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***Génération Désenchantée:* Satisfaction with Democracy and Income Inequality**

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Summary

Recent scholarship offers compelling evidence on the negative impact of income inequality on satisfaction with democracy. This article studies whether the impact of inequality on evaluations of the democratic process varies for different groups in the population and over time. The central argument is that the impact of inequality is conditional on individual characteristics and experience. Young adults and members of the 1990s generation should be more sensitive to income inequality compared to older generations. To answer this question, we use cumulative six-wave data from the European Social Survey (2002-2012), matched with income inequality estimates from the Standardized World Income Inequality Dataset (2014). Results from a series of mixed-effects models reveal that higher levels of income inequality are associated with lower levels of satisfaction with democracy, but with a disproportionate negative influence on young adults compared to older citizens and also on the 1990s cohort compared to all other cohorts.

Keywords: Income Inequality, Satisfaction with Democracy, Young Adults, Mixed-Effects Models, European Social Survey

Introduction

Political scientists have long argued that economic inequality is to a large extent incompatible with normative principles of democratic governance (Anderson and Singer, 2008; Dahl, 2006). A number of recent comparative studies have empirically evaluated this assumption and have argued that the distribution of income should also be evaluated as an important indicator of political performance, similar to levels of economic development. Results from analyses which investigate how aggregate public opinion reacts to shifts in inequality have so far offered compelling

evidence that the latter is in fact a depressor of democratic satisfaction (Andersen, 2012; Anderson and Singer, 2008; Krieckhaus et al., 2013). Satisfaction with democracy is of primary interest to the previous studies and the focus of our study because it represents an immediate and faithful barometer of the performance of the political system when measured against the yardstick of democratic principles. Satisfaction with democracy can discriminate between political systems that fail to produce anticipated outputs and those that successfully do so. As mass dissatisfaction can forebode the appearance of political instability, under the form of extremist political or social movements, ascertaining the influence of aggregate-level factors on satisfaction can better allow us to stem the tide of popular discontent before irreparable harm is done to existing institutions.

The analyses mentioned (e.g. Krieckhaus et al., 2013), however, do not take a closer look at whether the impact of inequality on evaluations of the democratic process varies for different groups in the population and over time, which we aim to address in this paper. We argue that the differences in the effect of income inequality on satisfaction with democracy are conditional upon individual characteristics and experiences (similar to Anderson and Singer, 2008), most notably age and cohort differences. While we expect that economic inequality might have a differential impact across age groups, our primary interest is in seeing to what extent the young and the members of the 1990s generation have been disproportionately influenced by rising income inequality, when compared to adults and other cohorts. Examining the variation in the effect for different age groups and cohorts is motivated by previous studies on life-cycle and generational effects. The impact of income inequality on youth attitudes also seems particularly important in the context of the recent economic crisis, as young people are more likely to be affected by the decline in wages, are most vulnerable to layoffs and are least protected by rises in social transfers. Citizens who spent the majority of their formative years in the 1990s are also of particular interest given that the levels of income inequality have seen a particular rise starting in the mid-1980s in Western democracies and in 1990 in all new EU members states (for Western Europe, see Kenworthy and Pontusson, 2005: 452). To answer this question, we use cumulative six-wave data from the European Social Survey (2002-2012) (henceforth, ESS), matched with income inequality estimates from the Standardized World Income Inequality Dataset (henceforth, SWIID) (Solt, 2009). Results from a series of mixed-effects models reveal that higher levels of income inequality are associated with lower levels of satisfaction with democracy, but with a disproportionate negative influence on young adults compared to older citizens and also on the 1990s cohort compared to all other cohorts.

Income Inequality and Democratic Distemper

Increasing inequality in post-industrial democracies in recent decades has renewed scholarly interest in the study of the possible consequences of inequality on a wide range of socio-economic problems. While previous research was focused primarily on the analyses of income inequality in the United States and the United Kingdom, similar trends towards unequal distributions of income on the Old Continent, the global recession of the past few years, as well as the considerable public support that bottom-up movements such as Occupy have received have evoked academic and political attention towards the evolution of inequality. Focus has especially shifted towards European democracies, which have, on average, faced sluggish economic growth in the past decades (Fredriksen, 2012), and where a long tradition of strong welfare states has produced marked sensitivity to even moderate increases in inequality. Income inequality is still notably lower in Europe than in the United States, but inequality in Europe has risen substantially since the mid-1980s, resulting in a distribution of income that is more unequal than in the average OECD country (*ibid.*). For instance, income inequality has risen more from 2007 to 2010 than in the preceding 12 years (OECD, 2013a; 2013b) and is higher now than in the past, even in the more egalitarian countries such as Sweden and Germany.

While studies on income inequality cross disciplinary boundaries, they all share a common interest in identifying the pathways through which income inequality can be harmful to society. There are numerous reasons why rising inequality should be a cause for concern for academics and citizens alike. Multiple societal effects have been attributed to increased income inequality, encompassing, but certainly not limited to 'health status and life expectancy, crime and community breakdown, political power, and temporal patterns of income and poverty mobility, to intergenerational immobility and the transmission of poverty from one generation to the next [...]' (Salverda et al., 2009: 6). Perhaps the strongest reason for which income inequality and its effects on society should be more thoroughly pursued, though, is the considerable scope that exists for political decisions to impact the inequality trend. In spite of a general agreement that the gap in disposable incomes between extremes of the distribution is a direct consequence of the changes in the labor markets driven by outside factors such as globalization and technological development (Braun, 1991), trends in some countries, such as France or Sweden, suggest that politics is not powerless. Governments can influence income gaps directly through implementing careful regulatory and policy reforms such as wage-setting mechanisms, social transfers or market regulation.

Political scientists have long assumed that, with rising income inequality, there are reasons to suspect that citizens everywhere will find the discrepancy between democratic tenets and unequal economic outcomes glaring. Citizens are the back-

bone of representative democracies and their support of political institutions and processes is crucial for the stability of democracies (Anderson and Singer, 2008). This is especially true when we consider growing indications that citizens in all established democracies are becoming more critical towards political actors, institutions and democratic regimes (Dalton, 2004; 2006). Growing dissatisfaction with democracy among citizens might create inherent instability in political systems, with bottom-up pressure for social change as well as the appearance of extremist or populist parties, or of anti-establishment politicians. As Lipset and Powell warn us, pushes for radical changes from below might have serious consequences for the survival and the quality of established democracies (Lipset, 1959; Powell, 1982). To name only a few, increased dissatisfaction might have an impact on electoral volatility, turnout, or engagement in non-conventional political activities such as protests and demonstrations, and even affect citizens' compliance with performing public services (Dahl, 2006; Norris, 1999).

Not all facets of citizen support should be equally affected. Building on Easton's original distinction between diffuse and specific support (Easton, 1957; 1965; Dalton, 2004; Norris, 1999) debates have revolved around the understanding that citizens might have distinct preferences towards different levels of political objects. We postulate here that a highly unequal distribution of income in a country might be the tipping point for an increase of dissatisfaction among the public directed towards more specific objects. Our understanding of specific political objects refers primarily to 'attitudes towards the way democracy works in practice in a particular country' (Linde and Ekman, 2003: 393). According to the notion of system outputs developed by Easton, attitudes towards political objects rely on the ability of political authorities and the regime to produce desired economic and political outcomes. Governments should solve social problems and not create them; if economic inequality is exacerbated, citizens might punish their governments at election time or could exhibit negative evaluations of the regime's performance in their country.

Theories of democracy also provide an implicit argument for a connection between growing inequality and citizens' attitudes towards regime performance. Some scholars, most notably John Rawls and Amartya Sen, argued that liberal democracy presupposes a certain degree of equitable provision of resources which, in turn, requires a certain level of redistribution (Sen, 2009; Rawls, 1993). In this understanding liberal democracies can best function in economically egalitarian societies. At the foundation of every such democracy lies the ideal of intrinsic political equality, which implies 'that the good or interest of each person must be given equal consideration' (Dahl, 2006: 4). It is embedded in those foundational principles that guarantee equality under the law, equal political rights, equal rights to personal security

and some measure of privacy, basic economic security, and rights to education and information. Every citizen is entitled to benefit from those rights through participation in elections, by running for and serving in elective offices, by having access to independent sources of information, or through participation in various associations and organizations. The normative principle of political equality presupposes that different democratic outcomes should be a result of differences in preferences and interest and not a result of unequal distribution of resources.

The literature on the political consequences of economic inequality is still relatively novel, especially with a focus on Europe. Until recently, political scientists have thought that a link between inequality and citizens' satisfaction with regime performance must be strong, especially considering the correspondence between rising inequality and weakening of the support for representative institutions in most unequal countries such as the United States and Latin America (Anderson and Singer, 2008). As Anderson and Singer note, however, scholars have 'rarely worried about examining it in much detail' (*ibid.*: 573). Several new studies offer compelling pieces of evidence that strongly suggest that in countries with higher income inequality citizens show lower levels of satisfaction with democracy (Andersen, 2012; Anderson and Singer, 2008; Krieckhaus et al., 2013). What is more, a number of studies also found that economic inequality matters both for political attitudes and behavior. Starting with Solt's (2008) path-breaking cross-national analysis of the effects of income inequality on turnout and political engagement, a host of results have attested to the powerful deleterious impact of inequality (Anderson and Just, 2012; Galbraith and Hale, 2008; Lister, 2007; Solt, 2010). The range of outcomes examined includes, in addition to turnout, political participation (displaying badges, signing petitions, attending demonstrations, etc.), the frequency of political discussion with friends and neighbors, interpersonal trust or social and cultural participation (Lancee and Van de Werfhorst, 2012).

Sensitive Youth: Conditional Effects of Inequality on Satisfaction

New research on the link between inequality and satisfaction is partly driven by the upsurge in contextual studies of political behavior. Equipped with survey data collections that enable systematic, cross-country comparisons, researchers are increasingly interested in the impact of macro-political environments on political attitudes and behavior. Studies of citizens' attitudes towards representative processes in their countries have moved beyond micro explanations and towards identifying those institutions and structural conditions which might explain cross-country heterogeneity in citizens' evaluations – as Anderson and Singer emphasize, 'the study of behavioral politics in a comparative perspective is almost unavoidably contingent' (2008: 570). New frontiers of macro-micro studies focus on the impact of structural

features on individual behaviors, and results from older studies on macro-micro relationships are often reduced to including various individual traits as simple regression controls. However, we must not forget that the individual level characteristics also matter in explaining attitudes towards the system. Citizens who are more educated, who are employed and those who have higher levels of political interest are also more critical towards the way democracy works in their country. Support will vary across the socioeconomic spectrum, and accordingly, income inequality should not have the same effect across subgroups of the population.

To our knowledge, only a few analyses of the impact of economic inequality on satisfaction with democracy also check whether the effect of income inequality on attitudes is the same across subgroups of the population. Anderson and Singer (2008) find that inequality has a more corrosive impact on evaluations of democracy for citizens on the Left of the political spectrum. In a similar vein, Kriekhaus and colleagues (2013) suggest that the reduction in democratic support in highly unequal countries is slightly less severe amongst the poor (see also Solt, 2008; Lancee and Van de Werfhorst, 2012). To the best of our knowledge, none so far have examined this relationship from an age and cohort perspective, as potential mediating factors. We add to this literature by taking a closer look at whether the impact of inequality on evaluations of the democratic process varies for different age groups and cohorts in the population.

Although most analyses of satisfaction with democracy include age as a control variable, the impact of age on satisfaction is strikingly inconclusive given both the direction and the magnitude of the effect. For instance, Schäfer (2012) finds a non-linear effect of age, whereby young and elderly citizens have more positive evaluations of regime performance compared to middle age groups. On the other hand, Anderson and Guillory (1997) report a significant effect in only three countries in their sample. Younger respondents have lower levels of satisfaction than older respondents in Portugal and Spain, but in Denmark this effect is the opposite. We do not have specific expectations regarding the levels of satisfaction with democracy among age groups. As Anderson and Guillory suggest, satisfaction with democracy will vary across countries and age groups. However, our particular prediction is that youth attitudes towards the system of liberal democracies should become more negative in situations of higher income inequality.

We base this prediction on previous research which strongly supports our claim that age group differences in the levels of satisfaction with democracy should be more carefully examined. A significant number of studies show that young adults differ from their older counterparts with regard to political participation, political attitudes and political values. It is well known that younger citizens are less likely to vote, to become members of political parties, and that they have less stable

party identifications (e.g. Sloam, 2012; Norris, 2002; Dalton, 2011). They are also more likely to question the status quo, and share more idealistic and universalistic values than older citizens. Anderson and Just accurately and pithily sum it up by noting that ‘younger citizens often are the sources of instability, innovation, and change’ (2012: 306). More importantly, an individual’s position in the life cycle might determine the way in which they interpret new information. Younger adults who are more likely to question the status quo and who share more universalistic values might also be more sensitive to negative changes in the distribution of disposable income. To a certain extent, the theoretical mechanism behind this expectation relies on the inherent sensitivity of youth during their transition towards adulthood.

The alternative mechanism is based on differing economic implications of inequality for different age groups, which is particularly important in the context of the current economic crisis. New research in political economy suggests that the recent economic downturn has brought about additional struggles for young people in their twenties. As highlighted in a recent International Trade Union report, ‘overall youth unemployment has overtaken adult unemployment, further confirming the fact that young people are more vulnerable to economic shocks and are the “first out” and “last in” in times of crisis’ (2012: 3). Young adults should have the strongest response to the crisis, not only because their rates of unemployment are seeing the largest annual rise recorded in the last 20 years compared to all other age groups in the population, but also because they did not have a say in the policies that brought about such results. In the context of the crisis’s aftermath, young people are more likely to be affected by the current decline in wages, they are most vulnerable to layoffs, and they are least protected by increases in social transfers (ILO, 2013). We are also aware that the long periods of economic insecurity might affect all age groups equally, but for youth the economic environment is particularly threatening at the present, during their formative years. That said, we do not exclude the possibility that the recent global crisis might have a negative impact on all citizens, as influences of income inequality should also vary through time.

Additional support for our expectations comes from research on generational or cohort effects (e.g. Neundorf and Niemi, 2014). Citizens’ evaluations might not be affected only by their position in the life cycle, but also by the sum of social and economic experiences that marked the period in ‘which individuals first step out into the world as independent adults’ (Delli Carpini, 1989: 20; see also Torney-Purta, 2004). After a period of intense instability at the threshold of maturity a set of attitudes, such as partisanship, political interest, or one’s predisposition to participate in politics, become largely stable across the life cycle (Alwin and Krosnick, 1991; Beck and Jennings, 1982). The catalysts for such attitude crystallization are

to be found not only in major political events (the Vietnam War, the fall of the Berlin Wall, or the collapse of Communism), but also in short periods of high-intensity political activity, such as an election campaign (Sears and Valentino, 1997). From this perspective, citizens born in the 1970s and 1980s and who spent the majority of their most formative years throughout the 1990s or 2000s – a period of rising inequalities and much more precarious economic conditions – have reasons to feel more deprived than their parents, and they might be more sensitive to changes in the economic environment today. Researchers now refer to the phenomenon of ‘prolonged adulthood’, since young adults are assuming their family and work responsibilities much later than they did 50 years ago (Arnett, 2006). The period of identity exploration and volatility in political attitudes and behavior lasts much longer, and it is largely a consequence of volatile economic conditions (e.g. Furlong and Cartmel, 2006). We, thus, expect to find a parallel age-cohort effect, whereby attitudinal and behavioral differences result both from psychological changes over life cycle and shared formative experiences.

Data and Methods

The dataset on which the analyses are conducted is the six-wave ESS spanning most countries in Europe between 2002 and 2012, with representative samples of citizens in each country. For reasons dealing with macro-level data availability and the lack of measurement at multiple points in time, Kosovo and Albania have been excluded from the analysis. The dependent variable for our analyses is a respondent’s self-reported satisfaction with democracy: ‘[...] on the whole, how satisfied are you with the way democracy works in [country]?’ In the ESS, this variable is measured on an 11-point scale, with higher values designating a higher degree of satisfaction with democracy. It is important to reiterate here a point which was made in the introductory section as well: the question does not tap support for democracy as a normative ideal (Linde and Ekman, 2003), but rather a person’s support for the performance of the democratic regime currently in place. At the individual level, the main theoretical predictors of interest are respondent’s age (by which we probe life-cycle effects) and year of birth (cohort effect).

As we want to test citizens who came of age during times when income inequality started to rise, we have chosen to include a dummy variable measuring whether respondents belong to the cohort born after 1970 or not. Respondents born in this period have spent the majority of their formative years during the 1990s or the 2000s (for a similar approach, see Grasso, 2014). Since the ESS covers a relatively short period, we are unable to directly test the parallel age-cohort effect, as surveys do not include respondents who were young when the data was collected and were born prior to the 1970s. However, by using an indicator for the 1990-2000s cohort and

age we are able to partially control the confounding cohort effect, and vice versa. Another reason for opting for a cohort dummy, rather than identifying political generations through a categorical variable for several cohorts, is that we want to include both old and new European democracies. A classical assignment of political generations, such as the *pre-WWI* generation, the *silent generation* or the *lost generation* (e.g. *ibid.*), simply does not travel well across our sample of countries. Similarly, a typology used in the case of post-Communist countries (Mierîna and Cers, 2014) has little applicability in the Western European context. However, we argue that in both Eastern and Western European contexts respondents who have spent their formative years during the 90s or 00s have experienced changes in both political landscape (end of the Cold War and the ensuing optimism) and economic landscape (a shift toward neo-liberal market capitalism).

Other established individual-level predictors were included as controls. A respondent's gender was added as a dichotomous predictor. A person's education, measured by the number of years of completed education, was included in all models. A respondent's income, measured on a 10-point scale, was also used as a control. At the level of political attitudes, we only include a measure of the extent of political interest. The indicator measures the extent to which the respondent is interested in politics on a 4-point scale, ranging from "not at all interested" to "very interested". All variables at the individual level were group-mean centered to obtain proper estimates of the within-country-year effect of a variable on the individual-level satisfaction with democracy (see Enders and Tofghi, 2007).

Information at the individual level was merged with country-level data regarding income inequality from Solt's SWIID, version 5.0 (Solt, 2009). We use net Gini, which captures the overall inequality in disposable incomes, and not market incomes or wealth. Post-transfer incomes are a more appropriate measure of income inequality given that we are interested in the effects of Gini on public evaluations of democratic performance, which should necessarily take into consideration any country differences in redistributive policies implemented to reduce differences in market incomes. SWIID contains plausible values for the net Gini index of inequality that go as far back as the 1960s for all advanced democracies in the sample, and usually as far back as the 1980s for the new democracies in Central and Eastern Europe. The 'price' paid for such coverage is increased uncertainty in the estimates for inequality generated by the multiple imputation procedure used. To address this, each model specification was run 100 times, with the 100 plausible values for the Gini index provided in the SWIID dataset; estimates and their standard errors were subsequently pooled using Rubin's rules (Rubin, 1987).

The models tested with these predictors are three-level mixed-effects models (Snijders and Bosker, 1999; Steenbergen and Jones, 2002) where satisfaction with

democracy is a dependent variable. Although the ESS does not have a sufficiently prolonged longitudinal coverage to test for period effects, by modeling country-year as a separate level it will also be possible to control for the confounding effects of time. All individual-level predictors of satisfaction were included at level 1, whereas income inequality was added at the country-year level (level 2). Based on the results from previous studies on satisfaction with democracy, where citizens in post-Communist countries show significantly lower levels of satisfaction, a dummy variable measuring whether a country has a Communist past or not is included at level 3 (country). Additionally, we also include a measure of unemployment as a time-invariant predictor at level 3, by averaging yearly measurements (e.g. Toka, 1995; Clarke et al., 1993; Sen, 1997).

Empirical Results

In the following paragraphs, we turn to the multilevel models which provide the main body of evidence on the basis of which we draw our conclusions (Table 1 on pp. 60-61). Our main theoretical interest lies in the dynamics of the effect of age (an individual-level predictor) on satisfaction with democracy, and how this varies across contexts at different levels of income inequality (a country-year level predictor). We try to ascertain this by means of a two-way cross-level interaction between the predictors mentioned above. To better understand the cross-country differences in expected average satisfaction with democracy, and to see whether satisfaction depends on levels of income inequality, we first present an illustration of estimated country-means for satisfaction (simple varying intercept model with no substantive predictors included presented in Model 1) with the observed levels of income inequality across countries. Figure 1 shows that in 2002 the relationship between Gini and satisfaction with democracy goes in an unexpected direction: in countries with higher levels of income inequality average levels of satisfaction are in fact somewhat higher, partly due to the odd cases of Portugal and Greece in 2002. However, in all other survey years higher income inequality is apparently associated with lower levels of satisfaction. Moreover, in 2008 and 2010 we see a significant drop in satisfaction, especially in countries with higher income inequality.

Model 1 includes all individual-level predictors of satisfaction with democracy and, as can be easily spotted from the table, all estimates are statistically significant. All predictors have a positive effect, as observed in other similar analyses as well, including the effect of age. The most interesting effect relates to the predictors which constitute our main theoretical focus: age and the 90s generation. On average, even after controlling for a host of individual-level predictors, young people do exhibit a lower level of satisfaction with democracy. This effect varies across countries both in direction and magnitude, and it is the reason why we introduce a

Figure 1. Estimated Mean Satisfaction with Democracy and Levels of Income Inequality

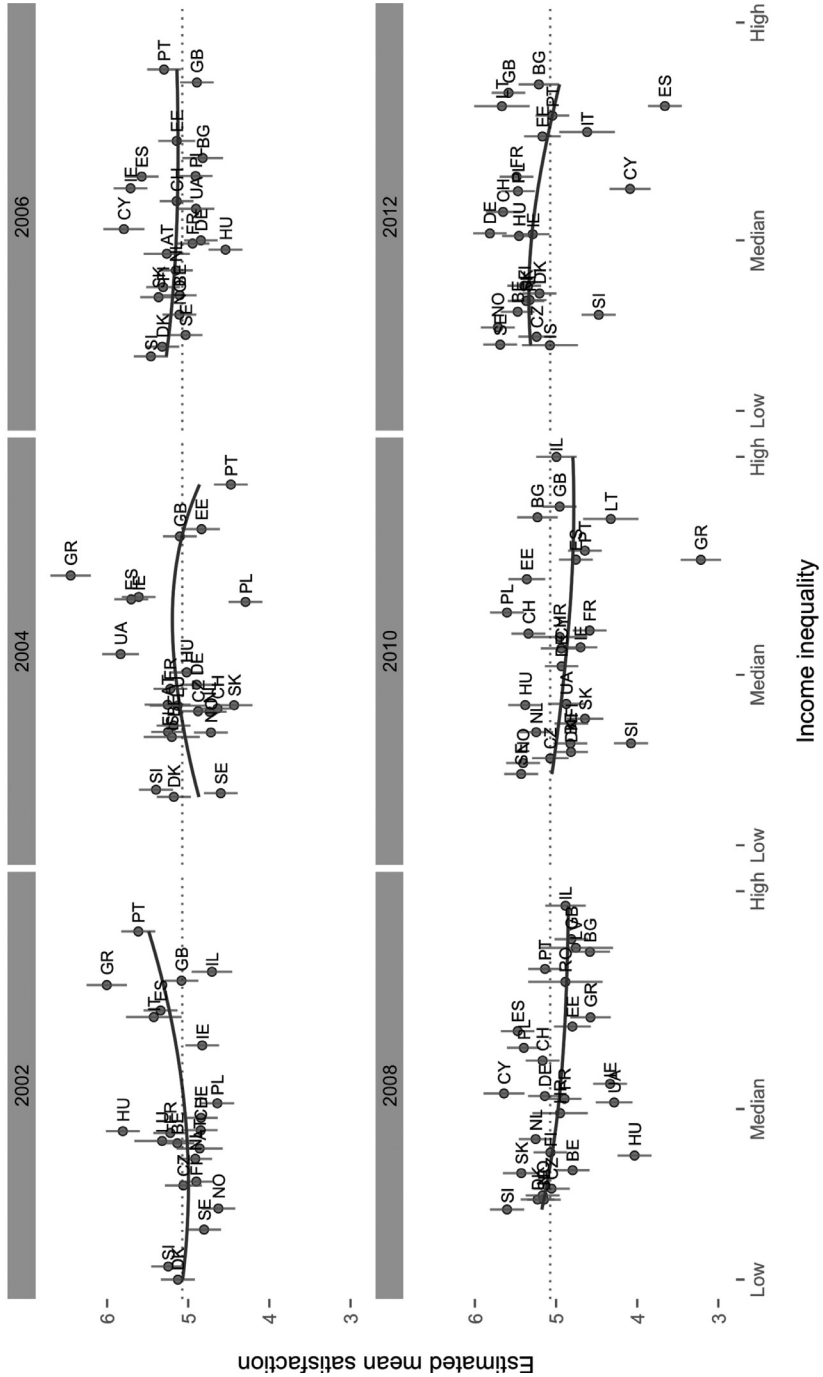


Table 1. Satisfaction with Democracy and Cross-Sectional Income Inequality

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
(Intercept)	4.97*** (0.20)	5.91*** (0.31)	5.87*** (0.32)	5.87*** (0.31)	5.88*** (0.32)	5.74*** (0.33)	5.75*** (0.33)
Age	0.05*** (0.01)	0.05*** (0.01)	0.06*** (0.01)	0.05*** (0.01)	0.06*** (0.01)	0.06*** (0.01)	0.06*** (0.01)
90s-00s cohort	0.30*** (0.02)	0.30*** (0.02)	0.30*** (0.02)	0.30*** (0.03)	0.30*** (0.03)	0.31*** (0.02)	0.29** (0.03)
Female	0.10*** (0.01)	0.10*** (0.01)	0.10*** (0.01)	0.10*** (0.01)	0.10*** (0.01)	0.12*** (0.01)	0.12*** (0.01)
Education	0.01*** (0.00)	0.01*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)
Income	0.08*** (0.00)	0.08*** (0.00)	0.08*** (0.00)	0.08*** (0.00)	0.08*** (0.00)	0.08*** (0.00)	0.08*** (0.00)
Political interest	0.22*** (0.01)	0.22*** (0.01)	0.22*** (0.01)	0.22*** (0.01)	0.22*** (0.01)	0.24*** (0.01)	0.24*** (0.01)
Post-Communist	-	-1.55*** (0.26)	-1.42*** (0.26)	-1.45*** (0.26)	-1.43*** (0.26)	-1.56*** (0.28)	-1.58*** (0.28)
Unemployment	-	-0.04 (0.04)	-0.04 (0.04)	-0.04 (0.04)	-0.04 (0.04)	-0.02 (0.04)	-0.02 (0.04)
Inequality (cross-sectional)	-	-0.10** (0.03)	-0.10** (0.03)	-0.10** (0.03)	-0.09** (0.03)	-0.11** (0.03)	-0.11** (0.03)
Age × Inequality (cross-sectional)	-	-	0.01** (0.00)	-	0.01* (0.00)	0.01*** (0.00)	- (0.01)
90s × Inequality (cross-sectional)	-	-	-	-0.02** (0.01)	0.00 (0.01)	-	-0.03*** (0.01)
AIC	683774	683750	683271	683473	683263	642889	643084
BIC	683873	683880	683430	683632	683462	643047	643242
Log Likelihood	-341877	-341862	-341620	-341720	-341612	-321428	-321526
Observations	154524	154524	154524	154524	154524	146245	146245
Groups: country years	113	113	113	113	113	108	108

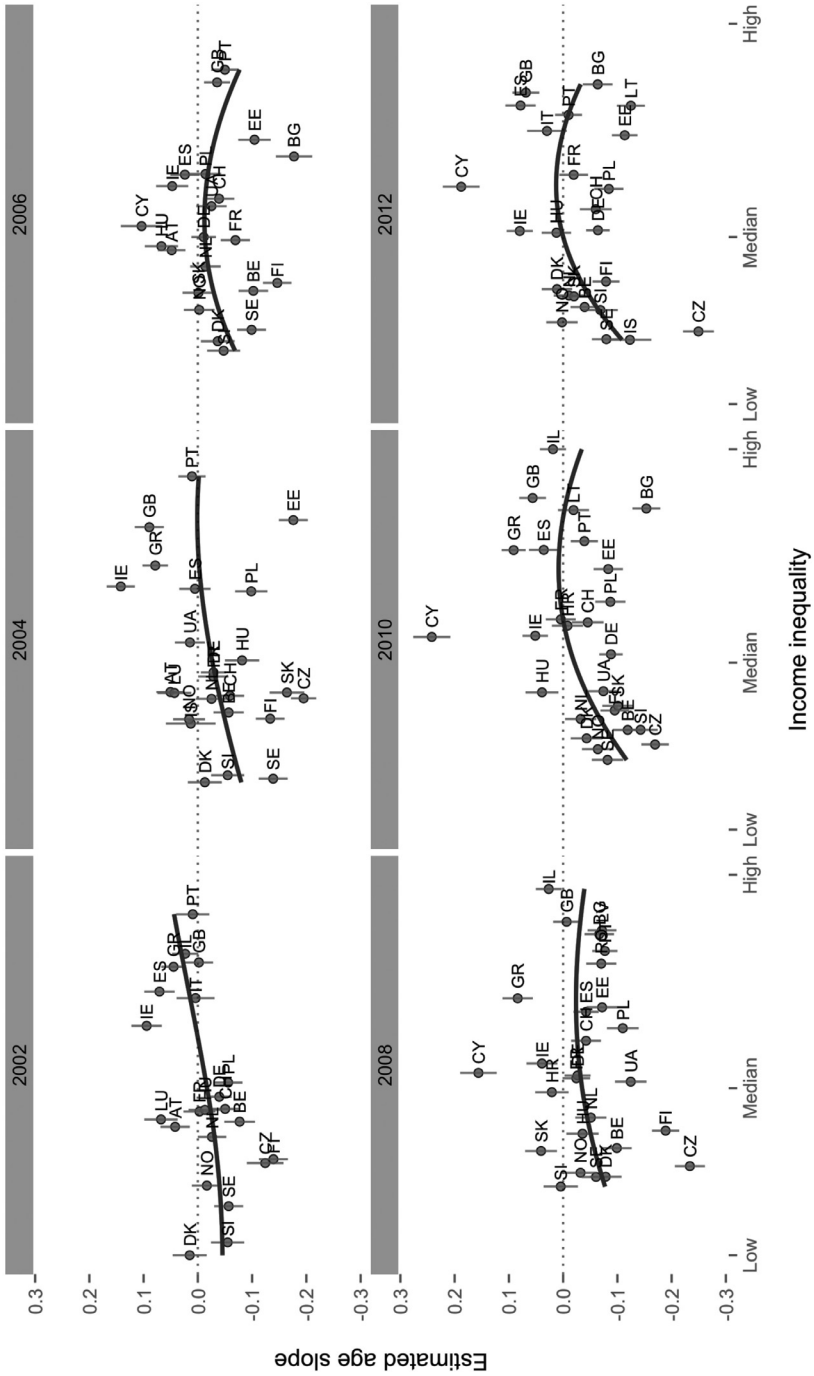
Groups: country	34	34	34	34	34	32	32
Intercept variance: country years	0.21	0.46	0.47	0.47	0.47	0.47	0.46
Slope variance (country years): age	-	-	0.09	-	0.09	0.08	-
Slope variance (country years): 90s	-	-	-	0.26	0.18	-	0.25
Intercept variance: country	1.32	0.60	0.60	0.60	0.60	0.60	0.60
Residual variance	4.87	2.21	2.20	2.20	2.20	2.17	2.18

Note: All models were estimated with linear mixed model fit by REML in R (v. 3.1.2.), lme4 package (v. 1.1.7). Each model was run with 100 different plausible values for Gini. Estimates of fixed effects pooled using Rubin's rules. Estimates of random effects and model fit statistics obtained by averaging over the 100 iterations. Standard errors in parentheses, *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.1$.

random effect for age in subsequent models. Members of the 1990s cohort seem to be slightly more satisfied than all other cohorts. Other demographic variables, such as education, household income and gender are also statistically significant. Satisfaction is higher among females, those who have higher levels of education and who have a higher income; however, the magnitude of these effects is rather small. We also find a statistically significant and positive coefficient for political interest, which was expected. Note, however, that these variables serve merely as controls for the effect of age; we do not imply any type of causal relationship.

In Figure 2 (on the next page) we present the way in which the effect of age on satisfaction with democracy varies for different levels of aggregate income inequality, as a preliminary (un-modeled) visual inspection of the relationship. The figure suggests that young people are less satisfied with democracy than older people in countries where income inequality is higher, with the clearest relationship being observed in 2002. Interestingly, in 2008, with the onset of the global crisis, the age differences in satisfaction are reduced regardless of income inequality levels. The panels for 2010 and 2012 reveal the complexity of the relationship: age differences substantially rise with income inequality, but only up to a point. The macro-micro interaction seems to follow a weak, but apparent, curvilinear pattern. As such a re-

Figure 2. Estimated Effect of Age on Satisfaction with Democracy and Levels of Income Inequality

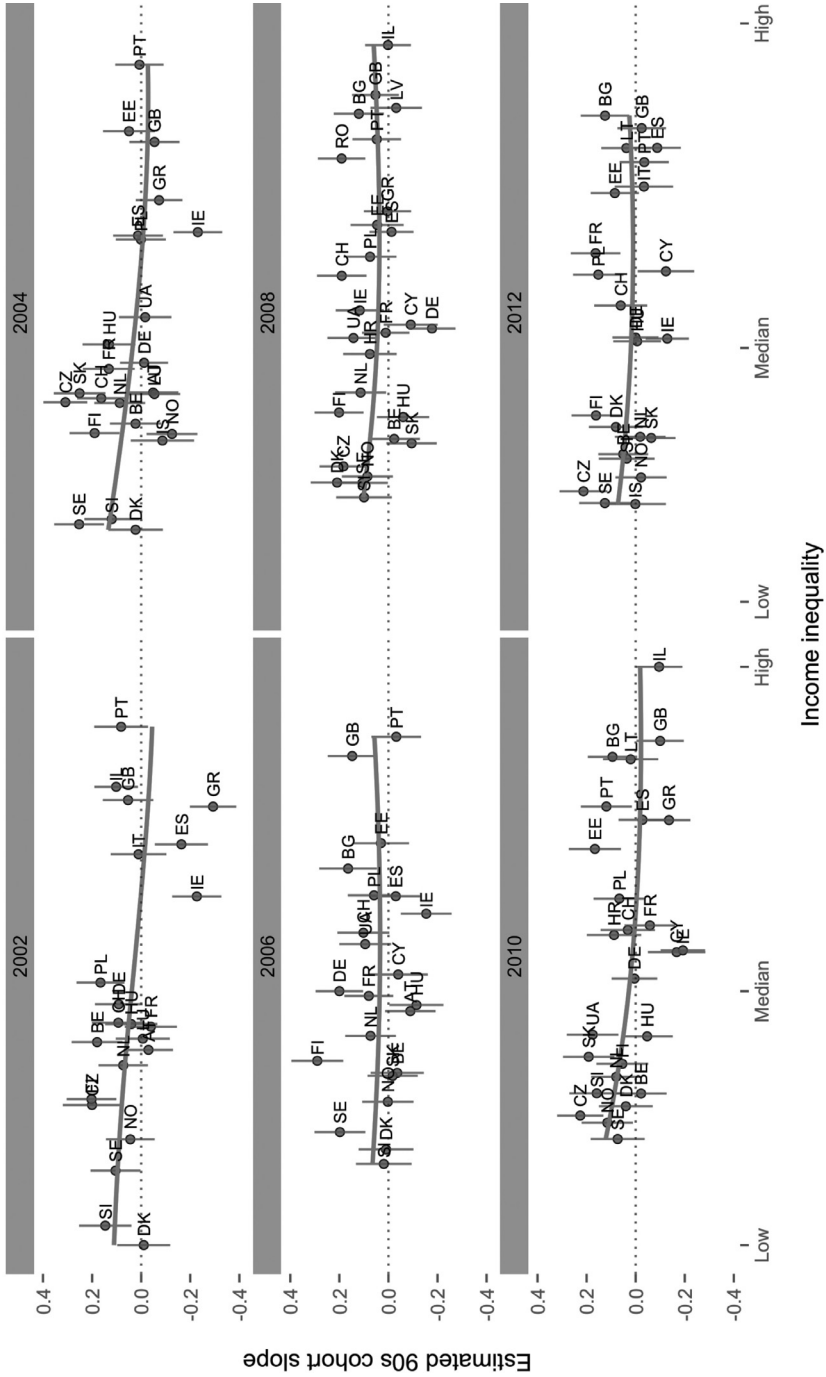


lationship could only be modeled in a more flexible estimation framework, such as with the Bayesian one, we do not pursue this avenue further. In countries with pronounced income differences, attitudinal age differences disappear. Figure 3 (on the next page) reveals the same pattern for the discrete change in average levels of satisfaction for our cohort of interest. Respondents who grew up in the 1990s or 2000s are less satisfied than other respondents in countries with higher income inequality.

To test our hypothesis thoroughly we add the Gini index as a predictor of satisfaction, and we also control for the effect of levels of unemployment and post-Communism (see Model 2). The results confirm the findings of Krieckhaus et al. (2013) and go against those of Magalhães (2014), in finding a negative effect of inequality on satisfaction with democracy. The effects of income inequality are not major, but neither can they be considered substantively meaningless. In our sample, within an ESS wave, income inequality has a standard deviation of roughly 5 points. Moving from a country with a level of inequality roughly placed at one standard deviation below the mean to one standard deviation above the mean, would reduce the average level of satisfaction by about 1 point. Such a move is experienced in our sample by Bulgaria, which between 2003 and 2011 gained close to 10 Gini points. In Model 3 we implicitly test the relationship from Figure 2 by including the cross-level interaction term between income inequality and age. As a reminder, it is important to point out that the Gini used for this indicator of political performance captures only between-country differences in inequality. This variable has been obtained by replacing the Gini measurement for each year for a particular country by the average of Gini across time for that country. In this manner, all within-country variation in inequality has been erased, leaving only between-country variation. In the second stage, the variable was grand-mean centered prior to including it in the interaction. In this sense, the interaction effect captures only between-country Gini trends, rather than longitudinal ones.

It is clear from the table that the effect of inequality on satisfaction with democracy manifests itself more strongly for younger people than for older ones. Young people most likely react to the diminished prospects for their future in terms of upward mobility and re-evaluate their views on regime performance in light of the ample evidence of unfair economic outcomes. However, as we postulated before, it is also likely that income inequality has an impact on those respondents who spent their formative years during the period when income inequality grew in most of the countries in the sample. We test this relationship by specifying another cross-level interaction term, this time between our 1990s-2000s cohort dummy and Gini (Model 4). The initial conclusions based on un-modeled relationship plotted in Figure 3 are confirmed: the effect of inequality is slightly more potent for individuals born in the last three decades of the 20th century than for the generations that preceded them. Including a cross-level interaction between income inequality and both

Figure 3. Estimated Effect of 90s-00s Cohort on Satisfaction with Democracy and Levels of Income Inequality



age and our cohort indicator does not change the main effect of income inequality on satisfaction with democracy, or the statistical significance of the interaction between inequality and age (see Model 5). The interaction between inequality and the 1990s cohort, however, becomes statistically insignificant at conventional levels.

We further test whether this result is sensitive to the inclusion of countries with a particularly high level of income inequality (Turkey and Russia) in our sample. The results, presented in Models 6 and 7, show this not to be the case. In both cases, however, the estimates are statistically significant, leading us to firmly conclude that a moderation effect is at play between income inequality and a respondent's age. In an attempt to further probe into the precise nature of the relationship between income inequality and satisfaction with democracy, we tested for whether the relationship is both cross-sectional and longitudinal. Results are presented in Table 2 (on pp. 68-69). We do this following the method proposed by Fairbrother (2014), by also constructing a longitudinal type of Gini: for each country in the sample, we computed the deviation of each Gini measurement from the average Gini level in the country over time. This procedure essentially removes all between-country variation in income inequality, keeping just the within-country, over-time variation. This provides us with two predictors which are orthogonal to each other and can help determine whether the relationship we observe between inequality and democratic satisfaction also holds longitudinally or not. The presence of different cross-sectional and longitudinal trends in satisfaction with democracy mirrors the results obtained by Fairbrother and Martin (2013) in the context of the US, with respect to social trust. In their analysis, the authors find that the association between income inequality and social trust corroborated by other studies only holds in a cross-sectional perspective. The results presented here indicate a similar trend. In none of the three models presented in Table 2 are the effects for income inequality statistically significant. Furthermore, neither can we find evidence of a cross-level interaction between inequality and age.

One potential reason why we have come up short when probing the interactions in a longitudinal perspective could be the fact that our sample covers only a period of 10 years for our countries; in this limited time span, most variance in inequality is at the cross-country level rather than the cross-temporal one. This lack of variation in the inequality measure for the longitudinal model is the most plausible suspect for why we do not find the expected, significant results.

Conclusions

Our aim in this analysis has been to test the dynamics of support for democracy: how this varies across age groups and cohorts, and between contexts with lower and higher levels of income inequality. To achieve this, we have relied on the data

Table 2. Satisfaction with Democracy and Longitudinal Income Inequality

	Model 8	Model 9	Model 10
(Intercept)	6.21*** (0.36)	6.19*** (0.36)	6.20*** (0.36)
Age	0.05*** (0.01)	0.06*** (0.01)	0.05*** (0.01)
90s-00s cohort	0.30*** (0.02)	0.30*** (0.02)	0.30*** (0.03)
Female	0.10*** (0.01)	0.10*** (0.01)	0.10*** (0.01)
Education	0.01*** (0.00)	0.02*** (0.00)	0.02*** (0.00)
Income	0.08*** (0.00)	0.08*** (0.00)	0.08*** (0.00)
Political interest	0.22*** (0.01)	0.22*** (0.01)	0.22*** (0.01)
Post-Communist	-1.56*** (0.31)	-1.46*** (0.31)	-1.51*** (0.31)
Unemployment	-0.08 [†] (0.05)	-0.09 [†] (0.05)	-0.09 [†] (0.05)
Inequality (longitudinal)	0.02 (0.05)	0.02 (0.05)	0.02 (0.05)
Age × Inequality (longitudinal)	-	0.00 (0.01)	-
90s × Inequality (longitudinal)	-	-	-0.02 (0.03)
AIC	683760	683290	683491
BIC	683889	683449	683650
Log Likelihood	-341867	-341629	-341729
Observations	154524	154524	154524
Groups: country years	113	113	113
Groups: country	34	34	34
Intercept variance: country years	0.46	0.46	0.46
Slope variance (country years): age	-	0.09	-

Slope variance (country years): 90s	-	-	0.28
Intercept variance: country	0.74	0.75	0.74
Residual variance	2.21	2.20	2.20

Note: All models were estimated with linear mixed model fit by REML in R (v. 3.1.2.), lme4 package (v. 1.1.7). Each model was run with 100 different plausible values for Gini. Estimates of fixed effects pooled using Rubin's rules. Estimates of random effects and model fit statistics obtained by averaging over the 100 iterations. Standard errors in parentheses, *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.1$.

source provided by the six waves of the ESS and Frederick Solt's SWIID data for measures of income inequality. A series of hierarchical linear models have offered us a rich description of the variability of the effects of income inequality on satisfaction with democracy, as well as whether these manifest themselves in a cross-sectional or longitudinal setting.

The results mainly speak to the strong association between income inequality at the national level and an individual's level of satisfaction with democracy. As evidenced by the consistently negative and statistically significant estimate for income inequality, even when controlling for a host of individual-level and country-level predictors, more unequal contexts display, on average, lower levels of satisfaction with democracy. With respect to the damaging effects of income inequality, our results confirm those of Schäfer (2012) and go against those of Magalhães (2014). Furthermore, these negative effects are more severely felt by the younger portion of the citizenry. Results also suggest that cohort experience matters, as citizens who grew up in times of rising inequality have slightly more pessimistic attitudes towards democratic performance. The implications of these findings certainly depend on a variety of additional factors which we have not been able to control for in our models, although they would appear to tentatively point in the direction of a growing dissatisfaction with the way democracy functions if inequality trends continue unabated. Recent statistics published by Eurostat suggest this to have been the case: when compared to the levels observed in 2008, income inequality has increased in a considerable number of Western and Eastern European countries.¹ In the face of such a trend, our results indicate that the next few electoral cycles should bring about an electorate which is increasingly unhappy with how government functions and the outputs it produces. Even if future decades were to bring about lower levels of inequality (at this moment there is no indication of such a trend), the influence

¹ Results can be found at the following address: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_di12 (accessed December 14, 2014).

of events which took place as young citizens were reaching political maturity might weigh more than that of future ones. To the extent that growing political dissatisfaction is joined in its manifestation by an increasing willingness to join protests, higher volatility in voting patterns, and increasing likelihood of responding to messages from extremist or niche parties, the findings presented above suggest a pessimistic picture for democratic life in the following electoral cycles.

We must, before concluding, take note of a series of limitations which our study has been unable to correct for. Future research should re-test the relationships we uncover in our analyses as more waves of the ESS are made available. A longer time series could address the issue of limited observations for income inequality for each country and offer a stronger test of the effect which inequality has on satisfaction with democracy, particularly the existence of a longitudinal one. Finally, we bring up the issue of the additional factors at the country- and country-year levels which could presumably influence satisfaction with democracy, but for which we would need a larger sample size at the country-year level. For instance, even after we control for economic inequality, post-Communist national contexts display lower levels of satisfaction with democracy. This finding, by now consistent across studies on satisfaction with democracy, indicates that other factors, such as a distinct political culture, the performance of political institutions or the degree of political corruption, should be placed in the spotlight of studies on democratic legitimacy. Furthermore, there are other economic factors, aside from aggregate levels of inequality, which could explain differences in satisfaction with democracy among social groups. As mentioned before, young people now live in more precarious economic conditions than their parents and grandparents faced. This trend could be explored further by analyzing the impact of economic insecurity on citizen attitudes towards regime performance. Citizens who live in a more secure economic environment, where the risk of economic loss is small, might be more satisfied with the way democracy works in their country, especially compared to those citizens who live in countries where institutional safety-nets are not efficient in providing protection against volatile changes in the economy.

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