'Corrosive Inequality': Income Inequality and Distorted Participation across Old and New Democracies

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Abstract

Rising income inequality is a quasi-universal phenomenon across established democracies, the political implications of which are not entirely clear yet. Although some analyses have revealed the detrimental impact of inequality on political engagement and turnout (Solt 2008, 2010; Seeber and Steinbrecher 2011), other research challenges this link (Stockemer and Scruggs 2012). In an attempt to replicate and go beyond these studies, my analysis focuses on the influence of income inequality on individual-level turnout, in a sample of 33 OECD countries, over the past 15 years. The main goal is to verify what the effect of income inequality on turnout and psychological political engagement is, as well as whether it is indirectly transmitted through particular individual-level variables. The results, based on three-level multilevel models, suggest that income inequality is a potent depressant of participation and engagement. Apart from its direct effect, inequality also has an indirect one, mediating the effect of individual-level determinants of turnout. The results potentially speak to the mechanisms through which income inequality at the aggregate level influence political participation at the individual level.

THE perpetual concern political science manifests regarding trends in political participation can be attributed to the connection that exists between patterns of political participation and democratic representation. At a very intuitive level, we believe it to be true that elected representatives could not truly strive to further the interests of those societal groups who do not turn out to vote, protest, or contact politicians about an issue of concern

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to them. As apathy on one side begets apathy on the other, we run the risk of democracy degenerating into a political system in which public policy consistently ignores the preferences of particular societal groups. An established stream of literature in the field suggests what the defining characteristics of these groups might be: lower income, lower educational attainment, a reduced sense of political efficacy and interest in political affairs, as well as limited knowledge about the actors, events and rules of the political system.

A consistent trend observed in most advanced industrial democracies over the past three decades threatens to make this disparity in political participation increasingly salient. Starting with the 1980s, largely irrespective of the indicator used or the level of aggregation (either national or regional), income inequality has been on the rise (Brandolini and Smeeding 2009; OECD 2011). The implications for political life of this consistent shift in income between social strata have barely begun to be understood, although their potential effects should give both scholars and commentators reasons for concern. Rising income inequality likely leads to sharpened divisions among income groups in terms of political preferences (e.g. social welfare policies, or state intervention into the economy). When considering that modern representative systems have been shown to fall short of their ability to achieve equal representation of political preferences among different income groups (Bartels 2008; Gilens 2005, 2009, 2012; Jacobs and Page 2005; Giger et al. 2012; but, see Soroka and Wlezien 2008), a growing gap between these groups can either lead to widespread dissatisfaction with the political process and apathy, or increased social tensions.

This article focuses on the effects of income inequality on a very important indicator of democratic quality: turnout. If indeed elected representatives do not feel responsible to the wishes of those that did not vote at all in the election (Schattschneider 1960), then distortions in patterns of political participation of different income groups caused by rising inequality are the mechanisms which lead to unequal responsiveness. Far less clear are the mechanisms through which this effect from inequality (macro-level) to participation (individual-level) is transmitted - these are the point of interest of this article. The next section will present previous theoretical findings regarding the connection between income inequality and political participation, as well as highlight the questions that these have left unanswered. Following this, the hypotheses which will be investigated are specified, along with the data on which these will be tested and the operationalization of the main concepts employed. Next, the results of the empirical analysis are presented, together with the interpretation of these analyses in terms of our questions of interest. A final section concludes with the implications these findings have for democratic life.

	1980/1984	1985/1989	1990/1994	1995/1999	2000/2004	2005/2009
Australia	28.08	29.41	29.44	30.50	31.43	32.26
Austria†	27.33	25.18	32.70	26.68	26.45	26.88
Belgium	22.54	22.98	23.22	25.95	26.47	25.13
Canada	28.82	28.15	28.03	29.79	31.65	31.78
Denmark	26.40	25.37	23.99	22.14	22.64	25.03
Finland	21.28	21.04	20.96	22.66	24.93	25.38
France	29.01	28.89	27.91	25.03	27.08	28.07
Germany	25.50	26.28	27.13	27.48	27.78	29.55
Iceland‡	-	-	22.40	23.83	26.29	27.53
Ireland	33.08	32.88	33.15	32.84	31.14	30.36
Italy	30.67	31.51	31.75	34.03	33.62	33.20
Japan	29.90	28.33	28.22	29.98	31.37	30.58
Netherlands	25.81	25.70	26.17	24.62	25.14	27.13
New Zealand*	26.54	27.46	32.84	33.09	32.97	32.69
Norway	22.53	23.17	23.32	23.59	24.50	23.69
Portugal	30.61	30.22	31.43	34.84	35.84	35.10
Spain	30.48	26.88	32.65	34.11	32.45	31.56
Sweden	20.34	21.16	22.30	22.19	23.06	22.98
Switzerland	31.01	30.88	30.47	28.39	27.49	30.02
United Kingdom	27.15	30.58	33.68	34.22	34.09	35.16
United States	31.07	33.18	34.47	36.90	37.05	36.42

Table 1: 5-year averages of the Gini coefficient of inequality across selected OECD countries. *Source*: The Standardized World Income Inequality Database, available at http://www.siuc.edu/~fsolt/swiid/swiid.html. For information on how the database was constructed, see Solt (2009). The Gini coefficient is measured on a 0-100 scale, where 0 signifies perfect equality and 100 denotes perfect inequality.

† Missing observation for 1980, for which reason the average was computed for the 1981-1984 period.
‡ Missing observations for 1990 and 1991, for which reason the average was computed for the 1992-1994 period.
* Missing observations for 2008 and 2009, for which reason the average was computed for the 2005-2007 period.

1 A strained relationship: inequality and participation

Over the course of the past three decades, income inequality has increased across a diverse sample of OECD countries (Alderson and Nielsen 2002; Kenworthy and Pontusson 2005). As the evidence presented in Table 1 suggests, across most developed economies of the world income inequality has steadily risen from the levels observed in the 1980s, if we choose as our measure the Gini index. In only six of the 21 countries presented in the table (Austria, Denmark, France, Norway, Spain and Switzerland) can the evidence be said to be inconclusive, although it is fair to also add that out of all the countries examined, only Ireland displays a *reduction* in the level of inequality when comparing to 1980 levels. The results reveal the existence of a large-scale glacial shift in the economic fortunes of poor and rich, which has recently been gaining speed in some countries (e.g., the United States or the United Kingdom).

> [...] the overall tendency in the last 20 years has been for an increase in both disposable and market income inequality in the large majority of rich nations. (Brandolini and Smeeding 2009, 89)

There are numerous reasons for which this trend should be a cause for concern for academics and citizens alike, not least of which that it comes after a period in which monitoring changes in the distribution of income was like 'watching the grass grow' (Aaron 1978, 17). Given the consistent trend observed, the possibility that it could impact democratic practices constitutes reason enough to study the phenomenon and its implications. Ever more so, the topic deserves attention given the often strong feelings citizens have toward inequality in society (Salverda et al. 2009, 6). The notion of *equality* lies at the center of any conception of democracy, and most people feel an intrinsic incompatibility between glaring socio-economic disparities and democratic equality. Income inequality has been both theorized (Dahl 1971; Pateman 1971; Rueschemeyer 2004; Schattschneider 1960) and shown (Bartels 2008; Gilens 2005, 2009) to distort patterns of accountability and responsiveness, making elected representatives more attentive to the wishes of the well-off. The final reason is connected to the multiple societal effects which 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)[1]

Perhaps the strongest reason for which income inequality and its effects on political behavior should be more thoroughly pursued by the discipline is the considerable scope that

[1] To these, Wilkinson and Pickett (2009) add effects on mental health and rates of drug use, obesity rates, educational performance, or teenage births. See Neckerman and Torche (2007) for a comprehensive review.

exists for political decisions to impact the inequality trend. In spite of the frequent scenarios encountered in the media, which portray income inequality as an inexorable trend caused by globalization, higher returns to education, or technological development (Bartels 2008, 19-23; Braun 1991), the data suggests that politics is not powerless. To a certain extent, most countries listed in Table 1 have been subject to similar forces, albeit of varying magnitude. Having said that, countries such as France or Sweden have managed to slow down the growth of economic inequality, or even keep it constant, while achieving consistent economic growth (Salverda et al. 2009, 7). Others, such as the US or UK, have taken minimal steps to keep it in check, or have even adopted policy measures that have exacerbated inequality.[2]

1.1 Consequences for political behavior

Despite the central value inequality has for the quality of democratic processes, and the mounting evidence linking economic inequality to systematic disparities in political influence, the impact of income inequality on civic and political engagement has remained woefully understudied in a cross-national context (Anderson and Beramendi 2012, 715). Recent efforts (Anderson and Beramendi 2012; Pontusson and Rueda 2010; Solt 2008) have only been made possible due to the availability of quality comparable data on income inequality across a wide variety of national contexts, through the Luxembourg Income Study or the United Nations University's *World Income Inequality Database*.

While sparse, the results of these studies point to far-reaching consequences for democratic consolidation, representation, and overall political life at both institutional and individual levels. Muller (1988, 1995) finds that an increased level of income inequality is associated with a higher likelihood of democratic breakdown in a sample of 58 countries examined between 1965 and 1980, even after taking into account the positive effect of economic development on democratic durability. Similar conclusions are also drawn by Boix (2003) and Przeworski et al. (2000), who associate rising income equality with the emergence of democracy and even its sustainability. These results are refined by Houle (2009), who finds no effect of income inequality on democratic breakdown, but a negative effect on democratic consolidation.

A few studies have probed deeper into the 'black box' of this association between income and democratic quality, and have put forth mechanisms through which this effect is transmitted. Glaeser et al. (2003) propose a theoretical model in which higher income inequality allows wealthier individuals to pervert the course of justice through bribery. The predictability of such outcomes will even encourage further trampling of property rights, as wealthier individuals possess the means to influence the outcome of a court case. While not pertaining strictly to political life, their arguments can easily be extended to cover subversion of political life by corruption taking place in representative bodies, or legal contribu-

[2] Bartels (2008) documents President George W. Bush's tax cuts for the wealthiest income earners in the US, as well as the repeal of the inheritance (estate) tax.

tions to electoral campaigns permitted by loosely enforced campaign finance laws. Petrova (2008) focuses on the consequences of income inequality for media freedom and finds that a higher level of inequality is associated with reduced media freedom. She assumes that this finding is driven by the attempts of wealthier individuals to use media control for the purpose of shaping public opinion – downplaying the extent or importance of inequality in their respective societies.

The importance of these results for democratic practice is compounded by the existence of a feedback mechanism:

> The causality between inequality and injustice runs in both directions. Initial inequality leads to subversion of institutions, but weak institutions themselves allow only those able to protect themselves to become rich. (Glaeser et al. 2003, 201)

At the individual level, a number of studies (Anderson and Beramendi 2012; Solt 2008, 2010; Lister 2007) find support across national contexts for an effect of income inequality on aggregate rates of participation. Solt (2008, 48) uncovers lower rates of political interest, lower frequency of political discussion, as well as reduced turnout rates in elections in countries with above-average rates of income inequality (but, see Brady 2003). The effect is concentrated in the poorest citizens, with the richest exhibiting almost no effect. Further work extends the finding to the US state context (Boix 2003, 118-129; Galbraith and Hale 2008; Solt 2010), as well as to that of Italy (Solt 2004). Anderson and Beramendi (2012) continue this research strand by pointing to intensity of left party competition as a mediator of the relationship between income inequality and electoral participation. Higher income inequality is still associated with lower rates of participation; their findings, however, suggest that the effect is reduced if there are multiple left parties competing for the vote of lower income individuals. In such a situation mobilization efforts are intensified, leading to a narrowing of the gap in turnout between low- and high-income voters. Subsequent studies have managed to link income inequality to increased nationalistic appeals (Solt 2011)[3], to greater deference to authority (Solt 2012), or to increased religiosity (Solt et al. 2011).

Discrepancies in results persist, despite the increased academic "coverage" which the topic has been receiving lately. Similar to Solt (2008), Seeber and Steinbrecher (2011) find for their sample of 27 EU countries that income inequality exerts a negative impact on turnout at the individual level. At the same time, whereas Solt (2010) finds that in US states with higher income inequality the participatory gap between rich and poor is wider, Seeber and Steinbrecher (2011, 18) discover that for EU countries the reverse is true: the participatory gap is wider in contexts with lower income inequality.[4] With an analysis on 18 OECD countries,

[3] This is assumed to be a diversionary tactic employed by wealthy elites to obscure the level of inequality in society by creating the image of a 'shared fate' or community of like individuals.

[4] Although not focusing on political participation (but rather social, civic, and cultural participation), Lancee and Van de Werfhorst (2012) also find evidence for an increasing gap between richer and poorer households in more unequal contexts.

Anderson and Beramendi (2008) bring a third perspective to the table, by suggesting that income inequality depresses participation across the board, regardless of the level of income. With an aggregate-level analysis, however, Stockemer and Scruggs (2012) find absolutely no effect of rising income inequality on turnout, a "null" effect which is preserved even if we examine Western and non-Western democracies separately (see also Mahler 2002).

1.2 Mechanisms

The importance of the empirical findings these studies bring to light should not obscure the theoretically fragile foundations on which they rest. All studies examining the link between income inequality and political engagement hint, to an extent or other, at the civic resource model of participation proposed by Henry E. Brady, Kay Lehman Schlozman, and Sidney Verba (Brady et al. 1995; Schlozman et al. 1999; Verba et al. 1995). One path through which income inequality could impact participation is by affecting the *resources* people have and are willing to devote to political participation. To the extent that different political acts require different amounts of money or time [5], income inequality can be said to have an effect on patterns of involvement. A second path is through the *motivation* people have to be involved in politics (see Brady 2003). Consistently increasing income inequality can foster the view that political alternatives matter little for economic outcomes, thus depressing participation. At a conceptual level, the third element of the triad, *opportunity*, is also amenable to influence. To the extent that income inequality leads to economic segregation in residential patterns, this can impact the social networks in which individuals are embedded, and lead to transformations in partisan mobilization strategies.

Existing studies (e.g., Solt 2008) have largely failed to explore the pathways through which the effect of income inequality on political participation operates, or the precise effect it has on different socio-economic groups. Multiple plausible expectations can be formulated as to the mechanism through which income inequality operates (see also Brady 2003). The effect can be transmitted through *political efficacy*: gradually, lower income individuals discover that regardless of their inputs into the system, policies simply favor the rich, leading to widespread retreat from political life. At the same time, an effect could manifest itself through an individual's satisfaction with democracy. Inexorable worsening income inequality could lead to widespread dissatisfaction with the political system, presumably due to its inability to 'stem the tide'.

A second topic in need of scholarly attention is the precise nature of the effect of income inequality on the political participation of different income groups. "Relative power theory" would lead us to expect that in the face of rising income inequality the poor would reduce their degree of participation, as they perceive it as ineffective or even meaningless (Seeber and Steinbrecher 2011, 6). "Conflict theory", on the other hand, would predict that the rates of participation of both groups would increase, as income inequality would lead

[5] Compare voting with making a campaign contribution, or with volunteering for a party during an electoral campaign.

to diverging political preferences and increased social tensions (Jaime-Castillo 2009, 6). Existing studies have not established with any degree of certainty whether income inequality depresses participation for all income groups (but, see Anderson and Beramendi 2008), or only lower-income citizens (e.g., Solt 2008). The first scenario would be expected if the main effect of inequality would be transmitted through trust, while the second one would be most likely if there would also be a substantial effect transmitted through one's sense of political efficacy. At the same time, it can be the case that income inequality boosts participation, as low income voters mobilize in turnout in order to redress the situation, and high-income voters become more engaged as well, to counter-balance this effect. Solt (2008) finds that the drop in participation is concentrated exclusively in the poorest respondents, with the richest ones being unaffected. Jaime-Castillo (2009), on the other hand, finds that the drop in participation is larger for respondents from the highest income groups (p. 20).

2 Hypotheses

At this stage in the research, I will only attempt to test two hypotheses regarding the impact of income inequality on turnout at the individual level:

- $\mathbf{H}_1$: Higher income inequality at the national level depresses the likelihood of political participation at the individual level.
- $\mathbf{H}_2$: Income inequality has both a direct effect on political participation, as well as a mediating one, influencing how individual-level variables impact turnout.

The first hypothesis is a standard one, tested by most studies that look at the link between income inequality and turnout (e.g. Solt 2008; Jaime-Castillo 2009; Anderson and Beramendi 2008). It is the second hypothesis that brings something new: the possibility that income inequality has an effect transmitted through attitudinal variables, such as a person's sense of political efficacy.

3 Methodology

The following paragraphs will present in detail the dependent variable as well as the main explanatory variables, together with a brief outline of the statistical modeling approach used in the paper. Unless otherwise noted in the text, the variables have been obtained from the three waves of the Comparative Study of Electoral Systems (`http://www.cses.org`) dataset; this is the case for all of the individual-level variables used in the analyses. Given the structure of my data, the analysis conducted here is a three-level multilevel model, with individuals nested in country-years, which are themselves nested in countries. The need to obtain most of my data from the CSES dataset translates into the existence of only 2-4 cases at the level-2 (country-years); this places a strict limit on the number of level-2 predictors which can be included in the model (apart from the one I am theoretically interested in, the Gini

index of income inequality). Due to this restriction (the limited number of country-years nested within a particular country) I chose to obtain the average of the level 2 variables and replace it for all years of that country.

The dependent variable on which the analysis is focused, turnout, is a dichotomous measure of whether the respondent reported having voted in the previous electoral cycle, with '0' indicating that they have not voted. A list of countries and electoral contests that were included in the sample can be found in Table 2.

Country	*Election*	*Country (cont.)*	*Election*
Australia	1996, 2004, 2007	Mexico	1997, 2000, 2003, 2006, 2009
Austria	2008	Netherlands	1998, 2002, 2006
Belgium	2003	New Zealand	1996, 2002, 2008
Brazil	2002, 2006, 2010	Norway	1997, 2001, 2005
Canada	1997, 2004	Peru	2000, 2001, 2006
Chile	1999, 2005	Poland	1997, 2001, 2005, 2007
Czech Republic	1996, 2002, 2006	Portugal	2002, 2005, 2009
Denmark	1998, 2001, 2007	Russia	1999, 2000‡, 2004
Finland	2003, 2007	Slovenia	1996, 2004, 2008
France	2002, 2007	South Korea	2000, 2004, 2008
Germany	1998, 2002, 2005, 2009	Spain	2000, 2004, 2008
Hungary	1998, 2002	Sweden	1998, 2002, 2006
Iceland	1999, 2003, 2007	Switzerland	1999, 2003, 2007
Ireland	2002, 2007	Taiwan	1996, 2001, 2004, 2008
Israel	1996, 2003, 2006	Thailand	2001, 2007
Italy	2006	United Kingdom	1997, 2005
Japan	1996, 2004†, 2007†	United States	1996, 2004

† Elections took place for the upper chamber.
‡ Russia in 2000 has been excluded from the analysis of turnout, as all respondents in that sample declared they had turned out to vote in the election.

Table 2: Countries and elections included in the sample.

3.1 Micro-level variables

A host of individual-level controls were introduced in the model, in an attempt to arrive at an accurate measure of the effect of aggregate-level income inequality on individual-level probability to vote. At the same time, some of these variables (e.g., political efficacy) are of substantive theoretical interest in my research, given the hypothesized indirect effect which inequality might have on turnout, transmitted through these. Age of the respondent, as well as educational achievement have been included as important individual-level predictors; they have been shown to directly impact a person's ability to properly evaluate the importance of politics, and of the outcomes of their participation (Solt 2008, 52). Age was measured in years, whereas educational achievement was measured on an eight-point scale ranging from "primary education incomplete" to "completed university undergraduate degree".

Gender has also been included, as a dichotomous variable; past investigations have shown that women tend to be slightly less politically engaged than men (Burns et al. 2001, 64-68). Religious attendance also represents a potential predictor of political participation (see Verba et al. 1995, 320-325), albeit possibly more so in the US and European Protestant contexts; being active in a religious congregation might strengthen social bonds with other members in the community, and expose the individual to political cues. In the dataset, attendance was measured on a six-point scale, from "never" to "once a week". The type of setting in which the respondent lives was also included as a dichotomous variable, distinguishing between respondents that live in a large town or city and all others (rural areas, small towns, or suburbs of a large town). Income has been a consistent predictor of turnout (Leighley and Nagler 1992; Wolfinger and Rosenstone 1980); wealthier individuals are more likely to vote either because they have the possibility to devote more time to politics (work is not imperative for survival in their case), or because the electoral outcome potentially affects them more. The variable used in the models is household income, measured on a five-point scale, corresponding to the country-specific income quintiles in which the respondent's household fits. Marital status was also included as a dichotomous variable, distinguishing between married respondents and all others (divorced or separated, widowed, or single). Finally, union membership could also have a significant impact on turnout; unions regularly attempt to mobilize their members (Radcliff and Davis 2000), which could lead to a heightened perception of the election as important. Union membership was used in the models as a dichotomous predictor, with "0" denoting that the respondent is not a member of a union.

In distinction to the socio-demographic ones mentioned so far, the following two predictors refer to psychological constructs. A respondent's external political efficacy (Abramson and Aldrich 1982; Easton and Dennis 1967; Finkel 1985; Pollock III 1983) was included in the models, to control for the fact that individuals who believe that elections matter (in terms of who gets to decide on policy). In this analysis, internal political efficacy was operationalized as the extent to which the respondent agrees that "Who people vote for makes a difference", measured on a five-point scale. A second predictor in this group is an individual's satisfaction with the democratic process (Grönlund and Setälä 2007). Dissatisfied individuals might choose to register their discontent by either voting for anti-system parties, or simply by not showing up to vote. In my models, satisfaction with democracy is measured on a four-point scale, ranging from "not at all satisfied" to "very satisfied".

A respondent's level of political information was also included in the models, as it has been consistently found to be a strong predictor of the likelihood of showing up at the polls (Delli Carpini and Keeter 1996; Prior 2005; Larcinese 2007). In all three waves of the CSES respondents were asked a set of 3 questions with a true or false option of response. My measure of political information simply adds up the correct answers to the questions, with a theoretical scale from 0 (no question answered correctly) to 3 (all were answered correctly). Associational membership (Olsen 1972; Cassel 1999; Letki 2004) can instill the value of civic

participation in individuals, as well as potentially expose them to political cues. The CSES asks whether the respondent is a member in a business, farmers' or professional association; my indicator is an additive measure of the number of associations in which the individual is a member, with a theoretical range from 0 to 3.

3.2 Macro-level variables

One of the strongest predictors identified by the literature on the cross-national determinants of turnout is compulsory voting laws (see Powell, Jr. 1986; Jackman 1987; Jackman and Miller 1995; Geys 2006). In my dataset, this variable is measured on a four-point scale, from '0' (no voting laws) to '3' (voting laws exist and they are strictly enforced), as it was originally found in the CSES data. In a few countries (Netherlands between 1998 and 2002, or Switzerland between 1999 and 2003) there was a change in this variable, usually from a weak form of enforcement for compulsory voting laws to the annulment of these laws. Because of this, the final variable used is an average of the values for each year included in a country series, with higher values denoting a greater degree of enforcement of compulsory voting laws. The existence of a proportional representation system, as well as unicameralism are singled out by the same literature as consistent predictors of aggregate-level turnout. I have included in the model a dummy variable indicating whether the country's electoral system is based on proportional representation (with '0' indicating no), and a similar dummy variable concerning the unicameral nature of the parliament ('0' indicates no). The information regarding the first variable was collected from the 2005 IDEA Handbook on electoral systems (Reynolds et al. 2005), the *Database of Political Institutions* (January 2013)[6] (Beck et al. 2001; Keefer 2010), and the information provided by Renwick (2011). The second variable was found in the CSES, and used as such.

A country's level of development, as well as its size, have also been hypothesized to be associated with aggregate-level turnout. Presumably, where individuals have more to lose (in terms of income) from bad political decisions, they will be more involved in the political process (Powell, Jr. 1982; Blais and Dobrzynska 1998). In my data, level of development was measured both through GDP per capita, and the World Bank's Human Development Index; both variables were obtained from the World Bank's *World Development Indicators* (`http://data.worldbank.org/indicator`). Population size could impact a rational individual's decision to show up to vote by decreasing the probability that their vote will make a difference in the final result of the election (Geys 2006). This indicator was also obtained from the *World Development Indicators*. Due to their low variability over a period of roughly 10 years (between Waves 1 and 3 of the CSES), the variables were included in the model at the level-3 (averaged across all observations within a particular country).

Federalism was also included as a dichotomous predictor ('1' designates a federal state), as federal systems might be assumed to have lower turnout rates. This is because in any given year there might be more elections taking place in a federal system, leading to "voter

[6] See `http://www.nsd.uib.no/macrodataguide/set.html?id=11&sub=1`.

exhaustion", as well as because in such a system the national legislature has less political power than in a unitary state (Blais and Carty 1990). The indicator was obtained from the *Comparative Political Data Set III, 1990-2010*.[7] A final institutional variable refers to the average district magnitude in the country: even when controlling for the PR nature of the system, higher district magnitudes might drive turnout up, as fewer votes are wasted (Powell, Jr. 1986; Jackman 1987; Jackman and Miller 1995; Fornos et al. 2004; Blais and Aarts 2006). The average size of electoral districts was obtained from the *Database of Political Institutions* (January 2013), and refers to districts of the lower chamber of parliament. With the exception of a few cases (Germany, Iceland, Japan, and New Zealand) there was little variability in this measure across CSES waves (districts maintained their size), so the decision was made to average the within-country values and use this indicator as a country-level variable.

Union density was included in all models, considering the influence which unions have on mobilizing working-class voters around election time (Radcliff and Davis 2000). The variable is defined as the net union membership, as a proportion of wage and salary earners in employment. The main source for the data is the *Comparative Political Data Set III, 1990-2010*; additional figures for Israel were obtained from Jelle Visser's *Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts*, version 3.0.[8] Where values for a particular year couldn't be obtained I used the value for an adjacent year, reasoning that density rates are slow-moving over time (this was the case for only two years, both in Iceland). If there was no adjacent value, I took the closest years for which I could find data, before and after the year of interest, and simply computed a union density value by assuming a constant trend from year to year. Finally, I included the World Bank's *control of corruption* measure - it seems plausible that countries with a higher perceived level of corruption should experience a lower level of turnout (Chong et al. 2012).[9]

The macro-level variable I am most interested in is the Gini index of income inequality. The Gini represents a measure of the difference between the line of perfect equality of income, and the Lorenz curve (which represents a distribution of the population according to individuals' income). Mathematically speaking, it is a ratio of two areas: the area between the line of perfect equality and the Lorenz curve, divided by the total area under the line of equality. The larger the difference between a utopian perfect distribution and the actual distribution, the larger the Gini index, with '0' denoting perfect equality, and '1' perfect inequality. As with most aggregate indices of inequality, the Gini can be subjected to the criticism that stability can mask considerable shifts in the income distribution, as long as these shifts take place in opposite directions. For example, government policy might increase transfers to the poor, while at the same time lowering the tax rate on the wealthiest in society (in effect, putting the burden on the middle class). This would cause the Lorenz

[7] See http://www.ipw.unibe.ch/content/team/klaus_armingeon/comparative_political_data_sets/index_ger.html.

[8] See http://www.uva-aias.net/208.

[9] Ideally, perception of corruption would have been measured at the individual level. In the absence of such a level of precision, I chose to include an aggregate index of perception of freedom from corruption at the national level.

curve to move upwards at the bottom of the distribution, and downwards at the top of the distribution, potentially resulting in zero change of the Gini (Atkinson 2004, 176). In addition to this criticism, the Gini has been known to be more sensitive to changes in the middle of the distribution, and rather less sensitive to changes at the extremes of the income distribution (Buhmann et al. 1988, 12).

From a pragmatic perspective, counterbalancing these flaws is the fact that the Gini is a widely-reported measure of inequality, readily available in most surveys that focus on income earnings, redistribution, and inequality. The Gini values used in this analysis were obtained from the *Standardized World Income Inequality Database*, version 3.1, released in December 2011 (Solt 2009). Whereas most studies rely on the Gini index measured on the same year as the measurement taken of the extent of participation, I decided to test alternative specifications, using the extent of inequality in the year before the election, as well as the average level of inequality in the preceding three years. If the mechanism through which the effect of inequality is transmitted is indeed electoral "learned helplessness", then it's likely that inequality in the past is a better predictor of turnout in the present than the current level of inequality.

4 Analyses

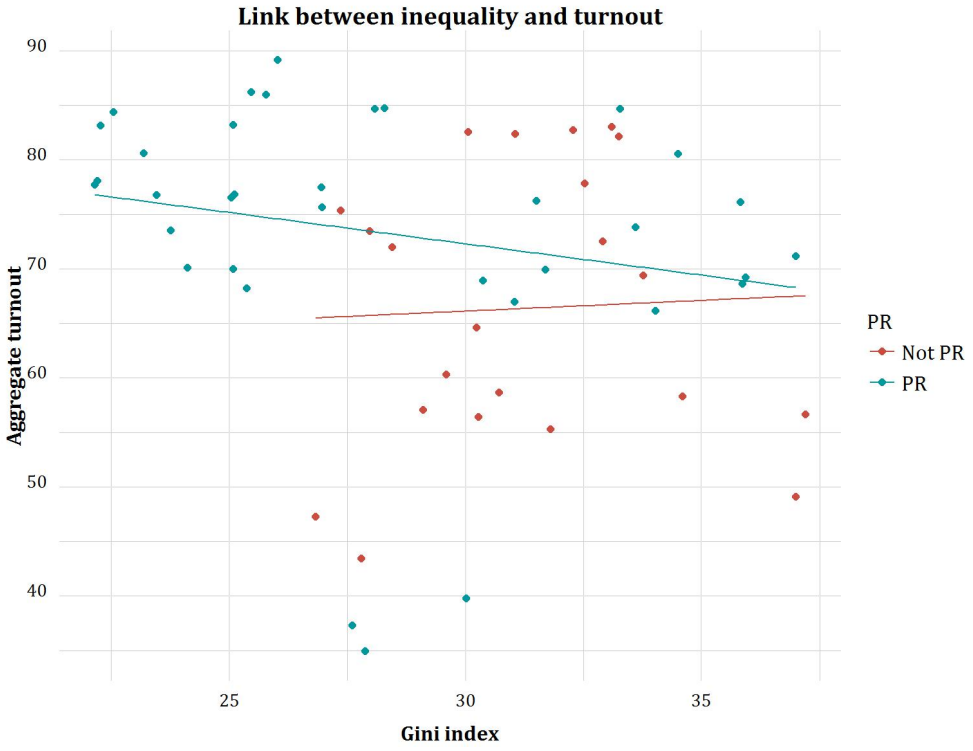
4.1 Descriptive analyses

This section will focus on how inequality is connected to a few of the macro-level variables in the dataset. Although running a simple correlation on a sample of 90 non-independent cases (33 countries measured at multiple points of time) is a bit of a methodological stretch, the aggregate analysis suggests that there is no connection between income inequality and aggregate turnout, $r(89)=-0.107$, $p=0.312$. Running the correlations again for each of the waves does not change this conclusion, as the Pearson correlation coefficients range between –0.095 and –0.143, and none attain statistical significance. A different conclusion can be reached if I correlate turnout with a country's freedom from corruption - both on the aggregate sample ($r(92)=0.279$, $p=0.006$), and on two of the three waves, the correlation is positive and surpasses 0.23 (the coefficients are not statistically significant for either of the three waves). With respect to corruption, it would seem, a more corrupt political system is associated with a lower level of aggregate turnout.

Figure 1 shows that there is a connection between inequality and turnout, but that it is rather driven by countries with a proportional representation electoral system. For the rest of the countries in my sample there is, effectively, no relationship. A different breakdown of the countries (whether they're established or new democracies[10]) shows that the relationship between inequality and turnout might be different for the two groups. Whereas a lower level of inequality appears associated with a higher level of turnout for established

[10]I considered the Portuguese and Spanish transitions of 1974 and 1975, respectively, as the chronological boundary between the two groups; Spain and Portugal are considered established democracies.

Figure 1: Connection between inequality and aggregate turnout for PR vs. non-PR systems.



democracies (r(55)=–0.211, p=0.114), the reverse relationship exists for new democracies - higher inequality is associated with a higher turnout (r(32)=0.273, p=0.118). Our belief in these findings is weakened at this point, however, by the fact that neither estimate achieves statistical significance. I will return to this point later in the analysis, in the attempt to see whether, indeed, the relationship between income inequality and turnout might be different for the two sets of countries.

When I turn to union density, the picture is considerably clearer (Figure 2) – it appears that countries with a higher proportion of workers being members in a union also register a higher level of turnout. This offers some evidence in support of the link between unionization, campaign mobilization and turnout posited by Radcliff and Davis (2000). Indirectly, I would argue, it also offers support for "conflict theory": the organization of workers is probably mirrored by a similar level of political engagement on the part of upper-income individuals, driving turnout rates even higher. The relationship is maintained even if we distinguish between systems based on proportional representation and all others (Figure 3).

The relationship between union density rates and aggregate turnout is revealed even clearer through estimates of the association between the two variables. In the pooled sample, a higher union density is associated with a higher level of aggregate turnout (r(81)=0.550, p=0.000), relationship which is maintained even if we do a breakdown according to established or new democracies: $r_{established}$(55)=0.544, p=0.000, and r_{new}(24)=0.408, p=0.038. I find the same statistically significant association if I do a breakdown according to the CSES wave in which the country was included – higher union density rates are associated with higher turnout.

Figure 2: Connection between union density and aggregate turnout.

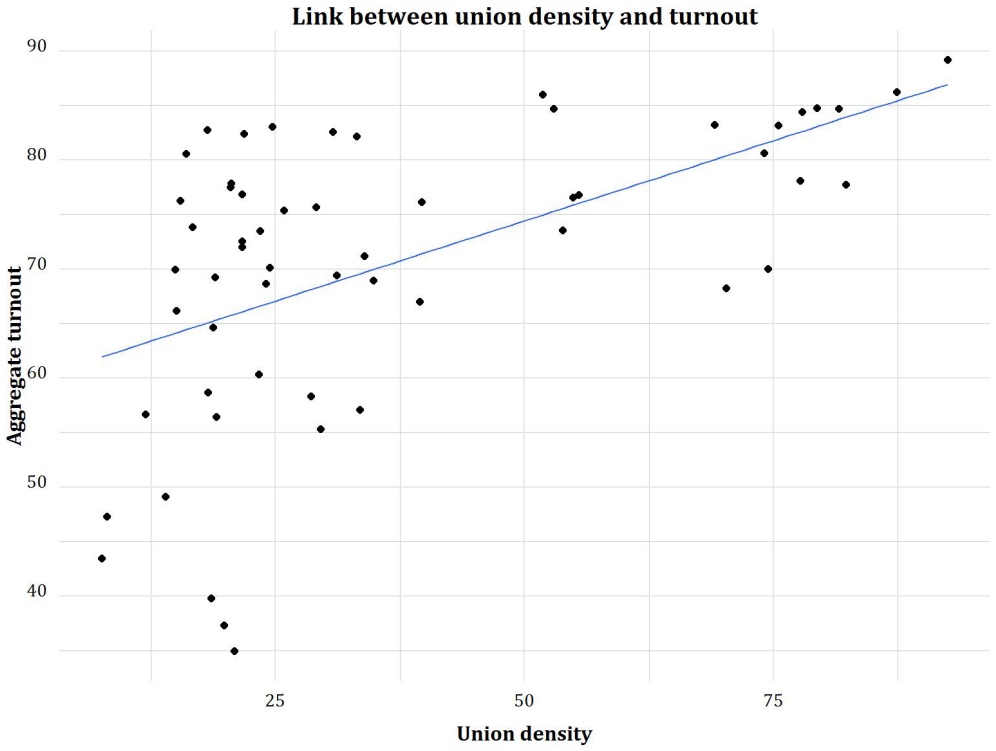


Figure 3: Connection between union density and aggregate turnout for PR vs. non-PR systems.

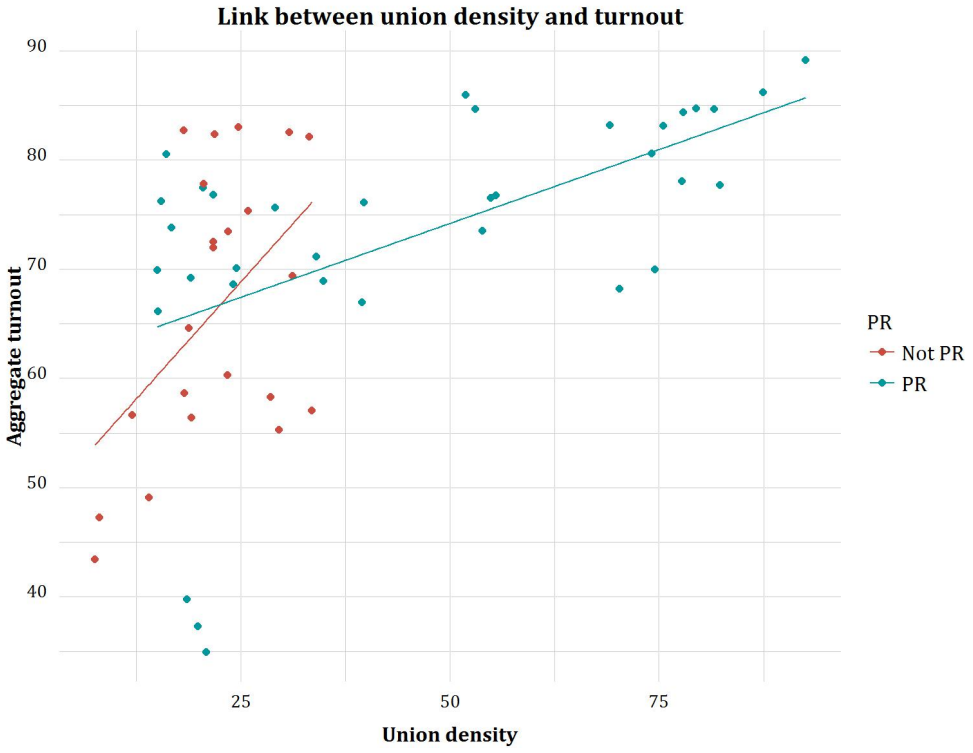


Table 3 shows descriptive statistics for three aggregate level variables used in the analyses below. There is considerable variance in turnout rates, as well as union density rates. Although I have tried to include as many developing nations as possible in my analysis,

Variable	*Minimum*	*Mean*	*Quartile 1*	*Quartile 2*	*Quartile 3*	*Maximum*	*SD*
Turnout	34.94%	70.65%	66.14%	73.50%	80.60%	89.12%	13.14
Income inequality	22.16	29.39	25.78	29.60	32.90	37.20	4.25
Union density	7.6%	37.24%	19.10%	25.90%	53.90%	92.5%	24.29

Table 3: Descriptives for the main aggregate-level variables in the sample.

it quickly becomes evident that my sample is rather biased toward advanced industrial democracies. As a result of this, income inequality presents less variance than would have been the case with a completely random selection of countries - my sample is biased toward countries with lower inequality, compared to what would be obtained from a completely random sample of countries.

4.2 Regression analyses

As my outcome variable, vote turnout, is a dichotomous one, I am unable to justify the need for multilevel models by using a commonly accepted indicator such as the intraclass correlation coefficient (ICC), which was developed for continuous variables. Instead, as Figure 4 shows, I have taken to plotting the variability in turnout across country years and countries. In the figure we clearly see a considerable amount of variability of turnout, particularly at the between-country level. Aggregate turnout figures range from around 90 percent in Denmark or Australia, to around 50 percent in Switzerland or Poland. Even when taking into consideration that overreporting is a serious problem in turnout studies, and that some figures (notably for Germany in 2005) should give us cause for concern, the considerable variability at the country-level justifies, I would argue, the use of a multilevel modeling.

My analysis will now turn to a more rigorous test of the hypotheses I have outlined, by means of three-level multilevel logistic regression models (my dependent variable is a dichotomous indicator of whether the respondent has voted in the previous election or not). The regression results presented in Table 4 show that the standard individual-level predictors of turnout have the expected effect on the probability of turning out to vote. Age, income, education, and being a union member have a positive effect on turnout: older, wealthier, more educated and union members have a higher likelihood of voting. Women appear to have a higher likelihood of turning out, as do respondents who are married, whereas individuals who live in a large town are less likely to turn out to vote. Attitudinal variables also have the expected effects on turnout: higher reported levels of political efficacy, satisfaction with democracy, and political information are associated with a higher probability of turning out. The only predictor which didn't have the expected effect is associational membership; the lack of statistical significance can probably be attributed to the considerably reduced sample on which Model 2 ran (the questions relating to associational membership were not asked at all in Wave 1 of the CSES).

Table 4: Regression estimates for logistic multilevel models (standard errors are presented in parentheses), including only level 1 predictors. The correspondence between symbols and thresholds of statistical significance is the following: '***' p<0.001 '**' p<0.01 '*' p<0.05.

	Model 1	**Model 2**	**Model 3**	**Model 4**
Intercept	1.99***	-1.825***	-1.869***	-1.921***
	(0.14)	(0.243)	(0.179)	(0.204)
Age	–	0.025***	0.027***	0.028***
		(0.001)	(0.001)	(0.001)
Female	–	-0.019	0.080***	0.075**
		(0.033)	(0.022)	(0.023)
Religious attendance	–	0.105***	–	–
		(0.011)		
Urban	–	-0.066	-0.054*	-0.054*
		(0.038)	(0.026)	(0.026)
Married	–	0.295***	0.331***	0.303***
		(0.035)	(0.024)	(0.024)
Union member	–	0.234***	0.257***	0.253***
		(0.053)	(0.032)	(0.032)
Income	–	0.079***	0.077***	0.072***
		(0.014)	(0.009)	(0.017)
Education	–	0.097***	0.124***	0.130***
		(0.012)	(0.008)	(0.008)
Political efficacy	–	0.336***	0.318***	0.328***
		(0.012)	(0.009)	(0.029)
Satisfaction with democracy	–	0.198***	0.205***	0.227***
		(0.011)	(0.015)	(0.030)
Membership in associations	–	0.110*	–	–
		(0.051)		
Political information	–	0.335***	0.377***	0.370***
		(0.019)	(0.013)	(0.013)
SD turnout (country-year)	0.62	0.54	0.55	0.73
SD turnout (country)	0.71	0.87	0.84	0.93
Deviance	116,971.1	24,878.8	54,330.7	53,906.5
AIC	116,977	24,908.8	54,356.7	53,968.5
DIC	116,971.1	24,878.8	54,330.7	53,906.5
N	150,391	32,725	78,560	78,560
Country-years	93	32	70	70
Countries	34	19	31	31

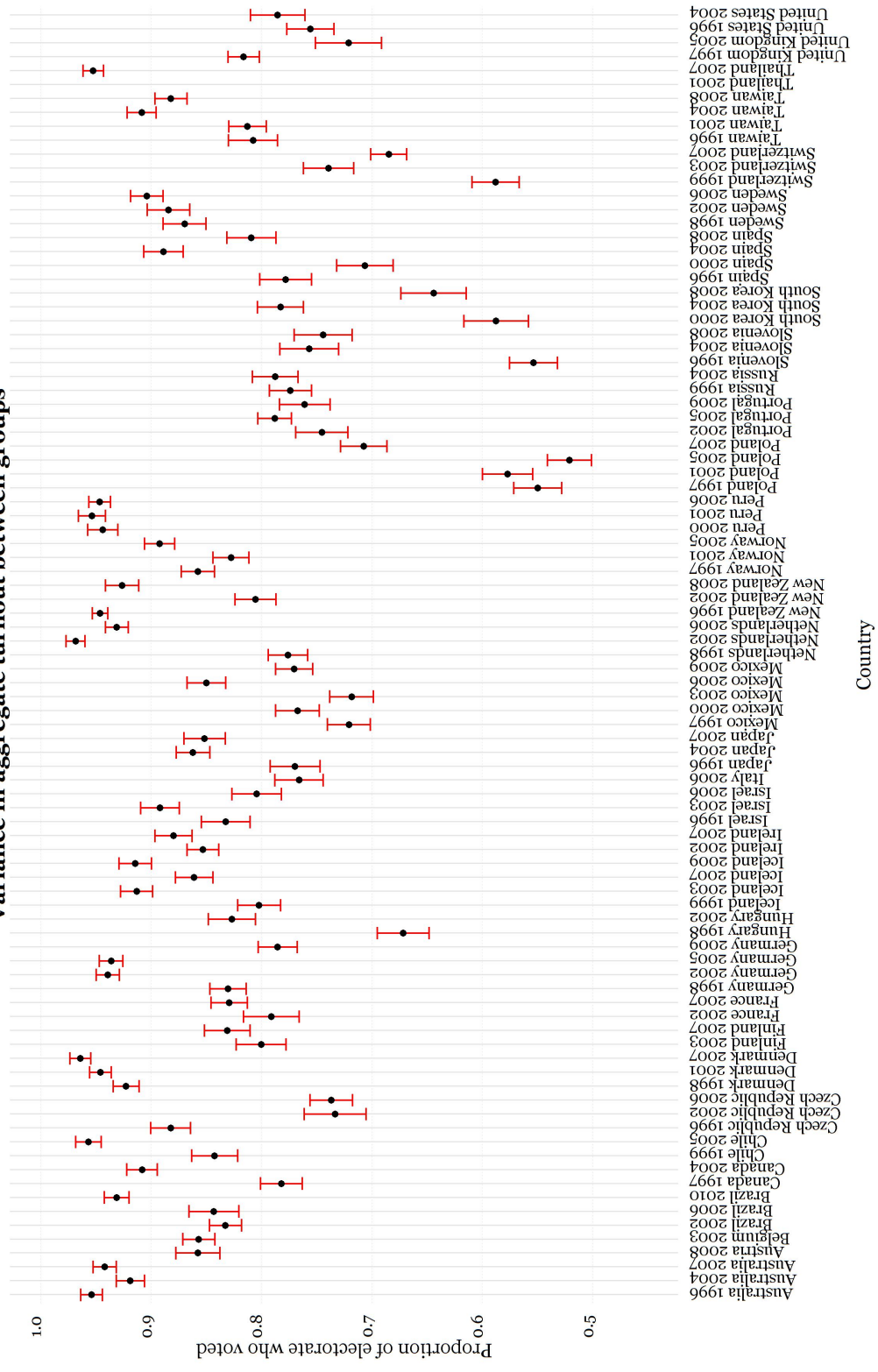


Figure 4: Variability in aggregate vote turnout between level 2 (country years) and level 3 (countries) units in my sample. Red lines represent confidence intervals around the proportion of voters.

Starting from Table 5 we get a more complex picture of the determinants of turnout at the individual level, by adding predictors at the country-year and country levels. We see in Models 5, 6 and 7 that income inequality, my main theoretical variable of interest, has a negative impact on turnout: controlling for all other factors, a higher level of income inequality is associated with a lower likelihood of turnout for an individual. Union density does not seem to have a statistically significant effect on individual-level turnout (see Model 6), which is contrary to what the theory would lead us to expect (but confirms the results of Solt 2008). At the same time, given the quasi-universal trend of declining union membership, as well as the similarly broad one of rising income inequality, it's plausible that the correlation between these two factors is driving the results I observe. Removing union density from Model 5 increases the estimate for the effect of Gini on individual-level turnout, confirming my assumption. A similarly counter-intuitive finding is the effect a proportional representation system has on turnout. My models suggest that this is negative: PR systems reduce the likelihood of an individual turning out to vote, compared to majoritarian or mixed systems. At the same time, this finding should be taken with a grain of salt, when considering that in none of my models does this variable achieve statistical significance.

On the other hand, compulsory voting and the importance of the election (e.g., a presidential contest in a presidential system as opposed to a parliamentary election in a similar system) display the expected effect - compulsory voting laws and important elections increase the likelihood that a respondent will turn out. Turning now to model fit, we see improvement in deviance compared to models where only individual-level factors were tested: my model fit improves from 53,906 to 53,755. Although not impressive, the reduction in error signals that contextual variables are also significant explanatory factors in terms of likelihood of turning out.

Table 5: Regression estimates for logistic multilevel models which include predictors at levels 1 and 2 (standard errors are presented in parentheses). The correspondence between symbols and thresholds of statistical significance is the following: '***' p<0.001 '**' p<0.01 '*' p<0.05.

	Model 5	**Model 6**	**Model 7**
Intercept	-2.005***	-3.282***	-3.008***
	(0.207)	(0.310)	(0.277)
Age	0.028***	0.028***	0.028***
	(0.001)	(0.001)	(0.001)
Female	0.076***	0.074**	0.075**
	(0.023)	(0.024)	(0.023)
Urban	-0.054*	-0.039	-0.053*
	(0.026)	(0.027)	(0.026)
Married	0.304***	0.282***	0.305***
	(0.024)	(0.025)	(0.024)

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Table 5 – *Continued from previous page*

	Model 5	**Model 6**	**Model 7**
Union member	0.254***	0.255***	0.256***
	(0.032)	(0.033)	(0.032)
Income	0.074***	0.081***	0.077***
	(0.017)	(0.017)	(0.016)
Education	0.131***	0.142***	0.131***
	(0.008)	(0.009)	(0.008)
Political efficacy	0.324***	0.333***	0.326***
	(0.029)	(0.030)	(0.030)
Satisfaction with democracy	0.216***	0.209***	0.207***
	(0.029)	(0.028)	(0.028)
Political information	0.372***	0.381***	0.371***
	(0.013)	(0.014)	(0.013)
Gini	-0.207	-0.700*	-0.803**
	(0.296)	(0.309)	(0.284)
Compulsory voting	–	0.540*	0.561**
		(0.176)	(0.172)
Proportional representation	–	-0.398	-0.212
		(0.250)	(0.226)
Importance of election	–	1.088***	1.145***
		(0.248)	(0.213)
Union Density	–	0.010	–
		(0.006)	
SD turnout (country-year)	0.72	0.64	0.63
SD turnout (country)	0.76	0.79	0.85
Deviance	53,786.3	49,690.5	53,755.3
AIC	53,856.3	49,762.5	53,825.3
DIC	53,786.3	49,690.5	53,755.3
N	77,675	72,318	77,675
Country-years	69	65	69
Countries	30	29	30

At this stage in the analysis, I have largely gone along the path carved out by existing analyses of the impact of income inequality on political participation (e.g., Solt 2008): I find that income inequality is a very potent depressor of turnout at the individual level. Replacing the Gini measured at the time of the election, with inequality measured in the previous year, or an average of the level of income inequality registered in the previous three years does not change the situation considerably.[11] The results support the findings of Solt (2008), while bringing evidence against the analyses done by Stockemer and Scruggs (2012).

Nevertheless, the path has yet to reach its end. It's not clear, for example, whether income inequality moderates the impact of individual-level predictors on turnout. We also don't know whether the inequality's impact on turnout is the same across all contexts – established

[11] The most powerful predictor seems to be inequality measured in the previous three years, for which reason it will be included in the following models tested.

and new democracies. Furthermore, we have no clues regarding the causal mechanisms through which this causal mediation occurs. The regression models presented in Table 6, as well as in subsequent tables, attempt to answer these questions. Due to space constraints I'll ignore the findings in Table 6 that refer to the effect of individual-level predictors on turnout, and simply focus on inequality, and the cross-level interactions between inequality and individual-level factors.[12] Models 8 through 15 test different specifications, mostly at the Level-2, by including or excluding different cross-level interactions. I'll mostly focus in my interpretation on Model 12, as this has the best fit to the data from all the models tested so far (excluding Models 6 and 10, which were tested on smaller samples).

Throughout Models 8 through 15, the effect of inequality on turnout fluctuates considerably, depending on the model specification chosen. This should lead to caution when drawing any conclusions from results of existing studies regarding the relative impact of income inequality on turnout, when compared to other country-level or even individual-level predictors. Furthermore, in certain model specifications inequality is statistically significant at the .05 level, in others at the .1 level, while in others still the estimate fails to achieve statistical significance. At the same time, though, the effect is consistently negative – higher income inequality is associated with a lower likelihood of turning out to vote. In Model 12, inequality has a strong and statistically significant effect; this, combined with the consistent direction of the effect in the other models, leads me to conclude that I have found support in favor of my first hypothesis.

Other country-level factors remain strong predictors of turnout throughout the models tested: the importance of the election, as well as whether the country has compulsory voting laws. A further factor is also shown to have a statistically significant effect on turnout: closeness of the electoral contest.[13] Closer elections seem to be associated, counter-intuitively, with a lower likelihood of voting, although the effect is quite small when assessed in relative terms. None of the other country-level factors, whether it be proportional representation, the level of development (measured either as GDP per capita, or the World Bank's *Human Development Index*), district magnitude, federalism, or the extent of corruption, achieve statistical significance in any of the models displayed here.

Turning to my second hypothesis, though, one can see that inequality also acts as a moderator of the effect of other variables on turnout. In the case of both income and political efficacy, their positive impact on turnout is reduced in contexts with high income inequality; at the same time, no such effect was found in the case of satisfaction with democracy, which narrowly missed the .05 level of statistical significance (see Model 12 in Table 6). This finding suggests that the effect of income inequality is far more potent than has been assumed by previous analyses.

[12] All variables that were included in a cross-level interaction were centered (see Enders and Tofighi 2007). Group-mean centering was used for individual-level predictors, whereas grand-mean centering was used for country-year predictors, such as income inequality.

[13] In parliamentary contexts, this was measured as the difference in percentage of votes between the largest two parties in terms of vote share. In presidential contests, it was measured as the corresponding difference in percentage of votes between the top two candidates.

Table 6: Regression estimates for logistic multilevel models which include predictors at levels 1 and 2 (standard errors are presented in parentheses). The correspondence between symbols and thresholds of statistical significance is the following: '***' p<0.001 '**' p<0.01 '*' p<0.05 '†' p<0.1.

	Model 8	**Model 9**	**Model 10**	**Model 11**	**Model 12**	**Model 13**	**Model 14**	**Model 15**
Intercept	-2.635***	-2.141***	-3.149	-2.633***	-0.567*	-0.617**	-1.288***	-1.232***
	(0.233)	(0.265)	(2.844)	(0.234)	(0.233)	(0.214)	(0.235)	(0.259)
Age	0.028***	0.028***	0.027***	0.028***	0.028***	0.028***	0.028***	0.028***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Female	0.075**	0.075***	0.071**	0.075**	0.080***	0.081***	0.084***	0.075***
	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)
Urban	-0.051*	-0.053*	-0.056*	-0.050†	-0.052*	-0.044†	-0.044†	-0.050†
	(0.026)	(0.026)	(0.027)	(0.026)	(0.026)	(0.026)	(0.026)	(0.026)
Married	0.304***	0.305***	0.290	0.304***	0.296***	0.305***	0.306***	0.304***
	(0.024)	(0.024)	(0.025)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)
Union member	0.256***	0.256***	0.254***	0.255***	0.250***	0.254***	0.254***	0.254***
	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)
Income	0.066***	0.076***	0.081***	0.067***	0.078***	0.071***	0.071***	0.066***
	(0.015)	(0.016)	(0.016)	(0.015)	(0.011)	(0.015)	(0.013)	(0.015)
Education	0.131***	0.131***	0.136***	0.132***	0.137***	0.131***	0.132***	0.131***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.018)	(0.008)	(0.008)	(0.008)
Political efficacy	0.322***	0.319***	0.332***	0.321***	0.314***	0.312***	0.314***	0.312***
	(0.028)	(0.028)	(0.030)	(0.028)	(0.027)	(0.027)	(0.028)	(0.028)
Satisfaction with democracy	0.209***	0.207***	0.203***	0.211***	0.193***	0.204***	0.190***	0.204***
	(0.030)	(0.028)	(0.027)	(0.031)	(0.027)	(0.027)	(0.015)	(0.027)

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Table 6 – *Continued from previous page*

	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Political information	0.373*** (0.013)	0.371*** (0.013)	0.373*** (0.013)	0.372*** (0.013)	0.360*** (0.026)	0.351*** (0.027)	0.360*** (0.028)	0.373*** (0.013)
Gini	-0.188 (0.256)	-0.903** (0.298)	-0.908† (0.480)	-0.094 (0.292)	-0.931** (0.341)	-0.455† (0.258)	-0.596† (0.336)	-0.262 (0.350)
Compulsory voting	0.582*** (0.149)	0.573** (0.177)	0.569** (0.182)	0.596*** (0.163)	0.602*** (0.180)	0.715*** (0.145)	0.517** (0.177)	0.626*** (0.142)
Proportional representation	-0.228 (0.203)	-0.203 (0.233)	-0.218 (0.253)	–	–	–	–	–
Importance of election	0.978*** (0.213)	1.211*** (0.222)	1.243*** (0.244)	0.974*** (0.212)	1.279*** (0.199)	0.708*** (0.206)	1.176*** (0.199)	0.737* (0.302)
Level of development (HDI)	–	–	0.441 (3.379)	–	–	–	–	–
District magnitude	–	–	–	0.004 (0.004)	0.004 (0.004)	0.004 (0.004)	0.002 (0.004)	–
Electoral closeness	–	–	–	-0.016* (0.008)	-0.016* (0.007)	-0.010 (0.010)	-0.015* (0.007)	-0.010 (0.011)
Federalism	–	–	–	-0.121 (0.261)	0.144 (0.265)	-0.168 (0.229)	0.082 (0.262)	–
Freedom from corruption	–	–	–	–	–	–	–	0.215 (0.367)
Income * Gini	-0.093** (0.032)	–	–	-0.092** (0.033)	-0.064* (0.026)	-0.069* (0.033)	-0.066* (0.030)	-0.095** (0.035)
Political efficacy * Gini	–	-0.088 (0.061)	–	–	-0.132* (0.065)	-0.142* (0.066)	-0.156* (0.067)	-0.144* (0.067)

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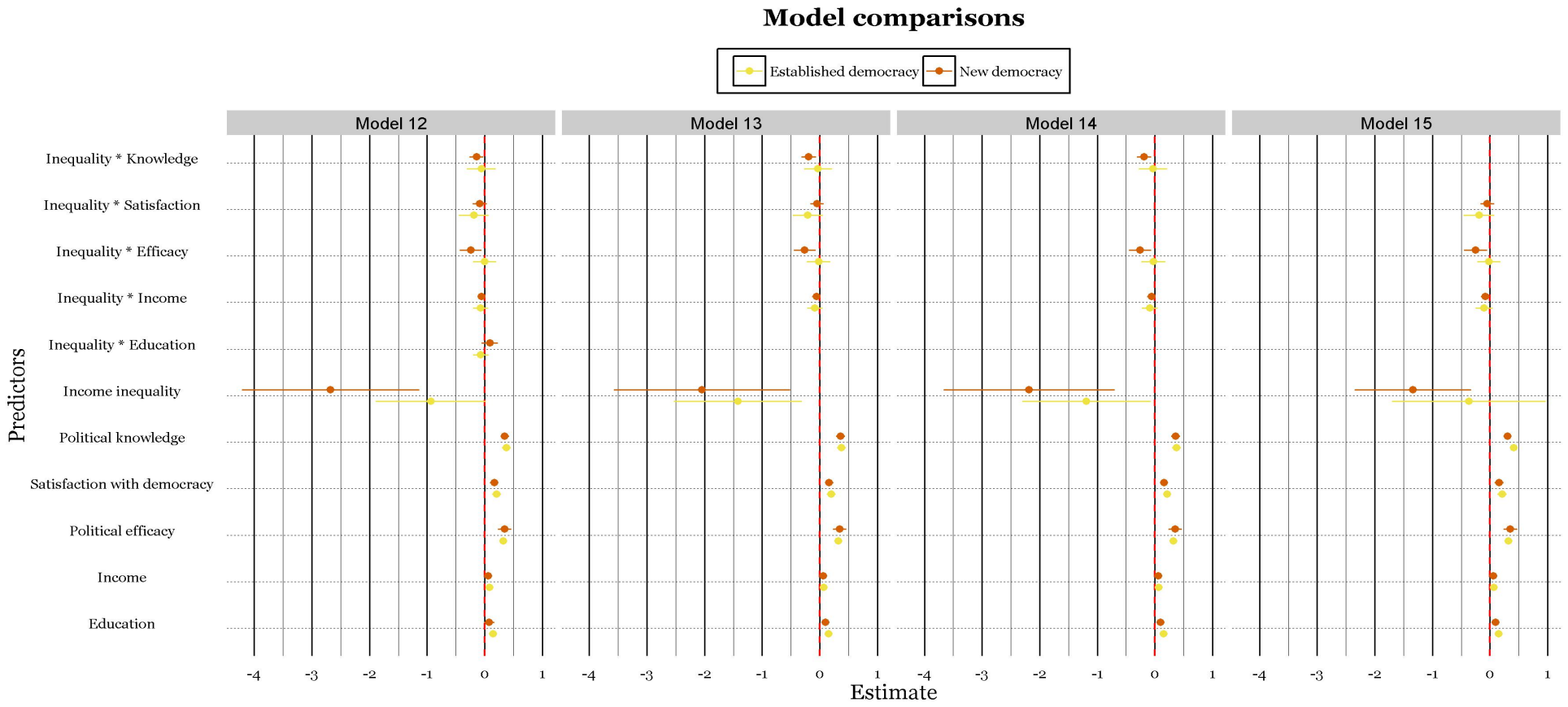
Table 6 – *Continued from previous page*

	Model 8	**Model 9**	**Model 10**	**Model 11**	**Model 12**	**Model 13**	**Model 14**	**Model 15**
Political information * Gini	–	–	–	–	-0.093 (0.060)	-0.146* (0.064)	-0.092 (0.064)	–
Education * Gini	–	–	–	–	0.017 (0.042)	–	–	–
Satisfaction with democracy * Gini	–	–	-0.119† (0.063)	–	-0.119† (0.063)	-0.104 (0.064)	–	-0.118† (0.065)
SD Turnout (country-year)	0.92	0.51	0.55	0.94	0.44	0.72	0.43	0.75
SD Turnout (country)	0.00	0.71	0.82	0.00	0.62	0.00	0.60	0.00
SD Income (country-year)	0.04	0.04	0.04	0.04	0.03	0.03	0.04	0.04
SD Income (country)	0.05	0.06	0.06	0.05	0.02	0.05	0.04	0.05
SD Efficacy (country-year)	0.11	0.09	0.09	0.12	0.09	0.09	0.09	0.09
SD Efficacy (country)	0.12	0.12	0.13	0.11	0.12	0.12	0.12	0.12
SD Satisfaction with democracy (country-year)	0.10	0.08	0.09	0.09	0.08	0.08	–	0.08
SD Satisfaction with democracy (country)	0.11	0.11	0.09	0.12	0.09	0.10	–	0.10
SD Education (country-year)	–	–	–	–	0.04	–	–	–
SD Education (country)	–	–	–	–	0.08	–	–	–
SD Political information (country-year)	–	–	–	–	0.07	0.09	0.06	–
SD Political information (country)	–	–	–	–	0.11	0.10	0.12	–
Deviance	53,771.3	53,759.1	52,247.1	53,768.6	53,533.8	53,658.3	53,661.2	53,780.6
AIC	53,843.3	53,831.1	52,321.1	53,844.6	53,661.8	53,760.3	53,741.2	53,858.6
DIC	53,771.3	53,759.1	52,247.1	53,768.6	53,533.8	53,658.3	53,661.2	53,780.6
N	77,675	77,675	75,643	77,675	77,675	77,675	77,675	77,675
Country-years	69	69	67	69	69	69	69	69
Countries	30	30	29	30	30	30	30	30

Figure 5: Coefficient estimates for three-level hierarchical linear models tested on separate samples of established and new democracies (the model specifications are the same as those presented in Table 6); the dependent variable is individual-level turnout. Points on the graph represent estimates of the effect of a variable on likelihood of turning out to vote. Lines represent the 95% confidence intervals associated with the estimates.



When breaking down the sample according to whether the country is an established or new democracy, we find that the effect of income inequality is most consistent for new democracies (see Figure 5). When examining the model which has the best fit to the data (Model 12 in Figure 5), we see that income inequality has a statistically significant negative effect on turnout in the case of new democracies, whereas a similarly negative effect narrowly misses statistical significance for established democracies. It's important to add that Model 13 is virtually indistinguishable in fit from Model 12 for established democracies (see Table 10), and there inequality does have a statistically significant effect on turnout. Yet again, I would argue that there are sufficient reasons to conclude that income inequality has a powerful negative effect on individual-level turnout, confirming similar analyses conducted by Solt (2008), Seeber and Steinbrecher (2011), and Anderson and Beramendi (2008), and going against analyses done by Stockemer and Scruggs (2012).

Table 7: Fit measures for the models presented in Figure 5.

	Model 12		**Model 13**		**Model 14**		**Model 15**	
	Established	*New*	*Established*	*New*	*Established*	*New*	*Established*	*New*
Deviance	33,112.3	20,386.6	33,119.2	20,444.5	33,159.3	20,451.8	33,213.8	20,482.9
AIC	33,240.3	20,514.6	33,221.2	20,546.5	33,239.3	20,531.8	33,291.8	20,560.9
DIC	33,112.3	20,386.6	33,119.2	20,444.5	33,159.3	20,451.8	33,213.8	20,482.9
N	53,523	24,152	53,523	24,152	53,523	24,152	53,523	24,152
Country-years	47	22	47	22	47	22	47	22
Countries	21	9	21	9	21	9	21	9

One question lingers still: what is the effect of inequality on the different income groups in the sample? As the interaction term between inequality and income is statistically significant, it is clear that my reported effect of income inequality on turnout is only statistically significant for when income is 0 (in my case, when referring to the lowest income quintile in my sample).[14] In order to find out what the effect of inequality is on the different income quintiles in my sample, I proceeded to re-run the models with income recoded at each step by subtracting 1, 2, 3, and 4 from the scale. What this procedure does, in effect, is to code each income quintile as 0, and therefore obtain a set of estimates for each quintile group. Of course, in order to do this, I had to remove the cross-level interaction between income and inequality; maintaining this would have required me to group-mean center income, and therefore lose any control over the recoding of the income quintiles.

Table 8 brings evidence in support of the leftist mobilization hypothesis: for the pooled sample, as well as the sample of established democracies, it seems that inequality has the strongest effect on the richest income groups in society – similar to what (Jaime-Castillo 2009) finds. It seems plausible that leftist parties find a fertile ground for effective appeals to their core constituency in climates of increasing income inequality, and this results in a decreased impact of inequality on participation for these income groups. When turning to the group of new democracies, however, I fail to distinguish a consistent pattern, possibly due to the reduced sample size at the country-level. Any explanation regarding differences

[14] See Braumoeller (2004).

between income groups, however, should take into consideration that the standard errors associated with these estimates are considerable. In effect, the only statement which can conclusively be made is that for the pooled sample, inequality clearly affects the richest quintile more than the poorest quintile in my sample.

Although not included as a separate hypothesis in this study, additional analyses revealed that the impact of income inequality at the aggregate level is also moderated by the sense of political efficacy that a respondent displays (results not displayed here). The effect is similar to that discovered for individual-level income: a larger magnitude is found for the upper three income quintiles (for the bottom two quintiles the effect was not significantly different from 0). The interpretation is forthcoming, when considering that internal political efficacy was used: having a strong belief in the fact that which parties end in government doesn't matter largely insulates a person from a declining trend in income equality. The most 'vulnerable' categories are made up of those individuals who believe that voting for the Left or the Right matters. It is these persons who, when confronted with rising income inequality, display the largest drop in participation.

Table 8: The effect which income inequality has on the likelihood of turning out to vote of respondents belonging to different income quintiles (Model 12 from Table 6). The correspondence between symbols and thresholds of statistical significance is the following: '***' p<0.001 '**' p<0.01 '*' p<0.05 '†' p<0.1.

		Poorest Q.	**Second Q.**	**Median Q.**	**Fourth Q.**	**Richest Q.**
Pooled sample	*Estimate*	-0.444†	-0.519*	-0.593*	-0.666*	-1.056**
	Standard error	0.262	0.261	0.261	0.262	0.343
Established democracies	*Estimate*	-0.634*	-0.664*	-0.698*	-0.496*	-0.738**
	Standard error	0.287	0.282	0.280	0.246	0.281
New democracies	*Estimate*	-3.171**	-3.116**	-1.861†	-3.359***	-2.121*
	Standard error	1.026	0.991	0.963	0.990	0.940

Table 9: Regression estimates for logistic multilevel models of closeness to a political party (standard errors are presented in parentheses). The correspondence between symbols and thresholds of statistical significance is the following: '***' p<0.001 '**' p<0.01 '*' p<0.05 '†' p<0.1.

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Intercept	-0.193*	-0.865***	-0.944***	-1.221***	-1.159***	-1.162***
	(0.097)	(0.140)	(0.141)	(0.142)	(0.138)	(0.138)
Age	–	0.016***	0.016***	0.016***	0.016***	0.016***
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Female	–	-0.088***	-0.090***	-0.090***	-0.096***	-0.096***
		(0.016)	(0.016)	(0.016)	(0.016)	(0.016)
Urban	–	0.039*	0.041*	0.041*	0.041*	0.042*
		(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Married	–	-0.026	-0.026	-0.026	-0.023	-0.023
		(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Union member	–	0.109***	0.108***	0.108***	0.112***	0.112***
		(0.020)	(0.020)	(0.020)	(0.020)	(0.020)
Income	–	0.026*	0.027*	0.028*	0.028*	0.028*
		(0.011)	(0.013)	(0.013)	(0.014)	(0.014)
Education	–	0.026*	0.024***	0.023***	0.024***	0.024***
		(0.011)	(0.005)	(0.005)	(0.005)	(0.005)
Political efficacy	–	0.293***	0.293***	0.294***	0.293***	0.294***
		(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Satisfaction with democracy	–	0.178***	0.178***	0.166***	0.179***	0.180***
		(0.022)	(0.023)	(0.011)	(0.023)	(0.023)

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Table 9 – *Continued from previous page*

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Political information	–	0.198*** (0.021)	0.200*** (0.023)	0.201*** (0.023)	0.189*** (0.009)	0.189*** (0.009)
Gini	–	-0.063 (0.244)	-0.044 (0.242)	0.021 (0.240)	-0.006 (0.275)	-0.215 0.226
Compulsory voting	–	0.336*** (0.100)	0.362*** (0.100)	0.355*** (0.101)	0.321*** (0.122)	0.331** (0.121)
Proportional representation	–	0.072 (0.127)	0.050 (0.126)	0.060 (0.128)	-0.223 (0.172)	-0.223 (0.171)
District magnitude	–	0.001 (0.003)	0.000 (0.003)	0.001 (0.003)	–	–
Federalism	–	-0.119 (0.155)	-0.153 (0.154)	-0.158 (0.157)	–	–
Corruption	–	–	–	–	0.290 (0.224)	–
Income * Gini	–	-0.009 (0.025)	-0.014 (0.029)	-0.011 (0.030)	-0.019 (0.032)	-0.019 (0.032)
Political efficacy * Gini	–	-0.144*** (0.040)	-0.143*** (0.039)	-0.140*** (0.040)	-0.145*** (0.039)	-0.143*** (0.039)
Political information * Gini	–	-0.020 (0.047)	-0.021 (0.052)	-0.024 (0.053)	–	–
Education * Gini	–	0.005 (0.026)	–	–	–	–
Satisfaction with democracy * Gini	–	0.030 (0.052)	0.032 (0.054)	–	0.037 (0.054)	0.038 (0.054)

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Table 9 – *Continued from previous page*

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
SD closeness (country-year)	0.35	0.30	0.31	0.30	0.30	0.30
SD closeness (country)	0.52	0.44	0.44	0.42	0.41	0.41
SD Income (country-year)	–	0.03	0.04	0.04	0.05	0.05
SD Income (country)	–	0.04	0.05	0.05	0.05	0.05
SD Efficacy (country-year)	–	0.10	0.10	0.10	0.10	0.10
SD Efficacy (country)	–	0.05	0.05	0.04	0.04	0.04
SD Satisfaction with democracy (country-year)	–	0.09	0.08	–	0.08	0.08
SD Satisfaction with democracy (country)	–	0.08	0.09	–	0.09	0.09
SD Education (country-year)	–	0.03	–	–	–	–
SD Education (country)	–	0.04	–	–	–	–
SD Political information (country-year)	–	0.05	0.06	0.06	–	–
SD Political information (country)	–	0.09	0.10	0.010	–	–
Deviance	196,774.9	97,804.5	97,881	97,943.5	98,002.2	98,003.7
AIC	196,781	97,930.5	97,981	98,021.5	98,078.2	98,077.7
DIC	196,774.9	97,804.5	97,881	97,943.5	98,002.2	98,003.7
N	150001	77,347	77,347	77,347	77,347	77,347
Country-years	94	69	69	69	69	69
Countries	34	30	30	30	30	30

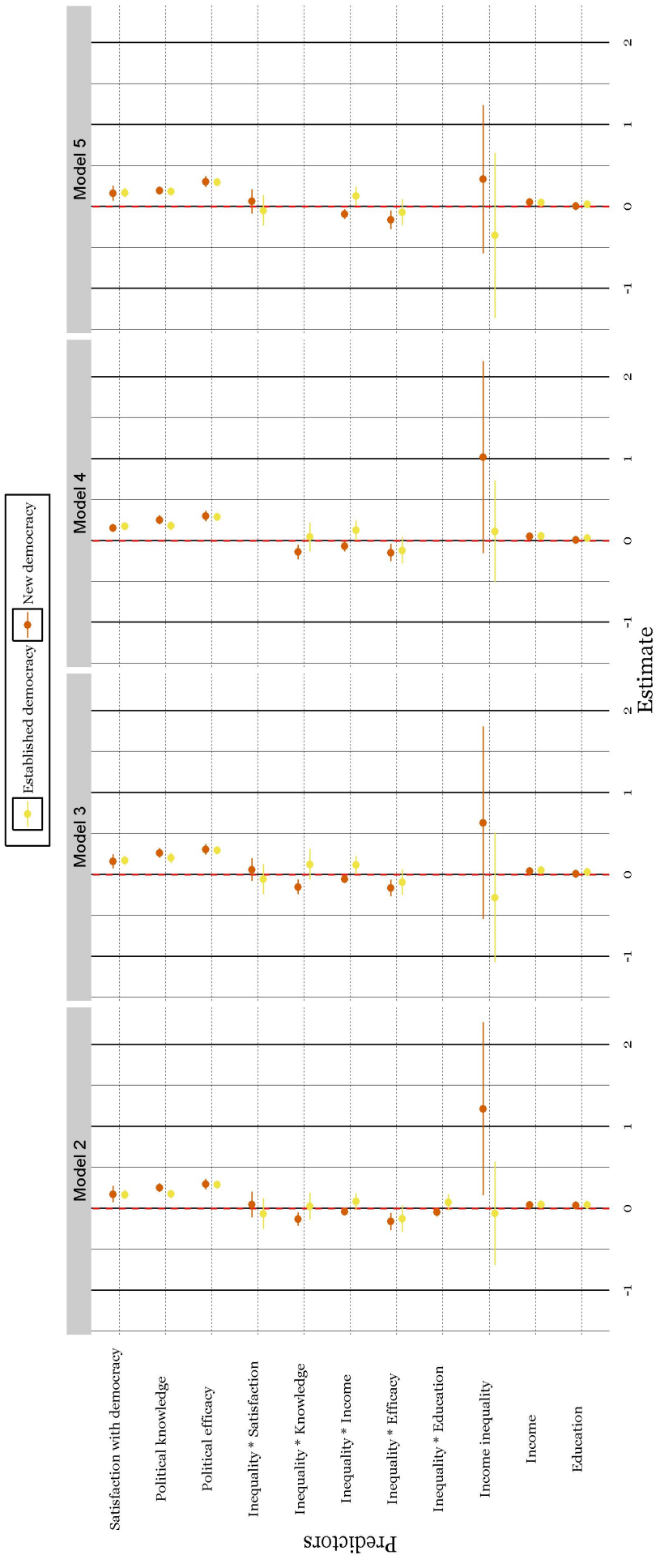

Figure 6: Coefficient estimates for three-level hierarchical linear models tested on separate samples of established and new democracies (the model specifications are the same as those presented in Table 9); the dependent variable is individual-level closeness to a political party. Points on the graph represent estimates of the effect of a variable on likelihood of reporting feeling close to any political party in the country. Lines represent the 95% confidence intervals associated with the estimates.

Table 10: Fit measures for the models presented in Figure 6.

	Model 2		Model 3		Model 4		Model 5	
	Established	*New*	*Established*	*New*	*Established*	*New*	*Established*	*New*
Deviance	66,452.1	31,272.3	66,489.2	31,303.4	66,536.3	31,338.9	66,577.1	31,353.4
AIC	66,578.1	31,398.3	66,589.2	31,403.4	66,614.3	31,416.9	66,653.1	31,429.4
DIC	66,452.1	31,272.3	66,489.2	31,303.4	66,536.3	31,338.9	66,577.1	31,353.4
N	53,398	23,949	53,398	23,949	53,398	23,949	53,398	23,949
Country-years	47	22	47	22	47	22	47	22
Countries	21	9	21	9	21	9	21	9

4.3 Closeness to a political party - a proxy analysis

Turnout in elections, however, is a notoriously difficult variable to predict, with a considerable proportion of classification error. If, indeed, individuals from lower income groups respond to increasing income inequality by believing that their participation in politics is not effective anymore, one would expect to see some attitudinal markers of this phenomenon. In this section, I analyze a variable which I suspect stands at the basis of an individual's decision of whether to turn out in an election and vote: if they feel close to a political party or not. With the exception of a few presidential systems in my sample (Brazil, Chile, Mexico, South Korea, Russia, Peru, United States), most countries have parties at the core of an election cycle. In such a climate, it can be argued that if inequality impacts turnout primarily through psychological mechanisms, then one would expect to see an effect at the level of the likelihood that an individual declares him/herself as close to a particular party.

The models presented in Table 9 do not lend support to such an argument. Older respondents, men, urban residents, union members, wealthier and more education respondents, those individuals with a higher degree of political efficacy and a higher degree of satisfaction with democracy, as well as with a greater amount of political information are more likely to report feeling closer to a political party (when controlling for the other variables in the model). Similar to what was reported in the analysis of turnout, compulsory voting laws also increase the likelihood that a respondent feels close to a political party. The effect of income inequality, however, is inconclusive and never statistically significant.[15] Additionally, subsequent models tested (results not displayed here), revealed that income inequality largely has a similar impact on feeling close to a political party for all income groups.

If the results presented here withstand further testing, then it becomes clear that it's very unlikely that inequality impacts turnout by means of political attitudes commonly measured in surveys such as the CSES. Income inequality, as an aggregate phenomenon, is the political equivalent of a silent tide, at work without any clear signals as to its presence or its deleterious effects. Unlike unemployment or inflation, which have consequences which are visible on a daily basis, income inequality operates on a different plane when compared to our quotidian existence.

[15] I find again that income inequality moderates the impact of political efficacy on closeness toward a party: in contexts with higher income inequality political efficacy has a smaller effect on the feeling of closeness.

It is rather implausible that a sizable proportion of the citizenry, lacking political interest or information about even basic political institutions and processes, is nonetheless aware enough to perceive changes in the relative fortunes of rich and poor and to respond to them by reducing political participation.[16] It is more likely, I would argue, that the observed decreased likelihood of political participation, concentrated in the wealthier respondents, is caused by external factors, such as the extent of political mobilization.[17] An alternative explanation seems equally possible: it may simply be the case that with ever-better prospects, conferred by increasing exposure to world markets, expansion of the service sector and corresponding decline of the manufacturing sector, increasing costs of modern campaigning that make parties more dependent than ever on wealthy donors, the better-off segments of society are simply dropping out of the political game. This is not to say that they have become apathetic regarding politics, or that the "dormant" state could not be interrupted in case a serious threat appears on the political horizon (e.g., a strong Leftist and populist politician that manages to galvanize public opinion). Absent these potential threats, however, the wealthy may simply be content to monitor political developments, and forgo on the more cumbersome and intensive aspects of political participation, such as voting.

This phenomenon of withdrawal from public life can, naturally, take place through more benign mechanisms as well. With increasing reliance of private services (health-care, schooling, information services, transportation etc.), wealthier voters might see little reason to become involved in the political debate, as long as it doesn't threaten the availability or cost of these services. "The commons" are simply no longer of concern to be better-off in society, as increasing socio-economic inequality makes the term obsolete. We are faced, rather, with *separate commons*, serving two strata of society that have less and less contact with each other in the private or public sphere.[18]

5 Mechanisms of inequality: moving from moderation to mediation?

The previous section has highlighted that income inequality plays a moderating role for the effect of individual-level factors on turnout. This does not reveal whether this happens because income inequality directly impacts these individual-level variables, or due to factors omitted from our model, which correlate with inequality and also impact individual-level determinants of turnout. Although my attempt here cannot possibly settle the matter on account of the very simplified model used to test this, it represents the first attempt to show that inequality's effect also operates through other attitudinal determinants of turnout.

A number of exploratory three-level multilevel structural equation models were tested,

[16] Very little differences are observed between established and new democracies in terms of the effect of income inequality (see Figure 6).

[17] Testing this in a cross-national and cross-temporal setting is not feasible with CSES data when considering that only Wave 2 of the project included a question on party contacting.

[18] To this I can add a more conservative explanation, pointing to a floor effect: it is likely that lower income individuals already have such a low level of voting turnout, that increased income inequality can't possibly drive it down much further.

with the results presented in Table 11. The first thing to notice in the various model specifications tested is that income inequality remains a statistically significant predictor of turnout. This reinforces the results found in earlier analyses, and increases my confidence in asserting that inequality is a strong determinant of turnout. The main finding, however, concerns satisfaction with democracy, which appears to be negatively impacted by income inequality only in some of the models tested. In four of the six models tested the estimate reaches statistical significance at the .05 level, whereas it narrowly misses it in the two remaining cases. This result confirms the findings of Anderson and Singer (2008), but goes against the findings of Magalhães (2013). Considering the underspecified nature of the model they have been obtained from, the safest interpretation is that income inequality does not have a statistically significant impact on satisfaction with democracy that is stable across different model specifications and, thus, most likely does not influence individual-level satisfaction.[19] Other attitudinal variables, such as political efficacy, or the extent of political information are similarly unaffected by income inequality.

6 Discussion

A number of important conclusions resulted from the analyses conducted so far. Increasing income inequality should be seen as a worrying trend for democracy, given that contexts with higher levels of inequality are associated with a lower probability of turning out to vote at the individual level. The effect is exerted directly, as well as by moderating the impact of other variables: income, political efficacy, or satisfaction with democracy. My results confirm those obtained by most individual-level analyses of the connection between income inequality and turnout, and lead me to conclude that the phenomenon I am noticing is indeed worthy of attention (policymakers) and study (academics). Unlike previous analyses, however, I find that it's wealthier individuals who respond the strongest to a high level of income inequality rather than the poorest.

The results have encouragingly confirmed results of past findings, although they have also left open a considerable number of questions regarding the causal mechanism through which income inequality impacts turnout. The current analyses suggest that the effect is not transmitted through attitudinal variables such as political efficacy, satisfaction with democracy, or a respondent's level of political information. One variable which my models have not been able to include is trust. Higher income inequality could lead to lower levels of interpersonal and institutional trust, and ultimately to a reduced likelihood of turnout out

[19] If we are to take the results at face value, however, and interpret 'satisfaction with democracy' as an indicators of support for system performance (Linde and Ekman 2003), rather than for democratic principles or particular political actors, then the interpretation is fairly clear. Although the changes induced by income inequality are too small to be noticeable in a short time span, over decades they can amount to considerable shifts in the quality of life of individuals across socio-economic strata. Income inequality, as an indicator of regime performance, does seem to impact a respondent's satisfaction with democracy, as the notion of *equality* is tightly connected to that of *democracy*. Over time, the growing rift between praise for the principles of democracy and the mounting evidence of its inegalitarian outcomes becomes too wide to ignore, leading to growing public disaffection.

to vote (Grönlund and Setälä 2007). With this notable, exception, however, my analyses suggest that income inequality does not have any impact on political attitudinal variables linked to turning out to vote.

A short methodological interlude is relevant at this point: although the connection between income inequality and turnout seems fairly strong, I have serious concerns about model mis-specification at the country-year level. Given the limited number of elections per country (at most four), I hesitated to add more than two predictors in the model.[20] A positive result concerned the use of indicators of inequality - as the regression analyses revealed, the strongest association is found between turnout and an average of income inequality for the three years preceding the election. The choice is not simply the methodological equivalent of a marriage of convenience: it is theoretically plausible that the impact of inequality on perceptions takes time to "trickle down". Citizens must come to terms with the increasing gap between themselves and the richest in the country, and with the fact that political alternatives on the redistributive dimension are not very different between the Left and the Right - only then will the dissatisfaction manifest itself and the decision to tune out of political life be made. In an attempt to see whether people might be more responsive to a simpler indicator of inequality, such as the share of income received by the top 10, 5 or 1 percent of income earners, I re-ran all models using these indicators. None of the models showed them to have a statistically significant impact on turnout, satisfaction with democracy, or political efficacy.

My analysis has also suggested a possibility which has been dismissed with all too quickly by existing analyses (see Stockemer and Scruggs 2012): that the effect of inequality varies depending on whether our sample includes established or new democracies. Although the effect of inequality on turnout is consistently negative, regardless of the sample used, there is indication that the effect of inequality on turnout is stronger in new democracies than in established ones.

[20] In this sense, I am puzzled by the results obtained by Solt (2008), who includes five country-year predictors in his models, although only six countries in his sample of 22 have six or more elections.

Table 11: Regression estimates for logistic multilevel structural equation models, with turnout as the dependent variable (confidence intervals are presented in brackets). '*' denotes an estimate that is statistically significant at the p < .05 level.

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
*Predicting **turnout***						
Age	0.013* (0.013; 0.014)	0.013* (0.013; 0.014)	0.013* (0.013; 0.014)	0.013* (0.012; 0.013)	0.014* (0.013; 0.014)	0.014* (0.013; 0.014)
Female	0.059* (0.034; 0.085)	0.059* (0.034; 0.085)	0.047* (0.022; 0.072)	0.043* (0.021; 0.066)	0.039* (0.016; 0.062)	0.049* (0.025; 0.073)
Urban	-0.046* (-0.075; -0.016)	-0.046* (-0.075; -0.016)	-0.026 (-0.054; 0.003)	-0.033* (-0.059; -0.008)	-0.055* (-0.082; -0.028)	-0.056* (-0.083; -0.028)
Married	0.177* (0.150; 0.204)	0.177* (0.150; 0.204)	0.178* (0.152; 0.204)	0.187* (0.163; 0.210)	0.186* (0.161; 0.211)	0.184* (0.159; 0.209)
Union member	0.159* (0.124; 0.194)	0.159* (0.125; 0.194)	0.158* (0.125; 0.191)	0.146* (0.115; 0.177)	0.146* (0.115; 0.177)	0.146* (0.114; 0.177)
Income	0.045* (0.034; 0.055)	0.045* (0.034; 0.055)	0.044* (0.034; 0.054)	0.044* (0.034; 0.054)	0.049* (0.039; 0.058)	0.046* (0.037; 0.056)
Education	0.064* (0.055; 0.073)	0.064* (0.055; 0.063)	0.065* (0.056; 0.073)	0.062* (0.054; 0.069)	0.069* (0.061; 0.078)	0.065* (0.057; 0.073)
Political efficacy	0.118* (0.108; 0.127)	0.118* (0.108; 0.127)	0.117* (0.108; 0.127)	0.112* (0.103; 0.120)	0.120* (0.112; 0.129)	0.120* (0.111; 0.129)
Satisfaction with democracy	0.130* (0.113; 0.148)	0.131* (0.114; 0.148)	0.135* (0.118; 0.152)	0.133* (0.118; 0.148)	0.137* (0.121; 0.153)	0.136* (0.120; 0.152)
Political information	0.201* (0.186; 0.215)	0.200* (0.186; 0.215)	0.208* (0.194; 0.222)	0.208* (0.195; 0.220)	0.195* (0.181; 0.210)	0.202* (0.187; 0.216)
Gini	-0.105* (-0.186; -0.035)	-0.077* (-0.115; -0.028)	-0.088* (-0.132; -0.051)	-0.096* (-0.142; -0.072)	-0.054* (-0.128; -0.016)	-0.091* (-0.161; -0.052)

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Table 11 – *Continued from previous page*

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Compulsory voting	0.338 (-0.220; 0.912)	0.324 (-0.030; 0.694)	0.341 (-0.068; 0.757)	0.346 (-0.084; 0.764)	0.807* (0.679; 0.990)	0.889* (0.741; 1.107)
Proportional representation	-0.710* (-2.098; -0.047)	-0.472 (-1.150; 0.010)	-0.534 (-1.295; 0.002)	-0.576 (-1.281; 0.000)	-0.240 (-0.968; 0.326)	-0.443 (-1.286; 0.179)
Electoral closeness	-0.003 (-0.015; 0.009)	-0.003 (-0.014; 0.008)	-0.003 (-0.014; 0.009)	-0.002 (-0.014; 0.009)	–	–
Importance of election	0.513* (0.089; 0.886)	0.532* (0.174; 0.868)	0.549* (0.180; 0.896)	0.434* (0.062; 0.787)	0.224 (-0.474; 0.805)	0.030 (-0.698; 0.660)
*Predicting **satisfaction with democracy***						
Gini	-0.024* (-0.038; -0.011)	-0.022* (-0.037; -0.009)	-0.022* (-0.037; -0.008)	-0.023* (-0.038; -0.009)	-0.020 (-0.041; 0.000)	-0.020 (-0.043; 0.001)
Income	–	0.032* (0.028; 0.037)	0.032* (0.028; 0.036)	0.033* (0.029; 0.038)	0.037* (0.033; 0.041)	0.037* (0.033; 0.041)
Education	–	0.010* (0.006; 0.013)	0.010* (0.006; 0.013)	0.008* (0.005; 0.012)	0.012* (0.008; 0.015)	0.012* (0.009; 0.015)
Gender	–	-0.038* (-0.049; -0.027)	-0.041* (-0.051; -0.030)	-0.040* (-0.050; -0.030)	-0.026* (-0.035; -0.017)	-0.026* (-0.035; -0.017)
Age	–	0.000* (0.000; 0.001)	0.000* (0.000; 0.001)	0.000 (0.000; 0.001)	0.001* (0.000; 0.001)	0.001* (0.000; 0.001)
*Predicting **political efficacy***						
Gini	–	–	0.005 (-0.013; 0.022)	0.005 (-0.013; 0.023)	–	–
*Predicting **income***						
Gini	–	–	–	-0.006 (-0.016; 0.004)	–	–

Continued on next page

Table 11 – *Continued from previous page*

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
*Predicting **education***						
Gini	–	–	–	-0.044* (-0.077; -0.006)	-0.038 (-0.078; 0.010)	-0.037 (-0.078; 0.011)
*Predicting **political information***						
Gini	–	–	–	–	0.006 (-0.011; 0.023)	0.008 (-0.009; 0.025)
Income	–	–	–	–	–	0.077* (0.072; 0.082)
Education	–	–	–	–	–	0.123* (0.119; 0.127)
Gender	–	–	–	–	–	-0.266* (-0.278; -0.253)
Age	–	–	–	–	–	0.007* (0.007; 0.007)
N	70,579	70,579	74,927	90,355	84,754	84,754
Country-years	59	59	61	61	68	68
Countries	25	25	25	25	26	26

Note: Models were run in Mplus, relying on Bayesian estimation through the Gibbs (PX1) algorithm. 4 chains were specified, each allowed to run for 200,000 iterations. Only uninformative priors were used. Given the considerable complexity of the models, convergence was not achieved even after the above-mentioned number of iterations, for which reason fit statistics cannot be reported.

7 Conclusions

At this stage in the research program I consider it encouraging that my sample has managed to confirm previous analyses with respect to the corrosive influence of income inequality on political participation. However, continuing to research this phenomenon and its impact on political participation and political attitudes is of the utmost importance. The analysis presented here has shown that income inequality impacts more precisely those individuals who are the most active participants in democratic political systems: wealthier and more politically efficacious individuals. Presumably, part of this effect is a result of a rational calculation – if the wealthy get wealthier in relative terms regardless of what party is in government. At the same time, another share of this effect is due to a prolonged psychological adaptation to increasingly worsening relative positions in the economy. Controlling for income and education, those who believe more in the power of the electoral process to change the course of the economy and, in fact, the country, are the most disillusioned by the evidence mounting against this. It is these individuals who are most impacted by rising income inequality.

A number of issues remain insufficiently addressed. It remains to be established, for example, that the observed disparity in the effect of income inequality on turnout between income groups is indeed due to the mobilizational efforts of leftist parties. If indeed this is the case, then a further dilemma appears, regarding why rightist parties are failing to mobilize their electorate in response. These, along with other similar questions, target phenomena which are extremely difficult to analyze in a thorough way. Even so, the potential dangers which rising income inequality poses for democratic processes more than justify the occasionally flawed attempts (such as this one) to tackle the 'mountain'.

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