratization is linked to well-being ("Adopt democratic institutions and live happily ever after") is a common-place assumption within the Western culture. The findings of the pres-

Table 5 Model Parameters from a Multilevel Model Predicting Happiness using EIU Regime Type after Adding the EIU Regime Type by Political Trust Interaction

Predictors	Happiness		
	b(SE)	p	95% CI
	Fixed effects		
Intercept	2.76(0.13)	<0.001	2.50, 3.02
Types of regimes (EIU)			
Authoritarian	-0.21(0.08)	0.008	-0.36, -0.05
Hybrid	-0.07(0.07)	0.314	-0.22, 0.07
Flawed democracies	-0.08(0.05)	0.104	-0.19, 0.02
Full democracies[a]	—	—	—
Confidence in the government			
A great deal	0.28(0.02)	<0.001	0.25, 0.32
Quite a lot	0.18(0.01)	<0.001	0.16, 0.21
Not very much	0.09(0.01)	<0.001	0.07, 0.12
None at all[a]	—	—	—
	Random parameters		
Level-1 residuals (e_{ij})	0.41(0.00)	<0.001	0.41, 0.41
Level-2 residuals (u_{0j})	0.02(0.00)	<0.001	0.01, 0.03

Note. Standard errors are in parentheses. CI=confidence interval; [a] reference category. The R^2 refers to types of regimes or confidence in the government. Analyses were controlled for gender, age, education, immigrant status, marital status, income, and country classifications by income level and region

ent study suggest that the relationship between democracy and SWB is more complex, and democracy would be considered a distal correlate of SWB at the most (Bjørnskov, 2003; Dorn et al., 2008; Inglehart & Klingemann, 2000; Schyns, 1998; Veenhoven, 2000). For instance, democracy and well-being may be strongly associated when people hold pro-democratic attitudes. Indeed, a previous study revealed that political participation and SWB are positively associated among people holding democratic attitudes and negatively associated among people reporting a preference for non-democratic regimes (Prati, 2021).

Second, this is the first study to show that the relationship between regime type and SWB can be better modeled in a nonlinear fashion. Using the V-Dem classification of political regimes, electoral autocracy (and not closed autocracy) reported the lowest scores on life satisfaction, while closed autocracy and liberal democracy had similar scores on life satisfaction. Moreover, using the EIU classification, authoritarian regimes and flawed democracies had the lowest scores on happiness. Electoral autocracy may be characterized by regime instability, violence, and conflict (Chenoweth, 2013; Levitsky & Way, 2002; Regan & Henderson, 2002) and this may explain the lowest scores on life satisfaction. A test of this potential explanation provides an avenue for future research. Another finding was that in autocratic or authoritarian regimes mean scores for SWB were similar to those in flawed or electoral democra-

cies. Therefore, partial implementation of democracy is not a guarantee that higher SWB would be found. Political regimes have their characteristics, and with regard to subjective well-being, authoritarian and democratic regimes did not appear to represent the opposite ends of a bipolar continuum. The debate on the relationship between democracy and SWB has been assumed to be linear. The findings of the present study challenge this assumption and may explain why inconsistent conclusions have been presented by previous studies.

Third, political trust emerged as a significant correlate of SWB. Although the effect size was small, political trust was significantly and positively associated with both life satisfaction and happiness, after controlling for covariates. More importantly, trust in the government did moderate the effect of regime type on SWB. Specifically, it was found that at higher or lower levels of trust in the government the effect of regime type on well-being tends to decrease. In other words, when citizens report "a great deal" (or "not at all") of confidence in the government, their scores on SWB are similar across the different types of regimes. For instance, when citizens report "a great deal" (or "not at all") of confidence in the government, it doesn't matter whether the regime is autocratic or democratic: The scores on happiness and life satisfaction are remarkably similar across the regime types. Therefore, when it comes to SWB, the findings of the present study seem to suggest that building political trust is as important as democracy building. The democratization process does not necessarily imply higher trust in government (Rivetti & Cavatorta, 2017) and the crisis debate on democracy highlights distrust and dissatisfaction with the performance of the institutions of democratic government (e.g., Merkel & Kneip 2018; van der Meer, 2017b). The concept of an "effective democracy" suggests the mere existence of democratic institutions is a necessary but not sufficient condition to define democracy substantively (Knutsen, 2010). The findings of the present study support the notion that the existence of democratic institutions is not the only criterion to be taken into account when defining effective democracy. Although what constitutes "effective democracy" is beyond the scope of the present study, political trust is arguably an indicator of perceived effectiveness. In addition, the results of the current research seem to indicate that, without an increase in political trust, the process of democratization may not be accompanied by higher levels of SWB. Although trust may play a different role and serve different purposes along the process of democratization, according to Letki (2018, p. 338) "In new democracies, social and political trust have the same functions and benefits as in mature democracies: they provide the system with legitimacy and make horizontal (between citizens) and vertical (between citizens and the state) cooperation possible." There is a complex relationship between political trust and the extent to which democracy is consolidated and SWB turns out to be associated not only at the input but also at the output side of the political system (Kim, 2010; Mishler & Rose, 2001; Rivetti & Cavatorta, 2017; van der Meer, 2017a).

Different theories may explain the moderating role of political trust in the relationship between regime type and SWB. According to the performance hypothesis (Wang, 2005), economic development affects citizens' evaluation of government performance, which in turn leads to confidence in the government. Is evidence that longitudinal changes in national economic performance (e.g., growth and unemployment) impact political trust (Van Erkel & Van Der Meer, 2016). Livability theory

(Veenhoven, 1995, 2014) posits that SWB is associated with objective quality of life or living-conditions. There is evidence supporting this theory (Okulicz-Kozaryn & Valente, 2019; Veenhoven, 1995). Based on the performance hypothesis as well as on livability theory, to the extent to which satisfaction with government performance and living-conditions are high, the political regime (either authoritarian or democratic) is likely to enjoy high political trust. In addition to performance and objective quality of life, corruption, procedural fairness, inclusive institutions, and socialization may also be considered sources of political trust (Uslaner, 2018; van der Meer, 2017b).

An unexpected result of the present work was that happiness was associated with the EIU categorization of regime type, whereas life satisfaction was related to the V-Dem classification of regime type. Life satisfaction and happiness are clearly inter-related and conceptually are considered components of SWB. However, happiness is concerned with pleasant affect or emotion, while life satisfaction refers to cognitive evaluations about life (Diener et al., 1999). According to Helliwell & Barrington-Leigh (2010), happiness reflects a transient affective state, while life satisfaction is a global and long-lasting cognitive evaluation of the quality of life. Therefore, the distinction between happiness and life satisfaction reflects the consensus that both judgmental and affective aspects define subjective well-being (Diener, 2000; Diener et al., 1999). While V-Dem relies heavily on the number and diversity of V-Dem's expert group, the EIU categorization of regime type takes into account poll data (e.g., citizens' attitudes and values toward democracy) and not only the structure and func-tioning of government (Coppedge et al., 2017; Elff & Ziaja, 2018). A possible expla-nation is that these individual perceptions and attitudes may be more strongly related to happiness than to life satisfaction. It seems clear that the use of a different measure for democracy as well as for SWB might provide different results. Therefore, a prac-tical recommendation that follows from the present findings is that future research on this topic should validate the results with more than one measure of democracy and SWB. Past research showed that measures of political regimes are systematically influenced by the institutions that generated them and the use of more than one source is recommended (Elff & Ziaja, 2018). It should be noted, however, that the measures of EIU and V-Dem are strongly associated, indicating that, despite the differences, there remains much overlap in these measures of democracy (Chapman, 2020).

Strengths and weaknesses

The key strengths of the present study were the large sample size, the involvement of a wide range of countries across the world, the representativeness of the sample, and the inclusion of multiple covariates. The principal limitations of the present study are the possibility of self-report biases and its cross-sectional nature prevents any causal interpretations. It should be noted that the identification of a causal relation-ship between regime type and SWB is beyond the scope of this study. The findings of the current study present the reader with a "picture" of the situation at the time the data were collected. Longitudinal studies are needed to investigate specific changes and processes over a long time. For instance, future longitudinal studies may inves-tigate whether regime instability explains the curvilinear effect between democracy

and SWB. Finally, it was beyond the scope of this research to investigate the relationship between the different elements and attributes of democracy and SWB. Future studies may disentangle the different elements and attributes of democracy (e.g., electoral systems, civic and political participation, freedom of expression, clean elections, civil liberties, rule of law) to identify their independent contribution to SWB (Touchton et al., 2017).

Conclusions

There is considerable literature investigating the association between democracy and SWB; however, inconsistent results have been obtained. Some studies concluded that the relationship is significant and positive, while others did not find a significant relationship. The result of the present study offers a new understanding of how regime type might be associated with SWB. An index of democracy ranging from authoritarian regimes to full democracies did not seem to be linearly related to SWB. An element of novelty consists in showing the usefulness of the categorization into regime types. The results indicated that the association between regime types and SWB is statistically significant but small or very small in magnitude. However, it should be noted that also very small effects can have a non-negligible impact on society. Moreover, at higher or lower levels of political trust, the estimated mean levels of well-being did not differ across different types of regimes. Hence, SWB depends at least as much on the trust in government as on the type of regime.

Declarations

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