

Democracy, Participation, and Life Satisfaction

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Abstract

Objectives: We examine whether democracy, political participation, and differing systems of democracy influence individual levels of subjective well-being. *Methods:* We use individual data on life satisfaction and characteristics related to satisfaction for approximately 46 countries. We estimate ordered probit models with country and time dummy variables and cluster-adjusted robust standard errors. *Results:* Democracy is positively correlated with individual levels of well-being. The opportunity to participate in the political process and whether the democracy is parliamentary or presidential are related to individual well-being. *Conclusions:* Democratic institutions influence the subjective well-being. The well-being of individuals with minority political views decreases in parliamentary systems.

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1 Introduction

Philosophers have analyzed the nature of human happiness for millennia, and many, like Adam Smith, have discussed its relationship to the governing structures and economic institutions of society. More recently, psychologists and social scientists have begun to measure and to try to understand how institutions, predispositions, and behaviors affect an individual's well-being. Much of this research relies on the individual's own assessment of her happiness, hence the use of the phrase subjective well-being (SWB).¹

Researchers have connected SWB to a myriad of factors: genetic dispositions and personality traits (Lykken, 1999), the quality of one's affective ties, relative social and economic standing, religiosity, a sense of personal control, physical health, employment status, race, age, and education (Peterson, 1999; DiTella and MacCulloch, 2006; Kahneman and Krueger, 2006; Frey and Stutzer, 2002; Diener and Lucas, 2000). SWB is also influenced by social conditions and institutional structures: individualism, GDP, human rights, political stability, economic freedom, levels of trust, social capital, equality, labor union density, and stable democracy (Diener, Diener, and Diener, 1995; Diener and Suh, 1999; Veenhoven, 2000; Inglehart and Klingemann, 2000; Diener and Oishi, 2000; Radcliff, 2005; Helliwell and Putnam, 2004).

In this paper we investigate the relationship between democracy and individual levels of subjective well-being, addressing questions that are either currently contested or have not yet been discussed in the literature. We find empirical evidence that democracy relates to life

¹ Like many who write in this area, we have chosen life satisfaction as our dependent variable rather than measures of happiness. Happiness is generally used to refer to a temporary emotion or mood while questions about life satisfaction ask for a more reflective assessment of well-being (Diener and Suh, 1999; Helliwell, 2003; Helliwell and Putnam, 2004).

satisfaction, independent of economic well-being, cultural pre-dispositions, and individual characteristics. We show that individuals in countries with greater access to institutional structures that allow political expression have higher levels of life satisfaction. Finally, after distinguishing between presidential and parliamentary systems, and between proportional representation and majoritarian electoral systems, we find that the effect of a particular system depends on whether or not an individual holds minority views.

1.1 Democracy, Participation and Life Satisfaction

While the pursuit of happiness has often been considered central to the democratic project, the question of whether democracy actually contributes to human well-being is a more contentious issue. Market democracies generally have higher levels of happiness than other countries, though there are contradictory findings on whether democratic practices and institutions themselves are much of a factor in determining individual happiness. Inglehart and Klingemann conclude that “the interpretation that democracy determines well-being does not stand up: other factors ... seem to play much more powerful roles” (Inglehart and Klingemann, 1999). On the other hand, in a 2005 study Dorn et al. find a sizable and significant effect of democracy on SWB for those countries with democratic structures in place before 1988 and a positive but insignificant effect for those countries that democratized between 1988 and 1998 (Dorn, Fischer, Kirchgassner, Sousa-Poza, 2005).

As with the issue of democracy, the question of whether participation contributes to well-being is also contested. Historically, political participation has been thought to contribute to well-being in several different ways. First, participation may contribute to well-being if democratic states’ policies are more in line with voter preferences than in non-democratic states. Second, the act of participation itself may contribute to SWB, independent of policy outcomes,

by fostering social connectedness and inculcating a sense of purpose, both of which have been connected with higher levels of SWB (Verba, Schlozman, and Brady, 1995; Putnam, 2000; Peterson, 1999; Frey and Stutzer, 2000; Seligman et al, 2006). Third, political participation may also increase an individual's sense of personal efficacy and control (Verba, Schlozman, and Brady, 1995). While it has been found that happiness is correlated with a sense of control over our lives and circumstances (Peterson, 1999, Seligman, 1975), others contend that the sense of control is mostly relevant in our private lives and that it does not extend to the level of national politics (Lane, 2000). Frey and Stutzer (2000) examined this question in a statistical study of the Swiss cantons which have measurably different levels of participatory democracy. They found higher participation levels and higher opportunity for participation correlated with higher levels of individual happiness. However, Dorn, Fischer, Kirchgassner and Sousa-Poza, (2005) found that once the culture of the different Swiss cantons was controlled for using language as a proxy, the participation variable was no longer significant.

1.2 Democratic Systems

Recent research has highlighted important differences between presidential and parliamentary systems which may affect individual levels of subjective well-being. First, in a parliamentary system, an executive can be more easily removed in response to voter discontent. In presidential systems, on the other hand, voters must generally wait until the end of fixed terms to remove a president, unless they are willing to risk a governmental crisis caused by impeachment. Second, because in parliamentary systems the executive is often the head of the ruling party, there is less conflict between the legislative and executive branches, which in turn may allow for a more proactive legislative agenda (Linz, 1990; Mainwaring, 1993). Third, Persson, Roland, and Tabellini (2003) find that parliamentary systems tend to provide

advantages for a broader majority of the citizenry, while presidential systems provide more goods to powerful minority groups. These differences suggest that parliamentary systems may be more immediately responsive to the electorate's concerns, and thus, potentially associated with higher levels of SWB.

Electoral systems, too, can matter. Proportional electoral systems (PR) allow more diverse interests to be represented and require parties to compromise through the influence of coalition-formation. Thus, PR systems may generate legislation that better represents the interests of a broad majority of citizens (Persson, Roland, and Tabellini, 2003) and may be more likely to institute more redistributive properties than majoritarian systems (Iverson and Soskice, 2006). Majoritarian systems, on the other hand, tend to focus policy on small constituencies (Persson and Tabellini, 2005). However, PR systems can also be marked by conflict and instability as coalitions break down, and the need to form a government can put undue influence in the hands of certain small minority parties (Persson and Tabellini, 2005), both which may create voter unhappiness. To test whether these differences matter, we distinguish between parliamentary and presidential systems and PR and winner-take-all systems. As far as we know, no one has yet addressed these differences in the context of subjective well-being. In addition, we also test the hypotheses that the effects of a parliamentary rule (rather than presidential) and a majoritarian electoral system (rather than a PR system) differ for individuals who are in the minority of the political spectrum.

2 Methods and Data

2.1 Methods

Our methods are most closely related to those employed by DiTella, McCulloch and Oswald (2003). Defining and measuring democracy and life satisfaction raise important

methodological issues. Typically, democracy is measured by indices created by researchers who attempt to quantify and identify characteristics of democracies. One of the most widely used indices is available in the Polity IV data set. Since this kind of data set is based on the subjective evaluations of the researchers, although specific guidelines are followed to characterize the regime, these researchers may be predisposed to conclude that certain countries are more “free” or “democratic” than others. However, as we explore the effects of the components of democracy, we are less concerned that our results are being driven by systematic biases in the evaluation of these aspects because researcher bias at the country level will be evident in the scores given to all aspects of democracy in that country.² Additionally, our last set of results uses more objective measures of the political system that are not subject to these biases.

Life satisfaction data are based on individual self-reports. Self-reported well-being has been shown to correlate with brain activity associated with pleasure, smiling frequency, sleep quality, self-reported health, as well as a variety of demographic characteristics that are associated with improved life circumstances. (See DiTella and MacCulloch, 2006; Kahneman and Krueger, 2006; and Frey and Stutzer, 2002 for a discussion of self-reported measures of life satisfaction.) In addition, as reported by Sandvik, Diener, and Seidlitz (1993), and Costa and McCrae (1988), friends and relatives of people who respond to surveys by indicating higher levels of happiness and satisfaction corroborate the self-reporting. We use a self-reported measure of life satisfaction from the World Values Survey. Because responses to life satisfaction questions are ordinal and not cardinal, we estimate an ordered probit model that does

² We also estimated models that include an index of civil and political liberties compiled by the Freedom House. The results are similar to the results reported in the paper. Detailed results from all additional models not reported in the paper are available from the authors upon request.

not assume that each increment in the response scale is identical (i.e., the difference between a response of 2 and a response of 3 does not necessarily need to indicate a change in satisfaction of the same magnitude as the difference between a response of 7 and a response of 8.) Thus, our estimation method treats the survey response as an indicator of the unobserved individual characteristic of true satisfaction.

Because we examine life satisfaction levels of individuals from many different countries, we need to control for omitted country characteristics that might be related to both the level of democracy and an individual's happiness. Because we have samples for two to four time periods for each country,³ we are able to include country dummies that capture the effects of omitted time-invariant country characteristics. We are also able to include some country characteristics that others have shown to be related to individual happiness (e.g., GDP per capita, unemployment rate, welfare transfers, and others). Pooling individuals in several different countries must be done with care, and in addition to including country dummies, we also calculate cluster-adjusted robust standard errors that account for within-country correlation and heteroscedasticity. As an alternative modeling approach, we attempted estimating ordered probit models with random country intercepts but the models did not converge. However, we found that estimates of linear random-effects models (that is, random-effects models that treat life satisfaction as a continuous variable) are similar to the estimates from the ordered probit model with country dummies, both in terms of qualitative conclusions and statistical significance.

³ Note that we have different individuals in our sample from each country in each time period, allowing us to identify a country-specific effect. Because we do not have multiple observations for any one individual, we are unable to estimate individual-specific effects.

Thus, the choice of a country dummy or a linear random-effects approach does not seem to change our main conclusions.

A final methodological issue is the decision to use aggregate country data or individual data. While both approaches provide important insight into the relationship between democracy and SWB, we have chosen the latter for the following reasons. As we mention above, our data set allows us to control for time-invariant country-specific characteristics. By including country dummies, we are less likely to be attributing to democracy an effect that belongs to some other country characteristic. Second, as those who use aggregate data often acknowledge, averaging happiness levels can obscure important differences in SWB among groups and individuals within countries. Third, precisely because there is so much heterogeneity within individuals in a nation, and to the extent that we are able to control for many relevant individual characteristics, our analysis at the individual level may make a stronger case for causality. Finally, using individual level data makes reverse causality less of an issue. At the aggregate level of analysis it is possible that a positive coefficient between democracy and average levels of well-being could be the result of reverse causality, that happier people are more likely to institute and support democratic institutions. However, when using individual level data it is more legitimate to think that the country characteristic caused the individual life satisfaction and not that one happier individual caused the country to become more democratic.

2.2 Variables and Data

We use the overall democracy score from the Polity IV data (POLITY) to examine the relationship between democracy and SWB. Following Persson and Tabellini (2006), we create a variable that is equal to 1 when this index is positive and 0 when it is less than or equal to zero. This coding allows us to include both stable and transitioning democracies in our analysis.

Because the original polity score is from -10 to 10, ideally, we would enter a separate binary variable for each level of the index (i.e., enter 21 dummy variables). However, in our sample the observations are grouped at the bottom of the scale and near the top, with only a few countries populating the intermediate levels and there are no countries with values of the polity variable between -5 and 0. In addition, we would need to have multiple countries at each level of democracy (or changes within countries over time) and this does not occur in our sample (if there is only one country with one specific value of the polity index then the dummy variable for that value is indistinguishable from the country dummy). Despite these data limitations, we consider alternative measures and create separate dummy variables for the levels of democracy that are positive and for which we have multiple countries in our sample. Because we do not have multiple countries for each negative level of democracy, we still must group all these countries together. A final alternative measure of democracy is the original polity variable. This, of course, has the disadvantage of imposing that the effect of a 1-unit change in the index is identical no matter what the level of the index is.

A second measure allows us to examine the components of democratic systems. The Polity IV overall democracy rating is based on three concepts: constraints on executive power, competitiveness of executive recruitment, and the institutions and access to those institutions that allow participation in the political process. Participation is based on an index that assesses the extent to which the expression of political preferences is institutionalized and the extent to which alternative preferences can be expressed. In our estimations, we use this index to create a variable, Participation, that is equal to 1 (0 otherwise) when the index takes on the maximum value. Our executive recruitment variable is equal to 1 when an index assessing the competitiveness and openness of the mechanisms for selecting a political leader takes on its

maximum value, while our measure of constraints on executive power takes on a value of 1 when an index measuring limits on the chief executive's authority achieves its maximum value. By coding in this manner we may exclude some transitioning democracies, so we interpret these results as applying primarily to mature democracies. Finally, we control for the type of democracy by using a dummy variable that indicates that the system is based on parliamentary rule and a second variable indicating if the electoral system is majoritarian. Both of these measures are from the data set compiled by Persson (1999).⁴

Individual level data on life satisfaction and individual characteristics come from the World Values Survey (WVS). The WVS surveys individuals in many countries regarding their attitudes towards a variety of social and political issues. One of the questions is "All things considered, how satisfied are you with your life as a whole these days?" The answer to this question on a scale of one to ten is our dependent variable. The WVS has been conducted four times (1981-84, 1990-93, 1995-97, 1999-2002), and each time the sample of countries has been expanded. We include individuals from all countries that are included in the WVS at least two of the four times for which we have data. We take from the WVS individual characteristics that may be related to SWB and include these as control variables in our estimation. All of our estimations include controls for age, age squared, relative place in the income distribution of each country, dummy variables for age at which education was completed, dummy variables for employment status (unemployed, self-employed, retired, work at home, student), dummy variables for marital status (married, divorced, separated, widowed), dummy variables for number of children, and a dummy variable if a respondent considers herself to be a "religious person." We also included a variable that indicates where an individual places herself in the

⁴ These data are available from Persson's web site at <http://www.iies.su.se/~perssont/>.

right-left political spectrum. The variable, RIGHT, is an index from 1 to 10, with individuals responding with a 1 placing themselves at the extreme left of the political spectrum and individuals responding with a 10 placing themselves in the extreme right.

Although the impact of income on life satisfaction is somewhat controversial (Easterlin, 2003; Lane, 2000; Frey and Stutzer, 2002; Diener and Oishi, 2000; Gilbert 2006), we do include real per capita GDP as a control variable. Unemployment rates may also be related to individual satisfaction and we include these as a separate country-level control as well. By including per capita GDP and unemployment rates we also control for the fact that democracies are more likely to implement economic and social policies that promote economic growth (Persson and Tabellini, 2006). In some models we also include additional country-level controls that might be related to individual life satisfaction: trade intensity (exports + imports/GDP), a proxy for the extent of the welfare state (government transfers/GDP), and a measure of violence within the country (the average over the previous 5 years of the number of riots, revolutions, guerrilla attacks, and assassinations). However, we do not use these variables in our primary specification because their use reduces our sample size considerably. Per capita GDP, unemployment rates, and trade intensity are obtained from the World Bank's World Development Indicators. The data on internal violence were obtained from the Arthur S. Brooks Cross National Time Series Archive and the data on transfers are from Gwartney and Lawson (2006). Although there are other country characteristics that might be related to individual life satisfaction, our use of the country dummies controls for omitted time-invariant country-level variables. In total, we have data from individuals in 46 countries.

2.3 Results

Using the data on individual and country characteristics and democracy described above, we show that higher overall ratings of democracy are associated with higher levels of life satisfaction for the individuals in those countries (row 1, Table 1). Before discussing the effects of democracy, however, we first discuss the results for the control variables which are included in all our estimations. Because the qualitative results are similar each time, we only report and discuss them here. The first column of Table 1 presents the results for the individual control variables, per capita GDP, and unemployment rates. Columns two and three include additional country-level controls that, due to missing values for some countries, reduce the sample size considerably.

In general, we find that being female, married, and employed is associated with reporting higher levels of life satisfaction. There is a U-shaped relationship between age and SWB with a turning point around 50 years of age. We do not find strong significant effects for age at which education is completed. We might expect that those who did not continue their education would be less satisfied with life; however, we find only weak evidence for this hypothesis (column 3). One possible explanation is that our specification includes many other socio-demographic characteristics that are likely highly correlated with education (i.e., income and employment status). Helliwell (2003) also finds that education is not strongly associated with SWB. We also find that individuals who think of themselves as being religious report higher levels of life satisfaction and that individuals who report having political views more to the right of the political spectrum are also more satisfied with life. This latter finding is in keeping with findings of the General Social Survey since 1972 that Republicans and conservatives are happier than Democrats and liberals.

Country characteristics are important, with many of the country dummy variables (not reported) entering the specification significantly. In the largest sample (column 1), we do not find a significant relationship between per capita GDP and individual satisfaction after controlling for all the individual characteristics and the country dummy, but individuals who live in countries with higher unemployment rates report lower levels of life satisfaction. When we add trade intensity and transfers/GDP the sample size decreases substantially. Trade intensity and government transfers are positively related to individual life satisfaction. The coefficient on country-level unemployment becomes positive in the reduced sample, possibly because of its correlation with government transfers. As expected, a country's history of violence is negatively correlated with individual life satisfaction but the estimate is not statistically significant. Importantly, the inclusion of these additional controls does not affect the estimates on democracy.

Table 2 focuses on the effect of overall democracy, using alternative approaches to coding the original Polity IV data. The measure of democracy in column 1 equals 1 when the overall democracy index in the Polity IV data set (POLITY) is greater than 0. This indicator of democracy is positive and statistically significant at the 1 percent level. The model in column 2 includes eight dummy variables, one dummy variable for each positive value of POLITY for which there are multiple countries in the sample. The positive and significant estimates on all these dummies indicate that in countries where POLITY is greater than zero, life satisfaction is, on average, greater than in countries where POLITY is non-positive (the omitted group). This result confirms the inference we gain from the indicator of democracy in column 1. In addition, a Wald test rejects the null hypotheses that the estimates of the eight dummy variables are equal to each other. Thus, there are some differences in average levels of life satisfaction among

individuals living in countries with positive values of POLITY. Column 3 presents the estimate on the original POLITY variable. The estimate is positive, as expected, but statistically insignificant. Most likely, the bimodal distribution of this variable in our sample (there are no countries in the sample with a value of POLITY between -5 and 0) makes it difficult to distinguish differences in average life satisfaction among individuals in non-democratic countries.

Column 4 presents the coefficient on a 20-year moving average of POLITY. With this variable we explore the hypothesis that democracy can influence life satisfaction through its cumulative effect on a country's institutions. This estimate is positive but statistically insignificant. However, when the model excludes country dummies and country-level controls, the estimate of the moving average of POLITY is positive and significant. This result suggests that the country dummies, per capita GDP, and unemployment capture the cumulative influence of democracy on the quality of institutions.⁵ Overall, although there may be more than one way through which democracy affects life satisfaction, the significant estimates on democracy and the dummy variables for positive levels of POLITY show a contemporaneous correlation between democracy and SWB.

Why are individuals living in more democratic countries more satisfied with life? We examine whether life satisfaction is influenced by living in countries with greater participation of individuals in the political process, with more open and competitive elections, and with greater constraints on the power of the executive. Results for ordered probit models with the same controls as those reported in Table 1, column 1, but with these measures of the different aspects

⁵ The estimate on the 20-year moving average of POLITY is significant at the 11 percent level when the model excludes the country dummies but includes per capita GDP and unemployment.

of democracy appear in Table 3. The results in column 1 of Table 3 show all three democracy concepts (participation, executive recruitment, and executive constraints) simultaneously. Only participation enters significantly into the equation, with the expected positive effect on life satisfaction. In columns two through six, we demonstrate that different combinations of these variables do not affect the main conclusion.⁶ Thus, the evidence in Table 3 suggests that one reason why individuals in more democratic countries are more satisfied with life is their ability to participate in the political process.

Although the Polity IV data evaluate general features of institutions and access to those institutions that enable participation, they do not distinguish between different types of democracy. Both the nature of the electoral system and the system of representation could affect an individual's perception of their ability to participate in the political process and, therefore, may be related to life satisfaction. We examine whether individuals who live in countries with majoritarian electoral systems are more satisfied than those with proportional representation systems and whether individuals who live in a country with a parliamentary system are more satisfied than those in presidential systems. We note that an individual's satisfaction under these different systems may depend on whether that individual holds a minority political view, particularly since presidential and majoritarian systems tend to focus policies on small constituencies (Persson and Tabellini, 2005). Therefore, in determining the effect of these

⁶ Wald tests reveal that indeed the coefficient on participation is different from the coefficient on the competitiveness of executive recruitment and on the constraints on executive power at the 5% significance level. In addition, a test of the joint significance of competitiveness of executive recruitment and constraints on executive power shows that the null hypothesis that both coefficients are zero cannot be rejected.

structural features of the political system, we control for whether or not an individual is in the minority. We take the absolute value of the individual's place in the political spectrum minus the median value for that individual's country. People who are to the right or left of the median placement for their country will have high values for this variable, which we term "Minority View". The larger this value is, the more different individuals' views are from the typical view for their country. We include this new variable in our estimation of life satisfaction and interact it with the democracy structure variables to see if the structure variables affect individuals in the minority differently than others.

When we focus the analysis on the democratic system, these features have not changed for any of the countries in our sample. Thus, we can no longer estimate a model with country dummies because these dummy variables would be perfectly correlated with the democracy structure variable. However, we are still able to control for omitted country characteristics via a country-specific random effect. We estimate a linear model rather than an ordered probit model because, due to the complexity of our specification, a random-effect ordered probit model does not converge to a maximum for the log likelihood. In our earlier estimations, we found little difference in our qualitative conclusions under this different estimation procedure so we are confident that the estimation procedure is not driving our conclusions. Here, we examine fewer countries that are all democracies so there is less variability to use to find significant effects.

The results of this exercise appear in Table 4. All control variables used in the previous estimations are included here as well. The first column of Table 4 show an estimation in which a variable for the majoritarian electoral system is included and the second column interacts the majoritarian system with the newly created variable, "minority view." As can be seen in these first two columns, we find no effect on satisfaction of a majoritarian electoral system when

compared with proportional representation systems. Even though we control for the absolute place in the political spectrum of each individual, we find some evidence that people who report holding a minority political view are more satisfied with life. This finding could be influenced by reverse causality—more satisfied individuals may be more willing to report minority views.

Although we find no evidence of an effect of the majoritarian electoral rule, we do find evidence that a parliamentary system affects the life satisfaction of some individuals. In particular, column 4 provides evidence that individuals with a minority view are less satisfied with life if the system is parliamentary, possibly because they feel they have less control over democratic outcomes. Individual sense of control over life circumstances has been found to be positively correlated to higher levels of well-being (Peterson, 1999). The results in Table 5 (columns 2 and 4) suggest that people who report holding minority views also report feeling more in control in general.⁷ As before, this positive coefficient may be influenced by some reverse causality—people who feel more in control may feel more comfortable reporting minority views. In a result that is less subject to the reverse causality problem, we find a negative coefficient on the interaction term of parliamentary systems and minority views in column 4 of Table 5. This suggests that in presidential systems, individuals with minority views have a greater sense of control than do those in parliamentary systems.

3. Discussion and Conclusion

⁷ This variable comes from the World Values Survey. The question reads: “Some people feel they have completely free choice and control over their lives while other people feel what they do has no real effect on what happens to them. Please use this scale where 1 means “none at all” and 10 means “a great deal” to indicate how much freedom of choice and control you feel you have over the way your life turns out.”

As our ability to measure human happiness improves, it is becoming increasingly useful to examine its relationship with public institutions. Our study suggests that democracy itself, the chance to participate in the political process, and a country's democratic constitutional structure influence the life satisfaction of individuals. We find a contemporaneous positive correlation between democracy and individual well-being after controlling for individual and country characteristics as well as country dummy variables that are likely to capture the cumulative effects of democracy on the quality of institutions. We show that the ability to participate in the political process influences well-being while the competitiveness of executive recruitment and constraints on executive power are not statistically significant indicators of SWB.

We also show that minorities in parliamentary systems are less happy than those in presidential ones and that, in presidential systems, individuals with minority political views have a greater sense of control. These results are consistent with other evidence that presidential systems provide more goods to powerful minority groups, while parliamentary systems provide advantages to a broader majority (Persson, Roland, and Tabellini, 2003). It may be that the potential sting of having a minority political position in a democracy is mitigated for powerful minorities in presidential systems in a way it is not in parliamentary systems. Given that parliamentary systems are thought to be more efficient at passing legislation than are presidential systems (Lijphart, 1984; Linz, 1990; Gerring, Thacker, and Moreno, 2005), it is also possible that political minorities are less satisfied in parliamentary systems because a greater volume of centrist legislation is passed. Finally, if it is the case that minorities in parliamentary systems feel that they have less opportunity to participate successfully in the political process, this result is also consistent with our finding that having a chance to participate is associated with higher levels of SWB.

Although some scholars have found that PR systems tend to provide more generous social benefits (Iversen and Soskice, 2006) and others argue that welfare state generosity positively influences levels of well-being (Radcliffe, 2005), we do not find that proportional systems correlate with higher levels of SWB (although we do find that country-level welfare transfers have a positive effect on individuals' SWB). While other scholars have postulated that majoritarian electoral systems are more likely to produce policies aimed at narrow constituencies (Persson and Tabellini, 2005) and are less likely to represent the median voter (Huber and Powell, 1994), we find no evidence that holding a minority view interacts with the type of representation to affect individual's life satisfaction.

While our research provides evidence that democratic institutions matter, there are still many questions left unanswered. The distinctions between parliamentary and presidential systems and between PR and majoritarian systems, while an improvement over using a simple measure of democracy, are relatively rough. Studies of good government and constitutional structure remind us that these issues are complicated and that we need to be cognizant that good government outcomes and levels of SWB might well be dependent on whether the constitutional and electoral structures fit well with the particular needs of the country. Lijphart (1984) argues that "majoritarian" systems will work better in more homogenous nations, while more diverse nations may do better with a more inclusive "consensus" system. Further research could profitably investigate whether SWB is dependent on a good fit between the constitutional system and the needs and the make up of the populace, rather than just on the type of institutions. The same is true of democratic participation. As Frey and Stutzer's (2000) study of direct democracy in Switzerland suggests, different types of political participation may well differentially impact levels of SWB. It is also possible that what matters is the combination of electoral and

governing systems. However, when we tested whether governments that combined parliamentary and PR systems had differing effects on SWB from those that combined presidential and majoritarian systems, we did not get significant results. Perhaps, an even more nuanced approach is necessary. Gerring, Thacker, and Moreno (2005) argue in their centripetal theory of democratic governance that in fact the best government outcomes result when constitutional systems contain a combination of inclusive and authoritative systems, when, in other words, they combine unitary, parliamentary, and list-PR systems, rather than decentralized federal, presidential, and nonproportional systems. Lijphart (1999) has found that citizens that live in “consensus” democracies are happier with the democratic performance of their countries than those in “majoritarian” democracies (Lijphart, 1999), though he did not measure to see if this satisfaction impacts citizens’ overall assessment of their well-being.

These are questions that the research program on SWB could examine with increasing detail and accuracy. Our results strongly suggest that it is important to consider the relationships between subjective well-being and democracy and participation in assessments of governments. Furthermore, policy makers designing or reforming democratic institutions should recognize that the act of participating, independent of outcomes, provides benefits to citizens. While happiness is not the only important variable — after all, a government that focused on short term desires could well have a happy citizenry while failing to provide for the long-term needs of the country — it is a very significant one. In addition to being desirable in and of itself, happiness levels influence vital political goods like stability and societal generosity (Inglehart and Klingemann, 2000; Friedman, 2005).

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Table 1: Life Satisfaction and Democracy

| | (1) | (2) | (3) |
|---|---------------------|---------------------|---------------------|
| Democracy | 0.1589*** (0.0605) | 0.1993*** (0.0733) | 0.2733*** (0.0482) |
| <i>Individual Controls</i> | | | |
| Male | -0.0424*** (0.0126) | -0.0375** (0.0158) | -0.0411 (0.0264) |
| Age | -0.0299*** (0.0026) | -0.0305*** (0.0040) | -0.0234*** (0.0048) |
| Age*Age | 0.0003*** (0.0000) | 0.0003*** (0.0000) | 0.0003*** (0.0001) |
| 2 nd income group | 0.2368*** (0.0383) | 0.1093*** (0.0223) | 0.0636* (0.0335) |
| 3 rd income group | 0.4164*** (0.0653) | 0.2558*** (0.0546) | 0.2603*** (0.0791) |
| 4 th income group | 0.5929*** (0.0647) | 0.4085*** (0.0626) | 0.4064*** (0.1266) |
| 5 th income group | 0.7056*** (0.0761) | 0.4685*** (0.1003) | 0.3539** (0.1453) |
| 15 or younger when completed education | -0.0128 (0.0188) | -0.0171 (0.0172) | -0.0352* (0.0205) |
| 15 to 19 when completed education | -0.0017 (0.0213) | 0.0129 (0.0250) | -0.0409* (0.0234) |
| Unemployed | -0.2604*** (0.0240) | -0.2806*** (0.0425) | -0.2353*** (0.0627) |
| Self-employed | -0.0183 (0.0213) | -0.0408 (0.0276) | -0.0652 (0.0458) |
| Retired | 0.0035 (0.0284) | 0.0220 (0.0369) | 0.0323 (0.0413) |
| At home | 0.0163 (0.0372) | -0.0052 (0.0232) | -0.0203 (0.0251) |
| Student | 0.0258 (0.0212) | 0.0261 (0.0244) | 0.0400 (0.0371) |
| Married | 0.1986*** (0.0170) | 0.2297*** (0.0215) | 0.2243*** (0.0307) |
| Divorced | -0.0439* (0.0230) | -0.0579** (0.0287) | -0.1089*** (0.0418) |
| Widowed | -0.0603** (0.0274) | -0.0559* (0.0326) | -0.0230 (0.0616) |

| | | | |
|-------------------------|---------------------|---------------------|---------------------|
| 1 child | -0.0356** (0.0148) | -0.0134 (0.0226) | -0.0363 (0.0300) |
| 2 children | -0.0231 (0.0171) | 0.0065 (0.0217) | -0.0271 (0.0289) |
| 3 or more children | -0.0148 (0.0194) | 0.0132 (0.0299) | -0.0448 (0.0449) |
| Separated | -0.1702*** (0.0367) | -0.2348*** (0.0555) | -0.2443*** (0.0868) |
| Religious | 0.1184*** (0.0121) | 0.1395*** (0.0186) | 0.1637*** (0.0202) |
| Right | 0.0373*** (0.0036) | 0.0374*** (0.0050) | 0.0338*** (0.0061) |
| <i>Country controls</i> | | | |
| Per capita GDP | 0.0000 (0.0000) | 0.0000 (0.0000) | 0.0000*** (0.0000) |
| Unemployment rate | -0.0067*** (0.0020) | 0.0220** (0.0089) | 0.0315*** (0.0069) |
| (Exports+Imports)/GDP | | 0.0086*** (0.0022) | 0.0303*** (0.0046) |
| Transfers/GDP | | 0.0197*** (0.0056) | 0.0618*** (0.0147) |
| Violence | | | -0.0124 (0.0081) |
| | | | |
| Number of Countries | 46 | 22 | 16 |
| Observations | 84042 | 37976 | 20393 |

Estimation method: Ordered Probit. Cluster-adjusted standard errors in parentheses. Interaction with income groupings and per capita GDP and dummy variables for each time period and country are included in each estimation. * significant at 10%; ** significant at 5%; *** significant at 1%

Table 2: Life Satisfaction and Democracy, Alternative Measures of Democracy

| | (1) | (2) | (3) | (4) | (5) |
|-----------|----------|----------|---------|-------|----------|
| Democracy | .1589*** | | | | |
| | (.0605) | | | | |
| Polity=1 | | .4395*** | | | |
| | | (.0593) | | | |
| Polity=4 | | .1693*** | | | |
| | | (.0484) | | | |
| Polity=5 | | .5382*** | | | |
| | | (.0201) | | | |
| Polity=6 | | .5342*** | | | |
| | | (.0604) | | | |
| Polity=7 | | .1517** | | | |
| | | (.0591) | | | |
| Polity=8 | | .3047*** | | | |
| | | (.0427) | | | |
| Polity=9 | | .4489*** | | | |
| | | (.0633) | | | |
| Polity=10 | | .6290*** | | | |
| | | (.0719) | | | |
| POLITY | | | .0150 | | |
| | | | (.0150) | | |
| 20-year | | | | .0033 | .0154*** |

| | | | | | |
|---|-------|-------|-------|---------|---------|
| Moving Average of POLITY | | | | | |
| | | | | (.0024) | (.0053) |
| Country-level controls and country dummies | YES | YES | YES | YES | NO |
| Number of Countries | 46 | 46 | 46 | 36 | 37 |
| Observations | 84042 | 84042 | 84042 | 74876 | 80202 |

Columns 1 though 4: Ordered probit with country and time dummy variables and cluster-adjusted standard errors. Includes all control variables used in the specification presented in Table 1, column 1. Column 5: ordered probit with time dummies and cluster-adjusted standard errors. Does not include any country-level characteristics except moving average of POLITY.

Table 3: Life Satisfaction and Components of Democracy

| | (1) | (2) | (3) | (4) | (5) | (6) |
|--|-----------|-----------|-----------|-----------|----------|----------|
| Participation | 0.2898*** | 0.2894*** | 0.2925*** | 0.2924*** | | |
| | (0.0478) | (0.0461) | (0.0492) | (0.0459) | | |
| Competitiveness of Executive Recruitment | -0.0165 | -0.0150 | | | -0.0457 | |
| | (0.0803) | (0.0745) | | | (0.0819) | |
| Constraints on Executive Power | 0.0072 | | 0.0011 | | | -0.0244 |
| | (0.0495) | | (0.0393) | | | (0.0431) |
| Number of Countries | 46 | 46 | 46 | 46 | 46 | 46 |
| Observations | 84042 | 84042 | 84042 | 84042 | 84042 | 84042 |

Estimation method: Ordered Probit. Cluster-adjusted standard errors in parentheses. Dummy variables for each time period and each country are included in each estimation. Includes all control variables used in estimations in Table 1. * significant at 10%; ** significant at 5%; *** significant at 1%

Table 4: Life Satisfaction and Forms of Democracy

| | (1) | (2) | (3) | (4) |
|--|----------|----------|----------|-----------|
| Majoritarian Electoral Sys. | 0.0561 | 0.0387 | | |
| | (0.1726) | (0.1818) | | |
| Majoritarian Electoral System *Minority View | | 0.0152 | | |
| | | (0.0287) | | |
| Minority View | | 0.0346** | | 0.0725*** |
| | | (0.0140) | | (0.0117) |
| Parliamentary System | | | 0.0929 | 0.1677 |
| | | | (0.1275) | (0.1235) |
| Parliamentary System*Minority View | | | | -0.0476** |
| | | | | (0.0187) |
| Observations | 56319 | 56319 | 57441 | 57441 |
| Number of Countries | 26 | 26 | 27 | 27 |

Random effects estimation. Cluster-adjusted robust standard errors in parentheses. Dummy variables for each time period, a constant, and a country-specific random effect are included in each estimation. Includes all control variables used in the estimations in Table 1. * significant at 10%; ** significant at 5%; *** significant at 1%

Table 5: Control and Forms of Democracy

| | (1) | (2) | (3) | (4) |
|---|----------|----------|----------|-----------|
| Majoritarian Electoral System | 0.3791 | 0.4354** | | |
| | (0.2324) | (0.2158) | | |
| Majoritarian Electoral System*Minority View | | -0.0329 | | |
| | | (0.0334) | | |
| Minority View | | 0.0626** | | 0.0858*** |
| | | (0.0264) | | (0.0207) |
| Parliamentary System | | | -0.3285 | -0.2343 |
| | | | (0.2163) | (0.2240) |
| Parliamentary System*Minority View | | | | -0.0600** |
| | | | | (0.0289) |
| Observations | 55746 | 55746 | 56864 | 56864 |
| # of Countries | 26 | 26 | 27 | 27 |

Random effects estimation. Cluster-adjusted robust standard errors in parentheses. Dummy variables for each time period, a constant, and a country-specific random effect are included in each estimation. Includes all control variables used in the estimations in Table 1. * significant at 10%; ** significant at 5%; *** significant at 1%