

Weitz-Shapiro, Rebecca; Winters, Matthew S.

Working Paper

Political participation and quality of life

Working Paper, No. 638

Provided in Cooperation with:

Inter-American Development Bank (IDB), Washington, DC

Suggested Citation: Weitz-Shapiro, Rebecca; Winters, Matthew S. (2008) : Political participation and quality of life, Working Paper, No. 638, Inter-American Development Bank, Research Department, Washington, DC

This Version is available at:

<https://hdl.handle.net/10419/51523>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



*INTER-AMERICAN DEVELOPMENT BANK
BANCO INTERAMERICANO DE DESARROLLO (BID)
RESEARCH DEPARTMENT
DEPARTAMENTO DE INVESTIGACIÓN
WORKING PAPER #638*

POLITICAL PARTICIPATION AND QUALITY OF LIFE

BY

REBECCA WEITZ-SHAPIRO
MATTHEW S. WINTERS

COLUMBIA UNIVERSITY

JULY 2008

**Cataloging-in-Publication data provided by the
Inter-American Development Bank
Felipe Herrera Library**

Weitz-Shapiro, Rebecca.

Political participation and quality of life / by Rebecca Weitz-Shapiro, Matthew S. Winters.

p. cm. (Research Department Working Papers ; 638)
Includes bibliographical references.

1. Political participation. 2. Quality of life. I. Winters, Matthew S. II. Inter-American Development Bank. Research Dept. III. Title. IV. Series.

JF799 W254 2008
323.042 W254

©2008
Inter-American Development Bank
1300 New York Avenue, N.W.
Washington, DC 20577

The views and interpretations in this document are those of the authors and should not be attributed to the Inter-American Development Bank, or to any individual acting on its behalf.

This paper may be freely reproduced provided credit is given to the Research Department, Inter-American Development Bank.

The Research Department (RES) produces a quarterly newsletter, *IDEA (Ideas for Development in the Americas)*, as well as working papers and books on diverse economic issues. To obtain a complete list of RES publications, and read or download them please visit our web site at: <http://www.iadb.org/res>.

Abstract¹

Theoretical literatures on procedural utility and the psychological benefits of political participation suggest that people who participate in political activities will be more satisfied with their lives because of the resulting feelings of autonomy, competence and relatedness. Individual-level data from Latin America show—in one dataset under study but not in another—a positive and statistically significant relationship between voting and life satisfaction. Variation in desire to vote as measured in Costa Rica, however, suggests that the causal arrow may run from happiness to voting. The use of multilevel models further reveals a consistent—but untheorized—cross-country negative relationship between enforced compulsory voting and happiness. Only preliminary results are found regarding the relationship between some other forms of political participation and life satisfaction.

¹ rbw2003@columbia.edu; msw22@columbia.edu. Thanks to Carlos Scartascini for his valuable feedback and guidance on this project. Thanks also to Julia Maskivker and Miguel Rueda Robayo for careful comments and to the participants in the Columbia University Quantitative Political Science Seminar for useful feedback and discussion. All errors and omissions are our own.

1. Introduction

Political participation in a democracy can take many forms, ranging from voting for representatives at regular intervals to voting on policies in referenda, forming political groups, and engaging in legal or illegal protest. The individuals engaged in such participation likely expect—or at least hope—that these actions will have some impact on the content of government policies. However, the effects of political participation might not be limited to outcomes. Political participation might also affect individual life satisfaction and happiness.

This first link, between participation and policy outcomes, is a core tenet of much of the scholarly literature and popular thinking about politics. Even political participation at its most passive—the act of voting for elected representatives—has a clear expected link to policy outcomes: we expect that the different candidates and parties for which citizens vote will advocate, pass, and implement different policies. Where voters' preferences differ systematically across groups, and who votes, affects the type of policies that the government implements, including those policies that fundamentally shape the nature of society. For example, scholars expect that sudden increases in participation, such as those brought about by democratization, will have large effects on government policies, including those governing the redistribution of income (e.g., Meltzer and Richard, 1981; Bueno de Mesquita et al. 2003). Changes in participation may not only lead to different policy outcomes, but also, as scholars have argued, more involved democratic participation is likely to lead to *superior* social outcomes because of participation's role in aggregating information and preferences (e.g., Pateman, 1970; Barber, 1984).²

In the aggregate, then, political participation likely has important effects on policy choices and outcomes. In addition to the effects of participation on policy outcomes, however, political participation may matter in a very different way, by providing an individual with direct utility and thereby increasing happiness and satisfaction with life (SWL) in general. In *Development as Freedom*, the economist Amartya Sen speaks of the freedom to participate as being a key form of development. Sen views participation in making decisions that affect one's life and the lives of others as fundamental to human well-being. With his co-author Jean Drèze,

² For example, the use of participatory budgeting at the municipal level in Brazil is often praised because of its ability to redirect public funds away from traditionally privileged neighborhoods to the poorest, most needy areas (Wampler, 2007).

Sen writes, “Participation can also be seen to have intrinsic value for the quality of life. Indeed, being able to do something through political action—for oneself or for others—is one of the elementary freedoms that people have reason to value” (2002: 359).

Sen and Drèze’s argument follows a long-standing tradition in political theory, dating to Aristotle and embraced by many modern theorists, that claims political participation is valuable because of its effects on the individual citizen and her relationship to her political system, *regardless* of the actual outcomes from political processes. Although the theoretical literature presents a number of reasons—both direct and indirect—that political participation should increase subjective well-being, the empirical literature on this topic remains nascent (with some important exceptions, discussed in more detail below). To date, we cannot say whether citizens in fact value participation to the extent that Sen claims, nor do we know to what degree political participation contributes to an individual’s quality of life. In this paper, we seek to answer these questions in the context of Latin America’s democracies. We begin by reviewing the theoretical literature that argues that individual political participation creates psychic benefits by meeting basic human needs and by satisfying individuals’ preferences regarding political processes *qua* processes. This literature suggests that participation should positively affect individual happiness or life satisfaction. We summarize previous empirical studies on these links and highlight the challenges to empirical research in this field. Then, we conduct and discuss a series of original data analyses to shed new light on this important—but in many ways underexplored—topic, using data from a large number of Latin American democracies.

We find mixed evidence of a link between political participation and life satisfaction in the countries of Latin America. One of the survey samples we analyze here suggests that individuals who vote in Presidential elections also consistently express greater life satisfaction than their counterparts who do not engage in this form of participation, which is what the theoretical literature would predict. However, this relationship does not appear in all of the data sources we analyze. Furthermore, we do not consistently find the expected positive relationship between individual life satisfaction and other measures of political participation. In attempting to establish the direction of causality in this relationship, we do find evidence that suggests that participation is more likely to be an effect, rather than a cause, of higher levels of life satisfaction—that is, the evidence points toward happier people participating rather than participation making people happier. These results then cast some doubt on whether the most

typical forms of participation in a modern representative democracy—including voting and contacting public officials—indeed have the positive effects on individual life satisfaction that political theorists suggest.

Another result that emerges from our analysis is a consistent negative relationship between a country having enforced compulsory voting and the average level of national happiness in that country. This negative association exists even when controlling for relevant individual-level characteristics. At this time, we do not have strong theoretical priors as to why this negative relationship exists. We also show some suggestive evidence that the relationship between happiness and voting varies by country depending on whether or not the political system includes enforced compulsory voting. Given that the relationship between voting and happiness is more likely to be positive in countries *without* enforced compulsory voting, this variation supports the reverse causality story that we identify elsewhere: where people are able to choose whether to vote or not, it appears to be the case that happier people opt to vote more frequently than unhappy people. However, there are again discrepancies with regard to this claim between the different data sources that we use, and our conclusions must therefore remain tentative.

2. Political Participation and Procedural Utility

In this section, we explore the concept of “procedural utility” and examine the links between political participation on the one hand and individual well-being on the other. We synthesize existing theoretical arguments, providing intuition for why participation should increase individual happiness by contributing to self-realization. Although we illustrate these arguments with references to empirical literature that has attempted to identify the effects of participation, we offer a more thorough discussion of the empirical literature in the next section. Finally, we also consider some of the reasons why political participation might have a null or even negative effect on quality of life, particularly in the context of a developing democracy.

2.1 Procedural Utility

Much modern positive social science begins with the assumption that people are interested entirely in the quality of outcomes—such as monetary rewards or penalties—that can be understood in the fairly narrow, traditional framework of utility maximization (Graham, 2008). In contrast, scholars in the more recent tradition of happiness studies take a more expansive view

of individual utility that incorporates the belief that people receive satisfaction from certain processes. This psychic benefit consequently is termed “procedural utility.”

Proponents of the procedural utility approach contend that people have preferences not only over the end result of decisions but also over the way in which those decisions are made (Frey, Benz and Stutzer 2004: 382). By not taking the experienced pleasures and displeasures of processes into account, strict rational utility approaches “disregard a potentially large source of human well-being” (Frey, Benz and Stutzer 2004: 392). Results from psychology suggest that people want to feel autonomous, related to other people and competent in their lives, and some processes are more capable of bringing about these states of mind than others (Frey, Benz and Stutzer 2004: 381). To the extent that certain behaviors can create these feelings, they create procedural utility. Political participation is one of the behaviors that we expect to increase individual procedural utility. In the following sub-sections, we explore how political participation can be expected to increase autonomy, relatedness and competence—the key components of procedural utility.

2.1.1 Autonomy

Perhaps the most fundamental purported individual-level reward from participation is increased autonomy, which is a cognitive, emotional and behavioral sense of independence. As Benjamin Barber writes,

Autonomy is not the condition of democracy, democracy is the condition of autonomy. Without participating in the common life that defines them and in the decision-making that shapes their social habitat, women and men cannot become individuals. Freedom, justice, equality, and autonomy are all products of common thinking and common living; democracy creates them (1984: xv).

That is, individuals can best realize themselves as autonomous entities by participating in the political life of their community, and in Barber’s estimation, democracy is the form of political community that best allows them to do this. He quotes Aristotle, “The man who is isolated, who is unable to share in the benefits of political association, or has no need to share because he is already self-sufficient, is not part of the *polis*, and therefore must be either a beast or a god” (*Politics* I:14, quoted in Barber 1984: 89). Without a sense of autonomy—which Barber links to participation in a political community—human beings cannot feel like human beings.

Empirical results verify that people are more content when they are made to feel as if they are independent, autonomous citizens whose existence is valued in some way. For instance, whereas a purely rational model would assert individuals' willingness to accept cash transfers in exchange for having to endure an undesirable public project near their home (e.g., a garbage dump or a sewage treatment plant), in reality, people reject monetary compensation because it seems to entail a certain lack of respect of their viewpoint and agency (Frey and Oberholzer-Gee, 1997; Oberholzer-Gee et al. 1995). Likewise, in employment relationships, people desire advanced notice about decisions (even when they will not be able to change them) and the opportunity to have a voice in decision making (e.g., Cohen-Charash and Spector, 2001; Konovsky, 2000). Political participation—whether voting for president, participating in a party caucus or speaking during a town meeting—may provide individuals with a sense of their worth as individuals, a sense that their voice is valued or relevant in some way. This sense of autonomy then should contribute to individuals' overall subjective well-being.

2.1.2 Relatedness

As Barber is quick to point out, although autonomy is psychologically valuable for individuals, it is gained not in isolation but rather within a political community of other individuals. He writes, “Because human development is generally understood as a function of mutual activity, species behavior, and collective endeavor, it depends on social being” (1984: 89). Insofar as participating in the same processes as other individuals instills a sense of relatedness in any one individual, political participation offers an opportunity for citizens to feel a sense of belonging.

In William Riker and Peter Ordeshook's (1968) discussion of why people vote, the authors appeal to this idea of relatedness when they argue that participating through voting gives individuals satisfaction regardless of their likelihood of affecting the outcome of the election. They propose that affirming allegiance to the political system provides psychological consonance that one is living under the “right” system or in a “good” country, something that is taught as part of an “ethic of voting” instilled in citizens through the democratic tradition. Going to the polls, therefore, identifies a person as a member of an observable political community. On a smaller scale, voting in order to affirm a partisan preference accomplishes a similar identifying task; in this case, a citizen expresses his or her connection to a community of like-minded individuals. In this sense, political participation confirms one's sense of belonging and one's

identity. Through political action, individuals can come to feel more related to the people around them and thereby have greater clarity and confidence in their identity. This, in turn, leads to increased well-being and satisfaction both with one's self and also with the governing system under which one lives.

2.1.3 Competence

The informed discussion that often accompanies political participation is also likely to increase an individual's base of knowledge and, consequently, her sense of competence. Feeling competent contributes to one's sense of self-worth and self-esteem. In his philosophical statements on education, John Dewey asserted that participation yields information; he describes how "acting within the world" can result in increased knowledge (1916: 275-6). Dennis Thompson and Jane Mansbridge have described how this actual information gathering leads to a stronger sense of self. Thompson writes, "A citizen cannot be said to know what his interests are until he participates to some degree" (1970: 61), while Mansbridge describes political participation as "necessary for personal development, to make one fully human, broad in outlook, and conscious of one's own interests" (1983: 236).

Political participation might increase citizens' knowledge and competence about specific issues, and also, perhaps more importantly, about the nature of political process and even their own rights as citizens. By learning about candidates in advance of voting or by participating in town meetings, an individual engages in political discussion that generates a common understanding about issues, leaders and the political system itself. This is likely the type of educative effect that Alexis de Tocqueville had in mind in his comments on the jury system, one of the most explicitly deliberative forms of participation: "I do not know whether a jury is useful to the litigants, but I am sure that it is very good for those who have to decide the case. I regard it as one of the most effective means of popular education at society's disposal" (quoted in Elster, 1997: 23). This type of argument has been echoed in modern settings, as well. For example, the participatory budgeting programs in place in a number of Brazilian municipalities are oftentimes treated as a form of citizen education that "empowers citizens to better understand their rights and duties as citizens as well as the responsibilities of government" (Wampler, 2000: 2).

In sum, different types of political participation all might be expected to contribute to an individual's senses of autonomy, relatedness and competence. The psychological benefit then from feeling more autonomous, more related to others or more competent is a form of increased utility derived from participating in a particular process—procedural utility.

2.2 A Negative Relationship between Participation and Life Satisfaction?

Although theoretical treatments of political participation are dominated by arguments that point to the advantages of that participation for individual development, other strains in the social science literature cast some doubt on this enthusiasm for participation. The major results of social choice theory, for instance, call into question the idea that any democratic system can successfully aggregate individual preferences (Arrow, 1950; Satterthwaite, 1975). To a certain extent, this suggests the futility of participation—voters and town meeting participants alike are doomed to see their preferences go unrealized *despite* their participation. Given the costliness of participation, why then would we expect positive utility to accrue from it when even instrumental ends cannot be achieved? When the party for which a citizen casts her ballot fails to achieve enough votes to get into office, or attains power only to then act against her interest, that voter might in fact feel less satisfied than an otherwise similar nonvoter. Similarly, a citizen who attends community board and town hall meetings and yet finds a garbage dump placed in her backyard nonetheless might be all the more upset because of the time and energy she invested in the political process.³

This possibly perverse effect of participation may be accentuated in the developing world and in new democracies such as those found in Latin America where, for example, Presidents have frequently changed course upon election, implementing totally different policies than those with which they had campaigned (Stokes, 2001). Furthermore, in some parts of the developing world, patronage politics and clientelist relationships lead some individuals to be coerced into participating in the political process, either through “turnout buying” (Cox, 2007; Nichter, 2008) or forced attendance at political rallies or other forums. When effective, clientelism is also

³ Note that, in these examples, a citizen might be upset by the outcome of the political process—that is, the behavior of a party once in office or the location of a garbage dump—regardless of whether she participated. However, we might reasonably expect that individuals who participated might experience greater consternation than their non-participating counterparts. If this were the case, we could attribute this additional upset to procedural (dis)utility. Empirically, this suggests that there may be an interaction effect between participation and outcomes with regard to life satisfaction. However, the available data do not allow us to examine this possibility.

widely understood to determine voters' choices when they do participate (Stokes, 2007). In these settings, the act of voting may be less likely to increase an individual's autonomy or competence. As such, although there are reasons to believe that political participation can contribute to an individuals' sense of self-worth, the Latin American context may be a difficult one in which to find such an effect.

3. Empirical Evidence on Political Participation and Subjective Well-Being

As reviewed above, the theoretical literature presents a number of reasons why political participation should increase subjective well-being and individual satisfaction with democracy. By increasing citizens' autonomy, competence, and sense of relatedness, political participation might be expected to increase individuals' life satisfaction. In spite of the extensive theoretical underpinnings for these claims, the scholarly literature has made relatively few attempts to assess whether these expected relationships indeed hold empirically. With a few important exceptions that we discuss below, the growing literature in economics on "happiness studies" has heretofore been silent on the question of political participation (see the summaries of this literature in Graham, 2008, and Di Tella and MacCulloch, 2006). Where it has examined this question, empirical work has been focused on established democracies in the developed world.

3.1 Political Participation and Happiness/Individual Well-Being

The study of happiness in modern economics emerged in the 1970s and initially paid significant attention to the relationship between income and happiness. Most notably, early research by Richard Easterlin uncovered what is known as the Easterlin paradox: while higher income is associated with increased life satisfaction within countries in cross-sectional data, the relationship between income and happiness across countries is much weaker.⁴ In recent years, the literature on happiness has incorporated many other predictor variables, and researchers regularly find that variables like church attendance and marital status are associated with individual happiness (see, for example, Radcliff, 2001, 2005; Pichler, 2006). A few authors have investigated the effects of political variables on happiness, as well. So, for example, in a multivariate framework, Benjamin Radcliff (2001) finds that happiness is higher on average in countries with left-leaning governments.

⁴ Although recent work, such as Di Tella and MacCulloch (2008) and Stevenson and Wolfers (2008), questions the existence of the Easterlin paradox.

We can gain some insight into the relationship between political participation and happiness from cross-country studies on happiness that include measures of each country's political liberties or level of democracy, variables that capture the opportunities for participation and may proxy for actual participation, as well. These studies find evidence that individuals living in regimes that afford them greater political freedoms are happier than their counterparts elsewhere. For instance, Ruut Veenhoven (1995) examines the correlates of average happiness across countries, finding that political democracy and freedom of the press correlate strongly with happiness, as do gender equality and the percent of GDP spent on social security. Similarly, Peggy Schyns (1998) finds that political rights, gender equality and individualism all correlate highly with happiness; in her research, however, all of these correlations are reduced to statistical insignificance if economic development (measured as GDP per capita) is controlled for. (Similarly, in results that we present below, we do not find consistent evidence of a link between these measures of democracy and average national life satisfaction in Latin America.)

The most direct attempts to study the links between political participation and happiness are studies undertaken by Bruno Frey, Alois Stutzer, and their collaborators. In a series of papers, they find that the opportunity for political participation is associated with an increase in an individual's sense of well-being (Frey and Stutzer, 2000; Frey and Stutzer 2005a, 2005b; Stutzer and Frey, 2006). Using data from Switzerland, they assert that individuals who have more opportunities for participation in direct democracy (i.e., voting on referenda) are more satisfied with their lives than those without such opportunities, all else equal. As described below, they construct a counterfactual set that enables them to better isolate the effects of participation on happiness from any possible effects of participation on the actual outcomes of the referenda. Importantly, and in contrast to the approach taken here, they focus the bulk of their analysis on the opportunity for participation, rather than examining the consequences of the act of participation at the individual level as we do here. In one of their papers (Frey and Stutzer, 2005a), they find some evidence that the *opportunity* for participation and *not* participation per se that makes the difference in determining subjective well-being.

4. New Directions in the Study of Participation and Life Satisfaction

4.1 Identifying Causality

One of the greatest challenges for a study that seeks to determine the effects of political participation on individual happiness is the possibility of reverse causality. Does political participation lead to happiness, or is it rather the case that happy or unhappy people are systematically more likely to participate in politics? Although we have focused here on the theoretical literature that expects participation to increase life satisfaction, it is telling that some empirical analyses on a related topic, satisfaction with democracy, assume the reverse. So, for example, a study of survey data surrounding the 2000 Mexican election treats political participation as an outcome, rather than as a predictor, of regime satisfaction (Hiskey and Bowler, 2005), and researchers have attributed low voter turnout in New Zealand in part to decreased levels of satisfaction with democracy there (Vowles, 2002).⁵

Confidently establishing the direction of causality using available observational data poses substantial challenges. In one study of procedural utility, Stutzer and Frey (2006) take advantage of variation in the extent of participation allowed across Swiss cantons, along with the presence in Switzerland of foreigners who are not allowed to participate in political decision-making, in order to create a difference-in-difference estimation of how variation in opportunities to participate affects variation in happiness levels. They find that foreigners are equally happy in cantons that allow different levels of participation, whereas Swiss citizens are significantly happier in cantons with high levels of opportunity for democratic participation. This effect remains after controlling for a number of socio-demographic characteristics, such as age, education, income and marital status. The difference-in-difference estimation technique allows the authors to suggest with increased confidence that the causal arrow is running from the opportunity for political participation to happiness. In another attempt to make a claim about the direction of causality—looking at the related question of satisfaction with democracy—Blais and Gelineau (2007) take advantage of panel data in a Canadian survey. This allows them to control for initial levels of satisfaction with democracy before an election and therefore better isolate the

⁵ Reciprocal causation is of course quite possible, and in fact two careful empirical studies in the satisfaction with democracy literature find both that political participation results in satisfaction with democracy and that people who are more satisfied with democracy are more likely to vote (Finkel, 1985, 1987).

effects of the act of voting on satisfaction with democracy measured after the election. They find that the act of voting does indeed increase individual satisfaction with democracy.

Another strategy for assessing causality in the relationship between participation and happiness might take advantage of exogenous shocks to participation to see if people are happier before or after a sudden change in their opportunities for or levels of participation. In the empirical section below, we use this strategy to examine differences in the attitudes of young people who were not old enough to vote during the previous presidential election in their countries from other young people who were first able to exercise the right to vote in the preceding elections.⁶ And in one case, we use survey data on the reasons people did not turn out to vote to identify individuals who did not vote because of some external constraint and then compare their reported life satisfaction with that of their counterparts who both wanted to and actually were able to cast their ballots.

4.2 Different Types of Participation

Our discussion so far has treated different types of participation interchangeably. In fact, however, whether different types of political participation affect happiness differently remains an open question. Does someone who votes reap the same utility gain as someone who works on a campaign or someone who participates in a demonstration? Finkel (1985, 1987), for instance, finds that voting and working on a campaign have different effects on individual satisfaction with democracy, but many other studies have opted to collapse different types of political participation into a single index (e.g., Nadeau and Blais, 1993; Espinal, Hartlyn and Kelly, 2006), masking potentially important distinctions between these.

The simultaneity bias issue is again significant here. There is serious reason to believe that individuals dissatisfied with some part of their lives might be more likely to take certain types of political action (such as participating in a protest against a deleterious policy) as compared to individuals with otherwise similar observable characteristics. To the extent that life dissatisfaction goes undetected in a mass survey of the type we analyze here, we will be unable to “control” for it in statistical analysis. This again points to the fact that an experimental design might be necessary to truly identify the causal effect of political participation on life satisfaction.

⁶ As we discuss below in more detail, this approach is imperfect, as all those surveyed were eligible to vote at the time of the survey.

5. Empirical Strategy and Classical Regression Results

In this section, we share our initial empirical results on the links between political participation and life satisfaction. These results reflect, as far as we are aware, the first attempt to examine the relationship between participation and happiness in a large sample of countries in the developing world. For our analyses, we draw on data from three sources: the World Values Survey, the Latinobarómetro, and the Latin American Public Opinion Project (LAPOP). For the first, we include data from all surveys conducted in Latin America across the first four waves of the survey, for a total of 19 surveys across nine countries; because this survey includes only limited questions on political participation, we rely on it mostly for cross-country comparisons.⁷ For the Latinobarómetro, we draw on the results of the 2005 wave of surveys (the most recent year of surveys available), which were conducted in eighteen Latin American countries. Finally, we use data from the LAPOP survey, which includes some uniquely detailed questions on forms of political participation, conducted in early 2008. Those data are available for 13 countries in the region.

We use these three data sources to a number of different ends, presenting results from cross-national correlations, individual-level regression analyses, multilevel (hierarchical) models that incorporate both individual and country-level predictors, and some more specialized attempts to establish causality. The surveys we draw on for our analysis include measures of a number of different types of political participation. We focus in particular on three types of activities: voting, more intense forms of participation (such as signing petitions or attending town hall meetings), and explicitly contestational forms of participation (especially political protest). Although we discuss a number of different specific survey questions, most fall into one of these three categories. In addition to examining individual-level correlates of life satisfaction, we also consider the extent to which certain system-level variables that are related to political participation, most importantly compulsory voting, affect life satisfaction.

The analysis below reveals some interesting patterns, although many of our results are not robust and so would benefit from continued research in the future. For the individual-level analysis that is the focus of the existing literature, we find some support for the hypothesis that

⁷ Argentina was the only Latin American country included in the first round of the WVS. Although we include this country-year (Argentina-1984) in the cross-country bivariate regression and scatterplots, because of missing data on one of the control variables it is not included in any of the individual-level specifications.

political participation (when it takes the form of voting) is positively correlated with life satisfaction. However, this result is limited to the LAPOP data, and does not appear in the Latinobarómetro data. Furthermore, we do not find a similarly robust positive relationship between life satisfaction and other forms of political participation, like attending town hall meetings. To the extent that we detect a significant relationship between participation and life satisfaction, our analysis suggests that the direction of causality is the reverse of that hypothesized in the literature. In particular, evidence from survey questions that allow us to determine why individuals chose not to vote in a referendum in Costa Rica suggests that individuals who *want* to vote are more satisfied with their lives than others, regardless of whether or not they actually cast their ballots. Finally, perhaps the most consistent relationship that we find is one that does not follow from the existing empirical or theoretical literature: we find a robust negative relationship between enforced compulsory voting and average national life satisfaction.

5.1 Life Satisfaction/Happiness

As described above, we have reasons to expect that political participation will contribute to basic human psychological needs. As Frey and Stutzer write “[P]articipation and autonomy in decision-making provide procedural goods that serve innate needs of competence, autonomy and relatedness and thus contribute to individual well-being” (2005a: page 94, footnote 8). In this section, we will first compare the characteristics of different countries to see if there is an aggregate level relationship between political participation (or opportunities for participation) and average national happiness. Then we move to the level on which existing theories concentrate—the individual level—and use multivariate regression models to examine which individual characteristics may be correlated with happiness. We use multilevel regression models to incorporate information from both the individual and country levels in a single statistical model. Finally, we use two novel tactics in an attempt to better examine causality. We explore a quasi-experimental design using the fact that some survey respondents, based on their ages, were not eligible to vote in the election about which they were asked in the survey. And we examine the differences between two groups of non-voters in a recent Costa Rican referendum: those who wanted to vote but could not and those who did not want to vote.

At the country level, we find a positive but insignificant relationship between political rights and life satisfaction. We also find that countries where there is enforced compulsory voting have a lower level of average national happiness. At the individual level, we find evidence in one survey—but not in another—that voting is associated with higher life satisfaction.⁸ Evidence from Costa Rican survey data makes us think that—insofar as the relationship exists—the causal arrow runs from happiness to voting, however. We also find some evidence that attending town hall meetings is associated with higher life satisfaction, whereas signing petitions or protesting is associated with lower life satisfaction.

In the multilevel analyses, we find that enforced compulsory voting is a significant negative predictor of *both* the country-level intercepts and the country-level slopes on the voting variable. These are two different effects. The former indicates that average national happiness—after controlling for individual-level characteristics—is lower in countries with enforced compulsory voting. The latter indicates that in countries with enforced compulsory voting, any positive relationship between voting and happiness is attenuated and perhaps becomes negative. (Here, we again find different results from different surveys: compulsory voting is associated with a much larger variation in slopes in the Latinobarómetro data, as opposed to the LAPOP data.) Evidence from a quasi-experimental set-up supports the idea that enforced compulsory voting contributes to lower levels of life satisfaction.

Therefore, the four main claims to come out of this section of the paper are, first, that there may be a relationship between voting and happiness but that, second, it probably runs from happiness to voting. Third, there is a negative relationship between enforced compulsory voting and average national happiness while, fourth, compulsory voting also may affect the individual-level association between voting and happiness.

5.1.1 Country-Level Analysis:

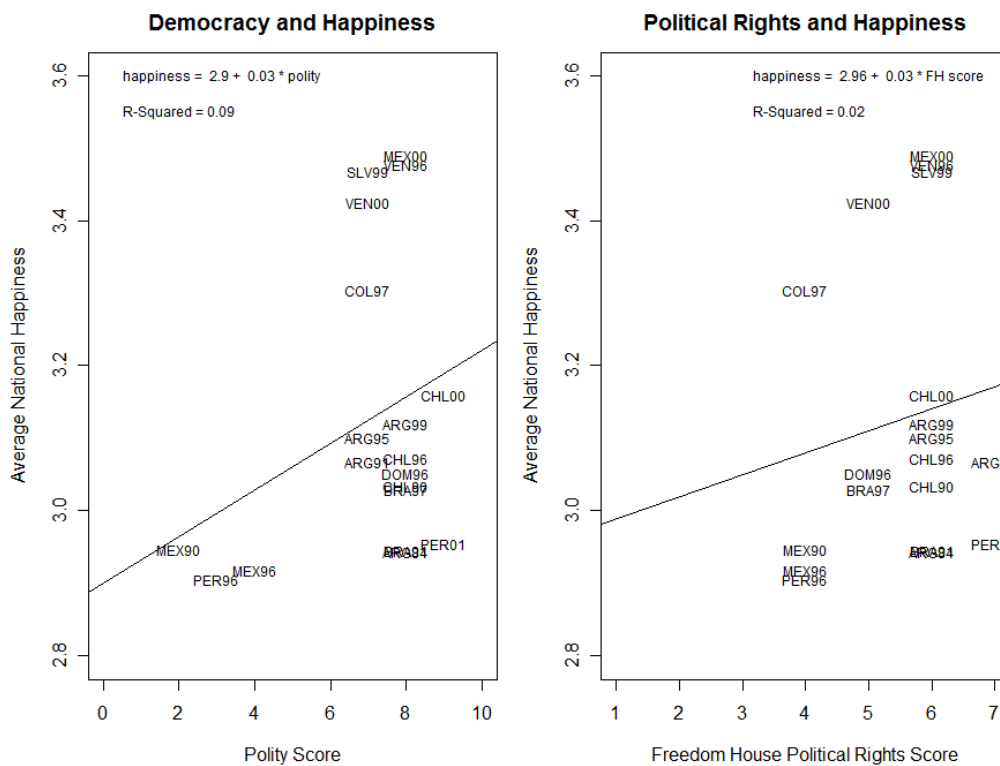
As the first stage of our empirical analysis, we look at the average level of individual happiness in a country and examine correlations between that measure and relevant country-year

⁸ In all of the analyses of voting, we rely on self-reported voting in response to a survey question and therefore our group of self-proclaimed “voters” very likely includes non-voters as well. To the extent that voting has an effect on individual life satisfaction or voters are systematically different from non-voters, the tendency to falsely report having voted will attenuate the coefficient on voting towards zero.

measures.⁹ The country-level variables we examine include those that measure basic political rights and voting and the prevalence of contestational forms of political participation.

Greater political rights presumably mean a greater opportunity to participate in the political process. To see if greater opportunity for participation results in greater average happiness across countries, we run a bivariate regression of average happiness on each country's Polity IV score and also on each country's Freedom House political rights score (for the relevant year for every country-year observation).¹⁰ Here, we show these results from the WVS only, as the time span of that data affords more variation on the predictor variables as compared with the 2005 Latinobarómetro data or the 2008 LAPOP survey.

Figure 1. Title



⁹ To create the measure of average national happiness (and individual happiness in what follows), we make use of the following World Values Survey prompt: "Taking all things together, would you say you are: (1) Very happy; (2) Quite happy; (3) Not very happy or (4) Not at all happy." The relevant question from the Latinobarómetro survey reads as follows: "In general, would you say that you are satisfied with your life? Would you say that you are very satisfied, fairly satisfied, not very satisfied or not satisfied at all?" The LAPOP surveyed asks a very similar question: "In general, how much do you find yourself satisfied with your life? Would you say that you find yourself: (1) Very satisfied, (2) Somewhat satisfied, (3) Somewhat dissatisfied, or (4) Very dissatisfied. In all cases, we have recoded responses so that higher scores on these variables indicate a greater subjective assessment of happiness.

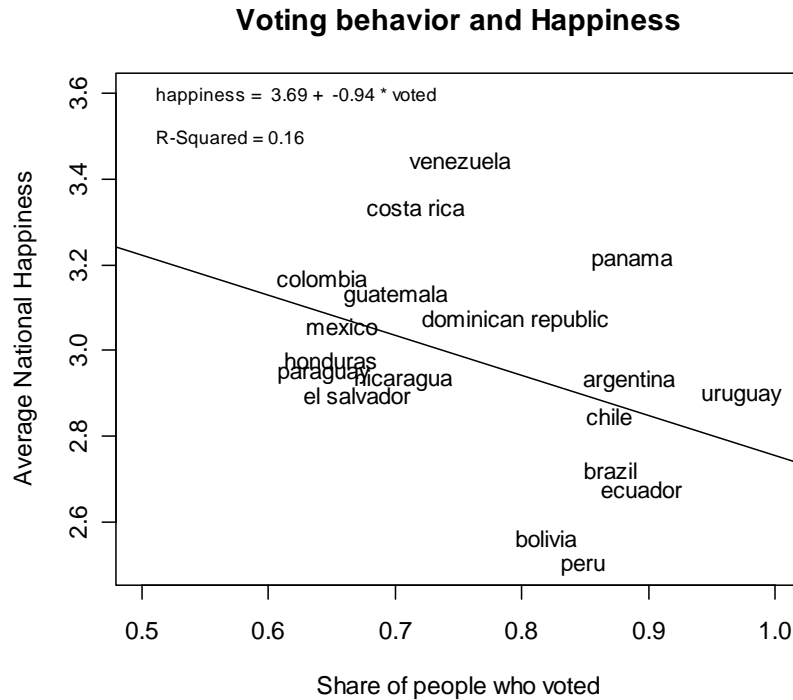
¹⁰ Both variables are coded so that higher values mean greater political rights.

For both indices of democracy, more democracy—more opportunities to participate in a meaningful way—is positively associated with more happiness. However, in neither case is this relationship statistically significant; neither variable explains much of the variation in happiness.¹¹ As shown in Figure 1, most Latin American countries enjoyed extensive political freedoms for the period under study, and yet average national happiness varies significantly across these countries. In order to see whether the relationship seen in the graphs above is an artifact of the sample of countries we examine, we expanded the sample of countries beyond Latin America, to include developing countries from Asia and Africa and transition countries from Eastern Europe. The inclusion of these additional countries (results not reported) does not change the basic results: the political variables continue not to be significant predictors of average happiness across countries. These results suggest that citizens in countries that offer greater *opportunities* to participate may be on average somewhat happier than residents of countries with more limited possibilities to participate, but they do not provide us with much confidence in this claim.

Somewhat surprisingly, however, cross-national data are not consistent with the claim that citizens of countries with higher levels of *actual* participation enjoy increased average levels of life satisfaction. In fact, the cross-national data seems to suggest the opposite. To look at the relationship between voting rates and life satisfaction, we use survey results from the 2005 Latinobarómetro. The figure below graphs the share of respondents who reported voting in the last presidential election among those surveyed against average national happiness in each country. As it makes clear, residents of countries with a higher level of self-reported voting tend to report, on average, being *less* satisfied with their lives than their counterparts in countries where voting is less widespread. This result is statistically significant. A plot using data from the LAPOP shows a similar relationship, although the relationship in that case is not statistically significant (results not reported).

¹¹ We also looked at the political competition component variables of the Polity index, the regulation of participation (*parreg*) and the competitiveness of participation (*parcomp*). However, there is very little variation in these measures across the sample. For all country years except Peru-1996, the regulation of participation is coded as “multiple identity” (the second least-regulated category on a five-point scale). In terms of the competitiveness of participation, five of the nineteen country-years are rated as “factional” (third on a five-point scale), while the rest are rated one step better as “transitional.” The mean happiness level in the factional country-years is 3.0, while the mean happiness level in the transitional country-years is 3.2. This difference is marginally significant ($p = .11$) and in the expected direction: countries with more competitive participation have a higher level of average national happiness.

Figure 2.



For reasons that we describe in more depth vis-à-vis the multilevel models below, we have reason to think that the negative association depicted above can best be understood in terms of compulsory voting, rather than as a relationship between life satisfaction and voter turnout per se. Fourteen Latin American countries have some sort of compulsory voting regulation, which is at least minimally enforced in nine countries. Not surprisingly, countries that have at least some minimal enforcement of voting also tend to have higher levels of voter turnout.¹² Thus, differences in compulsory voting may be able to explain the relationship observed in the figure above.

In fact, at first glance, this indeed appears to be the case. The nine countries in the Latinobarómetro data that have enforced compulsory voting have an average national happiness of 2.81 (on a four-point scale), whereas the nine countries that do not have enforced compulsory voting have an average national happiness of 3.12. The difference of 0.31 is significant at the 99

¹² Using data from the *CIA World Factbook*, the International Institute for Democracy and Electoral Assistance, and a U.K. Electoral Commission 2006 report, we classify the following countries as having compulsory voting with at least some enforcement: Argentina, Bolivia, Brazil, Chile, Ecuador, Panama, Paraguay, Peru, and Uruguay. Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Venezuela, and the Dominican Republic either have no compulsory voting or it is not enforced at all.

percent confidence level. Countries that have enforced compulsory voting have a lower level of average national happiness. We replicate these results below using multilevel regression models that control for individual characteristics. Hypotheses for why we observe this relationship between enforced compulsory voting and average national happiness are purely speculative at this point. To our knowledge, a literature does not exist on this topic. If the causal arrow runs from compulsory voting to national happiness, then we find it surprising that the effect is so large given that voting only happens on an infrequent basis. Would the fact of compulsory voting really make a country's citizens consistently less happy, especially given all the other events that occur in an individual's life? If the causal arrow runs from national happiness to compulsory voting, the story is perhaps that, in countries where people tend to be less satisfied with their lives, it is difficult to obtain normatively desirable levels of turnout, and governments therefore decide to resort to compulsory voting. It is also possible, of course, that the correlation is spurious. However, in the multilevel model framework below, we control for level of development and level of democracy, and enforced compulsory voting nonetheless remains a significant negative predictor of the country intercept in individual-level regressions predicting happiness. Therefore, we believe that this is a meaningful statistical association.

5.1.2 Individual-Level Analysis

In order to better tackle the question of whether, as has been theorized, the act of participation increases an individual's happiness or life satisfaction, we turn to regression analyses that allow us to examine whether, controlling for possible confounding covariates, certain acts of political participation are positively correlated with individual life satisfaction. We focus on three broad categories of participation—voting, more involved political participation, and contestational forms of participation.

The baseline specification for an ordinary least squares regression investigating the impact of political participation on happiness at the individual level is as follows:¹³

$$\text{Happiness}_i = \alpha + \beta * \text{control variables} + \gamma * \text{political participation} + \delta_j + \varepsilon$$

¹³ For the purposes of exposition, we report coefficients from OLS regressions. The substantive effects from coefficients estimated using ordered logistic regression are generally quite similar.

where α is the intercept, β is a vector of coefficients, γ is the coefficient on the political participation variable that has been included in the given regression, δ is a country fixed effect and ε is a normally distributed disturbance term. The control variables included in these regressions vary somewhat because of the different questions included in the different surveys on which we draw. They all follow from the existing literature and include measures of age, education, marital status, a measure of income or perceived economic status, and, in the case of Latinobarómetro data, employment status, religiosity, and self-assessment of health. Although we focus below on displaying and interpreting the coefficients on the variables that measure some form of political participation, we note here that, across specifications, the coefficients on the control variables are largely consistent with those found in the existing empirical literature.¹⁴ Married people, wealthier individuals and members of religious organizations all express higher amounts of subjective well-being, whereas the unemployed and people with children express less subjective well-being.¹⁵ Age exhibits a curvilinear relationship, with the linear term negative and significant and the quadratic term positive and significant (if quite small). Age always has a negative marginal effect on happiness; this effect increases in magnitude until around age 55 and then diminishes.¹⁶

5.2 Voting

In a modern representative democracy, voting is the most fundamental political act. Although not as time-intensive or demanding as some types of direct democracy that theorists seem to have in mind when lauding the positive consequences of participation, it is likely the most frequent form of participation and the basis of legitimacy for all modern democracies. As such, it seems worthwhile to investigate whether the act of voting is positively related to individual life satisfaction in present day Latin America.

In a pooled analysis of data from thirteen countries included in the LAPOP survey (with country fixed effects), individuals who voted report themselves to be significantly more satisfied

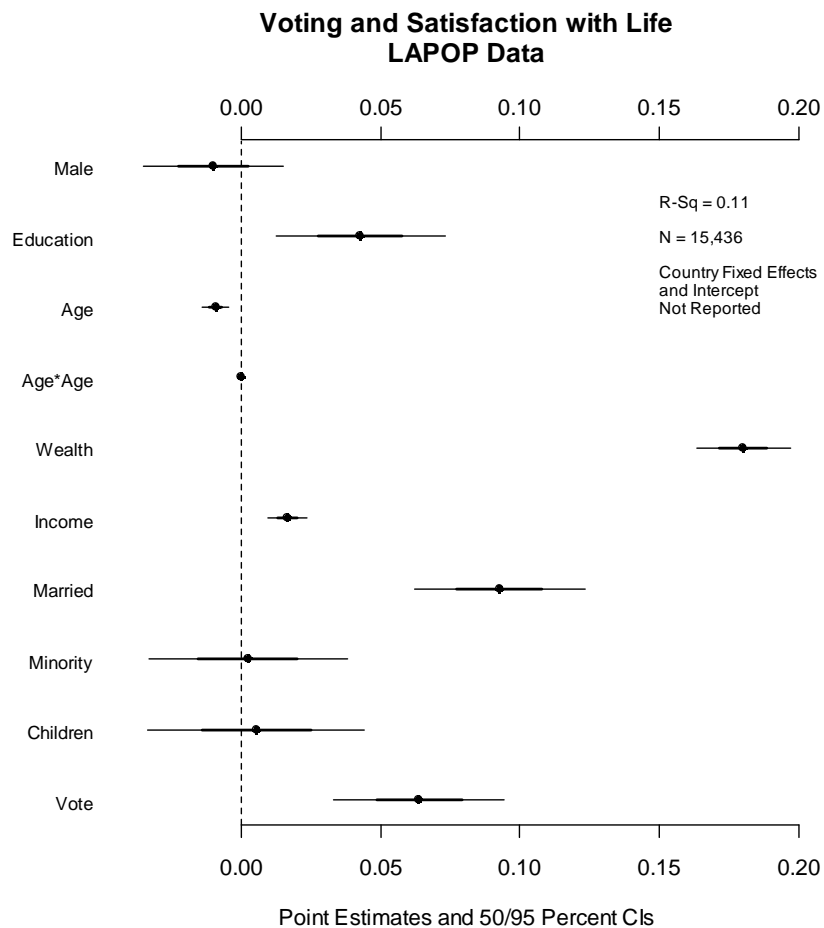
¹⁴ In the Appendix, we have included a figure showing coefficient estimates from two baseline subjective well-being models that use LAPOP data and do not include any political participation variables. The first pools all of the data together without accounting for heterogeneity across countries, whereas the second includes country fixed effects to take account of such heterogeneity. A separate figure displays the coefficient estimates for our control variables on a country-by-country basis.

¹⁵ The result on children accords with Di Tella et al. (2001) where they find that people are less happy with each additional child that they have. Radcliff (2001, 2005) finds no effect of having children on happiness.

¹⁶ This result matches DiTella et al. (2001), Di Tella and MacCulloch 2008 and Radcliff (2005).

with their lives than their counterparts who did not report voting in the previous presidential election.¹⁷ According to the coefficient estimates in the table below, individuals who report that they voted in the last presidential election on average report being about 0.06 points more satisfied with their lives than their otherwise similar counterparts. (Recall that life satisfaction is measured on a four-point scale.) Although not extremely large in magnitude, this coefficient is only 0.03 points smaller than the coefficient estimate associated with being married (also a 0-1 variable). These results suggest *prima facie* evidence of an important relationship between voting behavior and individual life satisfaction.

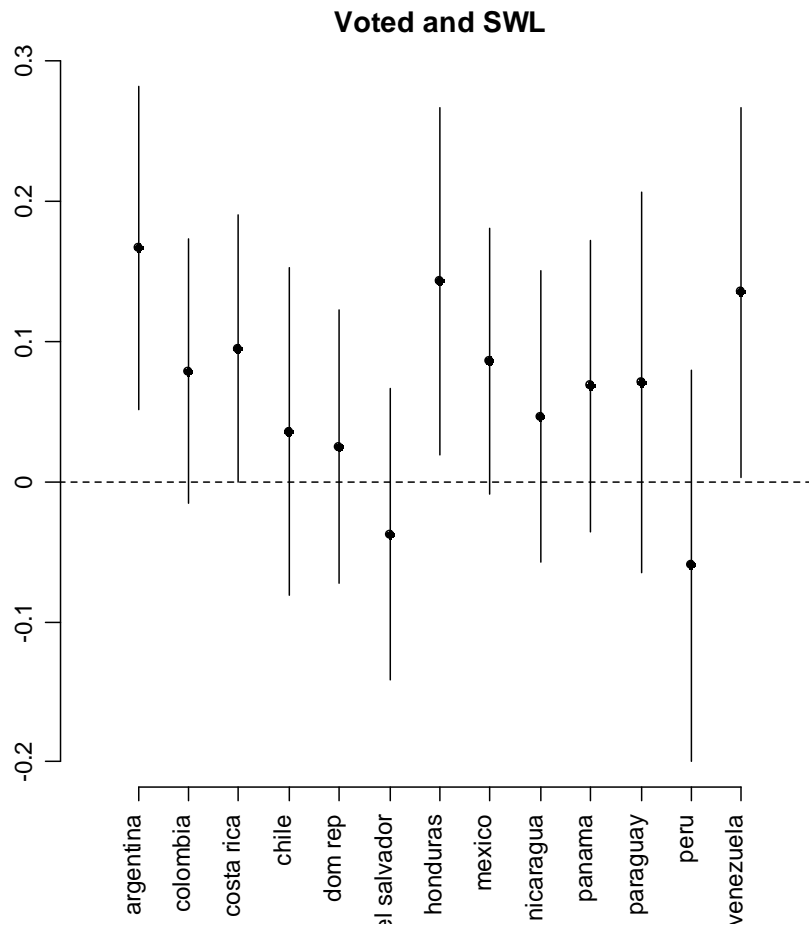
Figure 3.



¹⁷ These 13 countries are: Argentina, Colombia, Costa Rica, Chile, Dominican Republic, El Salvador, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, and Venezuela.

Of course, this pooled model assumes that the coefficient on voting is constant across all the countries included in the specification. In order to examine this relationship further, we replicate the regression shown above separately for each country included in the analysis. The figure below shows the coefficient on voting only from these multivariate regressions run separately in each country. With the exception of El Salvador and Peru, individuals who say that they have voted are also more likely to report being satisfied with their lives. The coefficient on voting is statistically significant at conventional levels in Argentina, Costa Rica, Honduras, and Venezuela, and it is positive, though not significant, in Colombia, Chile, Dominican Republic, Mexico, Nicaragua, Panama, and Paraguay.¹⁸

Figure 4.

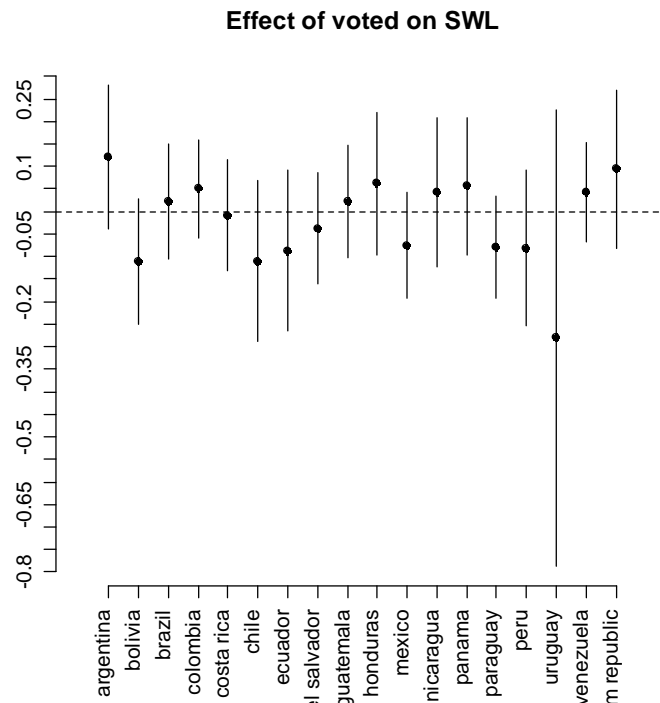


¹⁸ Given the reduced sample sizes at the level of the individual country, it is not surprising that some of the coefficient estimates fall in statistical significance. Nonetheless, it is important to note that they all appear to be from the same distribution, and thus it seems plausible to claim a positive relationship between voting and life satisfaction in the LAPOP data. This conclusion is further supported by the results of multilevel modeling analysis, as discussed below.

As we discuss in more detail below, the results of a multilevel model are consistent with the interpretation that voting and life satisfaction are positively related in this sample.

Although the results of the LAPOP survey suggest a positive correlation between voting and life satisfaction, this relationship does not emerge in the Latinobarómetro data. In a pooled regression that examines the relationship between voting and life satisfaction using the results of the 2005 survey, the coefficient on voting is negative, the opposite of the expected direction, and does not approach statistical significance (results not shown here).¹⁹ The coefficients on voting from country-level regressions using data from the 2005 Latinobarómetro are displayed below. In contrast to the figure above, the coefficient on voting is not statistically distinguishable from zero at conventional levels in any single country regression. Furthermore, the coefficient estimates do not show any clear positive trend—half are positive and half are negative. Therefore, in contrast to the LAPOP data, where we see a positive association between voting and subjective well-being at both the pooled and the country-level, we cannot claim a significant association at all in the Latinobarómetro data.

Figure 5.



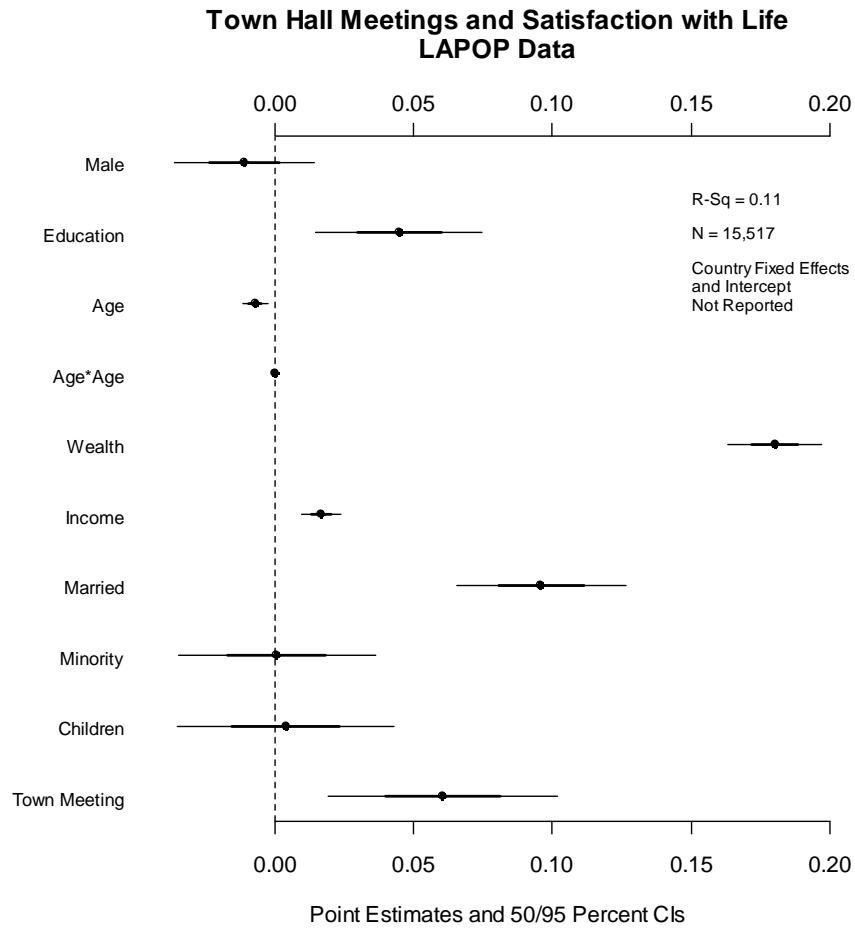
¹⁹ We have examined a number of possible explanations for the different findings across the two datasets without reaching any satisfactory explanation. Notably, we replicated the Latinobarómetro analysis using only those countries and control variables available in the LAPOP data. Even under these conditions, the coefficients on voting from the two datasets remain quite different from one another.

5.3 Other Forms of Participation

Although voting is perhaps the prototypical—and certainly the most widespread—form of democratic participation, citizens may choose to engage with their polities in other ways, as well. Attending a town hall meeting, petitioning authorities for assistance, or attending a protest usually require greater individual effort and may also afford citizens more direct input into the political process, thus perhaps engendering a more direct connection between participation and life satisfaction. Taking advantage of the range of questions included in the LAPOP (and to a lesser extent in the Latinobarómetro), we examined the relationship between a number of types of participation and life satisfaction and satisfaction with democracy. The questions we examine include those that asked whether the respondent had attended a town hall meeting in the past year, signed a petition, or participated in a protest.

Of all of the specifications we explore, there is very limited indication of any significant relationship between these different forms of participation and individual life satisfaction. The result from an analysis of the relationship between attending town hall meetings and life satisfaction constitutes a partial exception. A pooled regression with country fixed effects using data from the LAPOP survey, shown below, suggests that individuals who attend town hall meetings are systematically more satisfied with their lives than those who do not attend such meetings.

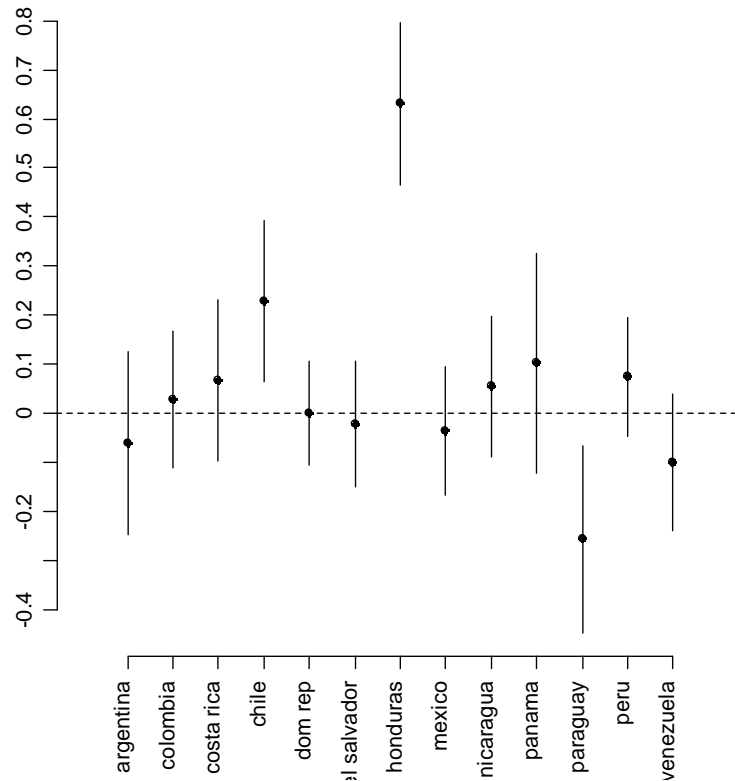
Figure 6.



However, when we examine the coefficients in country-level regressions, this positive result appears to be driven in large part by Honduras.²⁰ Indeed, the results of a multilevel model with varying slopes (shown in Figure 7) support this interpretation, as, in the vast majority of the countries that we examine, the estimated coefficient on the variable that measures participation in town hall meetings is at or near zero.

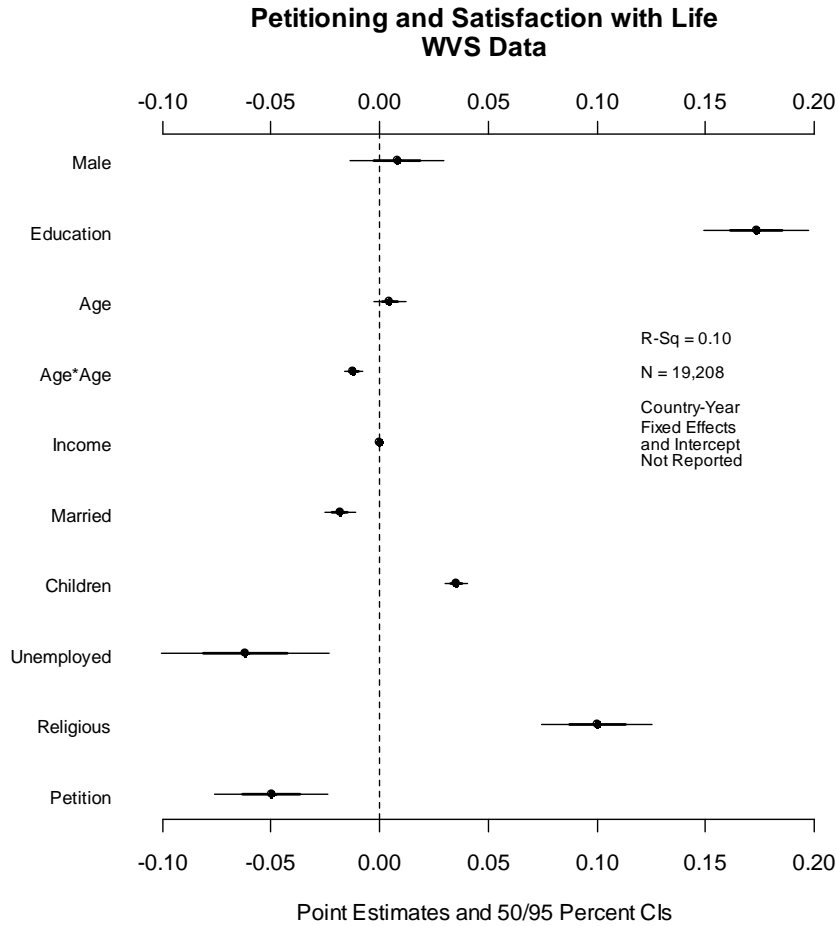
²⁰ And, in fact, if we exclude Honduras from the pooled regression, the coefficient on town hall meeting attendance drops substantially and is no longer statistically significant.

Figure 7.
Cabildo and SWL



When we look at petitioning, another form of more involved political participation, we find a clear negative relationship between the act of having signed a petition and happiness in the World Values Survey data. The results from the pooled data are shown below. In country-by-country regressions (results not reported), we find a negative relationship between signing petitions and happiness for Mexico in 1996 and Venezuela in 2000 that is significant at the 95-percent confidence level and a negative relationship for Brazil in 1997 and Chile in 1990 and 1996 that is significant at the 90-percent confidence level. In the Latinobarómetro data (results not reported), the petitions variable is negative but not significant in the pooled regression, and there is only one statistically significant result at the country level: in Honduras, individuals who claim to have signed a petition are *more* satisfied with life when compared with individuals who have not.

Figure 8.

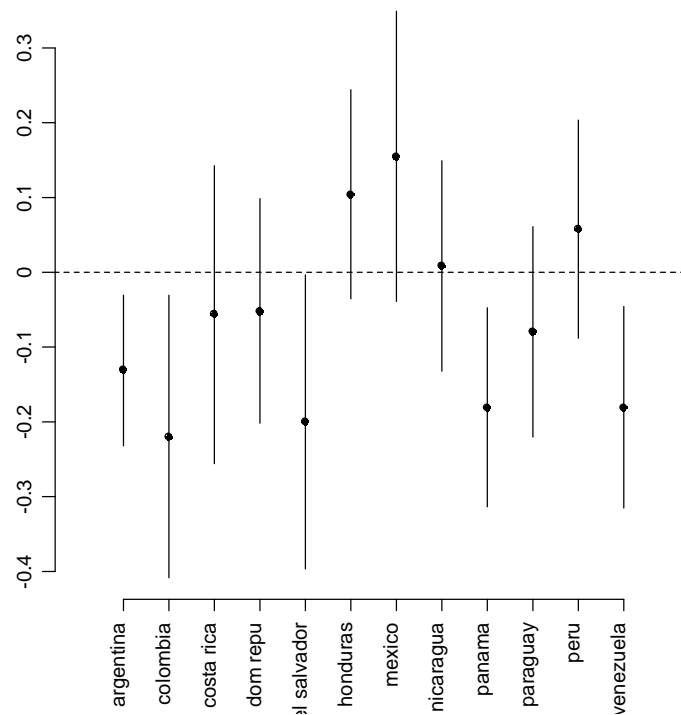


As with signing petitions, there is a negative relationship between participating in demonstrations and happiness in the pooled data. This is true for the WVS data, the Latinobarómetro data and the LAPOP data.²¹ For this contestational form of participation, in the country-by-country regressions from the WVS data, the variable is significant and negative in three cases—Brazil in 1997, Chile in 2000 and Colombia in 1997—and positive and significant in the case of Peru in 1996 (results not reported). In the 2005 Latinobarómetro data, we also see fairly consistently negative signs on the coefficient for protesting with significant results for the Dominican Republic, Ecuador, El Salvador and Mexico at a 95-percent level of confidence and for Costa Rica at a 90-percent level of confidence.

²¹ The results for protest should be interpreted with particular caution, as there are an exceptionally large number of respondents who refused to answer questions on past behavior in protest.

In the pooled LAPOP data, individuals who participate in protest are expected to be about 0.07 points less satisfied with their lives than their otherwise similar counterparts. As shown below, the results of country by country regressions are somewhat more mixed, but they do seem generally consistent with the finding from the pooled sample: that participating in protest is linked to lower levels of life satisfaction. This is further supported from the results of multilevel regression models (results not reported) in which the coefficient on protest is estimated to be negative in all of the countries in the sample with the exception of Honduras.

Figure 9.
Protest and SWL



At first glance, these negative relationships between petitioning and (especially) protest seem to run counter to the hypotheses developed in the literature. However, these results likely reflect a different causal story, one in which life satisfaction predicts variation in political behavior, rather than the reverse. People who are dissatisfied with their lives may be more likely to sign petitions or participate in protests, meaning that the reverse effect (from happiness to petition-signing) is masking whatever possible positive effect signing petitions might have on

individual happiness.²² These findings, then, point once again to the problem of endogeneity in the survey data, which we return to below in a discussion of two different strategies we use in an attempt to isolate any causal effect of political participation. Although those attempts are limited to examining the causal effects of the act of voting, they suggest a similar point to the one we make here—our data appear to be more consistent with the hypothesis that individual life satisfaction drives political participation, rather than the reverse.

6. Multilevel Models of Individual Happiness

In this section of the paper, we make use of multilevel models (also known as hierarchical linear models) to examine both the way in which national-level variables affect the baseline level of happiness in a country in the context of individual-level variables and the way in which national characteristics might affect the slope estimates on individual-level characteristics. The advantage of multilevel modeling is that it allows us to look at both group-level effects (e.g., the effect of a country's level of development) and individual-level effects in the context of the same model and also allows us to examine the reasons why the same variable might have a different magnitude or even direction of effect in different countries.

We refer to the examination of different baseline satisfaction levels in countries as varying-intercept models. In a rough sense, these models are like fixed effects models (in which each country has a different intercept), except that they allow us to use country-level variables to predict the size of the country-specific intercept. We refer to the examination of different slope coefficients across countries as varying-slope models, and the statistical technique again conveys the advantage of being able to look at what predicts the different slopes on a given variable across countries.

²² It is also worth noting that the questions from which these variables are created are somewhat problematic. Both the WVS and the Latinobarómetro ask the respondent if he or she has ever signed a petition or participated in a protest. If someone answers this question in the affirmative, referring to an event several years in the past, it is not clear that we should expect that distant event to have affected the respondent's level of happiness at the time of the survey, given all of the intervening events that have occurred. The LAPOP questionnaire, in contrast, is more specific: it asks respondents whether they have participated in a public demonstration or protest in the past year.

6.1 Varying-Intercept Models

For the varying-intercept statistical models, our estimating equations are as follows:

$$\begin{aligned}\text{Happiness}_{i[j]} &= \alpha_j + \beta * \text{control variables} + \gamma * \text{political participation} + \varepsilon \\ \alpha_j &= \delta_0 + \delta_1 * \text{country-level variables} + v\end{aligned}$$

where individual i lives in country j , and α_j is a country specific intercept that is a function of a constant, country-level variables and country-level error. We include the same set of individual-level covariates (gender, education, age and age-squared, wealth, income, employment status, marital status, health status, religiosity and indigenous status) as in the linear regression models. In the analyses that follow, we concentrate on voting as the form of political participation of interest.

The first figure below shows coefficient estimates at both the individual and country-level for four different regression models where we use data from the LAPOP survey to examine the relationship between voting the life satisfaction.²³ In Model 1, all of the individual-level covariates are included without any political participation variables, and the level of economic development and the country's Polity score are both included as intercept predictors (i.e., country-level variables). Neither GDP per capita nor level of democracy is a significant predictor of the baseline level of happiness in a country (i.e., the regression intercept for a given country).

In Model 2, we add a binary variable that indicates whether or not there is enforced compulsory voting in a country.²⁴ Consistent with the bivariate analysis discussed earlier, we find that enforced compulsory voting is a highly significant and substantively large predictor of the intercept. Average life satisfaction is on average 0.26 points lower in countries that have and enforce compulsory voting laws.

In Model 3, we keep the same three intercept predictors and add an individual-level indicator for whether or not the survey respondent voted in the most recent presidential election. Consistent with the pooled and country-by-country results reported earlier from the LAPOP

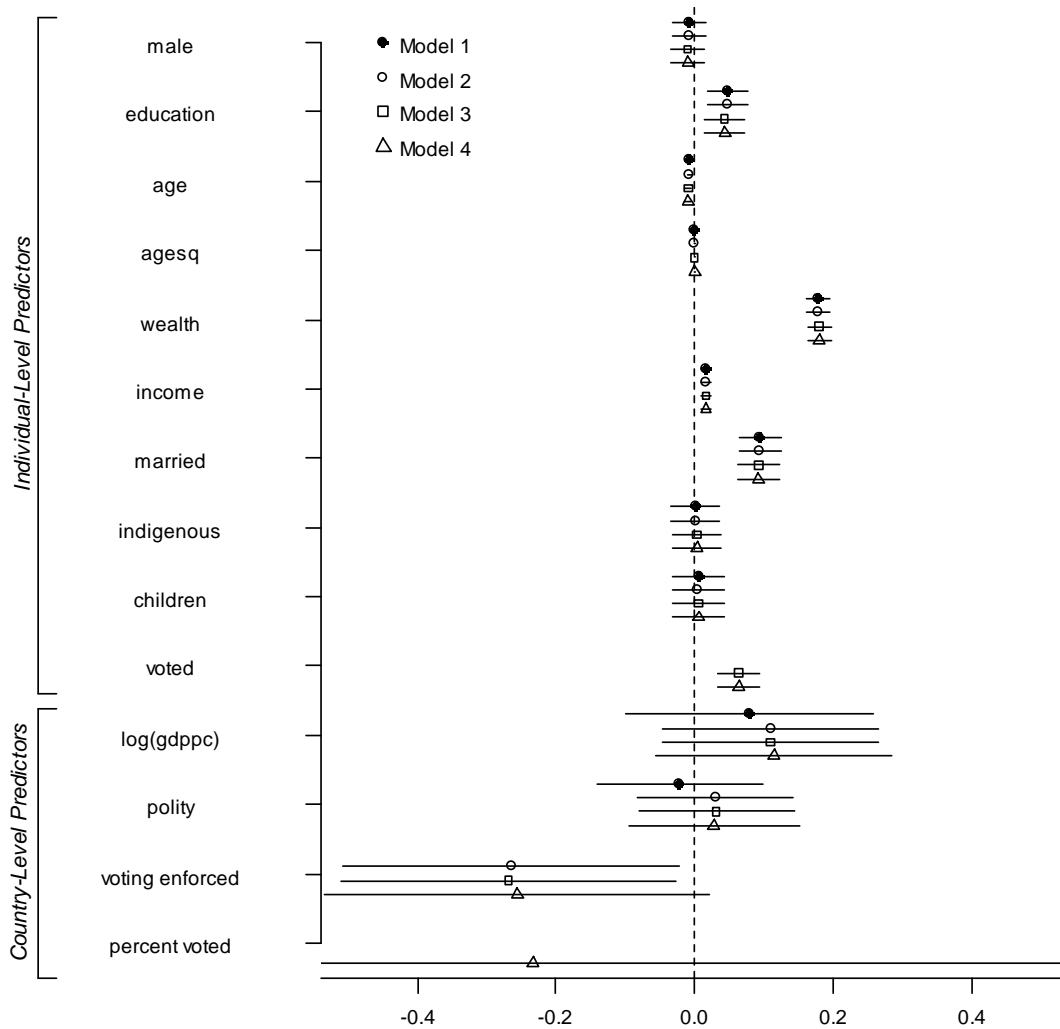
²³ In the interest of parsimony, we here present only the results from the LAPOP dataset. The results from a multilevel regression analysis of the Latinobarómetro data are largely similar, although in that case—as described above in the classical regression context—the coefficient on voting at the individual level is not statistically significant.

²⁴ That is, as we describe above, for a given country, there may be no compulsory voting, unenforced compulsory voting or enforced compulsory voting. We separate the latter from the two former categories.

survey, this coefficient is positive and statistically significant. In Model 4, we add an additional country-level predictor, the percent of respondents who report having voted in the most recent election. This variable is not a significant predictor of the country intercepts, while the country-level coefficient on enforced compulsory voting remains significant and substantively similar. This reinforces the finding that there is a negative association between enforced compulsory voting and the baseline level of happiness in a country.

Figure 10.

**Multilevel Model Point Estimates for SWL
LAPOP Data**



As we argued above, this result suggests that either the existence of enforced compulsory voting in a country makes people less happy or that countries have chosen to use compulsory voting because of some characteristic of the population that is linked to their lower average level of satisfaction with life. Given that we have controlled for the level of development, the level of democracy and the amount of voter turnout at the country-level, we have reduced the possibility that the correlation is spurious.

6.2 Varying-Slope Models

To further explore the slope on the voting variable, we choose to let it vary by country and to investigate the country-level variables that predict the variation across countries. We retain the country-level varying-intercept in the regressions that follow, such that the estimating equations look like this:

$$\begin{aligned} \text{Happiness}_{i[j]} &= \alpha_j + \beta * \text{control variables} + \gamma_j * \text{political participation} + \varepsilon \\ \alpha_j &= \delta_0 + \delta_1 * \text{country-level variables}_1 + v \\ \gamma_j &= \lambda_0 + \lambda_1 * \text{country-level variables}_2 + \eta \end{aligned}$$

where γ_j , the slope on voting, is allowed to vary by country and is a function of a constant, country-level variables and a country-level error term. Since the variables included in the country-level equations for the intercept and for the slope do not need to be the same, we have indexed them by the subscripts 1 and 2.

In our first specification, we include enforced compulsory voting as a country-level predictor in the slope equation, and we include GDP per capita, Polity score and enforced compulsory voting as intercept predictors. The following figures plot the estimated slope coefficient on voting for countries with and without enforced compulsory voting first for the Latinobarómetro data and then for the LAPOP data. In the Latinobarómetro data, for countries where there is not enforced compulsory voting, the estimated slope on voting is positive in seven out of nine cases. In comparison, where there is enforced compulsory voting, the estimated slope is negative in eight out of nine cases and statistically significant at the 95 percent confidence level in three of those. According to the coefficient estimates from the slope equation, the coefficient on enforced compulsory voting (λ_1 in the equation above) is such that, on average, the slope relating voting to happiness (γ_j in the equation above) will decrease by 0.06 units in a country with enforced compulsory voting. There is some indication in the Latinobarómetro data,

therefore, that voting and satisfaction with life have a negative association in countries where there is enforced compulsory voting and a positive or null association in countries where there is not.

In the LAPOP data, however, the varying slopes are all positive, and there is no obvious distinction between the slope magnitudes in countries where there is enforced compulsory voting as compared to those where there is not. The country-level coefficient on enforced compulsory voting is negative 0.04, which is not that much smaller than the negative 0.06 estimate from the Latinobarómetro data, but it is estimated with only half as much precision.

Figure 11.

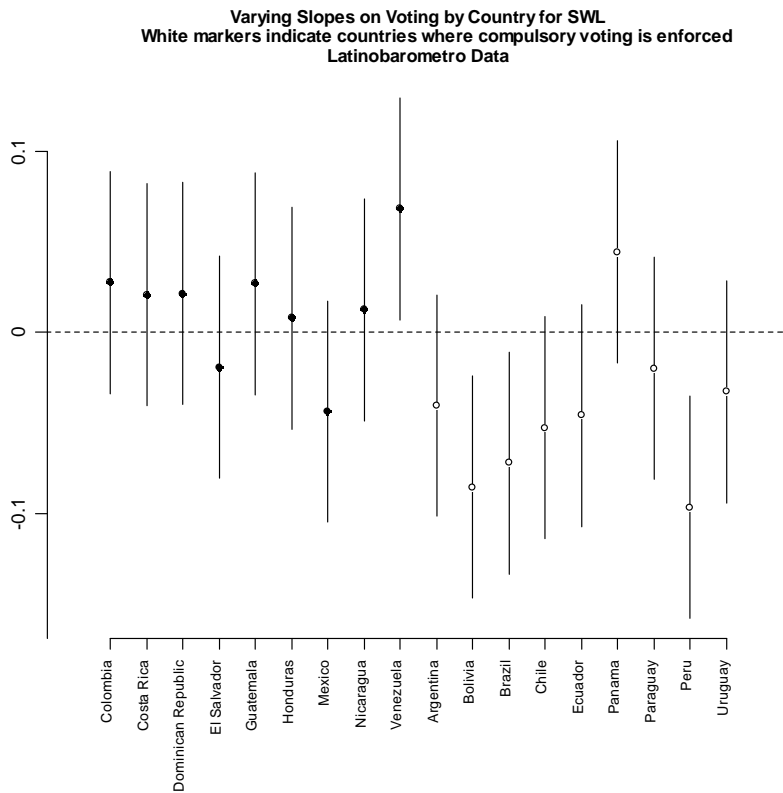
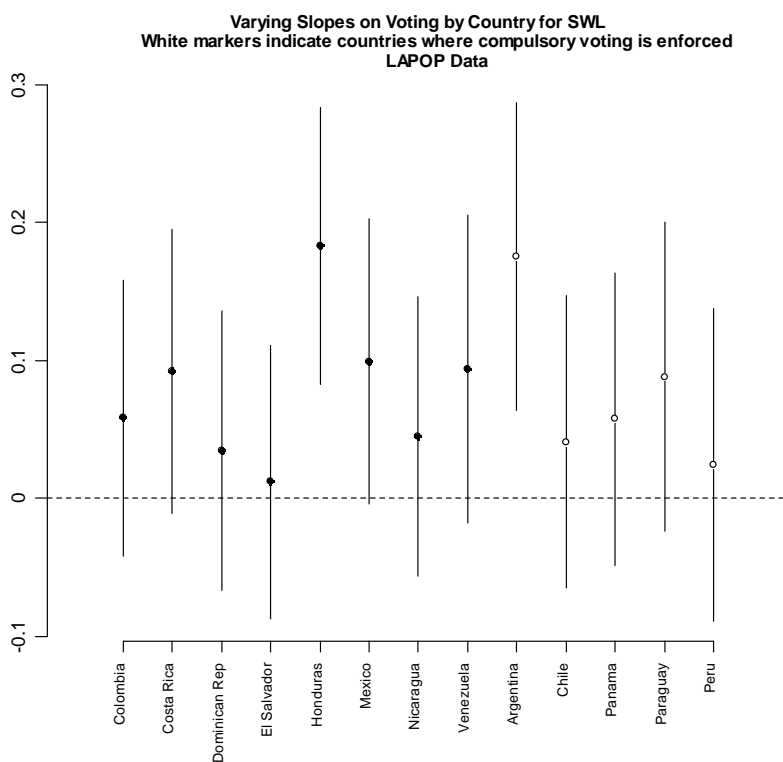


Figure 12.



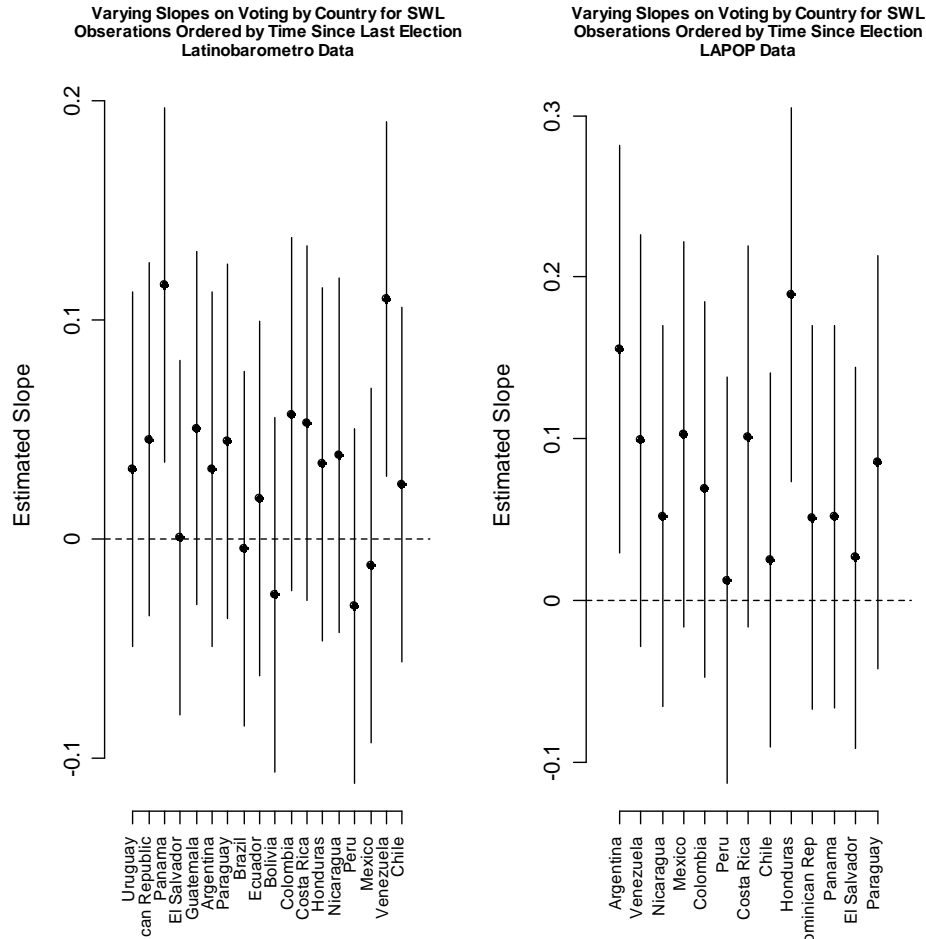
Note that the Latinobarómetro result is different from the varying-slope model and bivariate correlations above. In this case, citizens in countries with enforced compulsory voting have lower average levels of life satisfaction, but compulsory voting *also* means that the act of voting has a *negative* relationship with any given individual’s satisfaction with life. The causal relationship here is not so difficult to theorize: because people are being forced to vote, they are made unhappy by doing so. In countries where people are not forced to vote, the results mostly indicate a null relationship between voting and happiness. However, this claim is not borne out in the LAPOP data, and we are not certain how to adjudicate these discrepant findings.

It is somewhat difficult to disentangle the meaning of the changing slopes in the Latinobarómetro data given that voters are qualitatively different between countries with and without enforced compulsory voting. That is, the type of people who vote—and possibly the meaning that individuals attach to the act of voting—differs between these two groups of countries. Laws requiring voting mean that voting is likely to be widespread such that all types of people—including those who would not otherwise go to vote—in fact do so, whereas in

countries where voting is voluntary, there is likely to be some selection in terms of who opts to vote. In particular, when given the choice, we might expect that happier, more satisfied people are more likely to vote, while individuals who are particularly dissatisfied with their lives may opt out of voting. If this is the case, this would lead to systematic differences in the characteristics of voters between countries with and without compulsory voting. In particular, more “unhappy” people would vote in countries with compulsory voting, thus attenuating any positive relationship between voting and life satisfaction in these countries.

In an alternate specification, we also examined whether time since the most recent election was a significant predictor of the varying slopes—with the expectation that any positive effect of voting on happiness would be attenuated over time. In the figure below, we order the countries by the amount of time elapsed since the most recent election at the time of the survey and plot the slope on voting for each country. Although there is some hint of a downward trend in both the Latinobarómetro and LAPOP data, it is not substantial. When both the amount of time elapsed since the most recent election and the existence of enforced compulsory voting are included in the group-level model for the slope, the latter remains statistically significant, and the point estimate on the coefficient on enforced compulsory voting remain essentially unchanged from the model in which the variable enters alone (results not reported). Thus, there is no evidence that differences in the time elapsed since the last presidential election are responsible for the different coefficients on voting that we observe across countries.

Figure 13.



We also included the percentage of people voting as a country-level predictor of the slope on voting. We might think, for instance, that high voter turnout makes an individual think that he or she has a more limited effect on outcomes. Alternately, it might be the case that high voter turnout makes an individual voter feel more related to his fellow citizens. Neither hypothesis receives support in the data. When the percentage of people voting is included as a country-level slope-predictor with enforced compulsory voting, only the latter is significant (results not reported). Enforced compulsory voting again retains its explanatory power.

7. Establishing Causality: Two Strategies

7.1 A Quasi-Experiment Using Voting Age Laws

As an attempt to try and tease out the causal relationship between political participation and voting, we take advantage of the proliferation of compulsory voting in Latin America, described earlier. This legal obligation to vote means that individuals of a certain age—typically 18—automatically are “treated” with an obligation to engage in a certain type of political participation—voting.²⁵ In contrast, those slightly younger—say, 16 or 17—can be considered a control group, since they do not have the same opportunity to cast ballots yet are likely to have characteristics similar to individuals one or two years older. Normally, 16 and 17-year-olds are not included in public opinion surveys, making it impossible to examine the effects of this “treatment” (i.e., voting or being obligated to vote) on citizen life satisfaction. However, the Latinobarómetro and LAPOP surveys are conducted at regular intervals without regard for the political timeline of each individual country.

We can use Argentina as an example of how we might exploit this design. The 2005 Latinobarómetro survey was conducted in August 2005 in all the countries included in the survey. It asked respondents whether they had voted in the previous presidential election. The last presidential election in Argentina prior to the survey was conducted in April 2003, meaning that 18 and 19-year-olds included in the survey were not in fact eligible to vote in the previous election. Of the 61 respondents in this age group, only five claimed that they had in fact voted.²⁶ In contrast, of the 53 respondents aged 21 or 22 years old²⁷ who answered the survey, all but four responded that they had voted in the last presidential election.

The 18 and 19-year-olds included in the survey enjoyed full political rights at the time of the survey, and one could argue that in many ways these individuals should be indistinguishable from their slightly older counterparts. What makes the 18- and 19-year-olds different is that they did not have the opportunity to vote in the last election. Thus, by including a question about voting in the last presidential election—without regard for the year in which the survey is

²⁵ In a number of countries in the region, voting is optional for those above a certain age. We do not address that here.

²⁶ This obviously reflects some sort of error, either in reporting age or, much more likely, in reporting voting behavior. Of course, survey respondents tend to over-report voting, so a nice element of this quasi-experimental design is that we do not rely on self-reported behavior.

²⁷ We exclude 20 year olds from the analysis because whether or not they were eligible to vote in the 2003 election depends on their birth dates, information that is not available in the survey.

conducted—the survey creates an opportunity for us to plausibly identify the effect of the act of voting on life satisfaction.²⁸

We limit this strategy to countries with compulsory voting because—to the extent possible—we would like to be able to measure the effects of actually voting.²⁹ If compliance were perfect, we really could view this as a treatment effect. Of course, it is not, so this is probably best viewed as an “intent to treat” effect. Nonetheless, it is a treatment with high rates of compliance. In those countries where there is some enforcement of compulsory voting, about 85 percent of respondents reported voting, whereas that figure is only about 70 percent among countries with no enforced compulsory voting. Therefore, we do not rely on individual respondents’ self-reported voting behavior—which is known to be unreliable—but instead use compulsory voting and information about age to sort people into categories.

For all of the countries where there is at least some compulsory voting, we classify respondents according to whether or not they would have been eligible to vote at the time of the last election. The exact definition of the control and treatment groups varies from country to country depending on the date of the most recent election. As described above, in Argentina, we compare 18 and 19-year-olds to 21 and 22-year-olds. In Chile, where presidential elections were most recently held in 1999 before the 2005 survey, the sample includes 18 to 22-year-olds (excluded from the vote) and compares them to 24-28 year olds.

A difference of means test reveals no treatment effect. The average happiness of those in the control group of non-voters is 2.93, whereas the average happiness of those in the treatment group is 2.88. This difference is negative, the opposite of the expected direction, but not statistically significant. The fact that the value is lower for the treatment group—given that the data all comes from countries with enforced compulsory voting—supports the idea that individuals who would not otherwise vote are less happy when they are forced to vote. In results for individual countries, the patterns are generally the same with the difference between the treatment and control groups obtaining significance in Honduras, Panama and Peru (results not reported). If we include the treatment in multivariate regressions limited to the relevant age

²⁸ Of course, those included in the survey are eligible to vote in future elections, and at the time of the survey were old enough to enjoy full political rights. As such, to the extent that the *opportunity* for political participation affects individual utility (Frey and Stutzer, 2005a), this empirical strategy will not be able to detect such an effect.

²⁹ Note that we have replicated this approach for all of the countries included in the LAPOP dataset, regardless of their use of compulsory voting. The substantive results of that analysis are similar to those described here—we find no evidence that being eligible to vote in the last election is associated with a significant positive increase in life satisfaction.

ranges but controlling for other individual characteristics, we also find no effect of being “treated” with the obligation to vote.³⁰ The evidence from this quasi-experiment, therefore, is in line with that from the bivariate association between enforced compulsory voting and happiness and the multilevel regressions. It speaks against any possible positive causal effect of voting on life satisfaction.

7.2 Those Who Cannot Vote and Those Who Do Not Want To: Evidence from Costa Rica

A highly contentious and well-publicized referendum took place in October 2007 in Costa Rica on the subject of entering into the Dominican Republic–Central America Free Trade Agreement (DR-CAFTA) or not. The LAPOP survey asked respondents whether they voted in the referendum or not, and if not, why not. Of the 1,482 respondents, 620 did not vote in the referendum, 818 did, and 44 did not answer this question. Of the 664 who could have provided an answer to the question of why they did not vote—both those who said they did not vote and those who did not answer the question about the referendum—only 295 did. They were given a list of 19 possible reasons for why they did not vote. We classified these according to whether they indicated an inability to vote (e.g., not having an ID card, lacking transportation or having to work on the day of the referendum) or simply a desire not to vote (the most common responses in this category being that the respondent did not like either of the referendum options or that they were not interested in the referendum). Of the non-voters, 58 percent said that they did not vote because they were not able to do so.

We can use this information about the reasons for not voting to help us establish whether the act of voting has consequences for life satisfaction or, alternately, whether more satisfied people are systematically more likely to vote. If the former is true, we would expect that all non-voters, regardless of their reasons for failing to vote, would have similar levels of life satisfaction. In contrast, if the latter is the case, we would expect that voters and the group of non-voters who wanted to vote would have similar, higher levels of life satisfaction as compared to non-voters who did not want to vote. Our results support this latter explanation.

³⁰ Recall from the main analysis that age is negatively associated with life satisfaction in the data as a whole and that, in this quasi-experiment, the treated group is necessarily older than the untreated group. Thus, depending on the magnitude of any positive effect of voting on happiness, it might be the case that the negative effect of age on happiness masks any positive effect of participation. To examine this possibility, we regress life satisfaction on the treatment and the age variables only; once again, we find no positive effect of voting on life satisfaction.

The figure below shows the results of four regression models that we use to assess the relationship between life satisfaction and the act of voting (*crvote*) or wanting to vote (*wantvote*) in this referendum. The variable *crvote* takes the value of one only for individuals who report casting their ballots in the referendum and zero for non-voters. The variable *wantvote* takes the value of one for both voters and also non-voters who report not voting because they were unable to vote. It takes the value of zero for non-voters who report not wanting to vote.

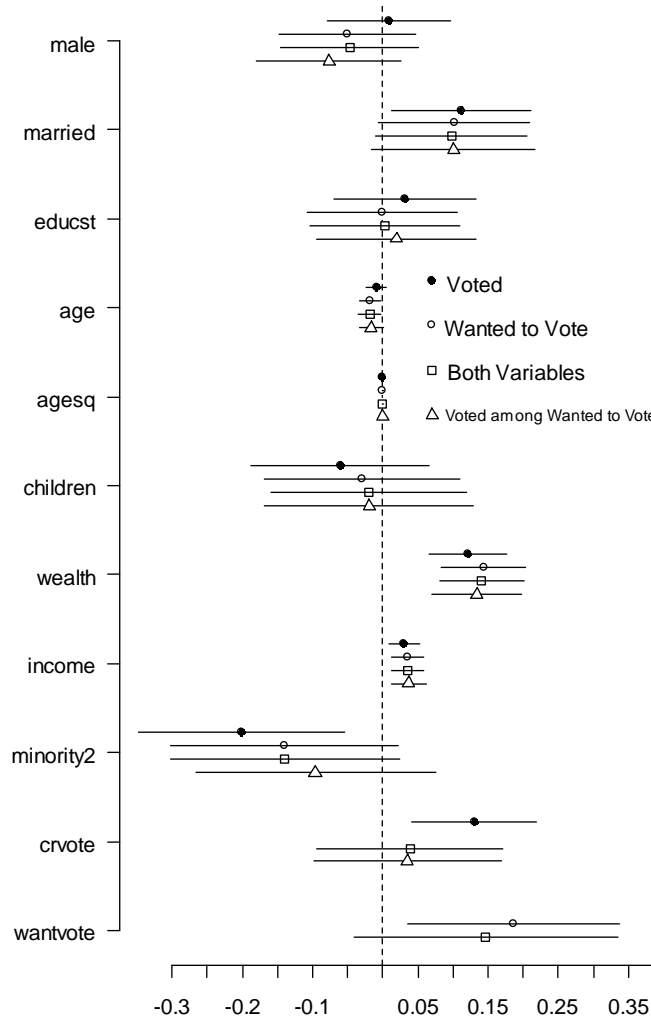
The first model includes only the indicator variable for voting, and the results of this model are consistent with those found from the larger LAPOP dataset: voters appear to be more satisfied with their lives, controlling for the usual set of covariates. However, this regression, like those displayed earlier in this text, makes it difficult to determine the direction in which causality flows. Is it the case that voting in the referendum made people happier, or is it rather the case that happier people voted in the referendum?

The three additional regression models we run help get us some leverage on this question. In the second model, we instead include only the indicator variable for wanting to vote, and we find that this variable is also positive and significant, and in fact has a slightly larger estimated coefficient than that estimated for the act of voting alone. In the third model, we include both variables, and we find that, although neither is statistically significant, the coefficient on *wanting to vote* has a larger coefficient than the coefficient on the act of voting itself.³¹ Finally, by looking only at the subset of people who wanted to vote—combining those who actually did vote with those who said that they could not vote because of some physical limitation on their ability to do so—we can better determine whether or not the act of voting makes a significant difference for life satisfaction. The results of the fourth model (whose coefficients are indicated by a triangle below) suggest that it does not. Within the subset of people who wanted to vote—where some were able to do so and others were not—the act of actually voting bears *no relationship* to life satisfaction. This suggests that the causality runs from life satisfaction to voting or desire to vote, rather than in the opposite direction.

³¹ Although neither coefficient is statistically significant at conventional levels, the coefficient on wanting to vote is significant at the .13 level.

Figure 14.

Costa Rica Referendum



8. Conclusions

We began this paper by reviewing theoretical literatures on procedural utility and the broad psychological benefits of political participation. This literature gives us reason to suspect that people who participate in political activities will be more satisfied with their lives, not necessarily because of policy outcomes but rather because of the feelings of autonomy, competence and relatedness produced through political involvement. However, when we look at individual-level data from Latin America, it is difficult to find evidence of this positive association between political participation and subjective well-being. Indeed, we find evidence that, when a positive relationship between political participation (in particular voting) and life

satisfaction exists, the causal pathway runs in the opposite direction—rather than political participation leading to happiness, there seems to be more evidence that happiness results in political participation. Finally, through our empirical investigation, we have discovered a consistent—but untheorized—negative relationship between enforced compulsory voting and happiness: in countries where there is enforced compulsory voting, people are less happy.

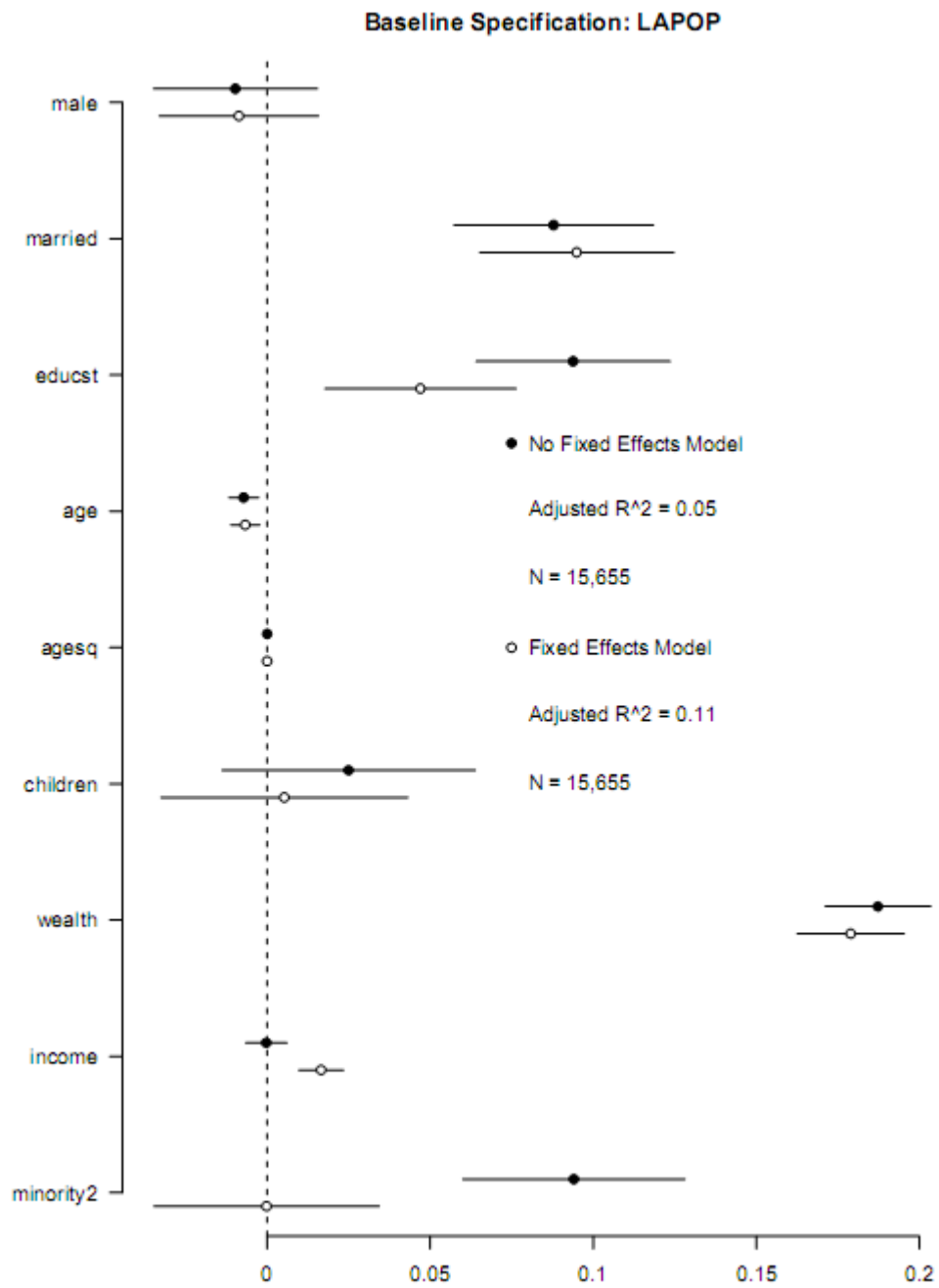
Looking at the individual level, we find—in one dataset under study—a positive and statistically significant relationship between voting and life satisfaction. Using variation in people’s desire to vote as measured in Costa Rica, however, we provide some evidence that—if this relationship actually exists—the causal arrow may run from happiness to voting.³² Examining this relationship between voting and happiness using a varying-slope multilevel model, we also find some evidence—in both the LAPOP and Latinobarómetro datasets but much more pronounced in the latter—that the coefficient relating voting and happiness is in part a function of whether or not a country has enforced compulsory voting—with enforced compulsory voting leading to a more negative relationship. If we assume an endogenous relationship between voting and happiness, then this would occur because unhappy people—who would not normally vote—are forced to vote in these systems, thus depressing the average happiness of voters. Therefore, this varying slope lends additional support to the reverse causation story.

Regarding the negative effect of enforced compulsory voting on average national happiness, we lack a strong theoretical understanding of this relationship. We have provided two plausible—although at this point purely speculative—explanations for why this might be the case. First, if the causal arrow runs from compulsory voting to national happiness, then compulsory voting is making people consistently less happy, perhaps because they resent their government or the form of democratic system under which they live. If the causal arrow runs from national happiness to compulsory voting, then the story might be that it is difficult to obtain normatively desirable levels of turnout in countries where people are less happy such that governments decide to resort to compulsory voting. Like the other issues that we have raised in this paper, this remains an important for future research. The burgeoning literature on happiness studies in economics has, as of yet, largely neglected to examine any political variables in this

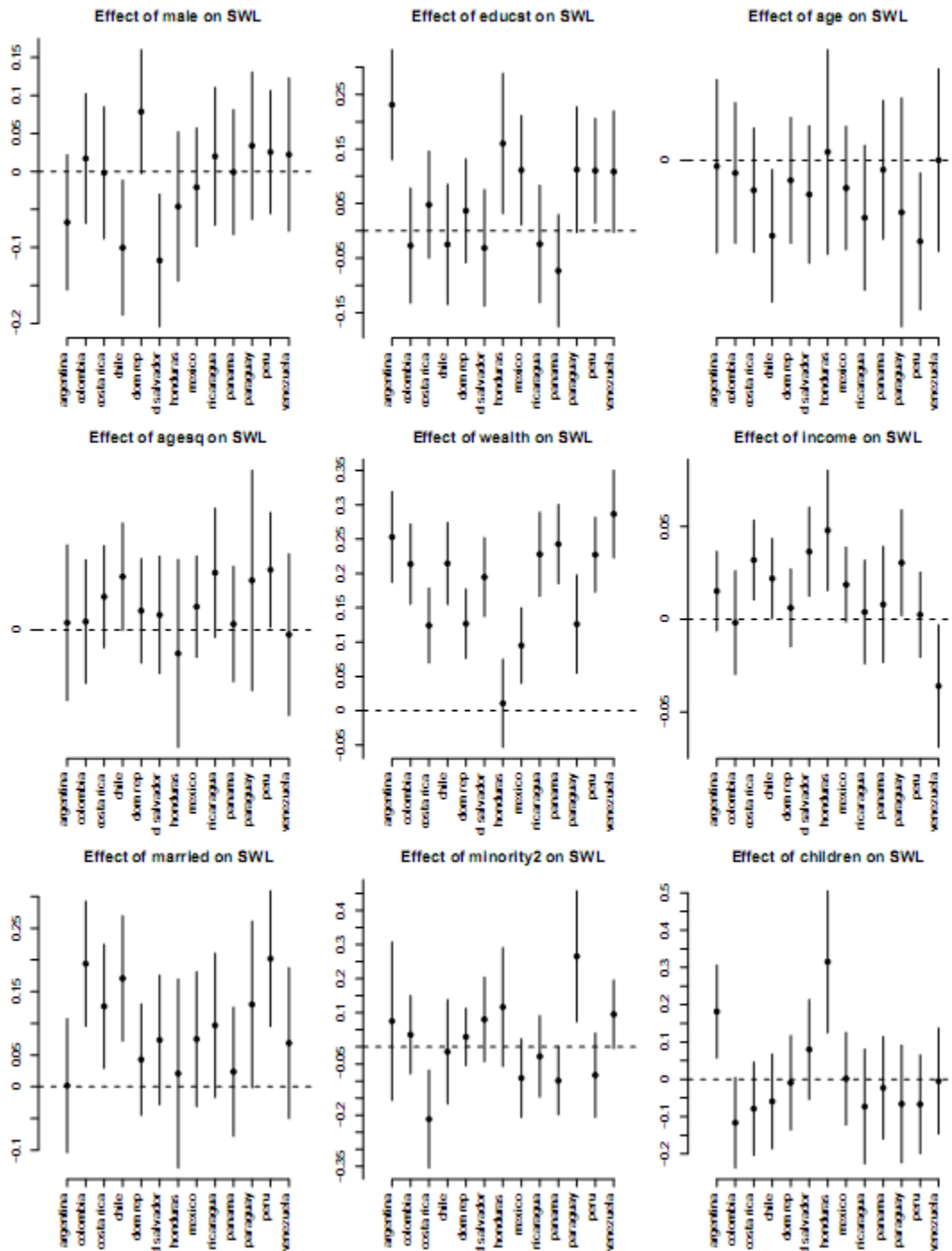
³² Our findings about whether this relationship exists at all remain tentative in light of the fact that we do not find any positive relationship between participation and happiness in our analysis of data from the Latinobarómetro.

context. The neglect of political variables has been near total in the context of the study of the developing world. This paper marks one of the first attempts to include political variables in the study of the individual determinants of life satisfaction. Through further research, we hope to gain increasing confidence in our conclusions about the direction of causality with regard to participation and happiness and also further explore the relationship between compulsory voting and happiness.

Appendix



Plots of Coefficient Estimates on Control Variables from Country-by-Country Regressions Using the LAPOP data



Works Cited

- Almond, G., and S. Verba. 1989. *The Civic Culture: Political Attitudes and Democracy in Five Nations*. Thousand Oaks, United States: Sage.
- Arrow, K.J. 1950. "A Difficulty in the Concept of Social Welfare." *Journal of Political Economy* 58(4): 328-46.
- Barber, B. 1984. *Strong Democracy: Participatory Politics for a New Age*. Los Angeles, United States: University of California Press.
- Barry, B. 1995. *Justice as Impartiality*. New York, United States: Oxford University Press.
- Blais, A., and F. Gélinau. 2007. "Winning, Losing and Satisfaction with Democracy." *Political Studies* 55: 425-41.
- Bueno de Mesquita, B. et al. 2003. *The Logic of Political Survival*. Cambridge, United States: MIT Press.
- Christiano, T. 1997. "The Significance of Public Deliberation." In: J. Bohman and W. Rehg, editors. *Deliberative Democracy*. Cambridge, United States: MIT Press.
- Cohen, R.L. 1985. "Procedural Justice and Participation." *Human Relations* 38.7: 643-63.
- Cohen-Charash, Y., and P.E. Spector. 2001. "The Role of Justice in Organizations: A Meta-Analysis." *Organizational Behavior and Human Decision Processes* 86(2): 278-321.
- Cox, G. 2007. "Swing Voters, Core Voters and Distributive Politics." Leitner Program on International and Comparative Political Economy Working Paper 2007-14. New Haven, United States: Yale University.
- Deci, E.L., and R.M. Ryan. 2000. "The 'What' and 'Why' of Goal Pursuits: Human Needs and the Self-Determination of Behavior." *Psychological Inquiry* 11(4): 227-68.
- De Luca, M., M.P. Jones and M.I. Tula. 2002. "Back Rooms or Ballot Boxes? Candidate Nomination in Argentina." *Comparative Political Studies* 35: 413-436.
- Dewey, J. 1916. *Democracy and Education*. New York: Macmillan.
- Di Tella, R., and R. MacCulloch. 2006. "Some Uses of Happiness Data in Economics." *Journal of Economic Perspectives* 20(1): 25-46.
- , 2008. "Gross National Happiness as an Answer to the Easterlin Paradox." *Journal of Development Economics* 86: 22-42.

- Di Tella, R., R. MacCulloch and A. Oswald. 2001. "Preferences over Inflation and Unemployment: Evidence from Surveys of Happiness." *American Economic Review* 91(1): 335-341.
- Drèze, J., and A.K. Sen. 2002. *India: Economic Development and Social Opportunity*. New York, United States: Oxford University Press.
- Elster, J. 1997. "The Market and the Forum: Three Varieties of Political Theory." In: J. Bohman and W. Rehg, editors. *Deliberative Democracy: Essays on Reason and Politics*. Cambridge, United States: MIT Press.
- Espinal, R., J. Hartlyn and J.M. Kelly. 2006. "Performance Still Matters: Explaining Trust in Government in the Dominican Republic." *Comparative Political Studies* 39(2): 200-23.
- Feld, L.P., and B.S. Frey. 2002. "Trust Breeds Trust: How Taxpayers are Treated." *Economics of Governance* 3: 87-99.
- Finkel, S.E. 1985. "Reciprocal Effects of Participation and Political Efficacy: A Panel Analysis." *American Journal of Political Science* 29(4): 891-913.
- . 1987. "The Effects of Participation on Political Efficacy and Political Support: Evidence from a West German Panel." *Journal of Politics* 49(2): 441-64.
- Frey, B.S., and F. Oberholzer-Gee. 1997. "The Cost of Price Incentives: An Empirical Analysis of Motivation Crowding Out." *American Economic Review* 87: 746-55.
- Frey, B.S., and A. Stutzer. 2000. "Happiness Prospers in Democracy." *Journal of Happiness Studies* 1: 79-102.
- . 2005a. "Beyond Outcomes: Measuring Procedural Utility." *Oxford Economic Papers* 57: 90-111.
- . 2005b. "Happiness Research: State and Prospects." *Review of Social Economy* 62(2): 207-28.
- Frey, B.S., M. Benz and A. Stutzer. 2004. "Introducing Procedural Utility: Not Only What, but Also How Matters." *Journal of Institutional and Theoretical Economics* 160(3): 377-401.
- Graham, C. 2008. "The Economics of Happiness." In: S. Durlauf and L. Blume, editors. *The New Palgrave Dictionary of Economics*. Second Edition. New York, United States: Palgrave Macmillan.

- Greenberg, J., and R. Folger. 1983. "Procedural Justice, Participation, and the Fair Process Effect in Groups and Organizations." In: P.B. Paulus, editor. *Basic Group Process*. New York, United States: Springer-Verlag, pp. 235–56.
- Hirschman, A.O. 1970. *Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge, United States: Harvard University Press.
- Hiskey, J.T., and S. Bowler. 2005. "Local Context and Democratization in Mexico." *American Journal of Political Science* 49(1): 57-71.
- Konovsky, M.A. 2000. "Understanding Procedural Justice and Its Impact on Business Organizations." *Journal of Management* 26(3): 489-511.
- Lind, E.A., and Tom Tyler. 1988. *The Social Psychology of Procedural Justice*. New York: Plenum Press.
- Locke, E.A. and D.M. Schweiger. "Participation in Decision Making: One More Look." *Research in Organizational Behavior* 1: 265–339.
- Mansbridge, J. 1983. *Beyond Adversary Democracy*. Chicago, United States: University of Chicago Press.
- Meltzer, A.H., and S.F. Richard. 1981. "A Rational Theory of the Size of Government." *Journal of Political Economy* 89(5): 914-927.
- Nadeau, R., and A. Blais. 1993. "Accepting the Election Outcome: The Effect of Participation on Loser's Consent." *British Journal of Political Science* 23: 553-63.
- Nichter, S. 2008. "Vote Buying or Turnout Buying? Machine Politics and the Secret Ballot." *American Political Science Review* 102(1): 19-31.
- Oberholzer-Gee, F. et al. 1995. "Panik, Protest, und Paralyse: Eine empirische Untersuchung tiber nukleare Endlager in der Schweiz," *Schweizerische Zeitschrift für Volkswirtschaft und Statistik* 131: 147-77.
- Pateman, C. 1970. *Participation and Democratic Theory*. New York, United States: Cambridge University Press.
- Pichler, F. 2006. "Subjective Quality of Life of Young Europeans: Feeling Happy but Who Knows Why?" *Social Indicators Research* 75(3): 419-44.
- Radcliff, B. 2001. "Politics, Markets and Life Satisfaction: The Political Economy of Human Happiness." *American Political Science Review* 95(4): 939-52.

- , 2005. "Class Organization and Subjective Well-Being: A Cross-National Analysis." *Social Forces* 84.1: 513-30.
- Riker, W., and P. Ordeshook. 1968. "A Theory of the Calculus of Voting." *American Political Science Review* 62(1): 25-42.
- Satterthwaite, M.A. 1975. "Strategy-Proofness and Arrow's Conditions: Existence and Correspondence Theorems for Voting Procedures and Social Welfare Functions." *Journal of Economic Theory* 10: 187-217.
- Schyns, P. 1998. "Crossnational Differences in Happiness: Economic and Cultural Factors Explored." *Social Indicators Research* 43: 3-26.
- Sen, A.K. 1995. "Rationality and Social Choice." *American Economic Review* 85: 1-24.
- , 2001. *Development as Freedom*. New York, United States: Oxford University Press.
- Smith, M.A. 2002. "Ballot Initiatives and the Democratic Citizen." *Journal of Politics* 64: 892-903.
- Stevenson, B., and J. Wolfers. 2008. "Economic Growth and Subjective Well-Being: Reassessing the Easterlin Paradox." Available at: <http://ssrn.com/abstract=1121237>
- Stokes, S.C. 2001. *Mandates and Democracy: Neoliberalism by Surprise in Latin America*. New York, United States: Cambridge University Press.
- , 2007. "Political Clientelism." In: C. Boix and S.C. Stokes, editors. *The Oxford Handbook of Comparative Politics*. New York, United States: Oxford University Press.
- Stutzer, A., and B.S. Frey. 2006. "Political Participation and Procedural Utility: An Empirical Study." *European Journal of Political Research* 45(3): 391-418.
- Thibaut, J., and L. Walker. 1975. *Procedural Justice: A Psychological Analysis*. Hillsdale, New Jersey, United States: L. Erlbaum Associates.
- Thompson, D.F. 1970. *The Democratic Citizen: Social Science and Democratic Theory in the Twentieth Century*. New York, United States: Cambridge University Press.
- Veenhoven, R. 1995. "The Cross-National Pattern of Happiness: Test of Predictions Implied in Three Theories of Happiness." *Social Indicators Research* 34(1): 33-68.
- Vowles, J. 2002. "Offsetting the PR Effect? Party Mobilization and Turnout Decline in New Zealand, 1996-99." *Party Politics* 8: 587-605.

Wampler, B. 2000. "A Guide to Participatory Budgeting." Paper presented at the Conference on the Participatory Budget, Porto Alegre, Brazil.

-----, 2007. *Participatory Budgeting in Brazil: Contestation, Cooperation, and Accountability*. State College, Pennsylvania: Penn State University Press.