The Fault in Our Parties

Income Inequality, Political Participation, and the Consequences of Party Programmatic Shifts in OECD Countries

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I, Constantin Manuel Bosancianu, hereby declare that the submitted dissertation contains no materials previously written and/or published by another individual, except in instances where an appropriate acknowledgment is made under the form of a bibliographical reference or note. No part of this work has been submitted or accepted at any other institution of higher learning for the purpose of obtaining an academic degree. No chapters or analyses presented herein have been produced with the direct assistance of another person.

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Signature

Abstract

Growing economic disparities and declining turnout across a large number of consolidated democracies have been frequently linked in the literature. These accounts stress the willingness of wealthy elites, in conditions of higher inequality, to defend their gains by subverting democratic politics, along with the sensitivity of poorer voters to these attempts. The latter citizens' turnout calculus is affected by the knowledge that their odds of success in the democratic competition are slim, and this is reflected in decreasing political engagement. In spite of the consistent empirical support this *relative power* thesis has received, I argue that an expansion of the framework is needed, to adequately account for the role of political parties in shaping the association between inequality and turnout. In the updated framework I propose party ideological dynamics are causally antecedent to both trends in economic inequality and turnout rates. Parties influence the former by means of the policies they implement while in office, whether it be taxation, welfare provision, or public services. In terms of the latter, parties can shape an individual's turnout calculus by altering the perceived policy benefits she receives, by subsidizing some of the costs associated with participation, or by activating civic and collective norms that drive turnout.

Some of the links proposed above are tested on a custom-build data set, partly based on the *True European Voter* project. The data comprises individual-level information on turnout from 258 elections in 21 consolidated democracies, going back in some cases to the 1950s. The expanded longitudinal coverage, compared to existing data sources, provides a meaningful snapshot of inequality's and party dynamics' effects over time. The empirical analyses, employing multilevel models combined with a two-stage approach to estimation, largely confirm the posited links. To begin with, income inequality is shown not to have a meaningful connection to turnout in my data, either cross-sectionally or longitudinally. On the other hand, a party system's ideological center is related to turnout over time in the expected way: systems that are further to the Left are associated with a higher turnout probability at the individual level. Party policy, operationalized as a government's policy position, is also associated in the expected way with inequality a few years into the future. On a TSCS data set of 23 countries, between 1960 and 2007, I show that governments that are further to the Right also experience higher levels of inequality. Finally, I disaggregate party policy into its economic and cultural components, and show that both have an effect on the turnout gap between socio-economic groups. This effect is presumably transmitted through voters' perceptions of the utility of participation, and is shown to be disproportionately greater for voters from a lower socio-economic background.

The findings prove to be bittersweet. Although inequality is not found here to have a direct effect on turnout, party ideological dynamics are shown to exert such an effect. More important for the quality of real-existing democracies, this effect disproportionately impacts more socio-economically vulnerable voters. Further work, though, is needed to better probe the transmission mechanisms from party strategies to voter turnout calculations.

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List of Abbreviations

ATE Average Treatment Effect, page 84

CDA Dutch Christian-Democratic Appeal (*Christen-Democratisch Appél*), page 192

CPI Corruption Perception Index (Transparency International), page 40

CSES Comparative Study of Electoral Systems, page 36

EB Eurobarometer, page 88

ELPD Expected log posterior density, page 86

ESS European Social Survey, page 36

FGLS Feasible Generalized Least Squares, page 63

IDEA International Institute for Democracy and Electoral Assistance, page 78

ISSP International Social Survey Programme, page 36

LDV lagged dependent variable, page 112

LIS Luxembourg Income Study, page 51

LO Swedish Trade Union Confederation (*Landsorganisationen i Sverige*), page 185

LOO "Leave-One-Out" cross-validation, page 86

MARPOR Manifesto Research on Political Representation, page 56

MCMC Markov Chain Monte Carlo, page 65

MLM multilevel models, page 36

PRA Power Resources Approach, page 101

PvdA Dutch Labor Party (*Partij van de Arbeid*), page 192

PVV Dutch Party for Freedom(*Partij voor de Vrijheid*), page 196

SAF Swedish Employers Association (*Svenska Arbetsgivareföreningen*), page 189

SAP Swedish Social Democratic Party (*Sveriges Socialdemokratiska arbetareparti*), page 185

SWIID Standardized World Income Inequality Database, page 38

TEV True European Voter, page 41

UKIP UK Independence Party, page 196

VAP Voting-Age Population, page 173

VVD Dutch People's Party for Freedom and Democracy (*Volkspartij voor Vrijheid en Democratie*), page 194

WVS World Values Surveys, page 36

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I still clearly remember the day I found out I had been admitted to the doctoral program at the Central European University; somewhere, in a notebook, I still have the tickets for the overnight train that brought me to Budapest on September 27, 2011. Looking back at the last 6 years, there have been plenty of ups and downs—periods of doubt, of confidence, of surprise, of disappointment, contentment, and back to doubt again. Yet the highs would have been lower, and the lows would have been deeper, without the encouragement, support and advice of a number of people.

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For Grandma and Grandpa,
who can't read this,
but who contributed to it
more than they will ever know.

1

Introduction

When asked, in late 2002, about her biggest success over a political career which spanned 33 years and three terms as Prime Minister, Margaret Thatcher claimed it was "New Labour and Tony Blair. We forced our opponents to change their minds."[1] To an extent, Mrs. Thatcher was likely taking partial credit for changes outside of her party's control, such as growing individualism in the population, emerging anti-tax sentiments, the breakdown of the traditional class structure, and rising resentment against statist over-reach. Nevertheless, she was still on to something—a bigger phenomenon of party platform shift that took place over the 1980s and 1990s in a number of OECD countries, like the United States, Australia, Netherlands, and even Germany or Sweden. This monograph is about the consequences of this process of "changing minds" at the party level.

[1] The anecdote comes from Conor Burns, a two-time Conservative candidate who hosted the fundraising dinner where Mrs. Thatcher made her remark. The episode is described at http://conservativehome.blogs.com/centreright/2008/04/making-history.html [accessed June 10, 2017].

1.1 The Scope of the Problem

Out of the myriad processes which have been affected by such party transformations at the ideological level, such as voting patterns, policy outputs, or coalition dynamics, I have chosen to focus on the link between economic inequality at the aggregate level and electoral turnout. The importance of this association by now requires little elaboration. A raft of analyses, detailed in the following chapter, have established the existence of a powerful negative association between economic inequality and a variety of democracy-enhancing attitudes and behaviors, such as political discussion, satisfaction with democracy, trust, non-electoral political participation, and turnout. Conversely, an equally potent positive association has been uncovered between it and democracy-subverting attitudinal traits, such as nationalism or intolerance toward alternative lifestyles. The more disquieting result is that the most vulnerable socio-economic groups in our societies react the strongest to rising economic inequality, by withdrawing in greater proportion from the political arena (Solt, 2008). Given the recent period of quasi-ubiquitous welfare retrenchment, and of austerity policies offered as solutions to the Great Recession, these connections are worrying enough on their own. The potential for a feedback loop between turnout and inequality, though, compounds the problem even further. As poorer voters increasingly bow out of political confrontations, an important fountain of support for redistributive policies slowly dries out, making further welfare cuts and worsening inequality even more probable. And the cycle begins anew.

Without a doubt, the scale and breadth of inequality's advance in established democracies compels one to devote attention to these relationships. In 19 out of 24 OECD countries income inequality, as proxied by the Gini index of net income, was larger in the second half of the 2000s compared to the first half of the 1980s. Out of the five cases in which this trend does not reveal itself, only South Korea and France actually show a clear decline in inequality, with the other three rather indicative of stagnation. The magnitude of the increase in some cases adds an additional dose of concern: 6 points in Finland, Iceland or Israel; 7 points in Japan, New Zealand or Sweden. Even when using an alternative measure, the share of income going to the top 10% income earners in the country, the picture remains the same. Out of 19 countries, only five experienced a decrease in this share over the four decades which followed the 1970–74 period. Of these five, only New Zealand, France, and Denmark exhibit decreases

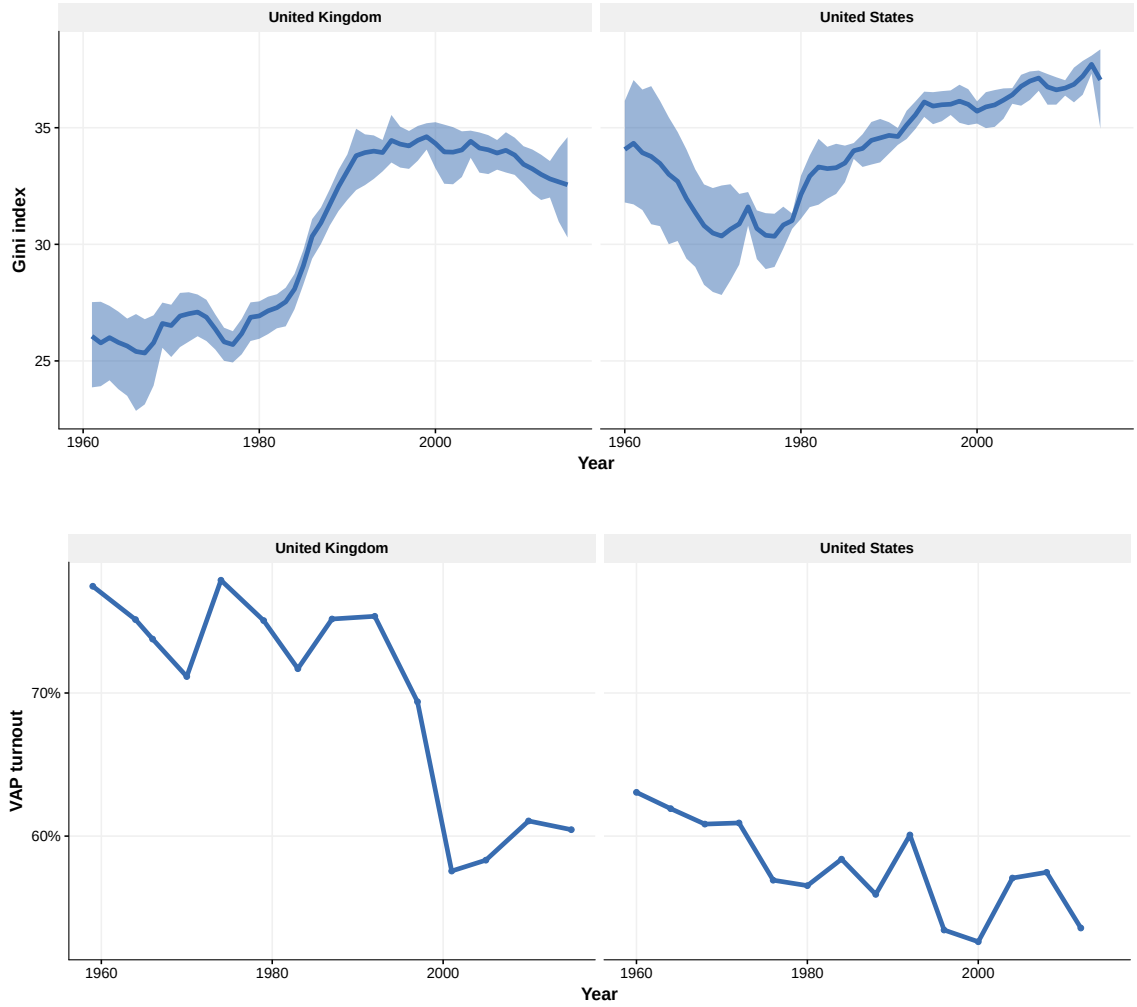
of more than 1 percentage point. The most current data, for 2010–14, shows the top 10% receiving 46.1% of all income in the United States, 38.8% in the United Kingdom, 30.7% in Sweden, 44.1% in South Korea, 39.3% in Germany, 31.3% in Finland, and 28.2% in Norway.[2] When considering that the increases for top 1%, 0.5%, or 0.1% income earners have generally been greater still, and that wealth is usually distributed even more unequally than income, we are confronted with the daunting scope of the phenomenon. Calling it a "trend" does not do it justice; this has been a tidal wave.

For all the considerable attention the links between inequality and political behavior have garnered from political scientists, starting with the 2004 special report of the American Political Science Association's *Task Force on Inequality and American Democracy*, there remains much we do not yet understand about the wider causal environment in which the dynamics between economic disparities and turnout unfold. Both phenomena, in addition to driving each other, are themselves impacted by shifting patterns of union membership, value change, and tectonic transformations in the labor markets and class structure of advanced industrial democracies. While some of these factors might catalyze the uncovered associations between economic inequality and political behavior or attitudes, others might mitigate them to the point of irrelevance. From a more theoretical perspective, turning a blind eye to these wider causal influences makes the connections between inequality and turnout seem curiously *apolitical*. A swift look at Figure 1.1.1 will illustrate this point. Without reference to a wider set of forces, it is difficult to explain the diverging income inequality trends in the US and the UK, particularly in the post-2000 period (see the top two panels of the figure). Even more, it becomes particularly strenuous to explain why over the same period, diverging trends in inequality are associated with similar trends in turnout (see the bottom two panels). Finally, an astonishing 8-point jump in Gini over the 1980s in the UK occurs concomitantly with a stagnant trend in turnout, only to be followed by its mirror image: a 17 percentage point drop in turnout that occurred over a period when economic inequality was largely stagnant. Without bringing in a wider structure of causal factors these developments, and many others like them, are left without a plausible account.

The tendency to report on these phenomena as immutable forces, outside of purposeful political control, is even more pronounced. A special report in a 2006 edition of *The Economist* devoted to

[2] Summary indicators compiled based on the *Standardized World Income Inequality Database* (version 5.1) and the *World Wealth and Income Database*. In the case of a few countries (e.g. Israel, Luxembourg, or Iceland), data did no go as far back in time as the 1980s or 1970s; the earliest available data was used.

Figure 1.1.1: Trends in income inequality and turnout in the United States and the United Kingdom



Note: Net income inequality obtained from the SWIID data (Solt, 2016). Shaded areas represent uncertainty around the Gini estimates. Voting age population turnout obtained from the IDEA data base (parliamentary elections are depicted for the UK, while for the US I use presidential elections).

inequality in the United States typifies this stance when describing the distributional consequences of the productivity boom in the 1990s in the US:

> In the late 1990s everybody shared in this boom. [...] But after 2000 something changed. The pace of productivity growth has been rising again, but now it seems to be lifting fewer boats. The fruits of productivity gains have been skewed towards the highest earners, and towards companies, whose profits have reached record levels as a share of GDP.[3]

To be sure, many explanations can be offered for the trend of rising inequality, from growing returns to

[3] *The Economist*, "The rich, the poor, and the growing gap between them." June 15, 2006. Available at http://www.economist.com/node/705591 [accessed June 10, 2017].

education, loss of manufacturing jobs due to outsourcing, the financialization of the American economy, growing automation of work, free trade, or changes in corporate governance laws (Kenworthy, 2017). Yet, as Bartels (2008, p. 20) points out, nowhere in the 3,000-word report is there a mention of the possibility that political factors are responsible for the distributional trends observed. Throughout it, the only mention of politicians makes reference to their concern over the rising trend. Be that as it may, it is hard to deny that the "something" which changed in 2000 in the US was political control of the economy, from Democratic hands to Republicans'. In the same manner, inequality appears to stop its progression in the mid-1990s in the US or UK, roughly at the same time as the reins of the economy switched from parties of the Right to those of the center-Left.

A similar angle is sometimes used for vote choice and, implicitly, for turnout as well. A 2016 special briefing on the state of European Social Democracy, in the same publication, lists the reasons for why voters have abandoned centre-Left parties in favor of alternative organizations, or the memorably-named "Stay On The Sofa" party:

> But these circumstantial factors do not fully account for the depth and continental scale of the slump. Four things have made Europe a harsher environment for the centre left: its own success, structural change in the economy, a reduced fear of political extremes and the decline of monolithic class groups.[4]

The listed causes of voters' disenchantment with Social Democracy are either immutable forces of economic or social transformation, value change at the level of the citizenry, or the very culmination of these parties' success in their century-long struggle to politically integrate the working class and shield its livelihood from the vagaries of the market. Nowhere are these parties' strategic choices, in terms of political platforms, coalition maneuvers, or mobilization patterns, mentioned as causes of the decline in support.[5] In the view adopted in the briefing parties are akin to innocent bystanders, caught in the swerve of events beyond their immediate control and forced to respond by putting the proverbial finger in the dike. This perspective stands in stark contrast to established accounts that see parties as

[4] *The Economist*, "Rose thou art sick." April 2, 2016. Available at http://www.economist.com/news/briefing/21695887-centre-left-sharp-decline-across-europe-rose-thou-art-sick [accessed June 10, 2017].

[5] To be fair to the authors, "pragmatic" policies are listed among the potential solutions these parties could adopt in their attempt to appeal to voters. It should also be said that exceptions have always existed, such as the politically-sensitive coverage encountered in Bartels (2008), Stiglitz (2012), Anderson and Beramendi (2012) and others.

willful agents, capable of long-term strategies aiming at building mass support and at shaping a core constituency that can deliver consistent electoral returns (Bartolini, 2000; Enyedi, 2005).

1.2 Parties as Agents of Change

It is at this point that political parties, and the choices they make, come to play a role in the "inequality paradigm." The view adopted in this monograph is that even though the causal web I hinted at above is complex, political parties are an important node in it. Including the choices parties make with respect to the constituencies they wish to appeal to, the policies used in these appeals, or the coalitions they intend to join, can add a finer texture to the descriptions of the link between inequality and turnout than alternative perspectives are able to.

As the recent discussion about the sources of inequality in America has suggested, political parties' influence can shape distributional outcomes. The policies implemented by parties, once they get into power, can impact the extent of redistribution in a country, what the budget priorities are, and the extent to which a host of societal and economic actors can make claims on these priorities. In a longer time horizon, political control can also give shape to particular configurations of institutions, like the educational system or health care, which have more subtle yet lasting effects on the extent of economic inequality. As was visible in the context of the United States or the United Kingdom, though, even in the shorter horizon the effects are glaring. Inequality in the UK only starts to grow at the beginning of the Thatcher era, partly as a result of the various policies of privatization, welfare restriction, union suppression, and tax reduction implemented throughout the 1980s. This growth is only capped in the early 1990s by the same Conservative party, only now advocating a wholly different set of priorities than it had a mere decade earlier. In the same manner, in the United States between 1980 and 2008, the only time period when inequality is stagnant coincides with the return to power of the Democratic Party under Bill Clinton. With respect to economic inequality, then, parties are not completely helpless.

Neither can they be said to be simple spectators of the secular turnout decline occurring throughout most of the OECD. Processes of value change and social structure reconfiguration certainly play a significant role in explaining why turnout trends appear as they are. Yet party strategies do as well, inasmuch as they can influence the benefits voters receive from the act of participation, or the costs they incur as part of casting a ballot. On the benefits side, the policies parties pledge to implement are a key

factor in whether voters opt for casting a ballot in favor of *any* party, or end up abstaining. Such lack of interest can be generated by either the feeling that no campaign promise on a specific issue comes even close to the preferred stance of the voter, or from the relative indifference between competing party promises. On the matter of costs, parties can draw on the work of a vast array of campaign volunteers and members of connected organizations, such as unions or church groups, to assist voters with registration, information on policies, or election day logistics. At a deeper, more emotional, level, parties can also stimulate, through the appeals they make in the campaign and the types of candidates they put up for election, a sense of group membership and of the obligation to support one's group. Frequent campaign appeals to "blue-collar workers" or "Christian families", and more subtle "dog-whistle" tactics that play on racial fears—all are designed to establish an *us* and a *them* (Tajfel and Turner, 1986) and to reinforce emotional commitments to "our camp" and its values.[6] At election time, these commitments are promptly converted into electoral support. When political parties change electoral strategies, and seek out new constituencies in the quest for a winning electoral coalition at the mass level, the targets of these appeals change, and with them turnout propensities.

The dual impact of party ideological shifts, on both income inequality and individuals' vote calculations, is what makes the changing of the mind Margaret Thatcher spoke of so important. What she was hinting at, i.e. the ideological transformation of the British Labour Party, is a wider phenomenon among centre-Left parties, evident in countries as diverse as Australia, Germany, Netherlands, and even Sweden (Lipset, 2001). Part and parcel of this transformation has been an abandonment of traditional social democratic positions on economic matters in favor of a more centrist position. Some of the changes have meant severing the preferential connection these parties had with unions, embracing privatization of state-owned enterprises as a means of relieving the public budget of burdens and lowering prices for services, a general aim toward reducing inflation even at the cost of higher unemployment, a reduction of the bureaucratic apparatus, and striving toward greater job market flexibility. More importantly, this shift has also involved an acceptance of inequality as the driving engine for individual effort in the economic sphere. Frequently, this transformation was mirrored and sometimes preceded by a similar shift to the Right among centre-Right parties, such as the US Republicans or the Conservatives

[6] Such strategies also have the effect of making abstention more socially costly for the individual by potentially creating tension between themselves and their reference group, but also between their idealized image of themselves ("proper working-class") and actual behavior (Knack, 1992).

in the UK, producing governments and policies that sharply altered market distributional outcomes, such as the Conservative Thatcher cabinets of the 1980s, the Reagan and Bush Sr. administrations in the United States, or the Schluter cabinets in Denmark.

In the account I offer in the subsequent chapters such party shifts are included as key causal precursors to both economic inequality and turnout, in an attempt to contextualize a widely-used perspective for explaining the link between these two phenomena, the *relative power* framework. Through the policies they implement center-Right and center-Left parties can shape dynamics in economic inequality over time. The very same party movements can alter the voting costs for specific sub-constituencies, and increase the subjective feeling of poor representation and political alienation—what John Lanchester called "the thin, diminished texture of democratic choice"[7]. The manner in which this alters the by now established connection between inequality and political participation is impossible to predict, and is ultimately an empirical issue. The contribution of my proposed perspective is not in questioning this link, but in adding parties to the account. I contend that political parties are important additions to the framework, able to contextualize findings and infuse a greater degree of political agency in an account of the extent to which economic disparities alter patterns of political participation.

1.3 Outline

The following chapters expand on the somewhat superficial links I have established so far, by refining them and marshaling a greater amount of supporting evidence in their favor, and then by testing them empirically in the setting of 21 advanced industrial democracies. As the reader will be able to see, the proposed framework has found a good deal of support in the data, even though many transmission mechanisms between party programmatic changes, inequality, and turnout remain insufficiently explored, or not at all.

Chapter 2 presents a more consolidated version of the argument I have just made in the previous section. The main explanatory framework for understanding inequality's impact on political participation comes in the form of the *relative power* framework (Goodin and Dryzek, 1980; Solt, 2008). This conceptualizes an individual's turnout decision as shaped by one's relative income position in society, in combination with the degree of income inequality. In more unequal countries richer voters use their

[7] "Between Victoria and Vauxhall", *The London Review of Books*, 39(1): 3–6. June 1, 2017.

wealth to try to skew political outcomes in their favor (Gilens, 2012), and to shape the public sphere so as to drown out issues unfavorable to them. Poorer voters react to such repeated attempts at democratic subversion by gradually dropping out of politics. I argue in this chapter that a significant shortcoming of this account is that it does not incorporate any role for political parties as catalysts of both distributional outcomes and shifts in turnout patterns at the individual level. I propose an expanded framework which places party dynamics at the core of such phenomena, exerting their effect through policies that shape income dynamics and voters' perceptions of the utility of participation over time.

Testing these connections over a long-enough time period, in which both economic inequality and turnout can display sufficient variation, has required the assembly of a new data set. Chapter 3 presents the way in which the *True OECD Voter* data used here has been assembled, by piecing together and harmonizing 258 election studies from 21 countries, going as far back in time as the 1950s. Nine of the countries were sourced from an advanced release of the *True European Voter* project (Schmitt et al., 2013), while the other 12 had to be manually merged by myself. The painstaking work paid off by producing a data set with a longer longitudinal coverage than those typically used in testing the *relative power* framework, even though substantial missing data problems still remain. The individual-level data was used in combination with information about economic inequality from the *Standardized World Income Inequality Database* (Solt, 2009, 2016) and party placement indicators from the *Manifesto Research on Political Representation* project (Volkens et al., 2014).

Chapter 4 presents the first investigations of my proposed framework. I show here that, in a longitudinal perspective, inequality and turnout (or satisfaction with democracy) do not appear to be associated, casting some doubt on the standard *relative power* framework. A cross-country effect of inequality on turnout continues to be visible, but is frequently obscured by the inclusion of other variables in the statistical specifications, such as perceptions of corruption, or quality of government. More testing would have to be conducted before clearly establishing whether either a longitudinal or a cross-sectional direct effect of economic inequality on turnout exists—my data here suggests neither is at play. On the other hand, party ideological changes, proxied through an aggregate indicator of the ideological center of the party system, have a consistent effect on turnout over time. Party systems that move further to the Right over time are associated with lower turnout probabilities at the individual level.

The following chapter turns its attention to the aggregate level, by testing the proposition that

party ideological changes are responsible for corresponding shifts in distributional outcomes. Starting from an established framework, the *power resources approach* (Korpi, 1978, 1980), I argue that empirical tests of this connection have frequently relied on an inadequate measure of party influence. By measuring party control of government as the seat share or vote share of Left or Right parties over time, such tests have ignored that parties change in terms of the policies they advocate and the priorities they set for themselves. To take one of the more glaring examples, in terms of economic promises the Blair cabinet of the end of the 1990s in the UK was closer to a Conservative cabinet of the 1970s, than a corresponding Labour cabinet of the same period. Relying on a newly-proposed measure of government placement, I compute the governmental position on a socio-economic axis for 23 countries, for the entire 1960–2007 period. I show in this chapter that such a measure impacts income inequality into the future even after controlling for the current level of income inequality—cabinets that are further to the Left produce a lower level of inequality in the future. This result indicates that the policies parties pledge in their election manifesto to implement do impact economic inequality, as we had reason to suspect from examining how the trends in the UK and the US correspond to partisan control of the government.

Chapter 6 further pursues the matter of the influence of party dynamics on turnout decisions. Parties make a host of promises in their manifestos, in their attempt to weave together a "quilt" of multiple demands and interests that constitutes a winning coalition at the mass level. In this chapter I disaggregate the rough measure of party shifts used in Chapter 4 into a socio-economic and a cultural axis that structure party competition at the national level (Kriesi et al., 2008). These are subsequently related to the turnout gap between, and absolute turnout levels of, specific socio-economic groups in society, to determine precisely how party ideological shifts impact turnout, and which groups are most affected. The results are mildly startling, inasmuch as their indicate that the turnout gap between socio-economic groups defined based on education and income has grown over time. More important, though, such gap has worsened exclusively due to the gradual de-mobilization of low-income and low-education voters. Party ideological changes, measured here through an indicator of party polarization, are then shown to be related to such turnout gap in the expected way. Gradual depolarization on an economic dimension, as well as polarization on a cultural one, in the party systems of advanced industrial democracies, are associated with the political withdrawal of voters with a lower socio-economic status. These two dy-

namics impact voters either through the former's ability to change the voter's perceived benefits from participating, and through the latter's potential to cross-pressure voters from a lower socio-economic status into wavering from their commitment to Left parties.

Finally, Chapter 7 takes a step back from the large-N analyses by tracking the developments over time in three countries in my sample: the United Kingdom, Sweden, and Netherlands. The main intent of this exercise is to capture how the aggregate dynamics I uncover in my statistical analyses play out on the ground, shaped by a variety of labor market institutions, political coalitions, and economic factors that my analyses were unable to fully control for. Additionally, such a descriptive approach also serves to highlight a few of the factors that my framework misses and misspecifies in its goal of producing an adequate explanation of turnout variations over time. Here, I show that a more accurate explanation can be produced if the impact of unions on inequality and on turnout is also factored in, as well as the corporatist configuration of the labor market. Furthermore, such accuracy could be improved by a better measure of policy liberalism on a economic or cultural dimension, given the obvious flaws of my current measure that is heavily dependent on *promised* policies, rather than actual ones.

The perspective that underpins my analyses is that parties and their policies can make a difference, both for the better and for the worse. Parties' strategic decisions as to which issues to emphasize, and which constituencies to target, in their search for a winning electoral strategy, have consequences that extend beyond the current electoral cycle. The policies they have committed themselves to implement shape distributional outcomes into the future. The same policy promises impact how well voters feel represented by the parties, and whether they see any benefits in participating at the next electoral cycle. Admittedly, the "parties–do–matter" approach is not novel, but I would argue it is nevertheless important, given our tendency to view such tectonic shifts in turnout or economic inequality as outside of our control and enduring. The role of parties is only one segment of a considerably larger story. Yet it is an important one, as it illustrates the role political agency plays in some of the economic and political processes we have observed in the last four decades in consolidated democracies.

2

The Complex Nexus: Income Inequality, Political Participation and Party Dynamics

Attempting to capture *all* causal connections between income inequality, aggregate shifts in political behavior, and party dynamics would be an exercise in futility and conceptual confusion. Keeping this in mind, in this chapter I present a theoretical framework which captures the essence of the causal web between these three phenomena. The advantage of omitting some links and glossing over particular dynamics is that the final framework can be put to the test in a meaningful way in the following sections while avoiding getting bogged down in *caveats*.

Without wishing to to spoil the ending, I offer here a road-map to my argument. After an introductory subsection, where I argue that inequality trends constitute serious disruptions to democratic life, I outline the main findings with respect to the influence of economic inequality on political attitudes

and behaviors at the individual level. Out of the competing theoretical frameworks that could explain the observed patterns, the most developed one is *relative power theory* (Goodin and Dryzek, 1980; Solt, 2008). After presenting this framework I will claim that the absence of political parties from an otherwise unmediated inequality–voter relationship, which the theory presupposes, represents a major omission. Accounting for the role of political parties becomes all the more important when considering that partisanship and features of party mobilization can help explain both trends in inequality over time, as well as changes in turnout patterns.

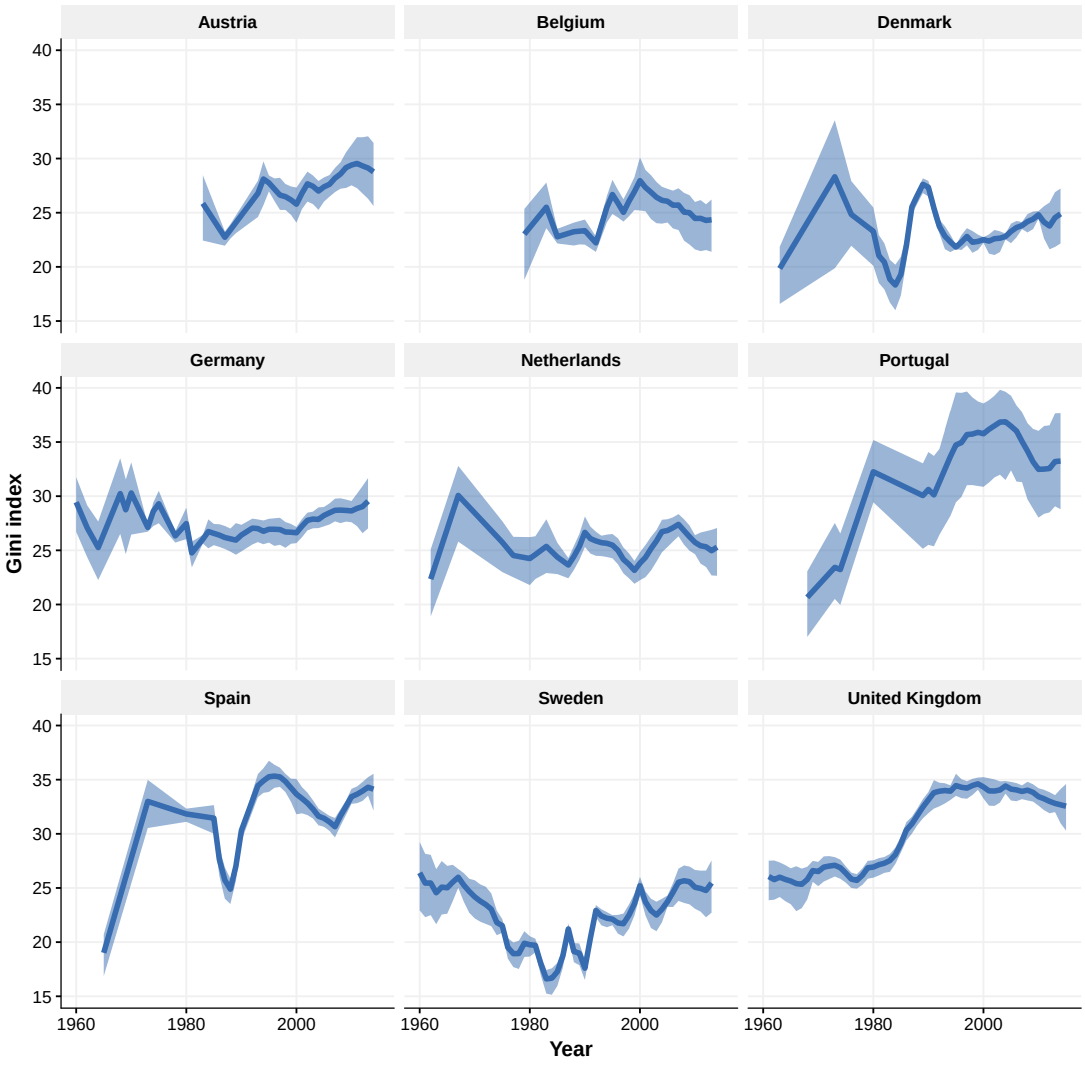
It bears mentioning that an equivalent, party-centric, approach has already been used to qualify the findings of analyses which focus on the public health consequences of income inequality (e.g., Wilkinson, 1996). Just as in the case of inequality and health outcomes, I will argue that party dynamics (platform shifts, and the policies that emerge from them after the election) ought to be included in an account of the extent to which income inequality impacts political participation and attitudes. I further claim that such party dynamics are visible in a majority of advanced industrial democracies, among both parties of the Right and the Left, although it is the latter group that has received the most scholarly attention (Keman, 2011; Lipset, 2001). This ideological swerve has essentially tilted the political spectrum in a rightward direction, bringing about both rises in income inequality (which have come to reverse a three-decade-long postwar trend toward greater equality) and growing dissatisfaction with the political system, particularly concentrated in lower-income respondents.

2.1 Why Inequality Matters

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), regardless of what measure of inequality one relies on. Although the trend has not been universal, with France or Norway displaying more inconclusive patterns of inequality, the "silent tide" has nevertheless managed to touch upon most advanced industrial democracies in the OECD. This has been all the more surprising as for the longest time in the post-World War II history inequality has, by and large, decreased due to the expansive, but ultimately expensive, welfare states that were being assembled across Western Europe.

As Figure 2.1.1 shows, an upward trend in income inequality can be clearly be seen starting with

Figure 2.1.1: Trends in income inequality for 9 Western European countries, 1960–2010



Source: Frederick Solt's SWIID, version 5.1. Shaded areas represent uncertainty in estimates of Gini due to the multiple imputation procedure used by the SWIID (for details, see Solt, 2016).

the 1980s in at least four out of the nine countries included in the graph[1], and in at least three others (Austria, Denmark, and Netherlands) the same trend is visible starting with the mid-1990s. Although not displayed here in graphical format, a similar conclusion emerges when examining decile ratios. The ratio between the share of income accruing to the top 10 percent income earners in a country and the same share of the bottom 10 percent has been steadily growing in most advanced democracies in the past three decades.

When peering closer at the trends, though, a picture of even greater complexity emerges (see

[1] Five out of 10 if we include the case of the United States, presented in the preceding chapter. The trend identified in this figure largely holds regardless of whether we focus on individual, family, or household inequality (Burtless and Jenks, 2003).

Atkinson, 2003), whereby similar dynamics could be caused by different economic and political phenomena at play. In some countries, mainly of an Anglo-Saxon lineage, the trend in the Gini index is overshadowed by the rise in the share of income going to the highest 1 or 0.5 percent of income earners in the country (Atkinson and Piketty, 2007). In other countries, mainly in continental Europe, such a trend in top incomes is not observed, most likely owing to more progressive taxation regimes. The main implication of this disparity, cogently pointed out by A. B. Atkinson, is that explanations for these two dynamics should probably focus on different causal factors. For analysts preoccupied with the consequences of inequality, though, they imply the potential for different effects on the quality of representation in a political system, or on public attitudes, depending on whether the shifts that give rise to inequality take place in the middle or the extremes of the income distribution.

Even with the reservations induced by the trends in top incomes across advanced democracies, I would conclude that over the past decade a fragile consensus has taken shape, precisely summed up by Brandolini and Smeeding (2009):

> [...] 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. (p. 89)

Far more contentious, from an empirical perspective, is the issue of the driving factors of such dynamics. Most accounts naturally emerge from the economics literature and place the blame squarely on socio-demographic and economic transformations, although compiling a short list of 'usual suspects' has proven to be difficult.[2] Among the factors listed by the numerous studies one can find declining union membership, higher returns to college education (Gottschalk and Danziger, 2005), skill-biased technological change (Atkinson, 2003; Berman et al., 1998; but, see Lemieux, 2006), globalization, immigration, trade with developing nations (Burtless, 1995), a multitude of changes in the economic structure (e.g., deregulation, transformations in the executive compensation regime), as well as population aging. Although disagreement still exists with respect to the timing of some of these phenomena relative to the rise in inequality, few analysts would dispute that by the 1970s or 1980s large-scale shifts in the economic structure of advanced industrial democracies were in full swing, and at least partly contributing to the dynamics outlined above.

[2] A thorough review of these explanations can be found in Neckerman and Torche (2007).

Political scientists, on the other hand, have been more preoccupied with the repercussions of rising inequality for processes of political representation and for democratic attitudes and behaviors in the citizenry. This alternative focus, when compared to that of economists, is not unreasonable, particularly if considering the often strong feelings citizens have toward inequality in society (Salverda et al., 2009, p. 6). The notion of equality lies at the center of any modern conception of democracy, and most people feel there is an intrinsic incompatibility between glaring socio-economic disparities and political equality. It has been both theorized (Dahl, 1971; Pateman, 1971; Rueschemeyer, 2004; Schattschneider, 1960) and shown (Bartels, 2008; Giger et al., 2012; Gilens, 2005, 2009) that large income differences distort patterns of accountability and responsiveness in modern democracies, making elected representatives more attentive to the wishes of the well-off. In addition to these, the avid focus of political scientists on inequality's consequences is understandable when evaluated through the prism of the multiple societal effects which have been attributed to increased economic 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, p. 6)[3]

Perhaps the strongest reason for why income inequality and its effects on political behavior have recently been the focal point of political scientists' attention is the belief that political decisions can impact inequality trends. 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, pp. 19–23; Braun, 1991), the data suggests that politics is not powerless. To a certain extent, most countries presented in Figure 2.1.1 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, p. 7). Others, such as the US or the United Kingdom, have taken minimal steps to keep it in check, or have even adopted policy measures that have exacerbated

[3] To these, Wilkinson and Pickett (2009) add effects on mental health and rates of drug use, obesity rates, educational performance, or teenage births.

inequality.[4]

2.2 The Perils of Inequality

In spite of 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 been, until recently, woefully understudied in a cross-national context (Anderson and Beramendi, 2012, p. 715). Recent efforts in this direction (Anderson and Beramendi, 2012; Pontusson and Rueda, 2010; Solt, 2008, 2010, 2012) have 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, the United Nations University's *World Income Inequality Database*, or Frederick Solt's *Standardized World Income Inequality Database* (Solt, 2009, 2016).

While they do not constitute the focus of this monograph, a host of studies consistently point to far-reaching consequences of rising inequality for democratic consolidation, representation, and the overall quality of political institutions. Higher levels of income inequality are found to be associated with a greater likelihood of democratic breakdown (Boix, 2003; Muller, 1988, 1995; Przeworski et al., 2000), but also a diminished probability of democratic consolidation in the future (Houle, 2009). Even when stopping short of such drastic effects, economic inequality has nevertheless been found to steadily corrode normal democratic patterns. Economic inequality is found to impact party polarization, both in the case of the US and in a wider cross-national setting (Akdede, 2012; McCarty et al., 2006; Pontusson and Rueda, 2008). Under conditions of inequality political parties have a clearer view of the bounds of their constituencies, a salient dimension of competition, and fewer reasons to propose moderate policies.[5] What makes this process particularly worrying is a plausible feedback mechanism which could make inequality a permanent feature in a national context:

> The causality between inequality and injustice runs in both directions. Initial inequality

[4] 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.

[5] In the United States, the first signs of this process could be spotted in early 2014 with President Obama's mention of limited social mobility and growing income inequality as important problems facing the US. An even stronger signal was the popular, but ultimately unsuccessful, campaign of Senator Bernie Sanders for the Democratic Party's nomination in the 2016 US Presidential elections. At the center of Sen. Sanders' platform was a commitment to vigorously tackle income inequality in the United States.

> leads to subversion of institutions, but weak institutions themselves allow only those able to protect themselves to become rich. (Glaeser et al., 2003, p. 201)

At the individual-level, analyses which examine the consequences of income inequality have arrived at even more startling conclusions. In what could be considered the breakthrough study, Solt (2008, p. 48) uncovers lower rates of political interest, a lower frequency of political discussion, as well as reduced turnout rates at election time in countries with above-average rates of income inequality (but see Brady, 2003). Solt's analysis is also noteworthy for its use of the largest cross-national sample up to that point (23 countries), as well as for making use of a self-constructed data set with estimates of the Gini index for far more countries than what had previously been available. Since this landmark study, a number of other analyses have followed in its footsteps, gradually increasing the country coverage. With respect to turnout, multiple analyses (Anderson and Beramendi, 2008, 2012; Boix, 2003; Galbraith and Hale, 2008; Lister, 2007; Mahler, 2002; Scervini and Segatti, 2012; Solt, 2010) have pointed to a strong and deleterious effect, most frequently operating in a cross-national setting: higher income inequality is associated with a reduced likelihood of voting in elections (but see Stockemer and Parent, 2014; Stockemer and Scruggs, 2012). The most worrying aspect is that the effect has been shown to be stronger for lower-income individuals (Solt, 2008), possibly due to a drop in their sense of political efficacy, and that it has also been found to operate for other participatory acts (Solt, 2015). A secondary mechanism is also a rational calculation on their part: when economic outcomes consistently favor the wealthy regardless of the party in charge, there is little point to participating in politics (Goodin and Dryzek, 1980). Similar negative effects have been recorded when other political behaviors are examined, such as political or associational participation (Karakoc, 2013; Lancee and Van de Werfhorst, 2012).

As participation in politics is driven by, and in turn drives, attitudes with respect to the political system, efforts soon turned toward the realm of political attitudes, and uncovered a similar impact of economic inequality. Satisfaction with democracy and support for democracy were found to be negatively impacted by inequality (Andersen, 2012; Anderson and Singer, 2008; Krieckhaus et al., 2013; Schäfer, 2013; but see Stockemer and Sundström, 2014), a likely 'casualty' of the contradiction between the ideal of popular power and the reality of economic concentration. A diverse array of attitudes have been examined, with consistent results in terms of the direction of the effect income inequality dis-

plays: a positive impact on nationalist sentiment (Solt, 2011)[6], authoritarian orientations (Solt, 2012), intolerance toward homosexuality (Andersen and Fetner, 2008), or religiosity (Solt et al., 2011), and a negative one on social trust (Fairbrother and Martin, 2013; Knack and Keefer, 1997; Uslaner, 2002; Uslaner and Brown, 2005), social solidarity (Paskov and Dewilde, 2012), and institutional trust (Anderson and Singer, 2008).

Particularly remarkable is the consistency and strength of the effects attributed to income inequality. In spite of the different data sources from which the Gini index or decile ratios are obtained, as well as the sometimes varying ways of operationalizing satisfaction with democracy or social trust, the results point in the same direction. Inequality negatively impacts democracy-sustaining attitudes and behaviors such as turnout, political discussion, trust, or satisfaction with democracy, and boosts 'undermining' attitudes such as authoritarianism and nationalism. Even after acknowledging the powerful effects of publication bias (Sterling, 1959), the consistency of conclusions still surprises the reviewer of this literature.[7] A more powerful sense of amazement is provided by the strength of the impact of inequality on attitudes and behavior. In study after study conclusions point to the fact that the effect of inequality is "[...] among the strongest in the model" (Solt, 2008, p. 57) or even "the strongest" (Uslaner and Brown, 2005, p. 870), and that it has a "strikingly powerful" (Solt, 2011, p. 827), "profound" (Andersen, 2012, p. 400), "dramatic" (Karakoc, 2013, p. 216), or "powerful" (Uslaner, 2002, p. 236) influence on the phenomenon being explained.

2.3 The Relative Power Framework and Its Limitations

In this section I continue by presenting the main theoretical framework on which most of the findings outlined so far are based. I discuss the assumptions it relies on, their tenability, as well as the potential for alternative explanatory pathways. I suggest here that all studies cited hitherto disregard the larger causal environment and, therefore, fail to account for how rising inequality appears in a national context. I will argue that the association between inequality and shifts in political attitudes and behaviors is partly due to an omitted factor, linked to both inequality and attitudes. While some authors refer to this third

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

[7] As mentioned in a previous paragraph, the only published studies which fail to find an effect of income inequality on turnout or satisfaction with democracy belong to Daniel Stockemer and his co-authors (Stockemer and Parent, 2014; Stockemer and Scruggs, 2012; Stockemer and Sundström, 2014).

phenomenon as "neoliberalism", I will conceptualize it here as shifts in the policy placement of parties on a Left–Right dimension across most OECD countries.

2.3.1 Relative power theory

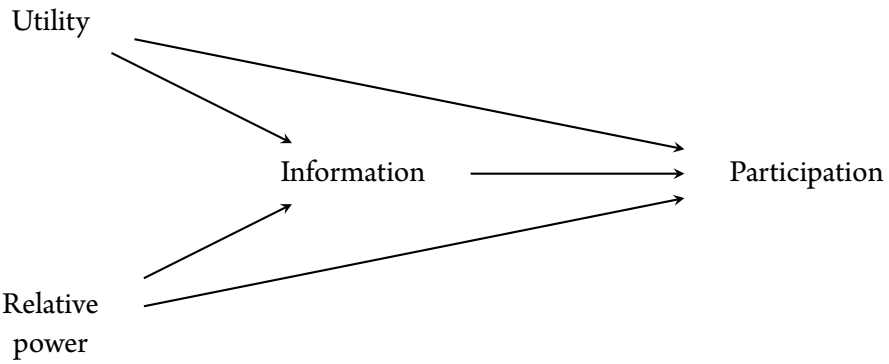
Consciously or implicitly, most analyses that investigate the link between inequality and individual-level political behavior find their theoretical foundation in *relative power theory* (Goodin and Dryzek, 1980; Solt, 2008, 2010, 2015). At its core, the theory claims that lower-income citizens react to disparities in political power brought on by economic inequality by dropping out of political life. Faced with a growing economic and, presumably, political influence of a wealthy clique which appears ever-more powerful regardless of the partisan control of government, poor citizens participate less and are less satisfied with democracy. However, this general overview of the theory masks some of the subtle shifts it has undergone over time.

In its first iteration (Goodin and Dryzek, 1980) the theory constructed a static model, designed to explain disparities in participation between socio-economic groups based only on rational considerations, while explicitly rejecting any psychological and non-cognitive factors. The theory claims that it is a rational response on the part of individuals not to participate when they begin to consider that those wealthier than themselves have a better chance of prevailing in the political struggle. Only two exogenous factors are needed to model participation (see Figure 2.3.1). The first is relative power, understood as the subjective probability of winning in a political struggle, and measured as the relative income position of the individual (Goodin and Dryzek, 1980, p. 279). The second factor is the utility of participation, measured as the extent to which the individual is reliant on government for welfare programs, and whether they believe the government is responsible for addressing a few problems they perceive as important in their community.[8]

Even though in their empirical test only income is taken as a proxy for relative power, the authors explicitly state that other factors, such as education, ability to persuade through argument, or ethnic group membership, could also be drivers of power disparities (p. 279). In this model of "rational participation", then, citizens assess whether engagement is likely to succeed, and based on this rational

[8] Information about politics is a marginal mediating factor, which is why it is left out of my account. To my understanding, this utility is different from the benefit differential term in a rational choice model (Downs, 1957), as it does not encapsulate any specific policy differences between candidates or parties.

Figure 2.3.1: Relative power theory in its first iteration

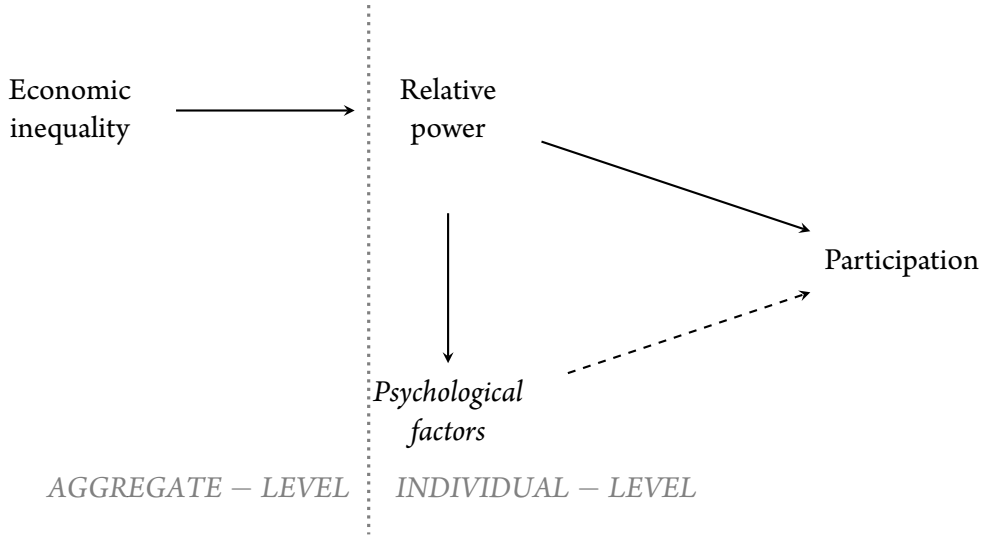


Note: Figure taken from Goodin and Dryzek (1980, p. 281).

calculation decide on whether to become politically engaged or not. Psychological characteristics such as political interest, relative deprivation (Davies, 1962; Stouffer et al., 1949), or feelings of injustice never factor into the model. Slightly more problematic for the "rational" label of the model is the omission of the typical terms that enter into such rational choice approaches to turnout, such as the costs of participation, or the non-instrumental (expressive) benefits associated with the voting act (Aldrich, 1993; Downs, 1957).

In its current iteration (Solt, 2008, 2010) the theory is, in a sense, expanded (see Figure 2.3.2). As before, economic inequality is used as a proxy for political power asymmetry. This disparity is understood as manifesting itself in conscious and deliberate efforts by wealthy voters to shape the political arena. The mechanisms through which this is accomplished are either direct efforts to convert economic power into political influence, such as campaign contributions, or more insidious attempts at preventing particular issues from making it onto the political agenda (Solt, 2015, p. 1315). They even include subversive strategies aimed at persuading lower-income voters to adopt the issue stances and values of wealthier individuals, for example with respect to redistribution, or general attitude toward socio-economic equality. These efforts, in turn, influence the turnout calculations of voters, which are now based not only on a person's relative position in the income distribution, but also on the level of inequality in the country. However, they also influence a set of psychological factors that are conducive to participation, such as political efficacy or political interest (Solt, 2008). Albeit never explicitly included in the framework, the empirical results certainly point to the effects of income inequality on attitudes such as political interest, or religiosity (Solt, 2008; Solt et al., 2011). Furthermore, frequent

Figure 2.3.2: Relative power theory in its current iteration



mention is made of poorer voters' need to internalize the values and attitudes of wealthier voters, as a means of coping with feelings of powerlessness generated by repeated failures in the political arena (Solt, 2008, p. 49). In the end, though, such attitudinal factors are neither fully theorized nor included in the empirical tests as key mediating pathways.

One crucial clarification is that the efforts made by wealthier voters in the attempt to shape the public arena and the political struggle are never observed directly. They are rather *assumed* mechanisms of transmission. Even more, they are judged to be ultimately "unobservable", as it is impossible to empirically distinguish issue suppression from consensus, and theoretically presumptuous to assume poorer voters must *always* want more redistribution, while wealthier voters must *always* want less (Solt, 2010, p. 287). While problematic on such grounds, the assumption of the mechanism serves to dispel the requirement that voters be cognizant of and responsive to the level of economic inequality in the country, or at least of their relative position in the income distribution, and how this has changed over time. The latter is an assumption that the Goodin and Dryzek model must rely on, even though empirical evidence does not find much support for it. Even in a period of accelerating inequality, only 42% of Americans believed that economic disparities worsened between 2000 and 2010. On the other hand, 80% of French(wo)men believed inequality had worsened in their country over the same period, even though objectively inequality neither increased nor decreased in France.[9] At a more abstract

[9]The data is from the "Perceptions of inequalities" study, done by IFOP for the Jean Jaurès Foundation in 2010 (cited in Stiglitz, 2012). Gimpelson and Treisman (2015) present evidence, from a wider set of countries, that citizens are incapable of correctly assessing the level of inequality in their respective countries (see also Norton and Ariely, 2011). A separate literature questions the need for people to be cognizant of inequality *per se*; rather, they need to be responsive to the externalities

level, we realize that economic inequality is qualitatively different in how it is perceived, compared to other aggregate economic phenomena, such as unemployment or inflation. The latter dynamics leave clear traces of their shifts at a level of experience that is easily accessible to most people, e.g. neighbors and relatives are having a harder time finding jobs. When seen in this manner, inequality is different. In normal economic times its progression is imperceptible; in periods of widespread economic hardship its sudden shifts are often masked by other economic trends, such as unemployment. Insofar as it leaves traces, these could easily be attributed to economic development (Hirschman and Rothschild, 1973): more expensive cars on the roads or parked in front of new luxury restaurants; organic coffee houses springing up at the edge of poorer neighborhoods—omens of impending gentrification. With these limitations, it is hard to construct a convincing argument in favor of sensitivity to national-level inequality.[10]

The turn away from raw inequality trends in the *relative power* perspective also has the benefit of being consistent with anecdotal and scholarly evidence that individuals are less sensitive to the outcome itself than to the procedure through which the outcome was generated. Any casual observer of political developments in the United States and the United Kingdom can recognize that income inequality has evolved over the past 5–10 years into a salient political topic. What is puzzling, however, is that growing inequality has been a staple of these countries' economic development since the 1980s, only briefly interrupted by periods of stagnation. The likely explanation for this delayed sense of outrage is the realization, brought into sharp focus by policy responses to the 2009 recession, that economic success can buy political influence, which in turn leads to greater economic success for the "New Few", to borrow Ferdinand Mount's monicker. More than in the divisions between the haves and have nots, the sources of discontent can be found in the glaring examples of politically-sanctioned corporate profiteering and egregious campaign contributions that have peppered the aftermath of the crisis. Rather than the trigger, inequality represents the facilitating mechanism and the incentive for such procedural trespassing, which constitutes the true catalyst of discontent. On the academic front, Tyler and Lind (2002) offer supporting evidence for this perspective. In their interactions with the Chicago police and the courts, respondents in their surveys tended to react in a stronger manner to being treated poorly and disre-

of inequality, e.g. crime (Rueda and Stegmüller, 2016). While ingenious, it is not entirely clear to me how the argument applies to turnout, as no connection between turnout and crime rates has been theorized yet. If anything, both might be partly influenced by a breakdown in civic and communitarian norms.

[10] There is stronger evidence in favor of an effect of local-level economic disparities (Canache, 1996).

spected because of their group membership than to the belief that they received a harsh decision from these agencies. A case can be made, then, for the view that participation is impacted by the procedural consequences of sustaining a high level of economic inequality, rather than the level itself.

A second aspect, of slightly lesser importance, is that, with respect to turnout, the predictions of *relative deprivation theory* (Gurr, 1970) and *relative power theory* are extremely similar. In relative deprivation theory, feelings of resentment are triggered when one actor is in posession of more of a resource (income, land, social status, or political power) than an other actor feels is justified or fair. The combination of posession and perceptions of unfairness leads to feelings of frustration and anger, which *may* spill over into political action. It must be emphasized that such feelings of deprivation do not always translate into decreased participation for deprived voters. Depending on whether the evaluations made are of an *egoistic* or *fraternalistic* nature (Runciman, 1966; Tyler and Lind, 2002), the reaction to economic disparity might be either of political withdrawal, or mobilization.[11] Indeed, the empirical implications of the two theories are sufficiently close as to be difficult to disentangle at times.[12] At the conceptual level, however, relative power theory adds a rational calculus of the probability of success in participating, which relative deprivation, with its focus on psychological factors, lacks.

2.3.2 Limitations

In its updated form the *relative power* framework possesses a number of appealing features. It introduces a more complex personal calculus of voting, based on the interaction between the relative income position of an individual and the contextual level of inequality. This allows the model to be more flexible in its domain of application, as it gains explanatory power both across countries and over time. Socio-economic factors are included in the empirical tests, which allow for a clear distinction from the resource model of participation (Brady et al., 1995) in terms of predictive ability. More important, these tests also include factors related to the costs of voting, such as compulsory voting laws or registration requirements, which lead to a more realistic specification. Finally, the framework could allow for psychological factors as determinants of turnout as well, even though these would admittedly fit askew in

[11] Egoistic deprivation entails a comparison at the individual level, e.g. a high school teacher comparing their income with that of a hedge fund manager. Fraternalistic deprivation implies a comparison at the group level, such as the discrepancy in income between teachers and CEOs. The tendency to use a collectivist lens to capture these differences, as in the latter case, is more conducive to mobilization and group efforts to remedy the situation.

[12] Solt et al. (2011) make the distinction on the basis of the varying magnitude of a negative coefficient in a regression analysis.

what is otherwise a rational choice specification. In spite of its clear improvements over its predecessor, though, I believe that a number of limitations continue to bedevil the framework. Cumulatively, the doubts sowed by these deficiencies warrant a re-examination of the main findings of the research program.

An important shortcoming is the unobserved nature of the interference of wealthier voters in the public and political spheres. While anecdotal evidence exists for such a process[13], it is clearly a phenomenon that is shaped by a series of institutional characteristics, such as campaign financing rules and media ownership laws. This suggests it falls short of being an automatic process, triggered by higher levels of economic inequality. Even without this additional complication, though, the fact that a crucial transmission mechanism in the framework cannot be measured poses fundamental problems of falsifiability. The account also leaves open a host of questions related to the seemingly cohesive structure of wealthy elites.[14] Could there be issues that cause a split in this monolithic block, such as the environment or immigration? Why aren't the wealthy adopting a longer term perspective, whereby some redistribution might improve growth and their personal income through investments in education or infrastructure (Bénabou, 2000)? Finally, what could convince some parties, particularly Social-Democratic or Socialist ones, to adopt the issue positions of wealthier donors, given these parties' reliance on union funding and (wo)manpower during elections, and the incompatibility of these two sources of support? Baumgartner et al. (2009) indicate that, at least with respect to lobbying, there is little reason to view wealthy elites as monolithic and automatically victorious. The policy demands of these elites occasionally fail, as they are confronted either by well-organized citizens' groups, or by other wealthy elites who do not share the same outlook. Some of the questions raised here might ultimately be dismissed as unwarranted, but this cannot happen without decisive attempts at measuring the precise impact wealthier citizens have on political platforms or media activities, and at making the mechanisms of transmission more explicit.

[13] The 2016 Presidential election in the US, in particular, has seen a considerable concentration of campaign donations coming from the wealthiest voters (Nicholas Confessore, Sarah Cohen, and Karen Yourish, "The Families Funding the 2016 Presidential Election", *The New York Times*, October 10, 2015: https://www.nytimes.com/interactive/2015/10/11/us/politics/2016-presidential-election-super-pac-donors.html). Similar evidence exists for the 2016 UK referendum to leave the European Union (Peter Hobson, "Handful of wealthy donors dominated Brexit campaign funding", *Reuters*, October 7, 2016: http://uk.reuters.com/article/uk-britain-eu-donors-idUKKCN1262LI).

[14] Even in the United States, with extremely high levels of economic inequality by OECD standards, CNN exit polls from the 2016 Presidential election showed an even split in votes for Trump and Clinton among the top 6% income earners. Information available at http://edition.cnn.com/election/results/exit-polls [accessed June 1, 2017].

On a theoretical level, a further weakness is the absence of a term capturing the non-instrumental benefits a voter receives as part of the act of voting. It is true that such benefits were introduced in the rational choice framework in a somewhat ignominious manner, as a contrived solution to the paradox of voting. For Downs (1957) they consisted of the premium a voter placed on a thriving democracy, while Riker and Ordeshook (1968) conceptualized them as the satisfaction accruing from doing one's duty as a citizen. In more recent times, though, a greater theoretical effort has been expended on placing such expressive benefits, which the voter obtains irrespective of the outcome of the election, at the core of a theory of democracy (Brennan and Buchanan, 1984; Brennan and Hamlin, 1999; Brennan and Lomasky, 1993; Hamlin and Jennings, 2011). Such benefits could take the form of satisfaction received from affirming one's group membership (e.g. working class), from behaving in accordance to one's deeply-held values, or from taking part in a community action that consecrates one's role in the *polis*. If such a term indeed exerts a large effect on the turnout decision (Blais, 2000; Riker and Ordeshook, 1968), then its omission from the *relative power* framework is problematic. Inasmuch as rising inequality prods wealthier elites to persuade poorer voters to adopt issue positions and values at odds with their socio-economic group, expressive benefits tapping into group membership could be weakened for these voters. Rather than rational calculations of relative power, the effect of inequality could be transmitted through these expressive benefits.

The absence of a role for political parties in the *relative power* framework is a far more serious problem, with potentially crippling implications. This role goes beyond the capacity of parties to act as key mediators in any process that involves aggregate income inequality and voter dynamics. Such a mediating influence has been examined by both Anderson and Beramendi (2012) and Pontusson and Rueda (2010), who find that inequality and features of the party system shape the mobilization patterns and ideological positions of parties of the Left. These changes then get converted into varying patterns of turnout for lower-income voters. At a more fundamental level, taken up by my analysis in the following chapters, party decisions could plausibly disturb the connection between inequality and turnout. This is due to their impact on both economic inequality patterns, by means of policies targeting redistribution or through market conditioning (Kelly, 2005), and on turnout, by shaping any number of terms in the individual calculus of voting. Especially when considering economic inequality, with its subtle manifestations and insidious mechanisms, it is not at all obvious why "unassisted" individuals would

respond to it. Herein lies the main function of political parties, aside from the mobilizational one: to turn (or fail to turn) economic inequality into a salient issue by emphasizing a frame of interpretation, providing relevant information, and forging an electoral coalition.[15] The policies crafted by parties can shape both inequality levels over time, as well as individuals' perception of the benefits of participation, or their voters' sense of group membership as affirmed by supporting a certain political platform. To exclude the contribution of parties to the dynamics between inequality and turnout is to willingly dismiss a potential explanatory mechanism for why turnout fluctuations over time occur even in conditions of stable trends of inequality. The US election of 1992 experienced such an increase in turnout, even as inequality continued its decade-long ascending trend. A similar case is found in Sweden after 2000, and other examples are easily available.

Without a credible account of the role of parties, a further factor cannot be accounted for by the framework: the role of utility in shaping turnout. In a standard rational choice specification such a factor captures the benefits differential, in terms of policy outcomes and "pork-barrel" promises, between a voter's preferred candidate and her opponent. The larger such differential, the more consequential the election outcome for the voter, and the higher the probability of turnout (Downs, 1957). It should be said that such a term was absent even from the initial specification of Goodin and Dryzek, as no specific policy stances were incorporated in their measure of utility. Existing theoretical and empirical work indicates that such considerations of policy content decidedly influence turnout patterns (Adams et al., 2006; Adams and Merrill III, 2003; Brody and Page, 1973), in the manner predicted by rational choice. While it is unclear whether such an addition to the *relative power* account would alter the fundamental thrust of the findings, it would certainly enrich the framework by giving it an erstwhile absent political nature. Candidate appeal, party platforms, and strategic signaling by parties all serve to shape turnout patterns at the margins, even when partially discounted by the probability that a vote will be decisive in a political contest. Adding these factors to a model of political participation would also result in a better measure of the comparative influence of relative power calculations on the turnout decisions, after accounting for a variety of policy-related features of a specific electoral contest.

A more comprehensive presentation of the pathways through which party ideological dynamics influence both economic inequality and political behavior will be made in the next section. Before mov-

[15] See Enyedi (2008) for an account of party influence on the shaping of the class cleavage in Western Europe.

ing on, though, it may be worth emphasizing that such a perspective also emerges from a disconnected field, which focuses on the health consequences of economic inequality (Wilkinson, 1996; Wilkinson and Pickett, 2009). Early theoretical work (Coburn, 2000, 2004) questioned the consistently strong effects that advocates of the link between inequality and health uncovered, by pointing to the possibility of a third set of factors impacting both inequality and health outcomes: neo-liberalism. Policies which fit this ideological label have primarily targeted, and achieved, welfare state retrenchment in the past three decades in most advanced industrial democracies. The consequences have been multifaceted, though only two are of concern here. First, rising economic inequality followed, as less progressive taxation regimes, more flexible labor markets, and higher thresholds for government assistance began to take their toll on the middle- and working-class. Second, as the formerly generous welfare states also encompassed educational provision and health care, their transition from a bloated state to a lean one has corresponded to a growing divergence in health outcomes between rich and poor, mainly driven by the regress of the poor.[16]

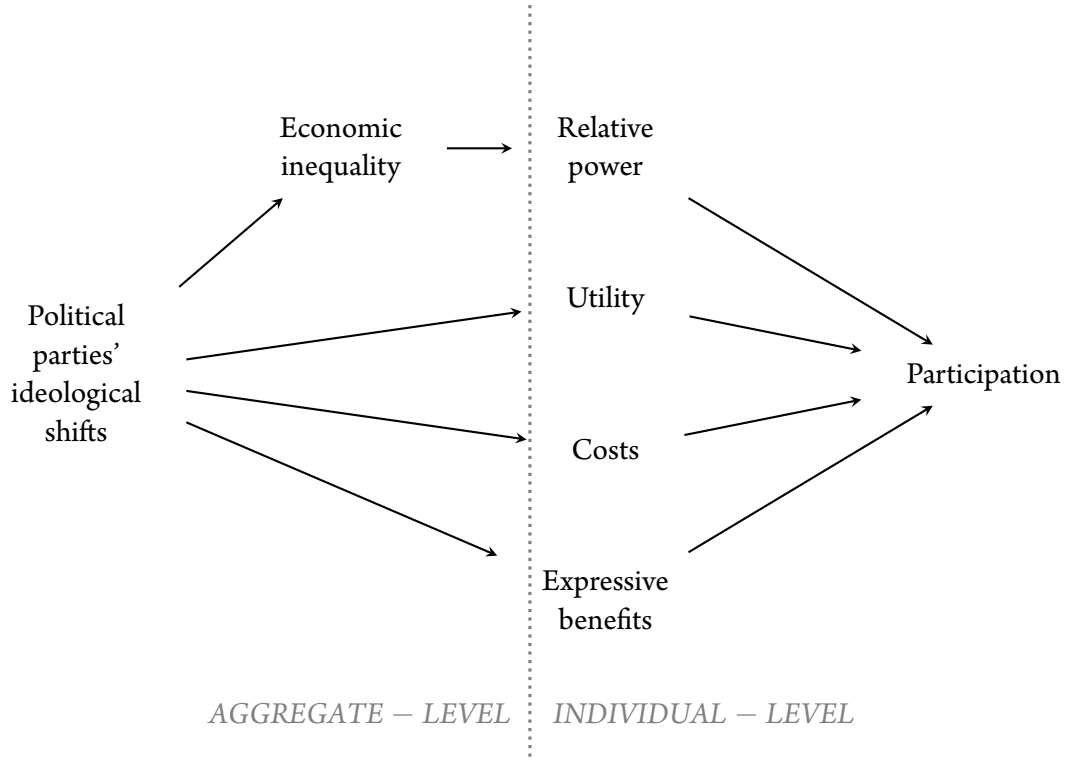
2.4 Alternative Framework

My proposed framework is, in a sense, an expansion of the standard relative power model, by including the role of political parties and their programmatic shifts into the mix. Unlike the analyses of Anderson and Beramendi (2012) or Pontusson and Rueda (2010), though, party strategies are not seen here as moderating factors in an otherwise direct inequality–voter link. In my account such party strategies are causally prior to both inequality trends and participation patterns.

To begin with, a theoretically consistent relationship, backed by empirical findings, exists between government partisanship and economic inequality. Grouped under the *power resources approach*, such investigations show that partisanship exerts an important effect on both market inequality and post-tax and transfer economic disparities (Bradley et al., 2003; Huber and Stephens, 2001; Kelly, 2005; Korpi, 1978, 1980; Korpi and Palme, 2003; Volscho and Kelly, 2012). Furthermore, this effect extends even to an age of "new politics" of the welfare state (Pierson, 1996), as government partisanship also shapes the breadth and speed of welfare retrenchment efforts in OECD countries (Swank, 2005). The influ-

[16] See also Muntaner and Lynch (1999), Muntaner et al. (1999), and Scambler and Higgs (2001). For empirical evidence supporting this perspective, see Mellor and Milyo (1999) or Navarro and Shi (2001).

Figure 2.4.1: Proposed expanded causal framework



ence exerted by governments is transmitted through multiple pathways. Taxation and social policies are the natural starting point, but they represent only two of the many instruments available. Investments in public education, or expansions of public health care also manage, indirectly, to leave a mark on economic inequality over a longer duration of time. Additionally, partisanship also shapes a government's stance toward unions and their activities, or toward the legitimate role of unions in the process of economic policy-making. Countries with longer periods of Left party dominance are generally also those with stronger labor movements, which are further linked to income inequality through the wage-bargaining power such unions possess. These pathways motivate the direction of the causal arrow, from party dynamics to economic inequality in Figure 2.4.1.[17]

The remaining three arrows in the left side of the figure depict the posited influence of party ideological shifts on voting turnout, transmitted through the individual terms that make up the turnout calculus (except for the probability of casting a decisive vote in the election). It bears mentioning that even with my addition of party political strategies, the framework can still be soundly placed in the rational choice framework (Leighley, 1995; Uhlaner, 1986, 1989, 1995). The most obvious pathway

[17]The corresponding link in the opposite direction has also been proposed, with analyses identifying a direct effect of income inequality on party programmatic placement (Barth et al., 2015; Tavits and Potter, 2015). Even when considering the potential for reverse causality, I find the weight of the evidence to overwhelmingly favor the power resources framework.

of conveyance is through the policy benefits individuals perceive accruing to them as a result of their favorite candidate getting elected. Over the medium-term, such party shifts can result in either very sharp differences in party platforms (Hirczy, 1995), or a greater degree of similarity of the main policy solutions, which shape the public's perceptions of the usefulness of participation. Important factors are not only the distinctions between parties, but also the ideal policy distance between parties and voters, as this influences feelings of alienation from the political system (Brody and Page, 1973). The second path of influence is by means of the costs individuals must bear when participating in an election. Parties can help in a direct way here, by organizing car pools, helping voters register, disseminating information about the location of electoral precincts, or even offsetting these costs by means of a small bribe (Rosenstone and Hansen, 1993). On the other hand, their influence takes an indirect form as well, to the extent that, as part of mobilization drives, information about party ideas and proposals also gets transmitted in a conveniently distilled form. This lowers an individual's information processing costs, which ought to increase the likelihood of participation. These connections have been repeatedly probed in quantitative analyses of experimental settings, and they have generally been found valid (Caldeira et al., 1990; Crotty, 1971; Franklin, 1991; Gerber and Green, 2000, 2001; Gerber et al., 2008; Gershtenson, 2003; Gray and Caul, 2000; Green et al., 2003; Niven, 2004; Parry et al., 2008; Rosenstone and Hansen, 1993; Wielhouwer, 1999, 2000; Wielhouwer and Lockerbie, 1994).

The third avenue of transmission is by enhancing the expressive benefits an individual receives as part of the act of voting. The most plausible way through which this can be achieved is by playing on the importance of group membership held by an individual. Active efforts to highlight the commonalities between party supporters in terms of lifestyle, values or preferences, and to sharply distinguish them from those of political opponents, are likely to enhance this sense of group importance. Although only tested on party activists, such a dynamic appears to be driving the findings of Whiteley (1995), and ultimately could be at play in the population at large as well (Aldrich, 1993). In addition to strength of group membership, organizations might also be able to activate more diffuse feelings of *duty* toward one's reference group (Uhlaner, 1989, 1995), which should also serve to boost participation.

On account of the prominence awarded to parties' ideological dynamics, a natural question surfaces: "Have parties shifted their platforms to such an extent over time?" The quick answer is "yes", at least if we are willing to track their movement over a long-enough period of time. The greatest amount

of attention has been bestowed on Social-Democratic parties, which over the 1980s and 1990s have gradually moved closer to the ideological centre, in what Seymour M. Lipset termed the "Americanization of the European Left" (2001). The poster child for this transformation is the British Labour Party, which under the leadership of Neil Kinnock and Tony Blair abandoned a host of traditionally "leftist" policy goals (nationalization, full employment) and tools (counter-cyclical fiscal or economic policies) on its course toward becoming a party of the Third Way. Similar transformations, albeit more muted, took place in Germany, Sweden, Netherlands, Italy, as well as Australia (see Keman, 2011), considerably altering the dynamics in the party systems of these countries. Even though Left parties have stolen the spotlight, it ought to be made clear that some parties of the Right have also undergone their own transformation. Yet again, the clearest pattern is seen in the UK, with the rapid change of the Conservatives during Thatcher's tenure, and the gradual return to a more centrist position in the 1990s. In other countries, the ideological shifts were more progressive, but by no means less consequential: Right parties swung to the ideological center in Denmark between 1960 and 1990, while in Australia between 1960 and 1990, or in Canada between 1960 and 1980, these parties veered in a more rightward direction.

In my updated framework I focus on party programmatic shifts, as information on these across time and space is readily available from multiple sources. Implicitly, this means that I will have to limit my analyses and conclusions only to how party dynamics impact individual calculations of the utility of turning out in an election. At the same time, I do not wish to convey the impression that this is the only, or indeed the strongest, mechanism through which this effect is exerted. I have clearly outlined above how parties can shape voters' costs of participation through their mobilization appeals; a similar type of argument can be made with regard to unions' influence over time (Wallerstein and Western, 2000). Additionally, as the recent results of Oliver Heath suggest, shifts in participation patterns can also be due to voters' responses to descriptive representation (Heath, 2015). Part of the strategy adopted by the Labour Party in the UK to attract middle-class voters has clearly been to put forward candidates that such voters can identify with. In practice, this has meant that a gradually diminishing share of Labour MPs have a working-class background, but rather come from higher socio-economic strata.[18]

[18] It is fascinating to see how well the beginning of the decline in the share of working-class Labour MPs matches the beginning of the Kinnock era in the Labour Party (Heath, 2015, p. 182). Kinnock was the first to make serious attempts to professionalize the party and change its ideological orientation, in an attempt to bring the party back into power.

The empirical results suggest that a likely response of working-class voters, when confronted with such a trend, is to simply drop out of the political arena (Heath, 2016). Finally, it's also fair to point out that only part of the observed changes in turnout levels can be imputed to parties. With growing class heterogeneity, rising rates of mobility, and value change permeating the electorate, voters' behavior at the ballot box simultaneously entered a period of flux at the same time as party ideological shifts were taking place (Achterberg, 2006; Clark and Lipset, 1991; Dalton, 1996; Franklin, 1984; Nieuwbeerta, 1996).[19] This made it harder for parties to craft a unified appeal to voters, particularly working-class ones, while the appearance of fresh competition, under the form of Extreme Right and Green parties, further compounded the complexity of the situation.

The focus of the *relative power* framework, though, is wider than political participation; it includes political discussion as well as satisfaction with democracy (Krieckhaus et al., 2013; Solt, 2008). My proposed account can match this scope, as party movements are also a plausible cause for any attitude shifts, observed in a longitudinal perspective, or differences, if captured in a cross-sectional one. With Left parties no longer occupying their characteristic position on the political spectrum, a large section of the electorate found itself no longer receiving the degree of political representation they had enjoyed for three decades. Recent investigations into income-based biases in democratic representation across Europe and the US (Bartels, 2008; Giger et al., 2012; Gilens, 2005, 2009, 2012; Jacobs and Page, 2005; Rosset et al., 2013; but, see Soroka and Wlezien, 2008; Ura and Ellis, 2008), convincingly show that the policy gap between lower-income respondents and political parties or the government is larger than for any other income group. An analysis of the Swiss context indicates that this representational bias is most glaring for economic issues (Rosset, 2013), corroborating the account of party shifts offered here. Although still nominally represented by Left parties, working-class voters found the platforms of the new "Third Way" parties devoid of the more stringent erstwhile commitments to workers' welfare. At the same time, no political alternative came to replace these parties' position on the Left–Right spectrum. With even the working-class' best choice not being as good as it was but a short while before, it is to be expected that political engagement rates would disproportionately drop for this section of the electorate. The results of Ezrow and Xezonakis (2011) speak to this connection between represen-

[19] For a set of dissenting opinions, see Brooks et al. (2006), Evans (2000), Hout et al. (2001), van der Waal et al. (2007), or Weakliem (2001). Evans and Tilley (2012) bring evidence that these two phenomena are connected, with parties being the catalyst.

tation and democratic satisfaction, even if they don't probe specific sub-constituencies: closer policy proximity to the median voter increases the average level of satisfaction in a national context. When turning away from averages and considering particular subgroups of the electorate, these findings lead me to expect that such representation gaps resulted in a decrease in satisfaction for low-income voters.

2.5 Final Remarks

My proposed framework fits into a wider literature that focuses on how supply-side factors, i.e. the strategies political organizations adopt, drive changes in political behavior and attitudes at the individual level (e.g., Evans and De Graaf, 2013; Evans and Tilley, 2012, 2013). While I specifically refer to participation rather than cleavage voting, it's important to mention that similar insights have also been produced by Sidney Verba and his co-authors (Verba and Nie, 1972; Verba et al., 1978). With respect to both the US and a wider comparative setting, their work focuses on the importance of political parties in shaping participatory disparities. Overall, they show that groups lower in average educational achievement and income participate in politics less than their wealthier and more educated peers. At the same time, however, where these groups are attached psychologically to political parties that represent their interests, and enmeshed in organizations based on distinct partisan lines (the Austrian *Lagern* or the Dutch *Zuilen*), participation rates are boosted beyond what could be predicted merely based on income or education. A striking example is the Austrian one, where in the period under examination farmers participated at higher rates, in terms of voting or campaign activity, than the non-religious middle-class, despite having considerably lower socio-economic endowments (Verba et al., 1978, chap. 9). This is attributed to the distinct overlap between religion and social class in guiding this group toward the Austrian People's Party (ÖVP). In a similar way, non-religious working-class voters are guided toward the Social Democrats (SPÖ). Conversely, though, non-religious middle-class voters find themselves torn between their social class interests, which point to the ÖVP, and their religious disinterest, which would be better suited inside the SPÖ. The result of this is, then, decreased participation by the latter group.

To what extent the framework proposed in Figure 2.4.1 can reproduce the existing findings of the *relative power* framework is ultimately an empirical question, partly taken up in Chapter 4. There is no reason why individuals would not take into account the extent of economic inequality into their cal-

culations as to the probability of success of their political engagement, even after accounting for the influence of political party strategies on their participation level. On the other hand, adding the plausible influence of political parties to the account serves to potentially reduce the estimated impact of economic inequality on political behavior and attitudes. Whether this ultimately makes this impact indistinguishable from 0 is a question that deserves repeated examination, on samples that differ in composition from mine, and with better indicators. My primary interest in the longitudinal dynamics of the framework means that some of the causal arrows in Figure 2.4.1 cannot be investigated, due to missing data across time or countries. This is the case, for example, with how parties reduce the costs of participation for individuals, or how they impact the relational benefits a voter receives from participating in an election as a member of the working-class, as a Catholic, or as a *Québéquois*. Such attitudinal measures, or self-reports of contact by party organizations, were not available in my data, and could not be pursued further in my analyses. Other analyses should take up this challenge, though, in the hope of reaching an ever more precise assessment of the influence of economic inequality on individual-level political behavior.

3

Probing the Impact of Inequality: Data and Approach

Gauging the presumed connections between income inequality and trends in political participation and attitudes has been a frequent exercise, as the review of existing research in the previous chapter has hopefully shown. More often than not, the path taken on the way to an answer has been the same: a large-N data set, from from a yet larger cross-national survey program, such as the World Values Surveys (WVS), the European Social Survey (ESS), the International Social Survey Programme (ISSP), or the Comparative Study of Electoral Systems (CSES) data, and analyzed with the use of multilevel models (MLMs). The MLMs overcome several difficulties. For one, they allow a theoretically-informed analysis of clustering in observations, such as would appear when relying on data comprised of random samples of citizens from multiple countries.[1] Additionally, they provide a set of estimates

[1] Freedman (2006) highlights that a popular alternative to MLMs, cluster-corrected standard errors, simply apply a post-hoc correction to standard errors in a statistical model that clearly does a poor job at modeling heterogeneity in clustered-data situations. Rather than trying to correct the problem, MLMs directly model the heterogeneity with the help of group-level variables, offering in the process a richer theoretical framework.

for both individual- and group-level predictors as part of the same statistical model. In the context of research on the impact of income inequality on political behavior, this means that the estimated effect for inequality on participation or political trust already partials out the influence of individual-level predictors, as well as that of other country-level predictors added to the model. With these statistical tools, the insights provided by the data sources have been great.

3.1 Why Revisit the Framework?

There are sufficient reasons, nevertheless, to take these findings with a slight dose of skepticism. The first involves the statistical approach commonly pursued. A standard analysis of the connection between income inequality and turnout (or non-electoral participation, or political trust, or satisfaction with democracy) will typically involve a sample of 30–60 countries, both developing and developed, from the data sets listed above. Due to the design of the analysis, and the choices made by the researcher, the dominant source of variation in income inequality in these surveys is at the cross-sectional level, even in designs that comprise 3–4 waves per country. The perils of this design are obvious, although it does not hurt to belabor the point. Commenting on an analysis which draws a longitudinal conclusion, Andrew Gelman (2005, p. 461) notes: "The claim comes from a between-country regression analysis controlling for several other factors [...]. It is a big leap to interpret differences between countries as a potential effect of a change within a country [...]." Things are not always so drastic—a number of analyses do incorporate some longitudinal dimension, usually 2–4 waves run in the same country.[2] These, as well as a substantial number of those that employ a single survey-wave per country, frequently carefully circumscribe their findings and interpretations as to only refer to differences between countries. Yet even under such ideal circumstances our understanding of the longitudinal effects of inequality is severely limited, and our conclusions regarding how serious they are for democratic life deserve a re-examination.

Recent work by Fairbrother and Martin (2013) reveals the pitfalls of deriving longitudinal interpretations from cross-sectional analyses. Taking as example the consistent negative association between income inequality and social trust, their analyses show that at the US-state level the association

[2] This is the case with Solt (2008, 2011), Schäfer (2013) and Fairbrother and Martin (2013), while Andersen (2012), Paskov and Dewilde (2012), Anderson and Singer (2008) or Lancee and Van de Werfhorst (2012), among others, rely strictly on cross-national data sets.

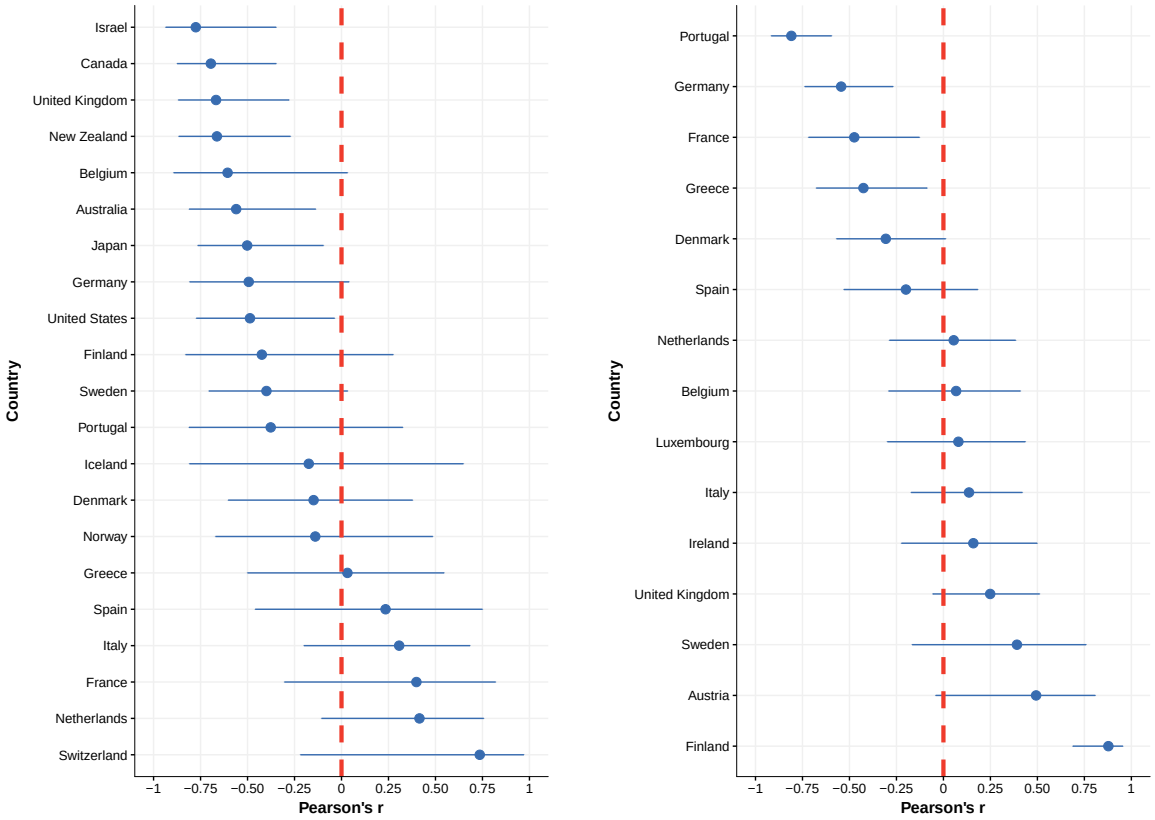
holds cross-sectionally, but not longitudinally as well. States with higher levels of inequality display, on average, lower levels of trust, but it is not also the case that a rise in inequality is associated with a corresponding decrease in social trust inside states, over time. Mellor and Milyo (2001) arrive at similar conclusions by using first-difference models of the connection between inequality and health outcomes for a sample of 30 countries over 40 years, and 48 US states over 50 years: the association is not found in a longitudinal perspective.

Pending a meaningful test, a graphical depiction should illustrate my case. Figure 3.1.1 displays a set of correlations over time, between income inequality and voting-age population turnout in the left panel, and income inequality and satisfaction with democracy in the right panel. Inequality is measured here with the net Gini index, obtained from Frederick Solt's *Standardized World Income Inequality Database* (SWIID), while average yearly satisfaction with democracy was computed based on *Eurobarometer* data. There are a number of points to be made based on these plots, but the most important one is that there is no consistent association between inequality and satisfaction with democracy, and only a weak apparent one between inequality and turnout. To be sure, some countries such as Israel, Switzerland, Finland, or Portugal display powerful correlations; a meaningful and persistent pattern fails to appear, though. Furthermore, there appears to be a considerable amount of diversity in the trends as well, particularly when it comes to satisfaction with democracy. Some countries, like Germany, exhibit a negative relationship, while others, like Austria, display a positive one. Although this might be addressed by further statistical controls, the diversity of the trends is at odds with the consistent negative associations reported by existing studies (Krieckhaus et al., 2013; Solt, 2008).

A secondary reason that would justify feeling apprehensive toward existing conclusions is a feature of the statistical models and the samples on which these are used. The search for generality of conclusions frequently drives researchers to include a diverse array of countries in their samples, on the condition that they have run free and fair elections. Countries such as Sweden or Denmark are frequently included alongside Poland or Hungary, and further mixed with Cyprus, Portugal, Chile, Venezuela, South Korea, Taiwan, or Egypt.[3] To such a sample MLMs are applied with the intent of precisely identifying the effect of income inequality after other time-varying and time-invariant country factors have

[3] Only a few analyses ever reach such a gamut (e.g. Solt, 2011). Most tend to include Western- and Eastern-European countries, or a subset of OECD-member countries. The latter sample composition still presents sufficient diversity, as it may include Turkey, the Czech Republic, South Korea, Australia, the United States and Norway in the same pool.

Figure 3.1.1: Longitudinal association between income inequality, turnout, and satisfaction with democracy



(a) Gini and VAP turnout **(b)** Gini and satisfaction

Sources: IDEA data for VAP turnout, and the net Gini index from Frederick Solt's SWIID data set, version 5.1. Average yearly satisfaction with democracy was computed from the Eurobarometer 1970–2008 trend file, merged by Georgios Xezonakis.

Note: Pearson's *r* values plotted on the X-axis, with horizontal lines denoting 90% confidence intervals for the correlation.

been controlled for. As the country samples are usually in the 30–60 range, models can only feasibly control for 7–10 characteristics at the aggregate level, depending on the theoretical framework used and data availability. Whether such a number of predictors at the national level, can adequately control for all differences in turnout between a diverse array of countries is ultimately an empirical issue. I find, however, that there are sufficient grounds to doubt that these models are satisfactory.

For turnout, a meta-analysis (Geys, 2006) identifies nine factors which consistently tend to be associated with higher turnout: population size, concentration and stability; election closeness; campaign expenditure; electoral system proportionality; compulsory voting; concurrent elections; and registration requirements. To these we can add a further five that frequently surface in the turnout literature: number of parties, unicameralism, district competitiveness, GNP per capita, and literacy rate

(Blais and Dobrzynska, 1998; Jackman and Miller, 1995), as well as union density (Gray and Caul, 2000) or corruption (Stockemer, 2013). Together, these predictors make for an ample turnout model at the aggregate level, which is, sadly, almost never tested due to the lack of comparable data or to sample constraints. Even more to the point, countries with higher economic inequality also tend to be different in other respects as well. Using the net Gini estimates from the SWIID data and Transparency International's *Corruption Perception Index* (CPI), a simple bivariate correlation between the two measures for each year between 1995 and 2010 shows that the association between the two is always in the -0.40 to -0.62 range. This suggests, as would be expected, that countries with higher economic inequality also tend to be more corrupt (the CPI is measured on an inverted scale, where lower values denote high levels of corruption). More generally, based on the criterion of performance, a distinction can be made between functional and dysfunctional government.[4] Whereas the former type presumably delivers moderate amounts of income inequality, as well as low crime, clean streets and helpful and efficient bureaucracies, the latter produces high levels of inequality, accompanied by criminality, potholes, and Kafkaesque bureaucracy. In any assessment of whether voters respond to the externalities of income inequality, such as attempts by wealthier voters to control political campaigns and public discourse, these additional factors ought to be controlled for as well.

It is these methodological concerns that have provided the impetus for a re-examination of the effects of income inequality on political behavior and attitudes. A longitudinal perspective will serve to reduce concerns of model misspecification, as well as provide the needed time span for changes in party ideological placement to be reflected in economic inequality changes. An exclusive focus on OECD countries, on the other hand, serves to improve data quality and comparability at both individual and aggregate levels, and to control for a number of differences between established and emerging democracies. This sample restriction should make the aggregate-level statistical specifications more manageable and the conclusions stronger.[5] Even if this makes it impossible to properly examine all the pathways

[4] Although I was grappling with the possibility of a range of confounding factors, I am indebted to Zsolt Enyedi for having pointed me in the direction of government outputs.

[5] Consider, for a moment, the case of a number of Eastern European countries, such as Poland, Romania, the Czech Republic, Hungary, Slovakia, Lithuania or Latvia. In these countries, current levels of income inequality are higher than in the early 1990s, while turnout is lower. Even though this would seem to confirm the predictions of *relative power* theory, there are strong reasons to believe that the two phenomena are unconnected. Income inequality rose due to post-transition market liberalization, privatization, and high unemployment brought about by inefficient industries. Turnout, on the other hand, exhibited a decrease partly because the levels of the early 1990s were artificially high, as these countries experienced their first democratic elections. Although the negative association between economic inequality and turnout would match that seen in a number of Western European countries, the causes would be markedly different.

illustrated in the previous chapter, due to lack of comparable data over time, it still provides a vital perspective to the predominantly cross-sectional findings produced so far.

3.2 The Data

3.2.1 Individual-level

To overcome some of the limitations of existing data sources, a new data set was assembled especially for this project. Using the coding scheme developed by the True European Voter (TEV) project (Schmitt et al., 2013), the data used throughout most of this monograph merges 258 elections from 21 OECD member-countries. The core of the data is comprised of nine countries sourced from the TEV project[6], together contributing 94 elections. The rest of the countries and and elections included in the data were merged by myself, following as closely as possible the detailed instructions found in the TEV technical documentation. The final data set brings together the countries and elections listed in Table 3.2.1.

In each instance, a few guidelines were used to determine whether an election study would be included in my sample. The data had to contain a turnout question which refers to a national-level election (either presidential or parliamentary), rather than to a regional one (for regional legislatures or executives).[7] The second criterion refers to the type of sample collected: preference was awarded to cross-sectional samples, rather than to multi-year panels. This is the reason why the 1963–1970 *Political Change in Britain* survey was reduced to only the 1966 wave. The final criterion refers to timing: post-election surveys were favored. In cases where the election study consisted of a pre-election and post-election component, or had a pre/post panel design, only the post-election sample was kept in the data. This was most commonly the case in the Israeli series. When no post-election sample was available, the pre-election one was used. Within these constraints the studies presented in Table 3.2.1 were accepted for inclusion in the final sample.

When merging the surveys, the goal has been to maximize coverage of elections and countries, while maintaining cross-national comparability of the concepts being measured. Deciding whether to consider as equivalent two items from different surveys involved striking a balance between the

[6] These are Germany, Greece, Iceland, Italy, Norway, Portugal, Spain, Sweden, and Switzerland.

[7] Given my secondary interest in political attitudes, in a few cases (e.g. Italy 1968) a study was included even when it lacked a turnout question. Studies where all respondents stated they had voted (e.g. Denmark 2001) were also included, for the same reason.

Table 3.2.1: Sample coverage for individual-level data

Country	Years
Australia	1966, 1969, 1977, 1987, 1990, 1993, 1996, 1998, 2001, 2004, 2007, 2010, 2013
Belgium	1991, 1995, 1999, 2003, 2007
Canada	1965, 1968, 1974, 1979, 1980, 1984, 1988, 1993, 1997, 2000, 2004, 2006, 2008, 2011, 2015
Denmark	1971, 1973, 1975, 1977, 1979, 1981, 1984, 1987, 1988, 1990, 1994, 1998, 2001, 2005, 2007, 2011
Finland	1972, 1975, 1978, 1982, 1983, 1987, 1991, 1995, 1999, 2000, 2003, 2006, 2007, 2011
France	1958, 1962, 1978, 1988, 1995, 1997, 2002, 2007, 2012
Germany	1961, 1965, 1969, 1972, 1976, 1980, 1983, 1987, 1990, 1994, 1998, 2002, 2005, 2009, 2013
Greece	1985, 1989, 1990, 1993, 1996, 2000, 2004, 2007, 2009, 2012
Iceland	1983, 1987, 1991, 1995, 1999, 2003, 2007, 2009, 2013
Israel	1969, 1973, 1977, 1981, 1984, 1988, 1992, 1996, 1999, 2001, 2003, 2006, 2009, 2013
Italy	1968, 1972, 1985, 1990, 1992, 1994, 1996, 2001, 2006, 2008, 2013
Japan	1981, 1990, 1995, 1996, 2000, 2004, 2007, 2010, 2013
Netherlands	1971, 1972, 1977, 1981, 1982, 1986, 1989, 1994, 1998, 2002, 2003, 2006, 2010, 2012
New Zealand	1981, 1987, 1990, 1993, 1996, 1999, 2002, 2005, 2008, 2011
Norway	1965, 1969, 1973, 1977, 1981, 1985, 1989, 1993, 1997, 2001, 2005, 2009
Portugal	1985, 2002, 2005, 2006, 2009
Spain	1979, 1982, 1986, 1989, 1993, 1996, 2000, 2004, 2008, 2011, 2015
Sweden	1956, 1960, 1964, 1968, 1970, 1973, 1976, 1979, 1982, 1985, 1988, 1991, 1994, 1998, 2002, 2006, 2010
Switzerland	1971, 1975, 1979, 1987, 1991, 1995, 1999, 2003, 2007, 2011
United Kingdom[a]	1966, 1974 (October), 1979, 1983, 1987, 1992, 1997, 2001, 2005, 2010
United States	1948, 1952, 1956, 1958, 1960, 1962, 1964, 1966, 1968, 1970, 1972, 1974, 1976, 1978, 1980, 1982, 1984, 1986, 1988, 1990, 1992, 1994, 1996, 1998, 2000, 2002, 2004, 2008, 2012

[a] The 1963–1970 period is covered by the *Political Change in Britain* study. Due to the complex nature of the survey (essentially, a panel), and the impossibility of clearly distinguishing between panel and cross-sectional respondents, only one wave was selected for inclusion in my data.

coverage–comparability trade off mentioned above. An illustrative example is provided by the questions tapping into political interest. For the 2011 Finnish elections, the question gauges a respondent's extent of agreement with the statement "I'm interested in politics and social issues." On the other hand, in the 2007 election the item is phrased as "How interested are you in politics?" In this instance, the

two items were considered similar enough for inclusion in the data set. In the United States, the question refers specifically to following "what's going on in government and public affairs." Even though the phrasing differs moderately from that found in other series, it was also considered suitable for inclusion in my data set. On the other hand, items that specifically refer to campaign periods were considered unsuitable, under the reasoning that even normally uninterested citizens might express a modicum of interest in politics during an election.[8] This is the case on the 1991 Belgian survey, where the item probes how much attention the respondent awards to election campaigns. Similar cases can be found for income. Whereas the 1977 Israeli study asks about the gross household income per month, the 1981 study switches to inquiring about the gross household expenditure per month. The 1984 study goes further away from the 1977 phrasing, by asking about the household's gross expenditure in relation to a national average. In this specific instance, only the 1977 item was kept in my data.

Similar decisions have been made in the case of other variables as well: education, satisfaction with democracy, or union membership. Since the national election studies brought together here were not implemented with the goal of cross-national comparability in mind, the procedures I have followed have resulted in an admittedly patchy data set, in terms of missing data.[9] Even though the full data set contains 21 countries, 258 elections, and 564,600 respondents, the statistical models presented in this monograph have been estimated on considerably smaller samples. Finally, it ought to be mentioned that while the effort in building this data set has been considerable, and greatly reduced by the meticulous work performed by the TEV project, it is by no means unique. Data sets created in a similar manner already exist, such as the *International Stratification and Mobility File*, created by Harry Ganzeboom, Donald Treisman and Elizabeth Stephenson, or the *Comparative Dataset on Cleavage Voting*, created by Giedo Jansen.

More important that the precise sample size is the structure of the data set. Unlike previous analyses, which use, on average, 2–3 waves per country, the data used in my analysis has a longer time component. Whereas the turnout models of Chapter 4 are tested on a sample with an average of roughly 5 waves per country, those in Chapter 6 have approximately 7 or 8 waves per country. Even in national contexts where only 2 or 3 waves have complete information on the predictors, the estimation of the

[8] By "lifting up" the uninterested, such a phrasing effectively compresses the distribution of political interest and biases the estimate downwards.

[9] Specific details about the items selected from each election study can be found in the data merging codebook, hosted at https://cmbosancianu.github.io/data/tov.html.

effects of inequality or parties' ideological shifts is greatly helped by the availability of a much longer series for the United States or United Kingdom. This more extensive longitudinal component allows a better understanding of the cross-sectional and temporal influence of inequality on political behavior.

3.2.2 Data harmonization

The guidelines on the basis of which the merging of the data was done have been developed by the TEV project team (Schmitt et al., 2013). They have been followed as closely as possible, in order to minimize discrepancies between the nine countries obtained from the TEV data and the 12 countries I have added. In the following paragraphs I describe a few of these procedures for the most commonly-used variables in the statistical specifications encountered in the subsequent chapters.

Gender and age were the least problematic indicators in the merging process. As would be expected, the scale for gender did not vary between survey series. For age, most surveys recorded age in years; a few chose to record the year of birth, which could easily be transformed into years. In the case of Denmark (1981, 1988 and 1990), Israel (1969 and 1973), Finland (1975, 1983 and 1987), and France (1958, 1962 and 2012), age was recorded using distinct categories (usually brackets of 10–15 years). In these instances no procedure could adequately recover the information lost through using categories. For these cases, given that they only affect 3% of the respondents in my data, I replaced the categories with the average age of the bracket (e.g. 25–29 was replaced by 27).[10]

Education posed a more complex set of problems when it came to processing the different educational levels that exist in the 21 countries to a tripartite division: primary education (including incomplete secondary studies), completed secondary education, and college (including incomplete BA degree, and any post-graduate studies).[11] The first difficulty was caused by the issue of vocational education, which doesn't easily fit into this structure. As a general rule, if vocational studies were pursued after lower secondary education (8th or 9th grade), it was considered part of the "secondary incomplete" sub-category. If these studies were taken up after the completion of the secondary cycle, however, as in the German apprenticeship system, they were considered part of the "completed secondary stud-

[10] While undeniably problematic, such nuisances do not automatically plague my analyses in the following chapters. Taking the example of turnout in Chapter 4, none of these countries appear in the models reported there, due to missing data problems on other indicators.

[11] The division was established by the TEV harmonization protocol, and had to be continued here.

ies" category.[12] In the case of Australia, the specific items measuring educational achievement do not ask for highest educational level reached, but rather the number of years spent in primary, secondary and tertiary education. On the basis of these a rough categorization could be made.

A more serious complication is the case of Denmark, where it proved impossible to clearly distinguish between those who stopped at a high school degree, and those who chose to continue with a college degree or an apprenticeship. The merged data file for Denmark (1971–2005) places in the same category those with a high school degree and those who went on to college or further. With no remedial measures available, I recoded the "12+ years of education" category to designate "some college education".[13] The case of the United Kingdom illustrates a third problem—the item measures the age at which full-time education has been terminated. Having no other course of action available to me, I recoded education using the 16 and 18 year thresholds. As a rule, 16 or below denotes primary or incomplete secondary education, 17–18 suggests secondary education has been completed, while 19 and above denotes the respondent has at least some college. The 16 threshold has been chosen under the reasoning that those who drop out are more likely to do so at the beginning of the upper secondary cycle (15–16 years) rather than at the end of it, just in sight of high school graduation. Even so, this procedure will surely misclassify individuals who have interrupted their full-time studies and have continued them at a later date.

Income is another indicator which has proven difficult to harmonize across all the studies included here. The TEV project has measured income using tertiles, a practice which I have followed throughout. However, even a scale as rough as this posed challenges for the variety of ways in which the income of the household is measured across studies. Where income has been measured in raw currency, this has been a simple procedure (e.g. Norway in 2009, Italy in 1975, or Canada in 2015). In most other countries, though, income was measured with a ordinal scale, ranging from 7 categories in the Danish 1971 study to 22 in the Australian 2013 one. With these categories I then proceeded to construct the

[12] The exception here is Finland, where vocational education can extend all throughout college, and results in this case in an applied sciences degree. In these instances, vocational studies pursued at the college level were considered part of the tertiary cycle.

[13] Even when using the individual Danish studies, information about college education doesn't exist prior to 1984. It should be also mentioned that the bias introduced by such coding procedure will be lower in the case of more recent surveys. As labor market opportunities for high school graduates have diminished, a lower share of people in the "12+ years of education" category are only high school graduates. A 2005 OECD "Education at a Glance" report (OECD, 2005, Graph A1.1a) suggests that about 32% of people in the 25–64 age category had a college degree in Denmark in 2002. This is not far from the estimate of 30.5% in my 2001 survey, which includes those with some college as well as everyone above 18 years of age.

tertiles as closely as possible to the 33.3% standard. The quality of the output has varied.[14] For the 2011 Canadian survey, the tertiles produced have 716, 718 and 710 members, respectively. On the other hand, the best division for Spain in 2011 produced groups of size 1,222, 1,957 and 1,205. Other instances of skewed allocation are France in 1988 (1,573, 1,501 and 541), Italy in 1985 (740, 761 and 233), or New Zealand in 1981 (338, 625 and 481). Thankfully, most countries are in between these two sets of extremes, with deviations of 3–5 percentage points from the standard 33.3% cutoff.

In addition to the imprecision caused by the uneven group size, other factors also affect the quality of my income measure. Chief among them is the occasional need to include personal income estimates into a series that predominantly refers to household income. A total of 18 election studies use the respondent's income as a measure: Australia (1979), Denmark (1971 and 1973), Finland (1996, 1999 and 2011), Greece (1996), Italy (1985), New Zealand (1981), Sweden (1964, 1968, 1970, 1991, 1994, 1998, 2006 and 2010) and the United Kingdom (1966). For a further 3 studies no information about whether the measure refers to personal or household income could be found (Spain in 1979 and 1993, and the United Kingdom in 1983). With a continuous income scale and information about the number of adults and children in the household, a rough equivalence could have been established. In their absence, though, no corrective measure could be taken, and the measurements were included in my data as found.

When compared to education and income, the difficulties encountered in joining together the turnout items appear minor in relative terms. With the exception of the United Kingdom 1966 study, all other questions use a simple "yes/no" dichotomous scale for the answer. In the UK case, the item allowed for a "fairly sure voted" option, which was folded into the "definitely voted" category by myself. Refusals to answer or claims of not remembering whether the person voted were recoded to missing. Casting a blank vote was recoded as having turned out in the two studies which included such a response option. Where turnout and vote choice information were part of the same item, a simple recoding procedure compressed this into a dichotomous scale. The more important aspect with regard to turnout is the format of the question—whether it reports a past behavior or a vote *intention*. The preference has been for past behavior, and the majority of the surveys included in my data report this. Only Greece (1985, 1989, 1990, 1993 and 2000) and Israel (1973 through 2003) have items that refer to vote in-

[14] A breakdown of tertile size for each study in my data set can be found in the Appendix section of the data codebook.

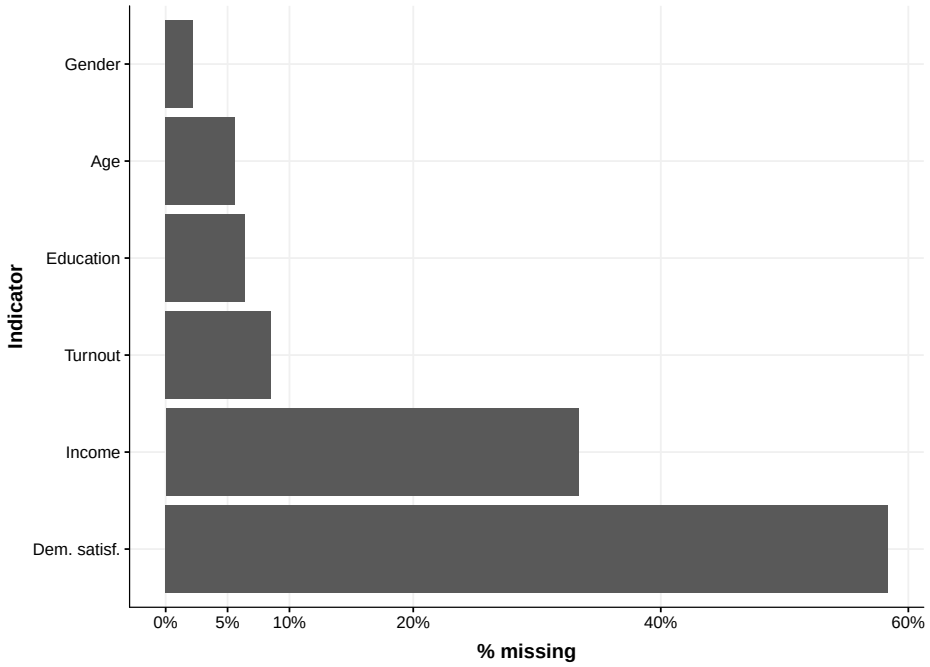
tention, although both these countries drop out of the turnout models in Chapter 4 due to missing information on other indicators.

In what concerns satisfaction with democracy, the challenges have been minor. The items have tended to have the same phrasing across surveys, usually a variation on "how satisfied are you with the state of democracy nowadays in ...?". A few cases diverged a bit from this, e.g. "satisfied with the state of politics and government in ...?" (New Zealand in 1981), "on the whole, democracy works well in ..." (Finland in 2011), or "satisfied with the way democracy develops in ...?" (Japan in 2000). Even so, they have been considered sufficiently close to the dominant phrasing of the item so as to justify keeping them in my data. Two cases have been considered beyond the pale. In a few instances of pre/post panels, the satisfaction item has only been asked in the pre-election wave (Canada in 1997, 2011 and 2015). Given that the satisfaction level is impacted by whether the voter has cast a ballot in favor of the winning party or candidate (Anderson and Guillory, 1997), such a pre-election item is not directly comparable with post-election items from other surveys. This is why such question formats have been excluded from my data. The second case involves questions which make mention of a particular government, or implies an evaluation of the performance of the government. A typical example here is the item from the 1968 Canadian study, probing the degree of satisfaction with "how Canada is run". These types of questions have been kept out as the don't refer to principles and core features of institutions in democracy, but rather to the performance of these institutions. The measurement scale for the satisfaction item is usually a 4-point one, ranging from "not at all satisfied" to "very satisfied". In three cases (New Zealand in 1981, Australia in 1969 and 1979) a 3-point scale was used, while the 2007 Belgian study made use of a 5-point scale. Finally, the Spanish studies of 2011 and 2015 used an 11-point scale. Due to the need to match these scales of varying sizes with the TEV standard all answers were recoded on a 0–1 scale.

A few other indicators (religious denomination, political interest, or union membership) have been used as statistical controls in the analyses presented in subsequent chapters. Brief descriptions of the harmonization strategy used for these variables, though, will be made as they appear in the analyses. The last point in this subsection, before switching to the principal aggregate-level indicators, is a brief discussion about missing data for the variables presented above.

While most indicators have low rates of missing information (see Figure 3.2.1), satisfaction with

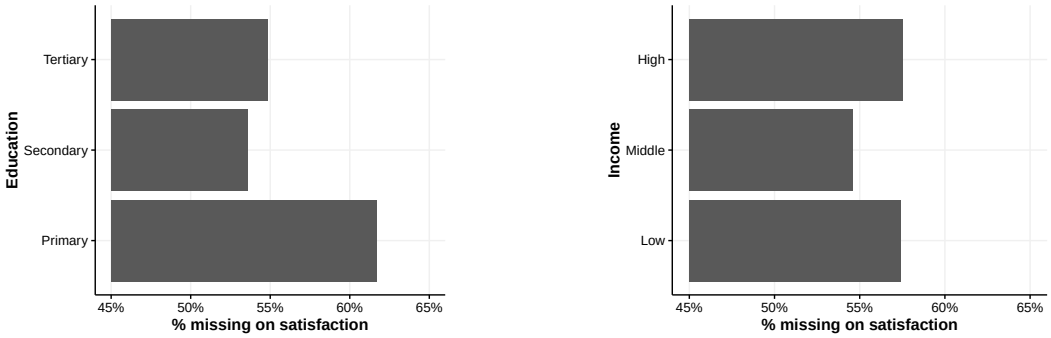
Figure 3.2.1: Missing data on main individual-level variables



democracy and income are notable exceptions. Over 30% of the information on income is missing in my data, while for satisfaction with democracy the missingness rate borders on 60%. All other indicators (turnout, age, gender and education) have missing data rates of under 10%. The case of satisfaction with democracy is easily explained by the fact that the question regularly appears in survey series only after the early 1990s. In the United Kingdom it appears consistently since 1997, in Israel since 1999, in New Zealand since 1996, in Finland since 20003, and in Canada since 1993. This, coupled with the quasi-complete absence of the item in the American and Danish series, leads to the missing data rates we see. At the same time, for the available data, the missingness pattern does not point to a systematic bias when it comes to education or income. In Figure 3.2.2 the percentage of missing information on satisfaction is plotted for each educational and income category. There is clearly a tendency for respondents with only a primary education to have a higher rate of missing information: about 62%, compared to 54–55% for the other two educational categories. Nevertheless, when judged against the full range of the scale, this difference is not that striking. When also factoring in the very similar rates of missing information based on income, I am more confident in my assumption that there is no major systematic bias in how satisfaction with democracy is reported.[15]

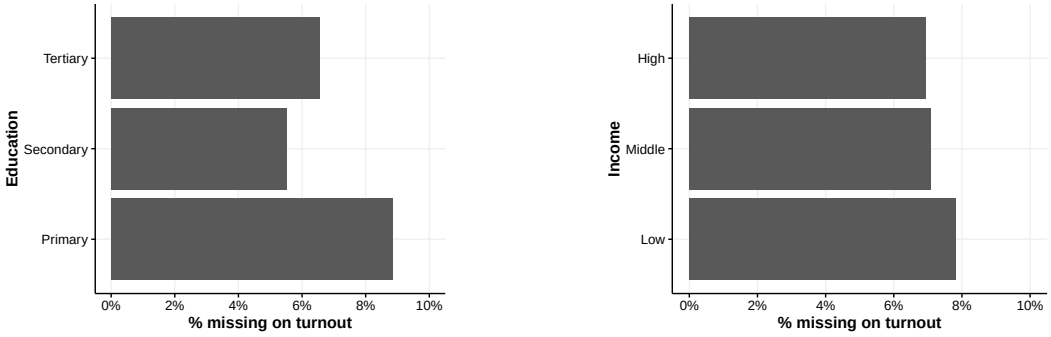
[15] As with turnout, the conclusion is sensitive to the way in which education and income have been collapsed. Finer categories for both indicators might have produced a different conclusion.

Figure 3.2.2: Missing data patterns for satisfaction with democracy



(a) Based on education **(b)** Based on income

Figure 3.2.3: Missing data patterns for turnout

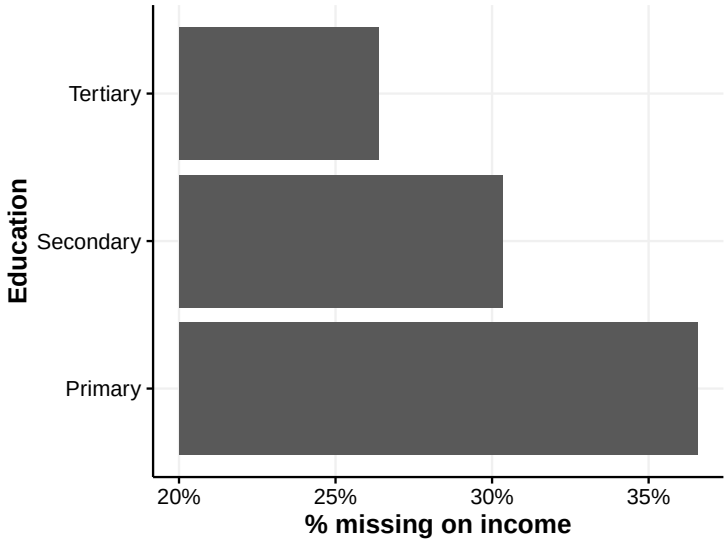


(a) Based on education **(b)** Based on income

Turnout displays similar patterns of missing information as what was seen for satisfaction with democracy (Figure 3.2.3). There is a weak bias present for education, whereby respondents with only primary education are slightly less likely to have valid turnout information. The difference between individuals with primary education and those from other educational categories is only 4 percentage points though. This, together with the lack of a patters in the case of income, leads to the same conclusion: there is only a limited systematic bias in how turnout is reported in the data.

Income, however, does display a clear pattern of missingness (see Figure 3.2.4). The higher one's educational achievement, the lower the probability of having no income information available in the data. While primary school graduates (or below) have around 36% missing information on income, this drops to roughly 26% for those with at least some college classes. Including income as is in a regression

Figure 3.2.4: Missingness pattern for income based on educational achievement



model would result in a biased estimate.[16] The solution to the problem is multiple imputation (Rubin, 1987): using a statistical model to predict plausible quantities for the missing values. As long as the pattern of missingness is MAR, and the procedure generates multiple versions of each missing value, the estimates obtained from the data analysis should be unbiased, at the cost of increased variance. This is the procedure I follow in my analyses, although only as a check for the consistency of the results obtained through the main Bayesian analyses. The reason for this is a combination of the mechanics of the multiple imputation procedure (MI) and the estimation procedure used in the analyses. Multiple imputation (MI) usually produces 5–10 versions of the data, which are then analyzed sequentially. The point estimates and their uncertainty are then pooled to produce the final set of estimates. Due to the use of Bayesian hierarchical generalized linear models, and the large sample sizes on which they are estimated, multiple imputation would have led to an estimation time measured in weeks, for each model. This is why the MI approach was only used once, on the final specification from each analysis.

3.2.3 Aggregate-level indicators

I now turn, in the next few pages, to the main aggregate-level indicators used in the analyses. The main ones are, naturally, income inequality and party ideological shifts.

[16] Maximum likelihood estimation is not affected by such missing at random (MAR) pattern (Allison, 2001, ch. 4; Enders, 2010, ch. 3–4).

Income inequality

The recent surge in interest among social scientists in the political and social effects of income inequality has partly been enabled by the growing availability of cross-national and longitudinal data on income inequality. From some of the earliest efforts, such as the Deininger and Squire (1996) data, or the UNU-WIDER *World Income Inequality Database*, to the more recent and thorough efforts of the *Luxembourg Income Study* (LIS) or the *World Wealth and Income Database*, the applied researcher patently has more data choices when studying trends in inequality than 20 years ago. The available data cover a spectrum between comparability and coverage (Solt, 2016). The most comparable inequality estimates are those produced by the LIS, which uses micro-data harmonized based on the same set of rules, and similar income definitions, when computing Gini estimates. With these stringent quality controls in place, it comes as no surprise that the LIS data has limited coverage. At present (late October 2016), LIS provides data on income inequality for 48 countries and a total of 300 country years.[17] Most of these estimates are concentrated in long-term OECD members: 12 years for Canada or Germany, 11 years for the United States, or 9 years for Norway. Developing countries from Latin America, Asia, or Africa have far lower coverage: 4 years for South Africa, 2 years for Paraguay or India, and 1 year for the Dominican Republic.

Closer to the coverage end of the spectrum are the data sources which join together inequality measurements computed based on varying definitions of welfare (net income, gross income, expenditure) and referring to different population units (household vs. individual). In this category we find the Deininger and Squire data cited above, or Branko Milanovic's *All the Ginis* data. Taking the case of the latter source, the relative coverage when compared to the LIS data is clearly superior: 166 countries and the entire 1950–2012 period for most countries. At the same time, to achieve this impressive amalgamation the measures of inequality had to be collected from 9 separate data sources, ranging from the World Institute for Development Research WIID data, the World Bank's POVCAL data, Eurostat's Survey of Income and Living Conditions (SILC), and a number of small individual data sets that are usually country-specific. Even with shifting coverage of the population, and varying definitions of income, until recently these data sources represented the sole alternative for researchers interested in

[17] This number includes data sets which in October 2016 had been received by LIS or in the process of harmonization, but not yet released to the public. The number of country year estimates actually available to the public at present is 277.

research questions that targeted a substantive cross-national and temporal dimension.

The inequality indicator chosen for this project is the Gini index of net income inequality, taken from the *Standardized World Income Inequality Database* (SWIID) (Solt, 2009, 2016). The SWIID, available since October 2008, offers a coverage similar to projects like *All the Ginis* or the Deininger and Squire data, while at the same time being more rigorous regarding the data generation process. In short, the SWIID uses the LIS estimates as a basis (or an anchor), and then plugs in the gaps in the LIS series with a model-based multiple imputation process. The model is based on what SWIID calls the "source data": a collection of over 10,000 Gini indices, similar to the Milanovic corpus. Using a combination of *lowess*, a regression-based imputation model, and a final stage that involves a moving-average smoothing of the estimation, version 5.1 of SWIID (released July 2016) produces over 4,000 estimates of income inequality.[18] The imputation procedure also generates estimates of uncertainty for these values, which reflect natural imprecision about the "true" level of inequality in a country year. In its most recent iteration, the SWIID thus manages to cover 175 countries and 4,082 country years—almost double the number of high quality estimates that the *All the Ginis* project supplies.

Due to my project's focus on advanced democracies, the Ginis selected from the SWIID are of even higher quality than that of the average estimate in the data set. In these countries the missing information is primarily imputed on the basis of other values from the same country (Solt, 2016, Figure 4). As these are also the countries where accurate LIS data constitute, on average, close to a quarter of the series, we can be fairly confident that the use of the SWIID did not result in too big of a compromise in terms of data quality, when compared to the LIS. Testament to the quality of the procedure used in generating the SWIID is its predictive ability. Estimates from versions of the data are generally very close to more recent and highly accurate estimates of Gini from the LIS project (Solt, 2016, Figure 5). In only 7% of cases were predictions made by SWIID farther away than 2 points out of 100 from corresponding LIS estimates, indicating that the model-based imputation procedure used by the SWIID project is reasonably precise.

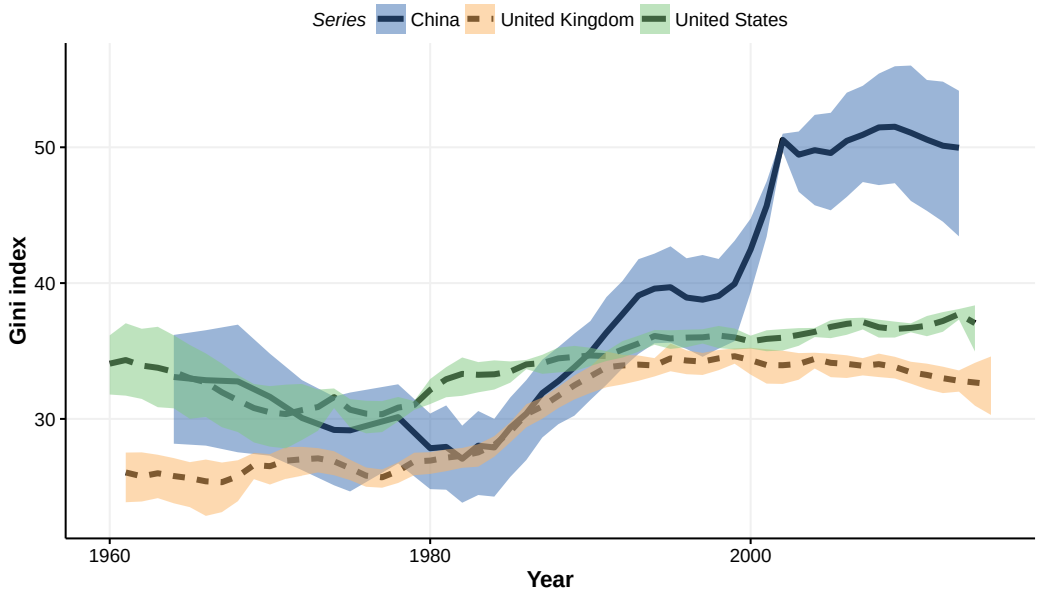
Another way of assessing the validity of SWIID estimates is to check whether they match accounts of inequality dynamics based on alternative data. Figure 3.2.5 presents trends in income inequality for three countries: China, the United Kingdom and the United States. This first noticeable trend is the

[18] I have only presented the general characteristics of the data generation process. A more detailed coverage, with finer technical details, can be found in Solt (2016).

consistent rise in income inequality in the UK and the US, from the late 1970s up to the early 1990s. In both countries this is consistent with a period of government deregulation, privatization, increasing deindustrialization, as well as Right party dominance. Together, these trends contribute to a rise of Gini from roughly 31 to about 36 over a period of 15 years in the US, and from around 27 to 34 in the UK. This common trend between the two countries, as well as the more accelerated rate of increasing inequality in the UK closely matches other authors' observations, obtained from raw LIS data (Kenworthy and Pontusson, 2005, Figure 2). After this period of dynamic growth in inequality, both countries enter a relatively sedate phase, matching the resurgence of the (New) Left in these countries, with Tony Blair and Bill Clinton. Although globalization and deindustrialization continue apace in both countries, government policies nevertheless manage to put a dent into the inequality trend observed throughout the 1980s.

China experiences similar trends to the US and UK, although considerably amplified and attributed to an entirely different set of causes. The early 1980s are marked by the first effects of the market-oriented reforms of Deng Xiaoping, particularly in agriculture and industrial policy (Bettelheim, 1988).

Figure 3.2.5: Trends in income inequality for the US, the UK and China, 1960–2014



Sources: Net Gini index from Frederick Solt's SWIID data set, version 5.1. Shaded areas represent uncertainty in the estimate of inequality.

Note: The 2002 estimate for China that shows no uncertainty is the only LIS available study in this country—the Chinese Household Income Project. Because of the high quality of the estimate, no imputation has been done for 2002.

As markets open up gradually to tightly regulated competition, we see income inequality take off for the next two decades. The decentralized approach to economic reform, emphasizing small-scale farming, small private enterprises, and local experimentation in search for solutions, is put on hold after the Tiananmen Square events of 1989. The political leadership understands that the economic reform process is becoming too unstable, and reasserts control (Naughton, 2008). The government takes back some of the powers given to local administrations, and moves to rapidly dismantle under-performing state-owned enterprises. In the early 2000s, the central administration of Hu Jintao and Wen Jiabao begins promoting a set of policies that primarily favor rural areas, small farmers, and urban economic migrants to the detriment of urban higher-educated workers (Naughton, 2008, p. 129). Increased spending on health care, education and pensions for these categories is likely reflected in the stabilization of inequality we see occurring after the 2000s in China. Finally, and on a more general note, Figure 3.2.5 makes evident that the missing data imputation process clearly yields better results in the case of the US and UK, where more high-quality LIS estimates exist as anchors, than for China. The uncertainty bounds are much larger in the latter case than for the former two countries.

The extended temporal coverage and quality of the SWIID estimates, compared to the alternatives, constitute compelling reasons for using them in a cross-sectional and longitudinal analysis such as mine. What they do not justify, however, is the use of the Gini index as a measure of economic inequality. In this respect, my argument is based on availability. Even though numerous alternatives exist[19], and could plausibly be computed from the LIS data, they are not reported in other widely available data sets. This means that a model-based imputation procedure, closely emulating the SWIID one, would not be possible for these alternative indicators. Even so, availability is not a justification for flaws in measurement. The reader ought to be aware that a well-known property of the Gini index is that it is more sensitive to changes in the middle of the income distribution than at the tails (Amiti, 1999, p. 577; Madden, 2000, p. 76). Any conclusion drawn from the results should be interpreted in light of this feature of the indicator.

In a few instances version 5.1 of SWIID contained gaps in the series. One standard example is a missing 1977 observation for Australia, even though the 1976 and 1978 observations are present. In

[19] The P90/P10 income decile ratio, the Pietra ratio, the Robin Hood index, the Generalized Gini (S-Gini) class of indices, the General Entropy class (e.g. the Theil index, the Mean Logarithmic Deviation, the squared coefficient of variation), or the Atkinson family of measures.

this case and a few similar others, not wishing to discard an entire survey, I plugged in a Gini value assuming linear interpolation. The same procedure was used for Canada, when a 2014 observation was present in the data, but not for 2015 as well. In this case I assumed that the year-to-year rate of growth was the same, and derived a value for 2015. In total, 18 such values were computed by me, of which only 10 make it into the turnout models presented in Chapter 4, due to missing data problems on other indicators.

Party ideological dynamics

The framework put forth in the previous chapter attributes dynamics in both inequality and participatory patterns to party platform shifts. The issue of how exactly to measure these shifts, though, continues to bedevil political scientists despite more than three decades of efforts in this direction.

Four approaches have been developed over the course of varied investigations, arranged here starting from the most "elitist" in terms of human resource demands. To begin with, there are automated text analysis procedures, which use word frequencies from documents (manifestos, party leader speeches, legislative speeches etc.) to place parties in an ideological space (Slapin and Proksch, 2008). Second, slightly more labor intensive yet still based on political documents, we have inductive (Gabel and Huber, 2000) or deductive (Laver and Budge, 1992) methods, based on human coders who assign quasi-sentences to Left/Right categories. A statistical procedure (e.g. factor analysis) is then used to produce from these measures of issue emphasis a placement in an ideological dimensional space. The third approach uses expert surveys (Castles and Mair, 1984; Laver and Hunt, 1992)—country specialists are asked to place parties on a set of pre-defined dimensions, using their expert knowledge of the party positions on various issues. Finally, the most resource-intensive method in terms of both labor and capital, consists of obtaining placements of parties from mass electoral studies. The positions of party supporters on a set of issues is aggregated up, to produce party placement information, under the assumption that a party cannot stray too far from its supporters and still hope to survive in the electoral arena.[20]

Every approach listed above comes with its own set of associated strengths and costs (Volkens,

[20] A fifth method exists as well: the analysis of roll call data, in countries where such votes are regularly recorded (Poole and Rosenthal, 1997). The approach is not listed above because it appears more suitable to mapping the positions of individual legislators rather than that of a party. Where party discipline is low it is difficult to provide a good summary measure of placement, while in contexts with high discipline the approach doesn't give substantively useful information (Benoit and Laver, 2006, pp. 69–70).

2007); behind each lies a set of assumptions about how the political space is arranged in metric terms (Benoit and Laver, 2006, Chapter 3). In my analysis I have opted to derive party placements from party manifesto data, using the information provided by the *Manifesto Research on Political Representation* project (MARPOR) (Budge et al., 2001; Klingemann et al., 2006; Volkens et al., 2014). Implicit in this choice is the acknowledgment that the MARPOR data is the most suitable one, out of the alternatives listed above, for a project with a temporal scope of the magnitude I attempt here. Automated content analyses and inductive procedures, like the "vanilla method" proposed by Gabel and Huber (2000), cannot adequately ensure that the "super issue" or set of dimensions extracted from the data are based on the same set of policy issues across time and space. Although they are able to capture shifts over time in the substantive content of the dimensions themselves, party position stability may mask considerable changes due to the appearance of new politically-relevant issues (e.g. environmental concerns). On the other hand, expert placements don't exist for many elections included in my analysis. Additionally, experts supply a holistic placement of a party inasmuch as they take into account a host of past information about a party when assigning it a position at a specific election cycle (McDonald and Mendes, 2001). Finally, party placements obtained from mass surveys such as the CSES also suffer from data availability issues. This, along with the inability of including a large enough or sophisticated set of policy dimensions, lest most respondents are unable to supply meaningful answers (Benoit and Laver, 2006, pp. 60–61), limits their usefulness for my project.

None of these points inherently amplifies the appeal of the MARPOR data, the flaws of which have been abundantly documented (for a convenient summary, see Gemenis, 2013). Nevertheless, when considering the new questions and comparisons that the data makes possible, such flaws appear small. The project's intellectual scaffolding, the saliency theory of party competition (Budge and Farlie, 1983), does not accommodate a positional understanding of the political space. At the same time, 54 out of the 56 coding categories used in the MARPOR project turn out to be explicitly positional (McDonald and Mendes, 2001). The theoretical understanding of Left and Right which informed the coding categories in the project is based on theoretical writings from the 1910–1920 period, and in some cases even earlier (Budge and Meyer, 2014). This means that more recent issues, such as the environment, don't figure at all among the policy categories that make up the project's flagship RILE scale. Even so, maintaining an identical scale composition across time and space allows for unambigu-

ous comparisons between similar parties in different countries, or between the same party at different moments in time. Finally, a reasonably fair criticism of the MARPOR output is that it does not produce measures of uncertainty associated with its party placements. A proposed solution to this relies on the assumption that longer texts convey more information, and therefore produce less uncertainty around a party's position (Benoit et al., 2009). It is not altogether clear that this is a valid assumption, though. Longer manifestos might simply represent a form of compromise between different party factions, and could plausibly *increase* the uncertainty around one's assessment of the party's stance on an issue (Budge et al., 2014, p. 82).

Counterbalancing these imputed flaws in design are the capabilities afforded by the MARPOR placements. With a few exceptions (the 2015 Canadian elections, US mid-term contests, the Finnish 1978 and 1982 Presidential elections, or the Japanese 2004 and 2013 contests), all elections covered by my data set have corresponding party placement data in MARPOR.[21] As most countries are at a similar level of development and have had similar historical trajectories of party system emergence, we can be reasonably confident that the meaning of "Left" and "Right" is somewhat equivalent between the national contexts. More documents have been added at every new version of the data set, and older manifestos with significant gaps in terms of uncoded sentences have been continuously re-examined (Volkens, 2007, p. 117). In this sense, the MARPOR data has gradually become an impressive corpus of good quality information on party placements, for an ever-growing sample of countries and electoral races.

As my proposed dynamics among inequality, party shifts and participation have made specific reference to Left and Right parties, I grouped parties in each country, based on their ideological family, into "Left" and "Right". Ecological, socialist and social-democratic parties have been cataloged as parties of the Left, while liberal, Christian-democratic, conservative, nationalist, and agrarian parties have been classified as parties of the Right. Ethnic or regionalist parties, along with special issue movements, have been excluded from this classification. For each party, the two measures used to track their ideological movements have been a variant of the RILE index, as well as a pair of indices that focus either on the economic platforms of the parties or on their position on traditional morality.

[21] For the Finnish case I used information from the parliamentary elections from 1979 and 1983. Similarly, for the Japanese case I used information from the 2005 and 2012 races. The one-year time frame makes it unlikely that parties changed their position considerably between the two time points.

Table 3.2.2: MARPOR categories used in the construction of party positions

Category	Item	Meaning
Planned economy	per403	Market regulation
	per404	Economic planning
	per412	Controlled economy
Market economy	per401	Free market economy
	per414	Economic orthodoxy
Social groups	per701	Labor groups: positive
	per702	Labor groups: negative
	per704	Middle class and professional groups: positive
RILE	per104	Military: positive
	per201	Freedom and human rights
	per203	Constitutionalism: positive
	per305	Political authority
	per401	Free market economy
	per402	Incentives: positive
	per407	Protectionism: negative
	per414	Economic orthodoxy
	per505	Welfare state limitation
	per601	National way of life: positive
	per603	Traditional morality: positive
	per605	Law and order: positive
	per606	Civic mindedness: positive
	per702	Labour groups: negative
	per103	Anti-imperialism
	per105	Military: negative
	per106	Peace
	per107	Internationalism: positive
	per202	Democracy
	per403	Market regulation
	per404	Economic planning
	per406	Protectionism
	per412	Controlled economy
	per413	Nationalisation
	per504	Welfare state expansion
	per506	Education expansion
	per604	Traditional morality: negative
	per701	Labour groups: positive

Table 3.2.2 summarises the categories included in the construction of the two indices. For the custom RILE index, the categories proposed by Laver and Budge (1992) have been used here as well. The "custom" nature of the index is due to the inclusion of per604 among Left items and per702 among Right items, thus mirroring the existence of the per603 and per701 among the Right and Left items, respectively, in the original RILE. The method proposed by Lowe et al. (2011) was employed, in order to obtain a positional placement for the party groups. The logarithm of each item was computed, which corrects for the fact that there is likely a decreasing marginal effect of an additional emphasis of a

certain topic in a political manifesto. With these guidelines in place, the RILE placement was computed from the MARPOR data, version 2016a (Volkens et al., 2016), as in Equation 3.1.

$$\begin{aligned} RILE =& log(per104 + 0.5) + log(per201 + 0.5) + log(per203 + 0.5) + \\ & log(per305 + 0.5) + log(per401 + 0.5) + log(per402 + 0.5) + \\ & log(per407 + 0.5) + log(per414 + 0.5) + log(per505 + 0.5) + \\ & log(per601 + 0.5) + log(per603 + 0.5) + log(per605 + 0.5) + \\ & log(per606 + 0.5) + log(per702 + 0.5) - log(per103 + 0.5) - \\ & log(per105 + 0.5) - log(per106 + 0.5) - log(per107 + 0.5) - \\ & log(per202 + 0.5) - log(per403 + 0.5) - log(per404 + 0.5) - \\ & log(per406 + 0.5) - log(per412 + 0.5) - log(per413 + 0.5) - \\ & log(per504 + 0.5) - log(per506 + 0.5) - log(per604 + 0.5) - \\ & log(per701 + 0.5) \end{aligned} \tag{3.1}$$

The socio-economic scale has been constructed in a two stage process. First, two scales of support for planned economy (PLAN), and support for market economy (MARK) were constructed as seen in Equation 3.2. They were then used to construct the final socio-economic scale (SOC-EC) by subtracting the MARK score from the PLAN score, as well as incorporating information about support for specific social groups, as in Equation 3.3. This broadly follows the practice outlined in Jansen et al. (2013, p. 55), except that I have excluded the parties' position on the welfare state, as this sphere only partly overlaps with economic issues.

$$\begin{aligned} PLAN =& log(per403 + 0.5) + log(per404 + 0.5) + log(per405 + 0.5) \\ MARK =& log(per401 + 0.5) + log(per414 + 0.5) \end{aligned} \tag{3.2}$$

$$SOC - EC = PLAN + log(per701 + 0.5) - MARK - \\ - log(per702 + 0.5) - log(per704 + 0.5) \quad (3.3)$$

Using placements on these two dimensions, RILE and SOC-EC, I proceeded to aggregate party-level measures into systemic indicators. Three such aggregate measures, with each of the two dimensions, have been constructed and used throughout the chapters.

1. A measure of *Left party shifts*, computed as a weighted sum of either RILE or SOC-EC placement for Left parties only. The vote shares of the party have been used as weights.

2. An *ideological center of gravity*, constructed in a similar way as the previous measure, but for all parties in the political system. Again, vote shares have been used as weights.

3. A *party polarization* indicator, computed as the weighted sum of each party's squared deviation from the average placement on RILE or SOC-EC, using party vote shares (s_i) as weights (Taylor and Herman, 1971). Assuming that there are N parties in the system, the formula for RILE polarization is:

$$Polarization = \sum_{i=1}^{N} (RILE_i - \overline{RILE})^2 \times s_i$$

Due to the logarithmic transformation used for all party placements, shifts on my constructed dimensions cannot be interpreted anymore in a raw metric. Rather, they now represent percentage shifts in party positions, and will be interpreted as such throughout the text.

3.3 Modeling Strategy

The manner in which the data has been aggregated precludes straightforward analyses based on the assumption of random sampling. Information on political participation, satisfaction with democracy, and most of their predictors, is clustered based on either country-years (elections), countries, and even years (time periods). Using methods that assume random sampling with this data configuration would

mean ignoring the fact that there is less information in the sample than its actual size would lead us to believe (Snijders and Bosker, 1999, pp. 22–24). If ignored, this *design effect* produces smaller standard errors for the estimates than would be obtained if the clustering were properly accounted for. This, in turn, leads to a higher likelihood of committing a Type I error, in the sense of finding a statistically significant relationship when none actually exists in reality.

A frequently invoked solution in such circumstances is the use of *clustered* ("heteroskedasticity robust") standard errors (Huber, 1967; White, 1980). By applying a correction to the variance-covariance matrix of the model, this procedure produces unbiased standard errors in instances of clustered observations. As Freedman (2006) correctly points out, though, the deeper issue at play is that clustering is potentially due to the operation of a variable that is not captured by the statistical model. If such a variable, say, electoral system type, in facts leads to clustered responses, the statistical model is clearly misspecified. In these cases, the biased nature of the estimates should concern the researcher more than the unbiased standard errors obtained through the Huber–White procedure.

My analyses overcome these problems by employing mixed-effects models (Gelman and Hill, 2007; Luke, 2004; Raudenbush and Bryk, 2002; Snijders and Bosker, 1999; Steenbergen and Jones, 2002), in combination with a two-stage approach to estimation (Hanushek, 1974; Jusko and Shively, 2005; Lewis and Linzer, 2005; Saxonhouse, 1976, 1977). Multilevel models, unlike clustered standard errors, explicitly model heteroskedasticity by incorporating aggregate-level predictors into the statistical specification. They essentially include models at multiple levels (individual, country year, and country) into the same statistical specification. Group-level independent variables are thus used to model variation in either intercepts or slopes at the lowest level of the hierarchy. This feature is particularly valuable for my analyses, as they try to capture the competing impact of inequality and party ideological shifts on individual-level behaviors and attitudes.

A depiction of the models run in the following chapter should serve to illustrate the characteristics of the model. A standard mixed-effects specification with three levels of hierarchy is shown in Equation 3.4 (the notation is borrowed from Fahrmeir et al., 2013). i indexes individuals, who are nested in j country years (elections), further nested in k countries. Each individual's decision to turn out and vote is interpreted as the manifestation of an underlying propensity to vote, π_{ijk}. The logarithm of the odds of participation is the predicted quantity, by means of a set of predictors at the individual level

(X'_{ijk}), country year (X'_{jk}) and, finally, country level (X'_{k}). β_{ojk} and β_{ok} represent the varying intercepts at the first two levels of the hierarchy, which are modeled with specifications at higher levels. β_{o} and the vectors of estimates at each of the three levels (β, a, and γ) constitute the fixed effects in the model: quantities that do not vary across groups. v_{jk} and v_{k} are the random effects: deviations from grand-means at the second and third level of the hierarchy, that naturally vary between units. It is this mix of fixed and random quantities that have led to the name of mixed-effects models for these statistical specifications.[22]

$$
\begin{aligned}
Vote_{ijk}|\pi_{ijk} &\sim Bernoulli(\pi_{ijk}), \\
ln(\frac{\pi_{ijk}}{1-\pi_{ijk}}) &= \beta_{ojk} + X'_{ijk}\beta \\
\beta_{ojk} &= \beta_{ok} + X'_{jk}a + v_{jk} \\
\beta_{ok} &= \beta_{o} + X'_{k}\gamma + v_{k}, \quad \text{where} \\
v_{jk} &\overset{iid}{\sim} \mathcal{N}(0, \sigma_{v}^{2}) \\
v_{k} &\overset{iid}{\sim} \mathcal{N}(0, \sigma_{v}^{2})
\end{aligned}
\tag{3.4}
$$

A host of characteristics make these models particularly popular for researchers interested in investigating the effects of aggregate-level inequality on individual-level attitudes and behaviors. They allow for the simultaneous inclusion of outcomes at multiple levels of analysis, thus isolating the specific impact of inequality, after all other predictors have been controlled for. They are able to "borrow strength" (Kreft and de Leeuw, 1998, p. 14) across groups: estimates with acceptable uncertainty levels can still be produced for groups with small sample sizes. This occurs because the ("shrinkage") estimator also incorporates information regarding the effect in other groups, with larger sample sizes. Finally, they represent a more parsimonious estimation strategy. Rather than estimating deviations from an overall intercept through the use of country and country year dummies, MLMs can simply estimate an overall intercept (β_{o}), along with the variance of the deviations from this intercept at each hierarchy level (σ_{v}^{2} and σ_{v}^{2}).

These models are also particularly versatile, easily extending to data configurations beyond pooled

[22] I use hierarchical models, mixed-effects models and multilevel models interchangeably throughout the text.

cross-sections. Longitudinal trends can be incorporated in an intuitive way (Singer and Willett, 2003); data generated from experiments can be handled as well (Hoffman and Rovine, 2007); extensions have been developed even for complex nesting structures with level 1 units simultaneously clustered in separate hierarchies (cross-classified designs). Shor et al. (2007) find that for TSCS data a mixed-effects model is superior to the traditional approach, consisting of OLS with panel-corrected standard errors (PCSEs), at least in terms of efficiency of the estimates. Beck and Katz (2007) reinforce these conclusions by showing the superiority of mixed-effects models in TSCS applications compared to alternative strategies, such as feasible generalized least squares (FGLS).

From the perspective of my data characteristics, an insurmountable problem with these specifications is that they require an identical model to be fitted at each level of the hierarchy, for all countries and years in the sample. Given the considerable missing information problems documented in a preceding section, this truncates my data to a substantial degree. In effect, even with the very simple specifications used in Chapter 4, the effective sample size drops from approximately 564,000 respondents to a bit above 142,000. In the case of analyses on satisfaction with democracy, this even goes below 112,000 respondents, which is roughly 20% of the original sample. In order to partially remedy this situation, I also cross-check the results obtained from my Bayesian models with a Frequentist approach that uses multiply imputed data sets. This boosts the sample size to a certain degree, although it cannot address instances where an entire item has not been asked at all in a survey.

3.4 The Bayesian Approach

The advantages of multilevel models stop short of producing reliable estimates with small sample sizes at higher levels in the nesting hierarchy (Maas and Hox, 2005; McNeish and Stapleton, 2016). The desirable properties of the likelihood-based estimators commonly used in multilevel models only hold asymptotically, i.e. in samples that grow to infinity. Most empirical analyses of the effects of income inequality, however, fall tremendously short of acceptable sample sizes for statistical inference based on asymptotic assumptions. Commonly encountered country samples for these analyses range from 25 to around 60 units, making estimates from likelihood-based methods fragile to alternative specifications or collinearity. In my case, this is even lower, with 21 countries covered by the data.

Neither can the samples of countries included in my analysis be considered *random* (Western and

Jackman, 1994). Together these constitute a group of some of the wealthiest and most politically stable countries in the world. In other key respects, such as average age in the population, educational achievement, and party ideological change, they are also collectively outliers. In other analyses, even with the use of expanded estimates of inequality from the SWIID or the "All the Ginis" project, reliable and comparable data on macro-economic processes or institutional factors are available mostly for OECD countries. In the face of these constraints related to sample composition, analysts have either embraced assumptions about the "random" nature of the current reality being measured (the "super-population" assumption), or have simply avoided interpreting measures of uncertainty. For my sample, I considered neither approach intellectually sound or statistically rigorous enough.

The Bayesian approach (Gelman et al., 2014; Gill, 2015; Kruschke, 2014) overcomes these inconsistencies and drawbacks. By injecting out-of-sample information into the analysis, through the use of priors on parameters, it can reduce the uncertainty that originates from estimating effects based on a sample of merely 21 countries. Even in the absence of diffuse priors, though, the Bayesian approach to multilevel model estimation (Gelman and Hill, 2007) offers better measures of uncertainty for parameters. This is because maximum likelihood (both the full information and restricted kind) relies on "point estimates of the elements in the variance-covariance matrix [of the model] for inferences" (Shor et al., 2007, p. 169). The Bayesian paradigm, however, can accommodate uncertainty in these matrix elements, through the use of priors on the variance-covariance elements. Finally, the greater robustness of inferences in the face of small sample sizes at the country level, particularly in the case of three-level logistic mixed-effects models (Browne and Draper, 2006), is a considerable advantage for my project. Bayesian estimation has been found to produce minimally biased point estimates and confidence intervals for country-level predictors in probit models with samples as low as 20 countries (Stegmüller, 2013).

I follow standard Bayesian practice (Gelman et al., 2014, p. 3) by first setting up the priors, $p(\theta)$, for the parameters of interest in my models. Second, the posterior distribution, $p(\theta|y)$, is computed as the product of the prior distribution and the sampling distribution, $p(\theta)p(y|\theta)$, where y is the data used in the estimation. It is the sample from this posterior distribution that is summarized in my tables of results, as well as directly in a graphical format. Finally, the model fit is judged by means of posterior predictive checks: assessing the discrepancy between a "test variable" that is based on the data, e.g. a

mean or a minimum, and a similar test variable that is computed from the replicated data conditional on the model parameters (Gelman et al., 1996). To the extent that these two quantities differ considerably from each other, there is reason to suspect that the model specification tested does not fit the observed data well.

The added benefits of using Bayesian estimation do not come cheap. Before the 1990s any realistic model specification and/or prior shapes were impossible to use in practice, particularly on larger data sets, due to the need to integrate over high-dimensional posteriors (Gill, 2015, p. 24). Markov Chain Monte Carlo (MCMC) methods have represented a considerable advance in the range of questions and data sources that could be approached from a Bayesian paradigm. MCMC algorithms "replace an analytical problem with a sampling problem" (*ibid*). Instead of integrating the posterior distribution, they attempt to "map" it through various methods (e.g. the Gibbs sampler, the Metropolis-Hastings sampler, the No-U-Turn Sampler). If the algorithms are allowed to run for long enough, a chain of values recording all the positions that have been mapped can provide a fairly faithful "image" of the actual posterior distribution. MCMC is used in my analysis through the interface provided by the `rstanarm` package for R (Gabry and Goodrich, 2016).

Even with the improvements brought on by the `rstanarm` project (block updating of parameters, a more efficient sampler, pre-compiled models), a standard 3-level multilevel specification will still run for about 8–10 days. To address this, I also rely for analyses in Chapters 5 and 6 on a two-stage approach. These consist of running separate models in each country and year, based on data availability. As each election sample in my data usually has at least 500–600 respondents with valid answers on the items, we can be fairly confident that most estimates will have reasonably small confidence intervals. This cancels a great advantage of multilevel models, mentioned above: the ability to "borrow strength" for the estimation from multiple groups. This advantage, however, is not of much use in a context like mine, where level-1 sample are always made up of at least 500 individuals (Jusko and Shively, 2005). Taking, then, from the first stage models, the estimates and their associated standard errors, I use them as dependent variables in the second stage models, which employ time-variant and time-invariant aggregate indicators as predictors.[23] As the second-stage sample size is in the range of 150–200 elections,

[23] Lewis and Linzer (2005) recommend a FGLS approach in the second stage models. As this is difficult to combine with the Bayesian estimation I opt for, I simply resample from the confidence intervals of the estimates, and use these samples as outcomes. The final estimates and standard errors for the effect of aggregate-level variables are produced through Rubin's rules. I am indebted to Gábor Tóka for suggesting the resampling approach to me.

this allows for Bayesian computations to be performed faster and with fewer resource requirements, even when using the resampling strategy. In turn, this facilitates the running of multiple model specifications, as well as sensitivity checks with alternative priors, in a way that would not be feasible for multilevel models estimated on very large samples.

4

Harmful Inequality? The Case of Turnout and Satisfaction with Democracy

In the current chapter, I make my case for the alternative framework using two political phenomena as test cases, covering both a behavior and an attitudinal factor: turnout and democratic satisfaction. Both have been linked to economic inequality (e.g. Krieckhaus et al., 2013; Solt, 2008), and the argument outlined in Chapter 2 applies to both. In this sense, the analyses presented here focus on re-evaluating a major causal arrow in the framework presented in Figure 2.4.1: the link between relative power and political participation, or between relative power and an indicator of political engagement. This is pursued both in a cross-sectional and a longitudinal setting, with added attention being given to the longitudinal findings. Nevertheless, here I pursue more than a mere replication on a different sample. I also include the impact of party ideological shifts on turnout and satisfaction with democracy,

to verify whether the impact of economic inequality withstands this additional control. If it does, and the impact of party shifts is virtually nil, then my proposed enhancement of the *relative power* model is unjustified. If it does not, while the impact of ideological shifts is noticeable, then I interpret this as partial support for my suggested expansion of the framework.

Unequal turnout has continuously been one of the central themes of political scientists' focus on the democratic consequences of mass political behavior ever since the pioneering US studies of Harold Gosnell and Ben Arneson in the 1920s (Arneson, 1925; Gosnell, 1927; Tingsten, 1937). This concern with the factors that lead to individual or cross-national differences in political participation stems from a series of normative considerations regarding the role of turnout in a democratic system. To start off, quasi-uniform turnout can be considered a fundamental marker of a legitimate democratic political system. Large deviations from the ideal of full turnout signal discontent or apathy of a group of citizens toward the political system. This does not necessarily imply outright rejection of democratic principles, although the fact that a group of citizens no longer believes in the effectiveness of democratic means of political change should offer cause for concern.

More important than this, though, socio-economically biased turnout is unsettling because it may translate into unequal political influence (Lijphart, 1997) and distortions in representation. As with many others in political science, the original insight belongs to V. O. Key, Jr. (1949, p. 527), who argues that elected politicians are not beholden to the interests and wishes of citizens who consistently fail to vote. Since then, a vast collection of analyses have indeed revealed a consistent tendency of representatives to only be responsive to the policy attitudes of higher-income voters (Bartels, 2008; Giger et al., 2012; Gilens, 2005, 2009, 2012; but, see Soroka and Wlezien, 2008), who are indeed more likely to vote. If there would be minimal differences in policy preferences between income groups, or between voters and non-voters, then unequal responsiveness wouldn't constitute a democratic malady. Evidence with respect to voters and non-voters (Teixeira, 1992, p. 100), or to income groups (McCall and Manza, 2011), suggest this not to be the case. Even if Ruy A. Teixeira's assessment of the moderate differences between voters and non-voters could be accurate, this interstice would likely be augmented if the non-participative citizens would be mobilized by parties (Lijphart, 1997, p. 4).

Finally, and of greatest relevance to policy-making, unequal turnout can result in policies which systematically disadvantage lower-income voters. Although some caution needs to be exerted when

equating low turnout with biased turnout (see Mahler et al., 2014), existing results show that differences in aggregate turnout are systematically associated with policy outcomes (Fellowes and Rowe, 2004; Hicks and Swank, 1992; Larcinese, 2007; Mahler et al., 2014). More specifically with respect to welfare state generosity at least one analysis in this group points to (low) turnout as one of the factors associated with a greater extent of retrenchment (Fellowes and Rowe, 2004). The plausible transmission mechanism is the power of unions and Left parties to resist attempts at retrenchment made by Conservative or Liberal parties (see the examples in Scarbrough, 2000). Low turnout, particularly if disproportionately concentrated at the lower spectrum of the income distribution, is a mark of feeble mobilizational capacity of unions and Left parties; this, in turn, makes mounting a credible response to retrenchment attempts (e.g., strikes, rallies, parliamentary bargaining) difficult.

Compared to turnout, satisfaction with democracy is one step further away from directly impacting democratic processes and outcomes. This does not make it any less important as an object of investigation, though. To begin with, it can be considered to be the proverbial canary in the coal mine. Satisfaction with how democracy works, as opposed to support for the principles of democracy, represents an assessment of institutional performance (Linde and Ekman, 2003). To the extent that feelings of disaffection are widespread among the citizenry, they can point to a variety of flaws in democratic representative institutions, on either the input or the output end. Inasmuch as such omens are not heeded, low levels of satisfaction are also likely to lead to preference for quasi-authoritarian and populist solutions to problems.

A further testament to its importance is its position at the foundation of a number of democracy-sustaining behaviors. Greater satisfaction with the performance of democratic institutions is associated with increased turnout at the individual level (Birch, 2010, Table 2)[1], as well as a variety of non-electoral forms of participation, such as attending demonstrations and boycotts (Norris, 2011, p. 225; but see Doorenspleet, 2012). If even such forms of participation go unnoticed, far more radical and destabilizing forms of protest could be taken up, as Crozier et al. (1975) highlight in their well-known report. Short of reaching the stage of violent protest, though, democratic dissatisfaction can impact the effectiveness of government through many more smaller acts of civil subversion. Low evaluations of democratic performance have been linked with expressing support for tax avoidance and social welfare

[1] But not at the aggregate level as well, as Ezrow and Xezonakis (2016) show.

fraud (Norris, 2011, pp. 226–227), and could go so far as to impact a person's willingness to engage in corruption, or consider the police a legitimate force.

Last but not least, dissatisfaction might have the most impact in newly democratized regimes. In established democracies a healthy dose of skepticism, distrust, scrutiny, and mobilization might constitute a tonic (Stoker, 2006, p. 45), as the "critical citizens" thesis would suggest (Norris, 1999). In more fragile democratic contexts, though, a plentiful reservoir of support for political institutions might be the sustaining factor in whether these regimes advance from transition to consolidation. Norris (2011, p. 234) thus finds that democratic aspirations at the level of citizens are indeed linked to a country's pathway toward further democratization. While not the determining one, democratic satisfaction is likely one of the make or break factors for these regimes.

I show in the following sections that when inequality is properly disaggregated into its longitudinal and cross-sectional components, its longitudinal effect is extremely small, if at all existent. My analyses also reveal that a variety of confounding factors, such as party ideological movements and perceptions of corruption, serve to reduce the estimated impact of inequality. I also indicate that the impact of these confounders over time is also considerably larger than that of inequality. With respect to turnout, at least, this chapter provides the first batch of evidence that it may be party ideological shifts that exert a more potent influence on turnout patterns, rather than economic inequality.

4.1 Aggregate-level Determinants of Turnout

Prodded by the normative as well as empirical importance of unequal turnout for democracy, political scientists soon uncovered a host of socio-economic and attitudinal factors associated with the likelihood of voting: age, gender, income, education, marital status, employment status, political information, political efficacy, or political interest (Brady et al., 1995; Campbell et al., 1960, 1954; Teixeira, 1987; Verba and Nie, 1972; Verba et al., 1995; Wolfinger and Rosenstone, 1980). To paraphrase William Shakespeare's Cassius from *Julius Caesar*, however, the fault is not only in ourselves, but in our parties as well. A separate strand of the literature, with origins in some of the first empirical electoral studies ever conducted (Gosnell, 1927), argues that people respond to requests for participation and other mobilizational efforts (Gerber and Green, 2000, 2001; Green et al., 2003; Rosenstone and Hansen, 1993; Wichowsky, 2012; Wielhouwer and Lockerbie, 1994). In addition to highlighting the importance of an

election, these efforts serve to partially subsidize the information gathering costs associated with it.

At the same time, the fault lies in our institutions as well. A third stream of literature, with origins in pioneering work by Powell, Jr. (1986) and Jackman (1987), finds that a core set of institutional factors are systematically associated with cross-national differences in turnout: compulsory voting, automatic voter registration, closeness of the election, or a PR electoral system (Blais, 2006; Blais and Carty, 1990; Blais and Dobrzynska, 1998; Endersby and Krieckhaus, 2008; Geys, 2006). These institutional configurations exert their effect by altering the incentives and costs individuals are subjected to when voting, as well as shaping the mobilizational strategies of political parties. A fourth and final strand of research, where this analysis can be situated as well, examines aggregate-level economic and political indicators as causal factors of turnout. In this category corruption has been found to be associated with turnout levels, as voters in contexts with higher levels of corruption come to realize the inconsequential nature of their votes for economic outcomes or political processes (Stockemer, 2013; Stockemer et al., 2013).

As a thorough review of the literature linking economic inequality to turnout and a collection of other political behaviors and attitudes has been presented in Chapter 2, I will offer here only a concise summary. The findings point unequivocally toward a powerful negative effect of income inequality at the national level on an individual's likelihood of turning out to vote (e.g. Solt, 2008). This result has been replicated with a variety of different sources for individual-level data, and across varied geographical contexts: advanced democracies (Anderson and Beramendi, 2012; Lister, 2007; Solt, 2008), US states (Galbraith and Hale, 2008; Solt, 2010), or Eastern and Western European nations (Horn, 2011).[2] Considerably more disquieting from a democratic perspective is the finding that inequality's impact on turnout is stronger for lower-income individuals than higher-income ones (Solt, 2008). This creates the potential for a self-reinforcing cycle between declining turnout and growing inequality, owing to the representational distortions in favor of wealthier citizens produced by unequal turnout.

4.2 The Drivers of Democratic Satisfaction

In contrast to turnout, there have been far fewer investigations into the aggregate-level factors that impact satisfaction with democracy. Even where these have been attempted the results have frequently

[2] In contrast to almost all individual-level analyses, aggregate-level investigations into the link between inequality and turnout find no consistent connection (Stockemer and Parent, 2014; Stockemer and Scruggs, 2012).

been murky, leaving one pair of commentators to tentatively conclude that national-level factors play almost no role at all (Stockemer and Sundström, 2014, p. 152). While this radical conclusion does not stand on firm foundations upon closer scrutiny, it remains the case that few country indicators have been conclusively identified so far.

The strongest contender for a clear effect is institutional quality, which has been linked to satisfaction both by means of subjective perceptions of regime performance (Dahlberg et al., 2015) and of objective indicators, such as control of corruption, rule of law, or checks and balances (Wagner et al., 2009). The results are reasonably robust and always in the same direction: better quality institutions lead to more satisfaction with democracy. These findings, combined with those that find a strong connection between institutional quality and support for democratic principles (Magalhães, 2014), strengthen the conclusion that political institutions play a major role in how citizens evaluate regime performance. On the other hand, the output of these political institutions, in economic terms, also matters. Wealthier countries (proxied by GDP per capita) display, on average, higher levels of satisfaction with democracy, as citizens presumably respond to the to the better economic performance of their country (Schäfer, 2013; Stockemer and Sundström, 2014). Illustrating the difficulties of drawing clear conclusions, another indicator of economic performance, unemployment rate, shows no clear effect on satisfaction in some studies (Schäfer, 2013) but a robust effect in others (Ezrow and Xezonakis, 2011).

A similar degree of ambiguity persists with respect to income inequality. Krieckhaus et al. (2013) find a univocal negative effect of inequality on satisfaction, which is confirmed by Armin Schäfer's (2013) and Robert Andersen's (2012) analyses. On the other hand, Stockemer and Sundström (2014) find no link between inequality and satisfaction, which is confirmed by Wagner et al. (2009) with a different measure of inequality, and by Magalhães (2014) with support for democracy as an outcome. All in all, the evidence in favor of institutional quality and wealth appears robust. With respect to economic inequality, though, results vary depending on model specification, controls used at the national level, and even the sample composition. The results I present here offer additional evidence, based on a larger sample of Gini observations, and with the additional possibility of assessing both cross-sectional and longitudinal variations in inequality.

4.3 Alternative Framework

My analysis intends to put to the test the robustness of these results in the face of an alternative conceptualization of the connections between economic inequality and turnout, or satisfaction with democracy. In my causal system, the inequality–turnout or inequality–satisfaction link might potentially be explained by the influence of a third set of factors associated with both inequality and turnout or satisfaction: the programmatic emphasis of Left parties, along with their organizational strength, as proxied by union density.

To begin with, there is a consistent literature in political economy which links the electoral power of Left parties to the amount of redistribution in a society, by means of the welfare state. Starting with Stack's (1978) investigation, and continuing through the more recent ones of Hicks and Swank (1992) and Huber and Stephens (2001), this hypothesis has found consistent support in the literature (Hill and Leighley, 1992; Hill et al., 1995; Schmidt, 2010).[3] Left party influence is only one of many factors to contribute to the extent of inequality in a country, albeit a major one. Union organizational strength (density, coordination, and links to political parties) acts as a further inhibiting factor for inequality, by producing a more compressed wage scale and thus reducing market (pre-transfer) inequality (Bradley et al., 2003; Gustafsson and Johansson, 1999). The effects of Left parties extend beyond the moment of welfare state creation and expansion (roughly until the mid-1970s) and into the process of retrenchment. Far from being powerless in the face of the economic crises and demographic pressures that have triggered the need for retrenchment, these parties have also shaped inequality by delaying, preventing, or otherwise softening the impact of regressive welfare measures in the post-1970s era (Allan and Scruggs, 2004; Korpi and Palme, 2003; Swank, 2005).

The second causal connection in my framework, between Left party strength and mobilizational effort and turnout, benefits from less empirical support, although the evidence presented resists efforts to debunk it. For the specific political context of the US a few investigations have linked increased mobilization efforts by the Democrats to higher turnout and a reduced socio-economic bias in voting (Hill and Leighley, 1996; Wichowsky, 2012). When considering that the largest pool of potential voters is located at the lower end of the income spectrum, the findings are, to an extent, unsurprising. Under

[3] See, however, the evidence presented in Rueda (2008).

conditions of electoral competitiveness, increased efforts by the Democratic party to activate their base should result in higher overall turnout; similar efforts by the Republicans are unlikely to yield comparable payoffs given that at the higher end of the income spectrum a ceiling effect for turnout is more easily reached.[4] Moving to a cross-national setting, Mark Gray and Miki Caul's (2000) results imply a similar pattern: over-time decreases in turnout are linked to corresponding declines in the organizational power of Left parties and unions, with a negative impact on their ability to mobilize voters during electoral campaigns (p. 1103). A natural extension of these investigations to the influence of unions on turnout produced similar results (Leighley and Nagler, 2007; Radcliff and Davis, 2000). Greater union strength, as manifested by membership density, but also the extent of centralization and cooperation, is associated with higher aggregate turnout, as unions play the role of an ally of Left parties by providing funding and (wo)manpower during campaigns.

The role of party programmatic shifts is more indirect, but applies to both turnout and satisfaction with democracy. Changes in policy emphasis are assumed to impact turnout through their influence on a voter's calculus of the benefits and costs of voting. To the extent that Left parties have moved closer to their peers over the 1980s and 1990s on the economic dimension, this has made it more difficult for voters to distinguish between parties' platforms. Even for those who could discern between competing policy offerings, the conclusion might be that increasingly similar platforms don't justify the trouble of participating at the polls, since the stakes of the election are lowered. Party shifts would have a similar impact on democratic satisfaction, inasmuch as they shape citizens' perceptions of the quality of representation. If shifts take parties further away from the ideal point of their constituency in the policy space, voters might grow increasingly dissatisfied with their political regime.[5]

The evidence in favor of these effects is sparse, but consistent. Karreth et al. (2013) track the case of the Labour Party in the UK, and the Social Democrats in Sweden and Germany; they find that moving to the ideological centre certainly gave these parties an electoral advantage in the short term, as they attracted more centrist voters as well. In the longer term, though, these "fair weather" supporters

[4] It is unclear what the implications of taking into account a second dimension of party competition would be. Republicans can target both wealthier voters with economic concerns and poorer voters with value concerns (morality, religion). See Bartels (2008) for a critique on the concept of 'value voter', although the evidence in favor of second dimensions of competition is too strong to be easily dismissed (De La O and Rodden, 2008; de Vries et al., 2013; Roemer, 1998).

[5] The question of why parties might want to move further away from their electorate can best be answered by bringing in office-seeking considerations. The cases of Netherlands in the 1980s, or Denmark in the 90s, show that Social Democratic parties moderated their economic platforms so as to appear as responsible economic administrators (Green-Pedersen and van Kersbergen, 2002). This would give them the chance to be co-opted into governing coalitions (see also Clark, 2014).

proved to be fickle with their support, while the programmatic shifts drove away the parties' more ideologically extreme, but also more committed, constituents. In all three cases, ideological shifts resulted in diminished electoral fortunes for the parties. A secondary mechanism, which can further drain parties' vote shares, is the appearance of new political parties in the ideological vacuum created by the policy shifts (Allen, 2009). More circumstantial evidence comes from quantitative analyses that link party shifts with changes in vote shares for parties (Tavits, 2007) or to voters' party identification (Milazzo et al., 2012). In both instances, voters might react to ideological shifts by weakening their psychological attachment to the party, and either switch their vote or abstain at the proximate election. Such dynamics have also been identified in the case of democratic satisfaction, in relation to party shifts away from the position of the median voter (Ezrow and Xezonakis, 2011), or the position of the party's own constituents (Kim, 2009).

Piecing together these two arguments, unions' organizational strength can help explain both high turnout, due to the extent of mobilization of low-income voters, as well as levels of inequality, due to wage compression and redistributive efforts. Programmatic shifts come to reinforce both effects. Moderation in party platforms serves to convey to core supporters that turning out is less consequential, but also that they have a clear reason to be increasingly dissatisfied with the degree of representation they are receiving in the political system. Such moderation by Left parties also serves to increase inequality by means of the policy decisions they implement once in cabinet, or their degree of opposition to government plans. It is this alternative argument that the analysis below puts to the test.[6]

4.4 Statistical Specifications and Controls

A brief reminder will reiterate information presented in much greater detail in Chapter 3. I use hierarchical generalized linear models to investigate the competing impact of inequality and party shifts on individual-level turnout and democratic satisfaction. In this data structure individuals are nested within country years (surveys), which are further nested in countries. At the level-1 individual predictors of turnout or satisfaction were added; the Gini index, party ideological shifts, and other time-varying pre-

[6] A recent contribution by Beramendi and Rueda (2014) adds a measure of endogeneity to the causal framework, by arguing that institutional factors are themselves a result of the prevailing inequality in a society at the moment of their adoption. Innovative as the argument may be, it does not explain the different cross-national trends in inequality that have been observed since the initial moment at which labor market institutions were set up. Explanatory factors for these dynamics must be searched among medium-term factors, such as union power or party dynamics (e.g. Green-Pedersen, 2001).

dictors (e.g. GDP per capita) were included at the country-year level. Institutional factors which do not vary across time in my sample (e.g. compulsory voting laws) have been included at the country level. In both sets of models, income inequality has been included as a single point estimate of Gini, rather than the 100 plausible values generated by the missing data imputation process used in the SWIID project. Using a single value for Gini produces *narrower* confidence intervals for the effect of inequality on turnout or satisfaction, thus tipping the scales in favor of finding a statistically significant result.

4.4.1 Turnout models

The dependent variable in my analysis is reported turnout in the national election preceding the moment of the survey, or turnout intention in a future election, coded as a dichotomous variable. A series of individual-level socio-demographic standard predictors have been included as controls in the analyses: age, gender, marital status (dichotomous—married or not—with not married as reference category), education (two dummy indicators for primary education completed and secondary education completed, with tertiary education as reference category), income (two dummy indicators for the first and second income tertile to which the respondent belongs, with the third tertile as reference category), and union membership (non-member is the reference category). These were complemented by a group of indicators which refer to psychological orientations: church attendance (dichotomous, contrasting those who attend church at least once a month with everyone else), and political interest. For political interest the strategy followed was to standardize the original scales found in the election studies on a common 0–1 metric, by dividing each by their maximum value.

This individual-level information was then merged with aggregate level indicators, the most important of which are the Gini index of net income inequality, and Left party shifts on the RILE dimension. Union strength was proxied by density, defined as the net union membership as a proportion of wage and salary earners in employment. Information was obtained from the *Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts* (ICTWSS), version 5.0, from November 2015 (Visser, 2014).[7] GDP per capita was included from World Bank data, measured

[7] See http://www.uva-aias.net/en/ictwss. In a few cases, such as the US and Australia, the union density series is interrupted, leaving only estimates from labor force surveys. In these instances I computed the average difference between official figures and estimates, for years in which both values were available. I then used this "correction" to adjust the estimates from the labor force surveys.

in current USD.[8] An additional control is the effective number of parties in the political system. This was obtained from the *Comparative Political Data Set I*, updated in September 2014.[9] The value of the index for the 2015 election in Canada was computed by hand by myself, based on vote shares reported by the Canadian Broadcasting Corporation. Two standard country-level covariates for cross-national turnout were included as well. The first of these is compulsory voting, a dichotomous indicator distinguishing between countries with either weakly or strongly enforced compulsory voting laws, and all the rest. The second is a dummy variable for whether the country is either Switzerland or the United States. This attempts to control for factors which I was unable to include in my models, owing to lack of comparable cross-national data. In the case of the United States, turnout is plausibly suppressed by voluntary registration requirements and weekday voting. In Switzerland, the crucial factor is likely the large number of referendums conducted yearly, which make parliamentary elections less consequential for legislative outcomes.

A number of other characteristics could have been added as controls, from a PR electoral system and bicameralism, to federalism or average district magnitude. They were excluded from the models primarily because the empirical evidence regarding their effect is largely inconclusive. At the same time, the need to add them at the country level clashed with the limited nature of the sample (only 19 countries after removing missing data). Even in the case of a few time-varying indicators, such as average district magnitude, their sluggish evolution over time or their skewed distribution required aggregating values at the country level. As not even the Bayesian approach could have handled such a model specification at the highest level of the hierarchy, without considerable prior information injected into the estimation, I opted to leave these controls out.

4.4.2 Democratic satisfaction models

In the second set of models presented here I use satisfaction with democracy as outcome variable. Due to the skewed distribution of the item in my data, I dichotomized the scale, by taking 0.5 as a cutoff point. The individual-level predictors are largely copied from the turnout models, and include age, gender, education, income and marital status (the latter contrasts divorced or widowed respondents

[8] Information for Switzerland in 1975 and 1979 was not available in this data source, and had to be obtained from the IMF's World Economic Forum data base from April 2003.

[9] Assembled by Klaus Armingeon, Laura Knöpfel, David Weisstanner and Sarah Engler.

with everyone else). I also added two indicators for religious denomination (see Andersen, 2012), which contrast Catholics and atheists with everyone else. At the year level I include my two predictors of interest (Gini and ideological shifts), as well as real GDP growth and the unemployment rate, which capture changes in satisfaction induced by sociotropic economic factors. Here I also add a government effectiveness index developed by the World Bank for its Governance Indicators series, to check whether people are responsive to economic factors or rather institutional ones, when assessing the functioning of democracy in their country. The indicator is obtained from the Quality of Government data set, January 2016 version (Teorell et al., 2016). At the country level I only add a dummy variable for whether the electoral system is PR or not.

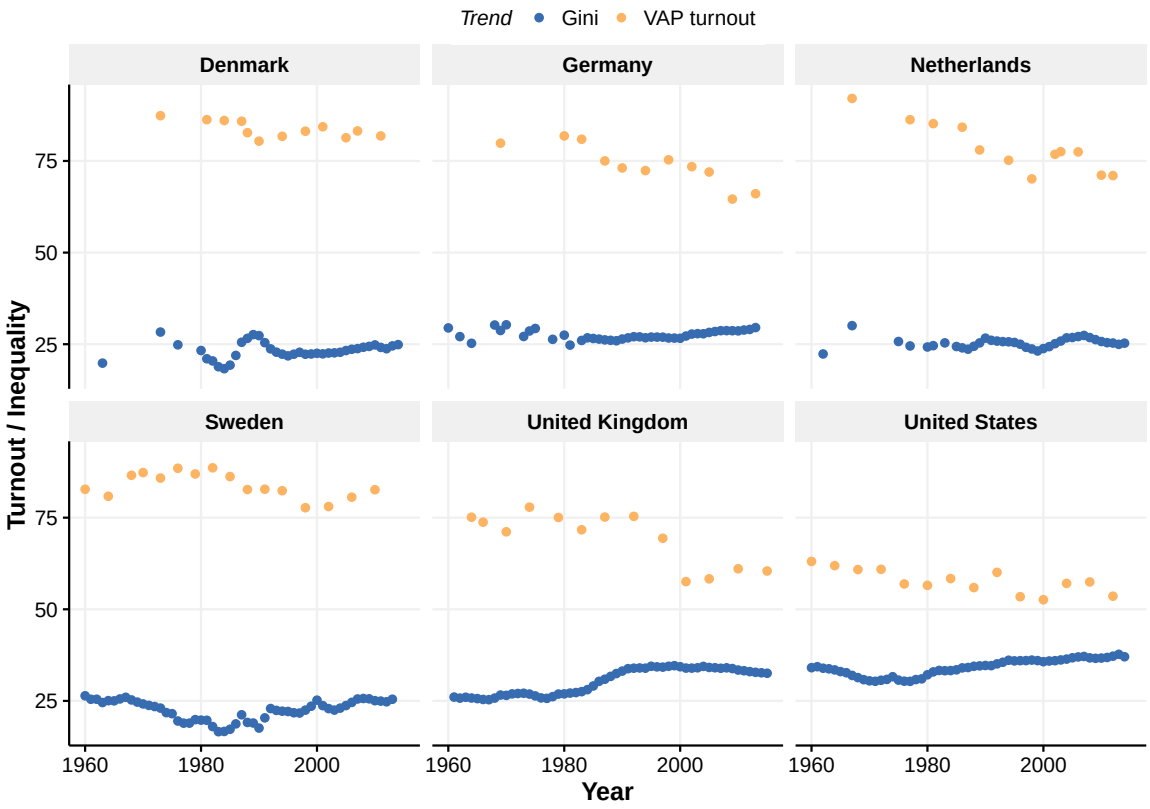
4.5 Results: Turnout

To begin with, a quick look at the longitudinal trends in my sample for the theoretical variables of interest reveals evidence that the supposed strong relationship between income inequality and turnout might be of a considerably lower magnitude when probed over time. Figure 4.5.1 shows the trends in aggregate VAP turnout for 6 of the countries in my sample, obtained from the data base maintained by the International Institute for Democracy and Electoral Assistance (IDEA).[10] These are plotted together with trends for income inequality from the SWIID data, over time. If a powerful relationship indeed exists between inequality and turnout, we would expect to see how a rising inequality trend is temporally followed by a decreasing turnout trend, or the reverse—reduced inequality followed by increased turnout.

Figure 4.5.1 shows this is simply not the story which can be read from the available data. The country which comes closest to an ideal-typical situation is the United Kingdom, although there we have reason to believe that the lower turnout *preceded* inequality. This caveat indicates that the relationship between the two phenomena could be two-directional: turnout can influence as well as be influenced by income inequality. Outside of the UK, though, we find no corroborating evidence: in Sweden, decreasing inequality in the 1970s produced a *drop* in turnout in the following decade, while in Germany and Netherlands (and, to a lesser extent, in Denmark) a largely stable trend in inequality was associated with decreased turnout. Even if we discount the example of the US, where the lack of

[10] The data is available at http://www.idea.int/themes/voter-turnout [accessed December 16, 2016].

Figure 4.5.1: Relationship between VAP turnout and income inequality



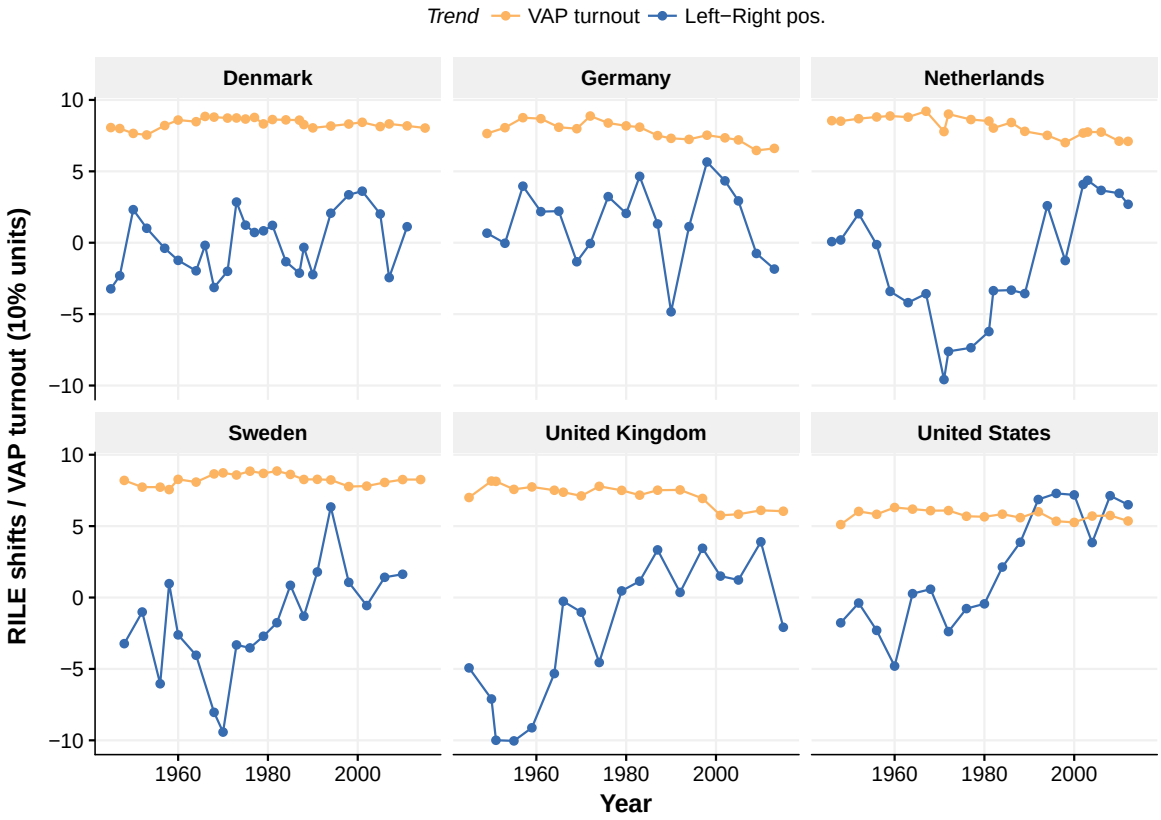
Sources: IDEA data on turnout and the net Gini index from Frederick Solt's SWIID data set, version 5.1.

Note: Values on the vertical axis represent points from 0 to 100 for Gini and percentage points for VAP turnout. Net Gini estimates for each year have been averaged.

evidence might be produced by the use of VAP turnout as opposed to turnout rates among registered voters, I must still conclude that the data so far do not warrant a strong conclusion regarding a connection between inequality and turnout over time. In a cross-sectional perspective, though, a connection is easy to spot: countries with higher levels of income inequality, such as the US and the UK, generally have lower turnout, if we average the observations over time. At the other end of the scale, countries like Sweden or Denmark have very low average income inequality, but high turnout.

A somewhat clearer relationship emerges if we examine turnout trends side by side with changes in the ideological center of gravity of the party system, computed using the RILE index (see Figure 4.5.2). Here we have faint clues that there might be a relationship between the two phenomena. A unmistakable shift to the Right is visible in Netherlands starting in the 1970s, as well as in the United Kingdom, starting in the 1960s. In both countries, this matches a constant decline in turnout. In Netherlands,

Figure 4.5.2: Relationship between turnout and `RILE` shifts in the political center of gravity



Sources: Voting age turnout information from IDEA, and party positions obtained from the CMP data, version 2016a.

Note: Values on the vertical axis represent 1) shifts in the weighted average of RILE placement for all parties in the system, using their vote shares as weights, as well as 2) turnout expressed as 10% units (1 point represents 10% turnout). Presidential election turnout is presented for the United States; in all other cases, parliamentary election turnout is tracked. Higher values on the Y-axis denote more rightward positions of the party system.

the downward trend starts from 90.1% turnout in 1972 and reaches 70.1% in 1998. A similar scenario plays out in the UK, which goes from a high point of 77.5% turnout in 1959 to 57.6% in 2001. The relationship between the two is also clearly present in Sweden, but is made more ambiguous by the inconclusive trends present in Germany and Denmark. In the German case some turnout decline between 1972 and 1981 is matched by a rightward movement in the party systems, but then the decline in turnout seems unresponsive to further party shifts. The United States presents the most puzzling case: even though the party system has gradually slid toward the Right since 1972, turnout in presidential elections has barely budged. It is true that average turnout in the 1970s was 58.92%, going to 56.95% in the 1980s, then largely stable at 56.76% in the 1990s, and finally dipping even further at 55.72% in the 2000s. However, this barely perceptible decline is not easily reconciled with the considerable party

shifts over the same period.

While the graphical trends presented in the figures above are suggestive of the potential existence of a (weak) relationship between turnout and party programmatic shifts, and not supportive of a link between inequality and turnout in my sample of OECD nations, they constitute shaky evidence. Stronger arguments can be made on the basis of the multivariate models below, so I proceed to the statistical haruspicy.

The four models displayed in Table 9.1.1 in the Annex present a set of estimates for the effect of individual-level and country-level time-variant and time-invariant predictors on the likelihood of turning out in an election. As they do not represent the focus of interest here, I will not pursue a presentation of the effects of individual-level predictors of turnout—indeed, this is the very reason they have been exiled to the end of this monograph. It should suffice to say that the individual-level predictors exhibit the effects encountered elsewhere in the literature on inequality and turnout (e.g. Solt, 2008). As an example, in both my and Frederick Solt's models (Table 1, p. 55, final column), age has a statistically significant and positive effect on turnout, whereas gender does not; similar effects are found with respect to educational level, marital status, union membership and church attendance. The models presented in this chapter even manage to go a bit beyond the specifications presented in Frederick Solt's analysis, by also incorporating a major psychological determinant of turnout: political interest.

Instead of focusing more on individual-level predictors I would like to draw the reader's attention to Table 4.5.1, which displays the estimates from these models only for aggregate-level determinants of turnout. Focusing only on the time-invariant and time-variant national-level predictors in Model 2, we find a different story than that presented by most studies of the relationship between income inequality and turnout. In his analysis, Solt (2008) reports an effect of -5.33 (S.E.=2.27, $p < 0.05$) for the Gini index, while Anderson and Beramendi (2008) report in Table 9.2 an effect on *electoral abstention* of 2.97 (S.E.=0.193, $p < 0.01$).[11] In contrast to this, the effect for income inequality uncovered in my models is a mere -0.37 (S.E.=0.23). While certainly not significant at the 95% or even the 90% level, an inspection of the posterior draws suggests that we can be about 82% sure that the effect of Gini on turnout is negative. Considering the restriction I imposed on my sample by only selecting OECD

[11] The first of these analyses also includes cross-level interactions between individual-level income and aggregate-level income inequality, which I do not include in my models. This might contribute to part of the discrepancy in estimate magnitude between their models and mine.

Table 4.5.1: Effects of contextual-level predictors on individual-level turnout

	Model 1	Model 2	Model 3	Model 4
Compulsory voting	0.65*	0.74*	0.76*	0.79*
	(0.32)	(0.32)	(0.31)	(0.27)
USA or CHE	−1.83*	−1.69*	−1.65*	−1.95*
	(0.40)	(0.39)	(0.42)	(0.34)
Union density		−0.03	−0.01	−0.03
		(0.11)	(0.11)	(0.12)
Effective no. of parties		−0.05	−0.05	−0.07
		(0.11)	(0.11)	(0.11)
GDP/capita (10,000)		−0.04	−0.04	−0.05
		(0.04)	(0.04)	(0.05)
Gini		−0.37		
		(0.23)		
Gini long.			0.22	0.36
			(0.47)	(0.47)
Gini cross.			−0.48	−0.68*
			(0.35)	(0.30)
RILE long.				−1.05*
				(0.51)
RILE cross.				1.22*
				(0.47)
Log Posterior	−47, 406.07	−47, 409.98	−47, 409.51	−47, 412.03
N	142, 337	142, 337	142, 337	142, 337
Elections	92	92	92	92
Countries	19	19	19	19
SD: Election (Intercept)	0.49	0.49	0.49	0.50
SD: Country (Intercept)	0.48	0.46	0.48	0.33

Method: The models presented are three-level hierarchical generalized linear models. All models were run on a sample of 142,337 respondents, nested in 92 elections, from 19 countries. Results were produced with the `rstanarm` package, version 2.12.1. Parameters are summarized based on a sample of 3,000 draws from the posterior distribution.

Note: '*' 95% credible interval does not intersect 0. Flanders and Wallonia in Belgium were considered two distinct national contexts, due to their different party systems. Gini estimates were obtained from SWIID, while RILE placements for parties were computed based on CMP data. Estimates for individual-level predictors have been excluded from the table.

countries, I cautiously interpret this as a partially successful replication of existing results. Nevertheless, the magnitude of the estimate implies that a 1-point shift in Gini only leads to a −0.037 shift in the logged odds for participation (Gini was divided by 10 before inclusion in the model). Such a magnitude for the impact of income inequality appears far more plausible than the extremely potent effects found by other studies given that economic inequality is an aggregate-level phenomenon which is unlikely to trump in influence individual-level predictors like social class or political interest.

Model 3 disentangles Gini into its longitudinal and cross-sectional components. I do this by group-mean centering Gini at the year level (Enders and Tofighi, 2007): I compute yearly deviations of Gini from the mean Gini across years inside each country. This deviation is labeled "longitudinal" Gini in Table 4.5.1, while the mean across years is "cross-sectional" Gini (see Fairbrother, 2014; Mundlak, 1978). The results weaken even further the plausibility of a strong effect of inequality on participation over time. Neither the cross-sectional nor the longitudinal effect are statistically significant and, in any case, both effects are of very small magnitude. If anything, based on Model 3, the data tends to support the conclusion that a rise in inequality in a country is associated with an *increase* in turnout ($\beta = 0.22$). The implication of the result is that the link between economic inequality and turnout might be different when examined over time, than when captured across countries. The cross-sectional relationship is the same one uncovered by previous studies: countries with higher inequality also display lower turnout. Over time, though, this is not the case, as increases in inequality are associated with increases in turnout in my sample.

The finding casts some doubt on the standard *relative power* account, but says little about the validity of my suggested framework. Model 4 puts the latter to a direct test, by adding to the specification party shifts, decomposed into longitudinal and cross-sectional differences following the same procedure outlined for Gini. Within-country shifts in inequality continue to have no effect, while cross-sectional differences now have the effect outlined in the existing literature: higher inequality is (weakly) associated with lower turnout. For now, I am only able to conclude that the relative power account withstands testing in a cross-sectional setting, but appears incapable of predicting the relationship between economic inequality and individual-level turnout over time.

Party programmatic shifts, though, have a clear longitudinal effect: the further Right a party system moves, the lower the expected turnout in the election ($\beta = -1.05$). This lends credence to my proposed modifications to the relative power account, as party ideological changes are clearly related to corresponding changes in turnout. This conclusion is valid both longitudinally and cross-sectionally, although the effects clearly differ. Across countries, contexts with party systems that have ideological centers further to the Right also exhibit higher turnout ($\beta = 1.22$). The reasons for this are not very forthcoming: countries with party systems that are consistently to the Right are Australia, Denmark, Germany, New Zealand, Switzerland, and the United States. Part of the effect might be explained by the

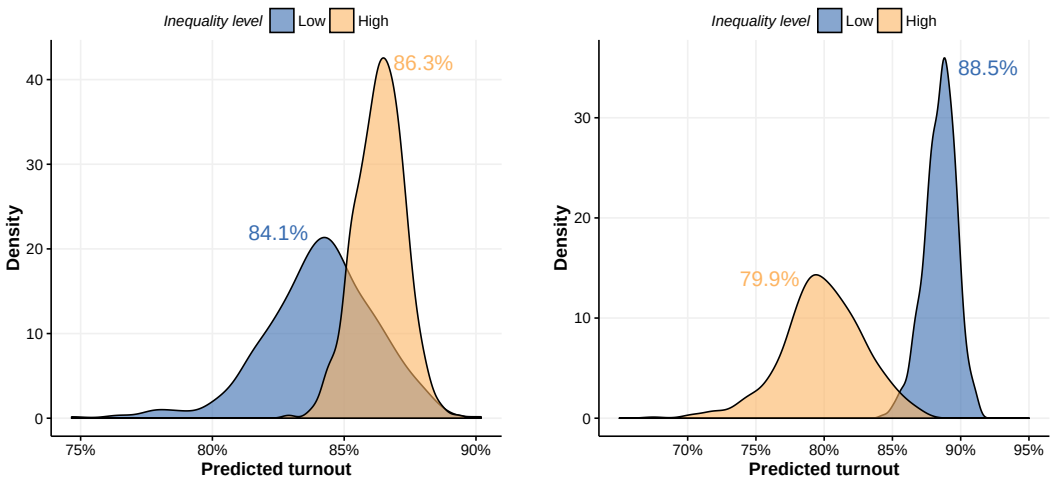
cluster of the 3 Westminster political systems, where a clearer government accountability mechanism could plausibly increase turnout rates by making the ballot choice more consequential.

I find less support for my other expectations. Although I proposed that union density should have an effect on turnout, this is not visible in any of the models in Table 4.5.1. Neither is the presumed impact of the effective number of parties, or a country's wealth. The null findings are likely due to the restricted nature of the sample, which constrains variation in most of the indicators included here. As most of the literature highlights, though, compulsory voting has a clear positive effect on turnout, even in my reduced sample of 19 countries. Finally, turnout in the US or Switzerland is considerably lower than in other countries, which most analysts would attribute to voluntary registration requirements in the US and the decentralized and referendum-rich political system in Switzerland.

The panels presented in Figure 4.5.3 depict predictions based on Model 4. I computed what the average treatment effect (ATE) would be from a shift in inequality, by varying Gini at specific levels and keeping all other variables at their observed values in the data. In the first panel, longitudinal Gini is allowed to vary by 6 points, which is a sizable shift if we consider that the maximum range of this variable is 12.3 points in my data. The result is, again, an *increase* in turnout of about 2.2 percentage points, or roughly 0.35 percentage points per each unit increase in Gini. Such large shifts in inequality are only achieved over periods of about 3 or 4 decades, yet still their effect on individual-level turnout is barely perceptible. The second panel shows a similar prediction for cross-sectional Gini, which is now allowed to vary by 12 points (the maximum range is 20.3 points). In more illustrative terms, this roughly matches the gap in inequality between Sweden and the United States in 2013. Here we do find a considerable difference, of about 8.6 percentage points lower turnout in contexts with higher inequality, or 0.72 percentage points per each unit increase in Gini. This effect does not tell us very much, though, as Sweden and the US are different by far more than the factors I control for in my model. Sweden has lower levels of corruption, a more developed welfare state, a more responsive bureaucracy, and higher overall trust of the citizenry in political institutions than the United States. All of these factors could be responsible for the large gap in turnout we observe, an issue which I take up in a few pages.

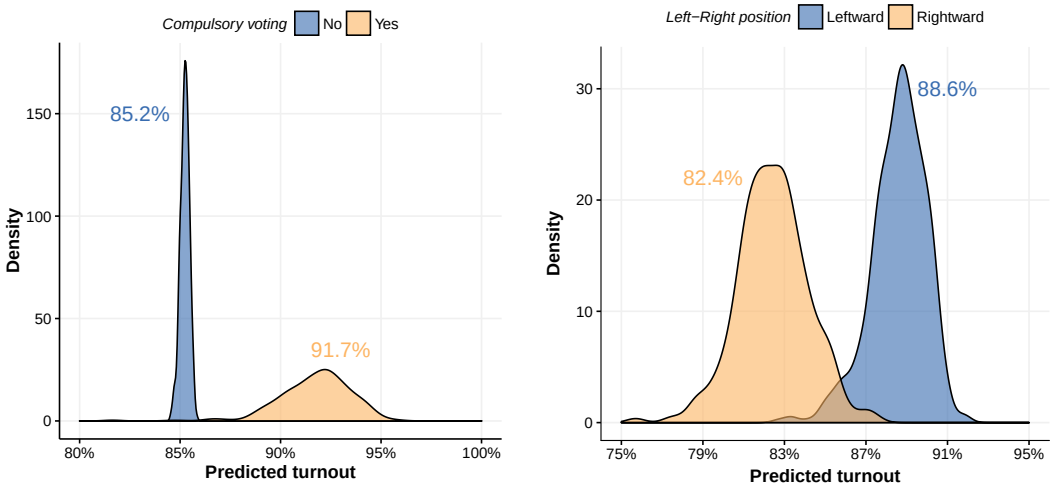
The third panel in Figure 4.5.3 suggests that although the cross-sectional effect of Gini is strong, it is by no means the strongest in the model. Countries with compulsory voting show roughly 6.5 percentage points higher turnout that countries without such legislation. Similar plots found in the Appendix

Figure 4.5.3: Predictions of turnout level: country-level factors



(a) Longitudinal Gini (6-point shift)

(b) Cross-sectional Gini (12-point gap)



(c) Compulsory voting (no/yes)

(d) Longitudinal RILE (6-point shift)

Note: The predictions use estimates from Model 4 in Table 4.5.1. 500 plausible estimates of turnout were obtained for each of the contrasting levels of Gini or compulsory voting and then presented as density plots. The numbers next to the densities depict the expected average level of turnout.

section (Figure 9.1.1) show that even individual-level variables, such as political interest, tend to have comparable, if not greater, effect sizes. If anything, inequality is but one of a handful of strong influences on turnout. The final panel examines programmatic shifts in the platforms of Left parties. We can see that with a 6-point shift, turnout is predicted to drop by about 6.2 percentage points, roughly 1 percentage point lower turnout for each unit shift to the Right.[12] A more important point is that ideo-

[12] At the risk of tediousness I remind the reader again that a 1 point shift should not be interpreted in raw terms, due to the logarithmic transformation used when constructing the RILE and SOC−EC scales. Rather, this shift means a 1 percentage point relative shift in position.

logical changes of this magnitude, or even greater, within a country are not rare. They have taken place in Australia between 1977 and 1998, France between 1978 and 1988, Netherlands between 1981 and 2002 (a full 11 points), New Zealand between 1996 and 2008, or the United States between 1972 and 1988, among others. Based on my theoretical framework, then, such programmatic shifts are a strong and plausible contributing factor to the recent trend in increasingly apathetic voters.

Table 4.5.2: Model fit comparisons for turnout specifications

Specification	*LOOIC*	*S.E.*	*ELPD*	*S.E.*
Model 1	94,556.0	454.1	−47,278.0	227.0
Model 2	94,557.2	454.1	−47,268.6	227.1
Model 3	94,554.0	454.2	−47,277.0	227.1
Model 4	94,554.0	454.1	−47,277.0	227.0

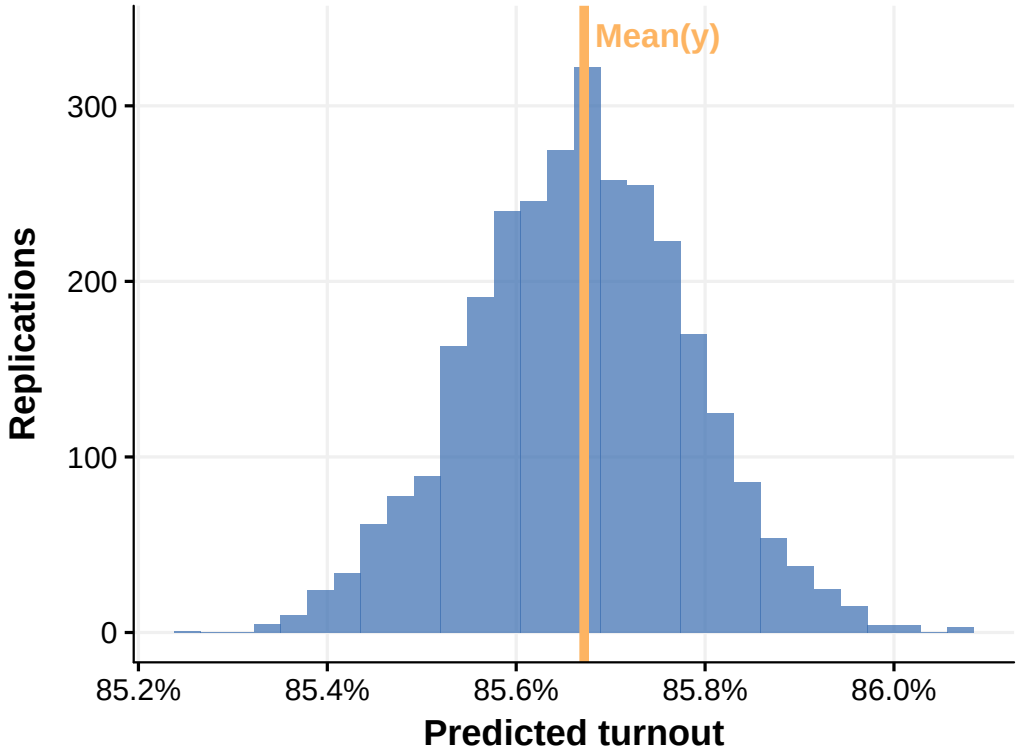
Note: The table presents Leave-One-Out cross-validation (LOO) information criteria. This is similar to a Frequentist AIC in interpretation, except for the fact that it takes into account prior information, and it does not assume multivariate normality in the posterior distribution. ELPD designates the expected log posterior density.

Out of all the specifications tested, Model 4 appears to be the best (see Table 4.5.2), based on the "Leave-One-Out" cross-validation information criterion (LOO IC). The LOO IC is the Bayesian counterpart of the AIC, and can be interpreted in the same way, i.e. lower values denote a better model fit. In this case, Models 3 and 4 have the identical lowest value for the LOO IC. However, Model 4 presents a lower uncertainty for the IC value, and was preferred here. Regardless of whether Model 3 or 4 is ultimately chosen, though, the take-away message is he same: within-country changes in inequality do not appear to impact turnout at all.

While the specification tested in Model 3 might be the best fitting when pitted against the previous three models, this competition says nothing about its objective quality. To assess this, I employ posterior predictive checks. Figure 4.5.4 indicates that with respect to average turnout, my model is doing well: on average, it manages to come close to the actual turnout level in the sample. An inspection of binned residual plots for three replications (not shown here) suggests that most residuals are within 2 SEs of 0, and roughly normally distributed.

A few consistency checks were employed, but revealed little change in the substantive conclusions I draw above. Dropping one country at a time and re-estimating the models does not change the estimates for longitudinal and cross-sectional Gini or shifts in RILE. Leaving out Australia leads to a

Figure 4.5.4: Posterior predictive checks for turnout model



Note: The predictions use estimates from Model 4 in Table 4.5.1. The graph tests whether the mean turnout in the data can be replicated well enough by my model.

loss of significance for longitudinal RILE shifts, but the effect is still negative and strong ($\beta = -0.80$, $SE = 0.51$); a similar pattern is obtained when leaving out Norway ($\beta = -0.95$, $SE = 0.49$). I also tried computing an index of ideological center of gravity using SOC-EC. The results point to the same pattern: a positive effect for longitudinal inequality and a negative one for cross-sectional inequality. However, under this specification, the estimates for inequality, as well as for party shifts, are no longer statistically significant. Finally, concerns about data loss have led me to also test a smaller specification at the level 1, in combination with a Multiple Imputation procedure for each election sample. The procedure is described in the second half of subsection 9.1.3 of the Appendix, where the reader can also consult the results of the model estimation. In a nutshell, all the results of the models presented in this chapter are confirmed, only this time on a greatly expanded sample of roughly 360,000 individuals from 159 elections. The only lingering issue which these models cannot address is whether corruption indeed supresses the effect of cross-sectional economic inequality, as corruption indicators are without

measurements before the mid-1990s.

4.6 Results: Satisfaction with Democracy

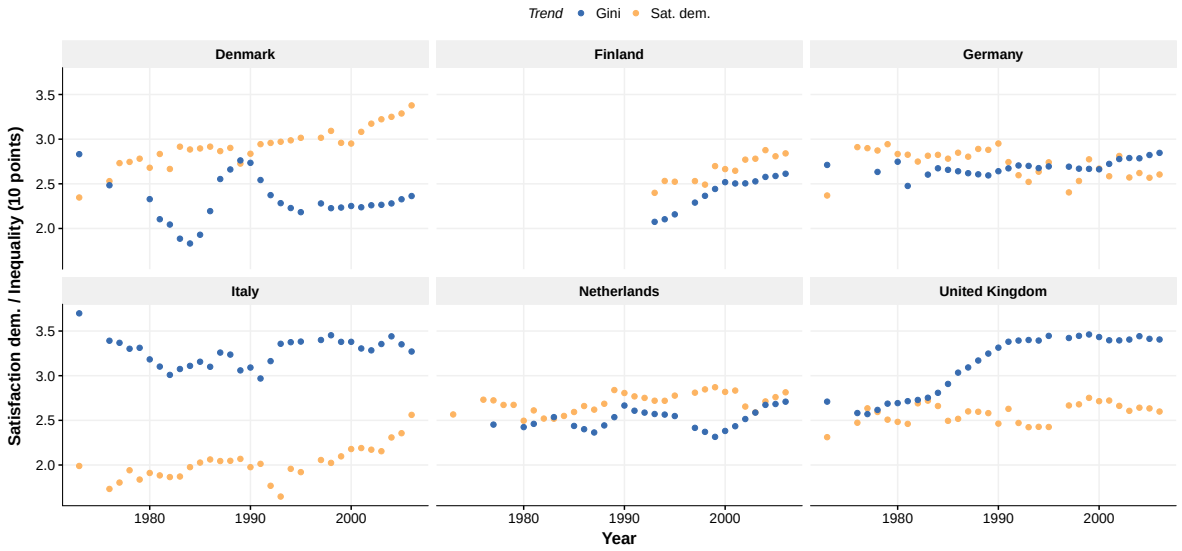
Presenting descriptive trends for satisfaction with democracy based on the data I have assembled has proven to be a challenging task. This is primarily because gaps in coverage for the question, along with changes in the scale of measurement, make any graph produced rather imprecise. For this reason, I turn for a very short while to the rich data source provided by the *Eurobarometer* (EB) 1970–2008 trend file (Schmitt et al., 2008), as updated by Georgios Xezonakis (2008) and distributed by Gábor Tóka.[13] This data source contains a question regarding satisfaction with democracy in a respondent's country. Although the Eurobarometer surveys exclude Japan, New Zealand, the United States, and a few other countries, they represent the best source of information currently available on long-term trends in satisfaction. For each year I computed the average level of satisfaction, and plotted it against income inequality.

Figure 4.6.1 does not give one confidence to speak of even a weak connection over time between inequality and satisfaction with democracy. In Italy, starting from 1993, aggregate satisfaction gradually increases, but trends in inequality don't appear responsible for this. If anything, the improvement is likely due to the 1993 reform in the electoral system, in the wake of the corruption scandals that shook the party system in the early 1990s. Neither the Netherlands nor Germany show any association between the two trends, while in Finland rises in inequality have happened concomitantly with *increases* in satisfaction. In the UK, on the other hand, sharp increases in inequality appear to have left satisfaction unperturbed. The only evidence which would point to a connection between the two trends is found in Denmark after 1990, when decreases in inequality are found to coincide with increases in satisfaction. This confirmation, though, cannot constitute a trend. As with turnout before, it is not immediately clear that the expectations of *relative power theory* are met when tracking developments over time.

To identify whether there is indeed a connection between inequality and satisfaction, similar tests as in the case of turnout were run. Table 4.6.1 displays the estimates for the country-level predictors for the model specifications tested, while a complete set of results can be found in Table 9.1.5 in the

[13] The data can be downloaded from http://www.personal.ceu.hu/staff/Gabor_Toka/INTUNE1/ [accessed November 17, 2016].

Figure 4.6.1: Relationship between income inequality and satisfaction with democracy, 1970–2008



Sources: Net Gini index from Frederick Solt's SWIID data set, version 5.1, and the Eurobarometer trend file, as updated by Georgios Xezonakis.

Note: Satisfaction was rescaled so that higher values denote more satisfaction. Inequality is expressed in 10-point units (the original value has been divided by 10). Net Gini estimates for each year have been averaged.

Appendix section. The main take-home point from these results is that economic inequality, as proxied by the Gini index, does not seem to impact at all satisfaction with democracy. A similar relationship is found here, as in the case of turnout: within-country shifts in inequality have a *positive* effect on turnout, while cross-country differences in inequality have a negative effect. Models 1 and 2 show that, overall, the impact of Gini is 0, regardless of whether we include the variable in its raw metric, or we disaggregate it into its longitudinal and cross-sectional components. There results offer scant support for the relative power framework when applied to a sample comprised exclusively of OECD long-term members.

To test whether my proposed amendment to the framework fares any better, I add party ideological shifts to the next two models. One difference when compared to the turnout models is that party shifts don't have the hypothesized effect on satisfaction. Both cross-sectional differences and within-country shifts over time have effects that cannot be distinguished from 0. In the case of cross-sectional differences in party system ideological center of gravity this lack of significance might be due to the sample size, which is only 14 at the country level. The same cannot be said of longitudinal party shifts, where I have 63 observations. If using a more nuanced view, though, very minor support for the revised framework can be seen, as the probability that cross-sectional differences in a party system's ideolog-

ical center have a positive association with levels of satisfaction with democracy is about 94%. This represents a weak clue in favor of my framework, although nothing more can be said beyond this, as longitudinal ideological shifts do not benefit from a similar degree of confidence.

Table 4.6.1: Three-level mixed-effects hierarchical models of individual-level satisfaction with democracy

	Model 1	**Model 2**	**Model 3**	**Model 4**
PR electoral system	0.14	0.06		
	(0.34)	(0.35)		
Unemployment (%)	−0.14*	−0.13*	−0.15*	−0.02
	(0.04)	(0.04)	(0.04)	(0.07)
Gini	0.09			
	(0.31)			
Real GDP growth (%)	0.05	0.05	0.04	0.07
	(0.04)	(0.05)	(0.05)	(0.04)
Gini cross.		−0.25	−0.43	0.04
		(0.47)	(0.42)	(0.38)
Gini long.		0.34	0.23	−0.78
		(0.42)	(0.41)	(0.73)
RILE cross.			0.87	
			(0.57)	
RILE long.			0.40	
			(0.38)	
GEE cross.				1.67*
				(0.40)
GEE long.				0.36
				(0.62)
Log posterior	−60, 557.29	−60, 558.34	−60, 559.08	−43, 050.77
SD: Election (Intercept)	0.52	0.52	0.52	0.43
SD: Country (Intercept)	0.52	0.52	0.44	0.30

Method: The models presented are three-level hierarchical generalized linear models. Models 1–3 were run on a sample of 111,764 respondents, nested in 63 elections, from 14 countries. Model 4 was run on a sample of 76,969 respondents, nested in 46 elections, from 14 countries.

Note: '*' 95% credible interval does not intersect 0. Flanders and Wallonia in Belgium were considered two distinct national contexts, due to their different party systems. Gini estimates were obtained from SWIID, while RILE placements for parties were computed based on CMP data. GEE data obtained from the World Bank Governance Indicators. Estimates for individual-level predictors have been excluded from the table. DV has been dichotomized by taking 0.5 as cutoff point.

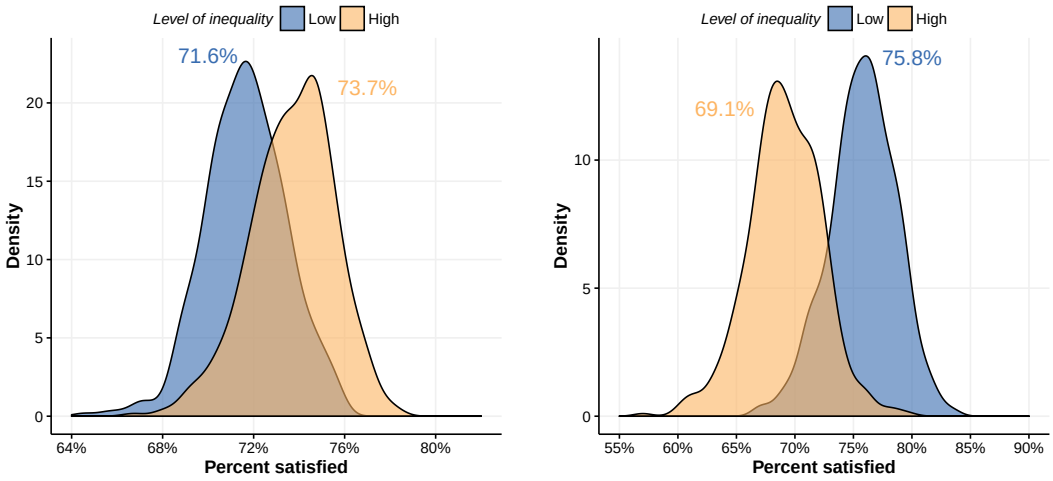
Model 4 in Table 4.6.1 tests whether there is any reason to suspect that a host of other aggregate-level factors impact satisfaction, in addition to inequality and party programmatic changes. One such factor is government effectiveness, which has a clear connection to satisfaction with the performance of the regime. Given the limited sample size, including this indicator required removing the predictors

for party shifts. Still, the results are suggestive, at least in the cross-sectional perspective: countries that have better functioning governments also display considerably larger average levels of satisfaction with democracy. The inclusion of government effectiveness completely suppresses the cross-sectional effect of income inequality, lending support to the belief that in a cross-national setting inequality's strong effect is also very precarious and highly dependent on model specification. Throughout all the models, real GDP growth does not impact the likelihood that an individual reports feeling satisfied with democracy. The level of unemployment in the country, though, clearly does influence feelings of satisfaction: higher levels of joblessness drive down satisfaction, as citizens are sensitive to the outputs government produces and express discontent when outputs fall short of expectations (see also Wagner et al., 2009).

When moving away from assessing statistical significance, and turning to magnitude of effects, the results with respect to economic inequality continue to be underwhelming. The four panels in Figure 4.6.2 show predictions based on shifts in inequality and ideological placements. The range of changes was chosen, in each case, to slightly exceed the interquartile range of the predictor. This gives the reader an impression of how aggregate levels of democratic satisfaction would change in the sample due to a large, but not implausible, change in economic inequality, or in party positions. The pair of panels at the top indicate that, again, cross-sectional Gini has the strongest effect. A 5-point within-country shift in inequality only moves aggregate satisfaction by 2.1 percentage points. An 8-point gap in cross-sectional inequality, though, shifts satisfaction by 6.7 percentage points. In both cases, though, there is considerable uncertainty around this value. The results are slightly stronger in the lower panels of Figure 4.6.2, although they fail to support my intuition about ideological changes and satisfaction with democracy. Both within-country shifts and between-country differences point to rightward programmatic shifts as having a positive effect on satisfaction, with the strongest effect exerted by cross-national differences. Here, a 5-point gap between countries is associated, on average, with an 8 percentage point higher level of democratic satisfaction. In terms of my theoretical hunches, the results indicate that inequality largely has no effect on satisfaction with democracy. At the same time, though, neither do party ideological changes. The only clear influences I find refer to cross-sectional differences between countries, which I have argued offer only very weak evidence of an actual effect at play.

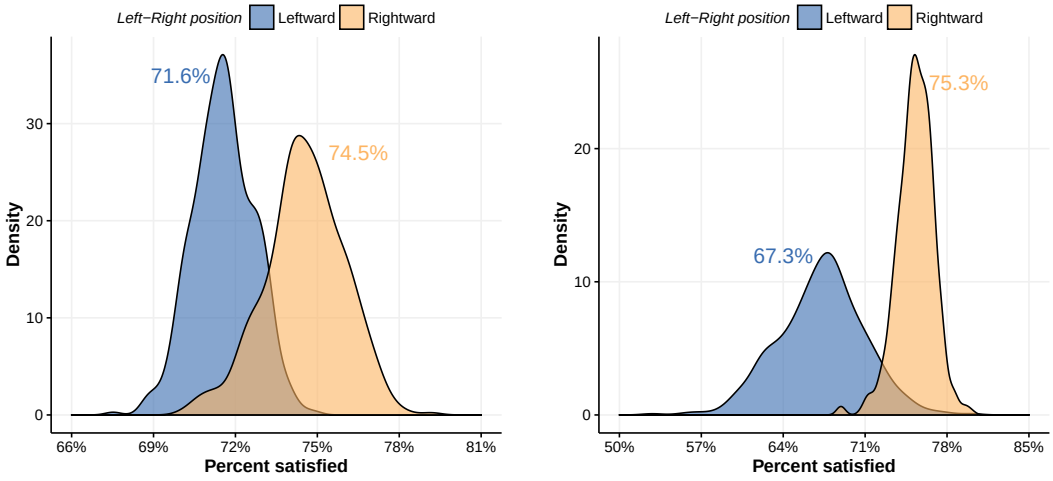
Out of the first three models tested in Table 4.6.1 Model 3 proves to be the best fitting, as based

Figure 4.6.2: Predictions of democratic satisfaction: country-level factors



(a) Longitudinal Gini (5-point shift)

(b) Cross-sectional Gini (8-point gap)



(c) Longitudinal RILE (4-point shift))

(d) Cross-sectional RILE (5-point gap)

Note: The predictions use estimates from Model 3 in Table 4.6.1. 500 plausible estimates of the percentage of respondents satisfied with democracy were obtained for each of the contrasting levels of Gini or party shifts and then presented as density plots. The numbers next to the densities depict the expected average percentage of respondents who self-report being satisfied with democracy.

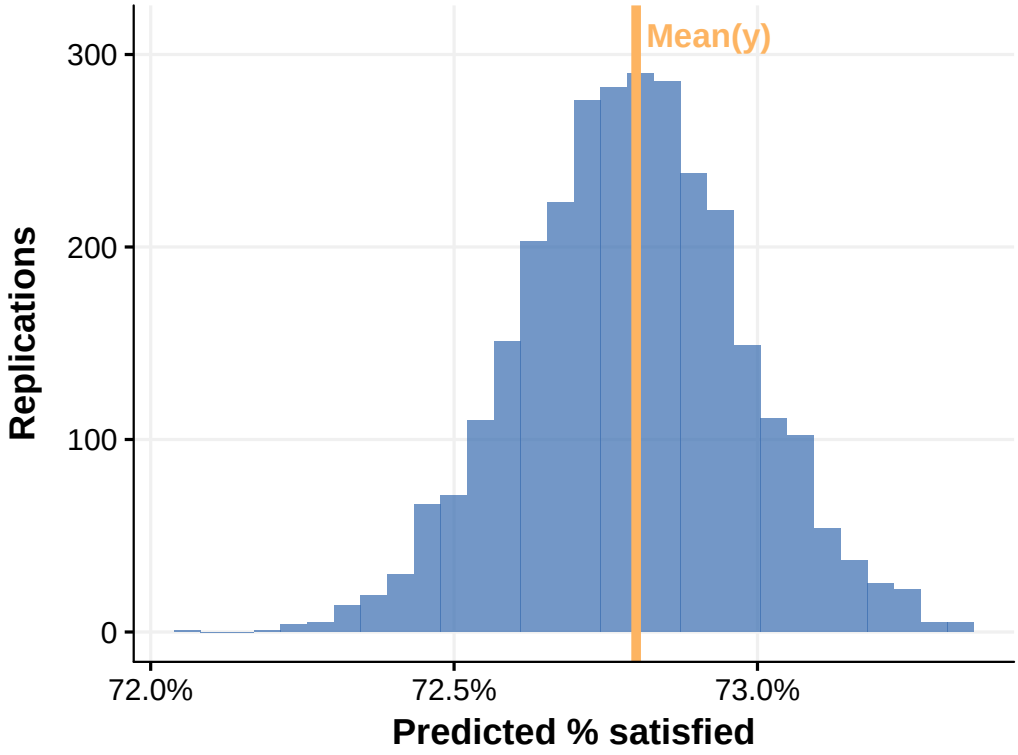
on the Leave-One-Out information criterion (Table 4.6.2). Posterior predictive checks similar to those presented for turnout suggest that, on average, Model 3 does a good job of predicting the average level of satisfaction in the sample (see Figure 4.6.3). On the other hand, an examination of binned residual plots suggest that frequently across replications, the average of residuals is slightly off 0. Additionally, far more than 5% of residuals are outside the $2*SE$ bounds, suggesting a problem of model misspecification. The results should be interpreted in light of these concerns.

Table 4.6.2: Model fit comparisons for democratic satisfaction specifications

Specification	*LOOIC*	*S.E.*	*ELPD*	*S.E.*
Model 1	120, 927.7	323.4	−60, 463.8	161.7
Model 2	120, 928.0	323.4	−60, 464.0	161.7
Model 3	120, 927.0	323.4	−60, 463.5	161.7

Note: The table presents Leave-One-Out cross-validation (LOO) information criteria.

Figure 4.6.3: Posterior predictive checks for democratic satisfaction model



Note: The predictions use estimates from Model 3 in Table 4.6.1. The graph tests whether the mean level of satisfaction with democracy in the data, $Mean(y)$, can be replicated well enough by my model.

Consistency checks similar to those tried for the turnout analyses were performed here as well. Running the models again with countries dropped sequentially doesn't change the results with respect to income inequality. Cross-sectional differences in the RILE center of gravity frequently become significant at the $p < 0.1$ level, for example when removing Switzerland, the United Kingdom, Japan, Australia, or Canada. When removing Belgium, Finland, or Spain from the sample, the effect of cross-sectional ideological differences is significant even at the $p < 0.05$ level. In these cases, though, a slight

dose of skepticism is warranted, as the results were obtained in a Frequentist setting. This is known to produce slightly narrower confidence intervals, due to the use of point estimates for hyperparameters, as opposed to full-fledged distributions of uncertainty for the priors on the elements in the variance–covariance matrix of the random effects. The more important point, though, is that the effects of longitudinal inequality are never statistically significant and, except when excluding Australia from the sample, are always positive. A further test was performed by replacing the DV with an alternative coding of satisfaction, which assigned all cases with scores on the mid-point of the scale (0.5) to the "low satisfaction" group. In this case, the model estimation leads to statistically significant results for both cross-sectional and longitudinal inequality. At the same time, though, the effects are contrary to what we would expect: increasing inequality over time is associated with higher levels of satisfaction with democracy. The cross-sectional relationship, however, is in the opposite direction: countries higher in inequality have, on average, lower levels of satisfaction with democracy.

4.7 Probing the Cross-sectional Effect of Inequality on Turnout

A residual issue from the previous analysis is the cross-sectional impact of economic inequality on turnout, which withstands the statistical challenge posed by my additional controls. Could it be that although no longitudinal effect of inequality on turnout exists, a cross-sectional effect might still be at play, as in the case of inequality and social trust (Fairbrother and Martin, 2013), or weekend voting, or electoral system disproportionality (Franklin, 2002)? If such an impact survives even after including additional controls, then I can conclude that considerations of relative power still play a part in the decision to turn out and vote, even if only in a cross-sectional setting. In the current section I check the soundness of this connection.

I have claimed in the previous chapter that there are reasons to doubt the existence of even this cross-sectional link, as inequality is empirically associated with a variety of phenomena: perceptions of corruption (Pearson's $r = -0.513$), quality of government ($r = -0.608$), government effectiveness ($r = -0.529$), or the quality of overall infrastructure ($r = -0.424$).[14] Existing models of the impact

[14]Correlations are based on a sample of 23 countries: the 21 used in my data, to which I added Ireland and Austria. Income inequality is obtained from the *Standardized World Income Inequality Database*, version 5.1 (July 2016). Corruption perceptions are obtained from *Transparency International* data: higher values indicate the absence of corruption. Quality of government information obtained from the *International Country Risk Guide*: higher values denote a higher quality. Government effectiveness is taken from the *World Bank Governance Indicators*: higher values point to increased effectiveness

of inequality on turnout fail to correct for most of these predictors, even though they could plausibly be linked to turnout, or satisfaction with democracy for that matter. Corruption could signal to voters that governing outputs might not change as a result of government alternation, and therefore lower turnout (Stockemer et al., 2013). On the other hand, a higher level of bureaucratic quality or government effectiveness might impact turnout by increasing the likelihood of efficient taxation, and with it the incentives to participate in elections and have a say in the composition of the future government (Kasara and Suryanarayan, 2015). Finally, faulty infrastructure or bureaucratic inefficiency could impact satisfaction with democracy by conveying clear evidence of the incompetence of the government, and of its low-quality outputs. In contrast to economic inequality, the manifestations of which are more subtle and insidious, citizens could obtain information about the above-mentioned factors on a daily basis and in a direct way. Visits to the local administration, trips to the neighboring city, the evening news program, or small bribes to the doctor or bureaucrat represent regular feedback loops as to the responsiveness and quality of government, as well as hints that political participation might not change much when problems are systemic.

It is not possible to test these relationships on my full data, as indicators of corruption, bureaucratic efficiency, or government quality are only recorded starting with the mid-1990s, or even early 2000s. For this reason, I pursue here a limited test, using only the most recent country-year for each of the countries in my sample. For most of these country years, I have found information on corruption perceptions, government effectiveness, quality of infrastructure, and quality of government, using the sources described in footnote 14. A standard set of two-level multilevel models were estimated, where I check whether the cross-sectional impact of income inequality on turnout continues to hold. Due to the restricted sample size at the country-level, of 16–19 countries, I have used an informative prior for the effect of income inequality—the β obtained from the previous set of models: $\mathcal{N}(-0.68, 0.30)$. The hope is that this additional information will reduce the uncertainty around the estimate, for a more precise measure of the effect of inequality on turnout.

Table 4.7.1 shows estimates from a set of two-level multilevel specifications, where income inequality is pitted against other plausible explanatory factors. Throughout the 5 models presented in the

(better outcomes). Quality of infrastructure is taken from the *Global Competitiveness Report* of the *World Economic Forum*, and refers to general infrastructure (e.g. energy, transport, telecommunications). Higher values indicate a more positive assessment of the infrastructure. All measurements refer to the year 2013.

Table 4.7.1: Assessing the cross-sectional impact of income inequality on turnout

	Model 1	Model 2	Model 3	Model 4	Model 5
Compulsory voting	0.86*	1.36*	1.23*	0.82	1.04*
	(0.32)	(0.43)	(0.39)	(0.71)	(0.60)
USA or CHE	−0.82*	−0.95*	−0.77*	−1.09	−1.13*
	(0.47)	(0.46)	(0.44)	(0.82)	(0.60)
Gini	−0.56	−0.43	−0.36	−0.49	−0.41
	(0.42)	(0.39)	(0.41)	(0.59)	(0.49)
Union density		0.00	0.00	0.00	0.00
		(0.01)	(0.01)	(0.01)	(0.01)
Corruption		0.02*			
		(0.01)			
Governance quality			3.26*		
			(1.77)		
Infrastructure quality				0.16	
				(0.50)	
Gov. effectiveness					0.68
					(0.52)
Log posterior	−8, 858.60	−7, 374.18	−7, 850.84	−5, 187.03	−5, 565.56
N	30, 447	24, 431	26, 094	17, 745	19, 694
Countries	19	16	17	12	13
SD: (Intercept)	0.33	0.19	0.28	0.30	0.48

Method: Two-level hierarchical generalized linear models. Results were produced with the `rstanarm` package, version 2.15.3. Parameters are summarized based on a sample of 3,000 draws from the posterior distribution. Initial sample was comprised of: Australia (2013), Belgium–Flanders (1999), Belgium–Wallonia (1999), Canada (1988), Denmark (2005), France (1988), Germany (2013), Greece (2012), Iceland (2013), Italy (1983), Netherlands (2012), New Zealand (2011), Norway (2009), Portugal (2009), Spain (2008), Sweden (2010), Switzerland (2011), United Kingdom (1997), United States (2008).

Note: '*' 90% credible interval does not intersect 0. Flanders and Wallonia in Belgium were considered two distinct national contexts, due to their different party systems. Estimates of effect for individual-level predictors are not presented in the table, but available in Table 9.1.6 in the Appendix.

table, inequality is never statistically significant at the 90% level, even when using an informative prior for its effect. This suggests that the barrier posed by my limited sample size has been too great. The more important point is that even with such small samples, both perceptions of corruption and quality of governance are statistically significant and have the expected effects. Countries with lower levels of corruption, and countries with a higher quality government, display higher levels of aggregate-level turnout.[15] Furthermore, adding these predictors reduces the impact of income inequality considerably, although its effect still appears to be negative. The test I run here is assuredly not very strong, on account of the small sample size, but it is suggestive of the extent to which alternative factors might also

[15] The Pearson's correlation between these two indicators in my sample is 0.926, which suggests they are tapping into the same syndrome of corruption.

impact turnout, and drown out the effect of income inequality. Further testing might provide more conclusive evidence of the cross-sectional impact of economic inequality.

4.8 What Does This Mean for the Relative Power Framework?

The results discussed so far indicate the need for a series of revisions to the standard *relative power* account. First, while taking into account the particular nature of my sample, it has been shown that longitudinal changes in economic inequality do not noticeably impact an individual's likelihood of turning out in an election. Neither do they exert a meaningful influence on a citizen's level of satisfaction with democracy. Scattered evidence does provide weak support for the relative power account when analyzed across countries, but even this is undermined by the clear impact of alternative factors, such as the quality of government in a country. All in all, I suggest here that the standard framework ought to be modified, at least for OECD countries, by removing the direct connection from economic inequality to turnout and satisfaction with democracy. My analyses confirm those of Daniel Stockemer and coauthors, and go against those of Frederick Solt, or Christopher J. Anderson and Pablo Beramendi, in finding no consistent negative effect of income inequality on individual-level turnout. The implications for democratic life are certainly more important than those for a theoretical framework. Increases in economic inequality over time appear to be unconnected to changes in turnout for my sample of OECD countries. When we consider the past 3–4 decades, we would have to acknowledge that changes in inequality have been slow-moving: in the period covered by my sample, the Gini index has presented fluctuations of at most 8–9 points out of 100 over a period of half a century. Since the early 1980s, income inequality has only risen by about 3 points in Sweden, 4 points in Germany, 7–8 points in the United Kingdom, 2–3 points in Netherlands or Norway, and even stayed constant or slightly decreased in Switzerland and Greece. With the exception of the Anglo-Saxon case, it is difficult to defend the argument that voters can react to increases of 3–4 Gini points over two or three decades. Although economic inequality might nevertheless have an impact on citizens' attitudes, or their subjective sense of living in a just society, their turnout appears unperturbed.

I readily admit that this conclusion is not ironclad. The cross-sectional effect of corruption could, in fact, be a sign that the *relative power* account works as proposed: citizens are not sensitive to economic inequality itself, but to the activities of wealthy elites to subvert democracy, in a sense. Disparate evi-

dence for such a process does exist, albeit for a wider range of countries than my OECD sample (Glaeser et al., 2003; Petrova, 2008). At the same time, considerable uncertainty still surrounds this view, as it is unclear to what extent voters' perceptions of corruption are influenced by wealthier individuals' efforts to sway politician and influence public discourse. It might be the case that voters are reacting merely to cases of corruption involving commercial stakes, rather than democratic ones. Without a clearer understanding of how wealthy elites try to subvert a thriving democratic public sphere, and a thorough attempt at measuring this, nothing more can be said in support of the standard framework.

The revisions I have proposed to the framework have received a more consistent backing, though. Over time, shifts in party platforms are associated with corresponding changes in turnout. This dynamic is present even across-countries, and is valid for satisfaction with democracy as well, as long as we restrict our focus to cross-sectional evidence. It is not clear from the results presented so far whether both Left and Right parties are responsible, or whether the process is driven by ideological changes on an economic dimension or a cultural one. Without more detailed analyses, some of which are taken up in Chapter 6, I cannot yet offer more specific conclusions. Some speculation, though, is allowed, particularly in what concerns the mechanisms of transmission from parties to voters.

To begin with, movements further toward the Right of the entire party system could have led to declines in the quality of political representation afforded to lower-income working-class individuals, as well as to a decreased ability of parties to mobilize this constituency at the polls. Both trends could be responsible for the decline in turnout which is observed in my sample. On the other hand, shifts in platforms lead to shifts in policies, which themselves have an additional impact on the ability of voters to participate in politics by influencing an individual's political efficacy or their level of resources (education, income, time) that can be allocated to these pursuits (see also Shore, 2014). Stronger welfare institutions and protection for workers are also associated with thriving "informal and formal networks through stable employment, higher social status and greater likelihood of union membership" (Schneider and Makszin, 2014, p. 441), all of which facilitate electoral mobilization. Naturally, a greater deal of job security and residential stability affords an individual more time to devote to political activities, which should also marginally increase turnout. Finally, to the extent that these policies shape individual decisions, such as what kind of job to take and for what salary, in what kind of neighborhood to live, how much to work to provide for the family's security, or how much sense it makes to pay dues

to a union, their effect can be even more subtle. In a sense, such policies might also accelerate societal trends toward growing individualization and social anomie, which accelerate decreases in turnout by making the social cues which lower-educated individuals partly rely on for voting guidance harder to come by (Armingeon and Schädel, 2015).

The findings should be weighted against the obvious and numerous flaws of my analyses, most of which are due to the nature of the data. Further work needs to be devoted to improving the coding for some of the indicators, such as educational achievement, which at the moment continues to have small inconsistencies between country surveys and even waves within the same survey series. Although the estimation procedure I use is currently considered state-of-the-art in small-sample situations, a slightly larger sample size would always provide more confidence in the results. No survey results could be obtained for Austria, for Belgium prior to 1991 or after 2007, for most elections in Japan prior to the 1990s, while the series for Portugal still contains gaps in coverage. Finally, a third aspect which could be improved upon is the precise model specification at the second and third levels of the model in terms of causal sequence. What was only hinted at in the discussion, the fact that the effect of party shifts in platforms is transmitted both directly and indirectly (through shifts in policy) can be directly incorporated in the model. However, this implies adding additional fixed and random effects, which require slightly larger sample sizes that I could assemble at this time.

I believe that the insights generated overcome these limitations, though. The overarching insight must be that it is important, when examining the connection between economic inequality and political behavior, to take into account the wider causal environment in which these two factors operate. The results of this chapter point to the importance of one such factor, party ideological shifts and the policies they produce, although more surely exist. The next chapter takes up whether these changes in policies can also be considered partly responsible for the trend toward growing economic inequality in OECD countries. If this turns out to be the case, a further causal arrow in my framework will have received support—the ability of parties to impact not only turnout dynamics, but inequality changes over time as well.

5

How Parties Shape Inequality, 1960–2007

A FIRST PIECE of the puzzle is now firmly in place: citizens of advanced industrial democracies appear unaffected in their turnout patterns, or in their democratic satisfaction, by changes in economic inequality over time. Even more, although not yet fully clear through what mechanisms, these same voters are responsive to changes in party platforms over time. The most plausible avenue of effect transmission is by means of these voters' policy incentives to participate, which alter their calculus as to the benefits obtained from voting. However, before turning the focus to individuals, a second piece of the puzzle needs fitting as well: Can parties truly impact the level of economic inequality over time, particularly when considering the powerful influence exerted by economic factors, like globalization, immigration, skill-biased technological change, or industrial transformations? I take up this second causal arrow in the current chapter.

Even if I disregard the impact of economic factors, the question is not a trivial one. A standard

strategy of rebuttal is to point to the fact that in an era of increasingly globalized capital flows, trade, and international competition for investment, the ability of parties to keep inequality in check has diminished considerably (a good summary of the "race-to-the-bottom" perspective is found in Drezner, 2001). Even if this view is rejected, a relatively recent literature questions the direction of the relationship itself. The argument made is that changes in the monetary fortunes of citizens at opposing ends of the income distribution lead to corresponding shifts in preferences for the extent of government redistribution. These, in turn, produce ideological adjustments of parties on the Left and the Right as they attempt to adequately represent the interests of their core constituencies (Barth et al., 2015; Burgoon, 2013; Pontusson and Rueda, 2010; Tavits and Potter, 2015).

In the present analyses I argue against this causal order and in favor of an account which presents party shifts as the root cause of fluctuations in economic inequality. The transmission mechanism in this instance are the policies which these parties implement once they get into office, and which can shape income inequality (Ha, 2012; Rueda, 2008). Firmly embedded in what has been termed the *power resources approach* (PRA) (Bradley et al., 2003; Huber and Stephens, 2001; Korpi, 1974, 1978, 1980), my theoretical account also goes beyond it by allowing for cross-national and temporal variability in the redistributive efforts made by Left/Right parties once they are in office. I arrive at this by renouncing the focus on the extent of time such parties have been in office (e.g. Bradley et al., 2003), and turning instead to the actual ideological position of the government in office on the issue of state involvement in the economy. I use this indicator, albeit crude, as a stand-in for the types of social policies governments pursue, which then have effects on the income distribution at the national level. I argue here that such a perspective, if applied for a longer historical period, fruitfully captures the considerable changes in economic and social policies advocated by Leftist parties between the 1960s and 1990s.

The following section presents the main theoretical framework on which this analysis is based, with reference to the causal determinants of income inequality in advanced industrial democracies. While considerable alternatives exist, from rising returns to education and technological change to free trade and the growing share of women in the labor force, I argue that the PRA is a particularly potent framework for explaining the extent of income inequality in a country. It successfully brings political institutions and dynamics to the analytical forefront and allows space for considerable political agency in national responses to the pressures of globalization and demographic or economic transformations.

At the same time, however, I show that a series of new theoretical arguments as to the limitations of the PRA warrant a re-examination of the core issue: the impact of Left party strength on the aggregate level of income inequality. Ensuing sections will provide details regarding the data used in the analysis, the methods employed, as well as the hypotheses tested throughout. Following this, the main empirical results will be presented, together with the implications these hold for the wider literature on the political determinants of inequality.

5.1 The Impact of Parties

Existing analyses of the determinants of income inequality highlight factors either related to a country's socio-demographic and economic structure or to political and institutional factors. In the first group one could point to a country's development, its exposure to international flows of capital, goods or labor, or to its population structure. In the second group authors have pointed to the degree of organization of working class voters as an important factor in the extent to which policy outputs target redistribution. This second perspective, termed the *power resources approach* (Allan and Scruggs, 2004; Hicks and Swank, 1992; Korpi, 2006; Korpi and Palme, 2003; Mahler et al., 2014; Swank, 2005), represents the theoretical foundation of the current investigation. Dividing these explanatory factors into separate camps, however, does injustice to the multifarious nature of income inequality. Despite claims that political factors have become feeble in an era of globalization, these should not be seen as competing explanations but rather complementary ones. The crux of the issue is not *whether* political factors are effective, but under *which* contextual conditions is their influence amplified or suppressed.

5.1.1 Power resources approach

At the foundation of the power resources approach lies the insight that welfare state development is a function of the degree to which the working class is organized in strong unions and Leftist political parties (Korpi, 2006). Differences between countries and time periods in the influence of unions and the strength of Leftist parties are seen as important determinants of welfare state policies which aim at a more compressed distribution of income: establishment of a minimum wage, retirement and unemployment benefits, free public education, or progressive income taxation. Empirically, this perspective is frequently used to explain the existence of very strong and moderately stable welfare states in the

Scandinavian area, which has had a long tradition of Center-Left or Left governments in the inter- and post-war period, as well as very organized unions, encompassing the large majority of workers in these respective countries.

The two institutionalized expressions of worker power, unions and Leftist parties, exert their influence on both market and disposable income (Bradley et al., 2003). In the case of unions, the effects are mostly achieved by means of their ability to compress the market wage distribution through bargaining, as well as their influence over the platforms of Leftist political parties, thus shaping the extent of redistribution. The primary *locus* of influence of parties is at the post-market stage of the income distribution, by engaging in various degrees of progressive taxation. At the same time, though, government partisanship can also shape market incomes through a variety of policies (Kelly, 2005). This is mainly achieved by making investments in public education or infrastructure, equal-pay legislation, or by influencing economic actors' investment decisions (Rueda and Pontusson, 2000, pp. 362–363). These distinct dynamics are confirmed by Pontusson et al. (2002), who find that union density's equalizing effect is entirely concentrated in the lower half of the wage distribution, while that of government ideological leaning operates mainly in the top half of the distribution (p. 283).

The effect of worker organization in the economic and political spheres has been shown to operate indirectly as well, by mollifying the pressures for welfare state retrenchment as a result of growing exposure to international markets and flows of immigration, or demographic changes. Both Ha (2012), in the setting of developing countries, and Allan and Scruggs (2004) or Korpi and Palme (2003), in that of advanced industrial democracies, find that a greater extent of Leftist party participation in government is associated with a lower extent of retrenchment in welfare provision. Such findings bring into question the complete validity of claims related to the 'new politics of welfare retrenchment' (Pierson, 1994, 1996) and the supposedly greatly diminished room for maneuver of political forces in the post-1970s globalized reality (see also Ross, 2000b; Swank, 2005). While few could deny the constraining character of capital and labor mobility, or free trade, on governments' social policy, neither is it the case that the constraints have been maximal. In Denmark, for example, Center-Right governments between 1982 and 1993 actually strengthened the welfare state, while Social Democrats in Finland implemented considerable retrenchment when in office between 1995 and 2003 (Nygård, 2006, p. 360). If anything, following the 'Nixon goes to China' logic, Leftist parties may have strategically engaged in selective

retrenchment knowing that their ownership of the issue of social policy partially insulates them from massive public backlash (Ross, 2000a, p. 7).

At the same time, it should be acknowledged that evidence points to both cross-sectional and longitudinal variability in the impact of Left government participation on inequality. In the first category, it has become evident that labor market institutions moderate the ability or willingness of Left parties to impact the wage distribution or the generosity of the welfare state. Corporatism (Rueda, 2008), wage bargaining centralization (Pontusson et al., 2002), or institutional arrangements of market coordination (Rueda and Pontusson, 2000) have been found to exert this moderation effect. The dynamic indicates that the impact of Left parties is considerably reduced under institutional arrangements that promote a more equitable distribution of income, such as centralized wage bargaining (Pontusson et al., 2002, p. 306). To a limited extent, this is indicative of a substitution effect, whereby Left parties engage in inequality reduction to a greater degree in contexts where this outcome is not achieved through alternative mechanisms. From a longitudinal perspective, both Brady and Leicht (2008) and Kwon and Pontusson (2010) find Left parties to be less effective at reducing inequality in the post-1980s period. Both these sources of variation justify, to a certain degree, conclusions regarding the limited impact of political ideology on social policy in the past four decades. Nevertheless, they ought not obscure a substantial body of cross-national research that points to a continued influence of political factors (see also Mahler, 2010).

Finally, it is important to mention that support for the PRA is also provided, indirectly, by two other research programs only marginally connected to the link between partisanship and income inequality. The first set of studies finds a connection between aggregate turnout and the extent of redistribution at the national level. Here, Mahler et al. (2014) find that, in a cross-national setting, higher turnout for lower- and middle-income groups in particular is associated with a greater extent of redistribution.[1] Although government partisanship is not part of the model being tested, the link is clearly in the background. Inasmuch as lower-income voters tend to opt for Leftist parties, a higher aggregate turnout for this constituency would indicate a greater political influence of such parties. If powerful enough to form the government, or get co-opted into it, such parties would tend to pursue policies which favor the interests of their core constituency, thus lowering the level of inequality. Indirectly,

[1] For similar evidence, see Larcinese (2007). The author, however, establishes an association between higher aggregate turnout and a greater level of social spending.

Fellowes and Rowe (2004) confirm this link by showing that U.S. states where the income bias in turnout is higher also have less generous or accessible welfare provisions and, one could venture to guess, higher levels of inequality as well.

The second set of analyses squarely fits in the partisan theory of macroeconomic policy literature, and sees parties as pursuing the interests of their core constituencies when elected into office (Alesina et al., 1997; Hibbs, Jr., 1977; Tufte, 1978). Although the insight that parties time policies in a way that favors their fortunes at the ballot box has found little support in the data[2], the finding of a distinct partisan flavor to economic policy has withstood repeated testing (Alesina et al., 1997; Bartels, 2008; Hibbs, Jr., 1987).

> Parties behave to a significant degree 'ideologically', meaning that they promote policies broadly consistent with the objective interests and revealed preferences of their core constituencies. [...] On the side of the macroeconomy, Left party governments are more likely than Right governments to pursue expansive policies designed to yield lower unemployment and extra growth, but running the risk of higher inflation. Right party governments weight the prospect of extra inflation more heavily. As a result, they are more cautious about stimulating aggregate demand, and they entertain less ambitious targets for demand-side fueled employment and output growth. (Hibbs, Jr., 1992, p. 363)

Their dissimilar priorities do not stem from an inherent association between low inflation and political conservatism, but rather from the differing sensitivity of the parties' core constituencies to these economic phenomena. Hibbs, Jr. (1987) also shows how it is mainly lower-income citizens who are affected by spells of unemployment, while wealthier voters, particularly in the top 5 percent of the income distribution, have the most to lose from inflation. When also allowing for the asymmetrical impact of policies pursued by Left and Right parties on income growth for the different income groups in the electorate (Bartels, 2008, p. 108), we have a ready explanation for why partisanship might influence redistribution. Through their influence over the market wage distribution (via unemployment) as well as the disposable income one (via redistribution), parties of the Left/Right ought to be able to lower/increase the level of inequality in the country.

[2] See the comprehensive review in Franzese, Jr. (2002).

5.1.2 Why reexamine the PRA?

If the evidence points so strongly in the direction of a partisan effect on inequality, a question naturally arises—why another empirical analysis of the phenomenon? In this subsection I argue that the challenges posed by more recent investigations (Scheve and Stasavage, 2009), as well as important measurement issues plaguing a core dependent variable (cumulative Left party power) warrant a new empirical test of the connection between government partisanship and inequality.

To begin with, challenges posed by findings of reduced impact of Left parties (e.g. Brady and Leicht, 2008) certainly cast a dark cloud over the continued validity of the PRA. A complementary finding which serves to partly explain the reduced ability of Left parties to lower inequality is generated by the welfare state literature: the greater than marginal contribution of Left parties to welfare state dismantling. Whether it be the Australian Labor Party (Lavelle, 2005), the PvdA in Netherlands or the Social Democrats in Denmark (Green-Pedersen and van Kersbergen, 2002), the SPD in Germany or the Labour Party in the United Kingdom (Ross, 2008), analyses have repeatedly pointed to the gradual 'Americanization' of Left parties in the OECD (Clasen, 2002; Keman, 2011; Lipset, 2001). While they were generally not the initiators of retrenchment[3], Left parties contributed to rising inequality by not reversing the measures taken by Center-Right cabinets once they were back in power[4], or in some cases even furthering them. This ideological about-face naturally gives rise to the question of whether, when tracked for a sufficiently long time period, Left parties are still associated with a lower level of income inequality in OECD countries.

Such temporal variation in the policies implemented by Left parties creates the possibility of considerable measurement error in existing studies. This, in itself, represents a second reason why renewed testing of the link between government partisanship and income inequality is warranted. An indicator such as cumulative Left party power is essentially understood to mean the influence of Left parties in the governing coalition, expressed as the share of legislative seats among coalition parties (see Huber et al., 1993; Huber and Stephens, 2001). This operationalization obscures the fact that a typical Left party of the 1960s would have advocated a different set of policies than the same party in the 1990s. As the analyses cited in the previous paragraph amply suggest, the gradual adoption among Left parties of

[3] Except in the case of Australia, where moves to the center were already visible in 1975 (Lavelle, 2005, pp. 760–761). The ALP was in opposition between 1976 and 1982, but then resumed retrenchment in 1983.

[4] In 1998 in Germany, 1997 in the United Kingdom, 1993 in Denmark, and 1994 in the Netherlands.

a "Third Way" discourse (see also Bonoli and Powell, 2002; Green-Pedersen et al., 2001; Pautz, 2009) has meant that it would be erroneous to consider that the policy implications of Left party cabinet participation are the same over time. The issue is made even more complex when factoring in that policy outputs are shaped not only by relative influence in a governing coalition, but also by the composition of this coalition. It is to be expected that a Social Democratic party in coalition with the Socialists will pursue distinct policies than those of the same party when in coalition with the Liberals (e.g. the Purple coalitions of Belgium and Netherlands). If this is the case, then a measure of Left party influence ought to take into account not only if, and how strong, this party is in a coalition, but also the policies it promises to implement, as well as the composition of the rest of the governing coalition.[5]

A final reason for revisiting the effect of partisanship on inequality is the possibility that no effect exists when examining a long enough time line. Albeit based on an imperfect indicator for income inequality, Scheve and Stasavage (2009) show that there is little connection between Left partisanship and inequality when examining the 1916–2000 period. The results replicate those obtained by Mahler (2004), and suggest the possibility of a contingent effect. In Kenneth Scheve and David Stasavage's interpretation, in certain periods cabinets of all ideological stripes are more likely to implement redistributive measures (as a result of exogenous pressures) than in other periods. The work of Piketty and Saez (2003, 2006) suggests this is a plausible explanation: although government partisanship certainly changed between 1945 and 1975 in the U.S., United Kingdom or Canada, the share of income going to the top 0.1 percent of income earners in these countries was stable. To the extent that developments in the top 0.1 percent of the distribution are mirrored in the rest of it, this would suggest there is less difference between Left and Right in redistributive effort when we broaden our outlook to also include earlier historical developments.[6]

[5] While I was in the process of initially drafting these ideas, Holger Döring and Hanna Schwander were, sadly for me, in the process of publishing them (2015). Similar doubts about the use of "cumulative power" indicators prompt Kelly (2005) to focus on policies. While superior to my approach, such a strategy is unfeasible in a larger cross-national sample due to lack of data.

[6] I have not covered here the challenge posed by recent analyses which see inequality as the temporally antecedent factor in the interplay between ideological leaning and inequality (Barth et al., 2015; Burgoon, 2013; Tavits and Potter, 2015). It should be pointed out, however, that there is considerable work to be done in confirming this causal structure, considering that income inequality has never been a salient dimension of competition in OECD countries. Additionally, literature focusing on the "Third Way" highlights that Left party shifts in the 1980s were caused by the desire of these parties to appear responsible in managing the economy, after the disastrous period of the 1970s, and not because of any rise in inequality (Green-Pedersen and van Kersbergen, 2002, p. 508; Ross, 2000a, p. 159).

5.2 Questions

In this chapter I pursue two questions, simple in their formulation yet daunting in the challenges they pose to empirical testing:

1. Is cabinet ideology associated with the level of income inequality in a country?
2. If it is, has the impact of cabinet ideology on the level of inequality declined in the post-1985 period?

The first question looks at the same connection which previous studies have examined, but with what I consider to be an improved measure of government partisanship. Rather than only incorporate Leftist cabinet participation, my constructed index takes into account information from all coalition parties, in terms of their ideological placement and their relative influence in the cabinet. As such, it is able to capture both cross-sectional and longitudinal differences in the willingness of governments to implement redistributive measures. My initial guess, based on the theoretical review outlined above, is that the answer to this question is "yes", and that the effect of cabinet ideological placement is positive. Cabinets that are further Right in ideological position ought to be associated with a higher level of income inequality.

The second hypothesis follows in the steps of Brady and Leicht (2008) by investigating whether the ability of government policies to influence inequality has diminished in recent times. Again, an initial guess points to a "yes" answer: the impact of cabinet ideology on inequality in the post-1985s period should be weaker than that of the previous time period.

5.3 Data and Approach

The custom data set used for the current analysis is based mainly on party placement data from the *Comparative Manifesto Project* (CMP) (Volkens et al., 2016) and government composition data from *ParlGov* (Döring and Manow, 2016). For each year between 1960 and 2008 I recorded the cabinet that was in power: the parties comprising it and their ideological placement on the SOC–EC issue. This issue combines support for a planned economy, support for market economy, as well as attitudes toward groups such as unions and professionals' associations. The precise way of constructing this dimension

is described in Equation 3.3; here, it suffices to say that higher scores on this dimension for a particular party denote a more Leftist position of that party on economic issues. Four sets of indices of government placement were computed, using the same core procedure; the only difference consists in the weights applied to the party placements.

1. The government's position is computed as a simple average of the party's position (each party gets the same weight);

2. The position is computed as a weighted average of the parties in the cabinet, using their legislative seat shares as weights;

3. The cabinet's position is computed in the same way as in point 2), but the party that holds the Prime Minister office gets its vote share artificially increased by 50%. This increases the importance of this party's position in the final coalition placement;

4. The cabinet's position is computed in the same way as in point 2), but the increase allocated to the party that holds the Prime Minister position is 100% instead of 50%.

More details about these different indices, and how they behave in terms of producing cabinet positions, can be found in section 9.2.1 of the Appendix. For now, a more important point concerns the resulting cabinet positions themselves, regardless of the method used: due to the fact that a cabinet could be in power for up to four years, this method creates identical scores for these years. To minimize this problem, I computed a moving average for each year *t*, as a mean of the government's position at time *t-1*, *t*, and *t+1*. Without this procedure, in most years changes in inequality would not be associated at all with cabinet ideological changes, as the latter would be identical throughout the life of a government.

Relying on such a measure derived from electoral platforms is nevertheless dangerous, as it makes the assumption that a large part of pledges from a document few voters are aware of will actually be implemented. Fortunately, the comparative literature on pledge fulfillment suggests this indeed to be the case (Bara, 2005; Budge and Hofferbert, 1990; Costello and Thomson, 2008; Mansergh and Thomson, 2007; Naurin, 2013; Royed and Borrelli, 1999; Thomson, 2001). Although important variations exist between countries, as well as between the role of parties within the cabinet, the literature highlights that

between 50 and 80 percent of pledges are at least partially implemented through policies by governing parties (see Mansergh and Thomson, 2007, pp. 317–318).

The final data comprises 1071 observations for 23 countries in the OECD: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom. The most notable absence is the United States, where my formula for arriving at an index of government partisanship misfires due to the complex interplay between partisan control of the office of the President, as well as of each of the two chambers of Congress.

5.3.1 Statistical controls

A number of statistical controls were added to the models tested here, in recognition of the alternative explanations found in the literature for cross-sectional and temporal variations in inequality. While I have provided short descriptions in this section, detailed information about the origins of the indicators can be found in section 9.2.2 of the Appendix section of the manuscript.

The first one is an integral component of the PRA, measuring the level of worker organization in the economic sphere—union density. This is computed as the share of union members out of the total number of wage-earning workers, and is available for most of the countries in the sample starting with 1960. One of the oldest explanatory frameworks for the level of inequality finds it to be associated with the stage of development at which a country finds itself. In the framework proposed by Kuznets (1955), inequality trends in advanced democracies follow an inverted-$\cup$ shape: as countries move from a pre-industrial stage of development, inequality first rises in an industrial stage, after which it gradually falls in the course of the transition to a post-industrial one. The first indicator included to control for this is the share of the population above the age of 65. This controls for the fact that a higher proportion of the population that is retired exerts a considerable strain on the welfare system and requires a greater degree of redistribution. The second is the share of the labor force employed in the service sector. This is included under the suspicion that in the service sector, with traditionally lower rates of unionization than industry, the wage scale is less compressed, producing higher market income inequality. A third measure, GDP per capita, was considered but abandoned in the end, as it correlated at a level of 0.64 with the percentage of population over 65, and at a level of 0.76 with the percentage of the population

employed in the service sector. For a full set of correlations between predictors, the reader is directed to Table 9.2.1 in the Appendix section.

The final set of measures attempts to control for factors related to globalization (Mahler, 2004; Reuveny and Li, 2003; but, see Minnich, 2003), which are associated with greater pressures on the welfare state and a higher degree of income inequality. The two indicators selected in this group are the amount of FDI inflow in the country, as a proxy for how exposed the country is to capital flows, and the share in the country's GDP that comes from exports of goods and services, as a proxy for how much trade the country is engaged in. Inasmuch as trade is conducted with less developed countries as well, labor in advanced economies finds itself pitted against a workforce which accepts significantly lower wages. This impacts the ability of workers in advanced economies to bargain for higher wages (Rodrik, 1997), thus increasing income inequality (Reuveny and Li, 2003). Together, these two measures offer a rough yardstick with which to measure a country's susceptibility to the forces of globalization.

The literature has identified a number of other explanatory factors. In the PRA camp, a second factor measuring the degree of labor organization is the centralization of wage-setting coordination. In the institutional arena, the existence of veto points (Tsebelis, 2002) might allow small organized groups to exert disproportionate influence over policy-making, either in terms of delaying welfare state expansion or hastening retrenchment, thus producing higher levels of income inequality (Birchfield and Crepaz, 1998; Bradley et al., 2003, p. 199). An additional institutional factor, the type of electoral system, has been shown to impact income inequality by means of the type of governing coalition (Center-Right vs. Center-Left) that it favors (Iversen and Soskice, 2006). In turn, the type of coalition formed influences the amount of redistribution through the policies implemented. These factors, however, are slowly-variant in time, or "sluggish" (Plümper and Troeger, 2007; Wilson and Butler, 2007), which means that most of their effect is exerted in a cross-national setting as opposed to a longitudinal one. The inclusion of fixed-effects (see below) would already capture the effect of these indicators, which is why the additional controls have been left out in my analysis.

5.3.2 Analytic strategy

Considering the need to estimate both time-variant, time-invariant and slowly changing time-variant phenomena, I opted to estimate the coefficients with standard fixed-effects models. There exists a grow-

ing literature which points to the advantages of using mixed-effects models over fixed-effects estimation (Beck and Katz, 2007; Bell and Jones, 2015). At the same time, a standard Durbin–Wu–Hausman test revealed fixed-effects to be a more consistent estimator, for which reason it was preferred here. A Maddala–Wu test of panel unit root (Maddala and Wu, 1999), indicated that there are no such problems in the case of my outcome variable, allowing me to proceed with regression in levels. While acknowledging the concerns expressed by Achen (2000) regarding the potential pitfalls of using a lagged dependent variable (LDV), I relied on such a strategy to control for problems generated by auto-correlation of residuals (see also Beck and Katz, 2011). Considering that LDVs are expected to bias downward the estimates of the other independent variables, I consider any results produced by the current analysis as *conservative* estimates of the effect of government partisanship on income inequality.

The models were estimated in the Bayesian framework. The analysis relies on mildly uninformative Gaussian priors with a mean of 0 and a standard deviation of 5, $\mathcal{N}(0, 5)$, for all estimates. Such priors allow for sufficient uncertainly for a range of both positive and negative effects to be estimated. Unlike the models presented in the other chapters, the ones presented here rely on a Student's t distribution with 1 degree of freedom, which has fatter tails compared to the normal distribution, thus accommodating a small number of outliers in the data. As a cross-check on the models estimated in this manner, I also ran the models in the Frequentist framework, with an AR(1) correction (see Ha, 2012, p. 548), which should offer a better grasp of the actual estimate of government partisanship, at the expense of violating the asymptotic assumption of Maximum Likelihood estimation.

The effect of government partisanship on inequality is not expected to manifest itself immediately, but rather with a delay, as a new budged is voted, followed by policy implementation, effects at the level of industry, and then changes in the wages at the individual level. Even with more immediate measures, such as changes in the tax code, a considerable period might pass before they are adopted and their effects are observed at the levels of income. Because of this, I have chosen to use inequality measured at time $t+3$ as a dependent variable, and at time t as a lagged dependent variable. All other independent variables were also measured at time t. Inducing a delay in measurement is consistent with results that show government change to have an effect on rates of economic growth starting with at least 6 months after the political transition (Alesina et al., 1997, p. 85), while models of inflation rates have incorporated a 9 month delay (*ibid*, p. 90). Such a strategy is also warranted by the finding, for the US

context, that policy liberalism has no short-term effect (1 year) on the level of income inequality, but only a long-term effect (Kelly, 2005).

Due to fairly considerable missing data rates on most variables with the exception of government partisanship and income inequality, a missing data procedure was employed. Specifying a model for the missing data directly as part of the Bayesian model estimation routine involved considerable complexity[7], for which reason I relied on `Amelia II` for imputations (Honaker et al., 2011). The imputation procedure did not yield completely satisfactory results. An earlier attempt at including the 1950–1959 period showed imputations to be completely inadequate in this time period, due to the absence of data on most indicators. Even in the post-1960 period, a number of imputed data points had to be removed after visual examination as they did not match at all the trends observed in the data. These manual corrections produced working samples in the range of 800–900 country years.

In order to approximate as much as possible a fully Bayesian approach, I imputed 100 versions of the data set. Whereas a Bayesian procedure would draw a value and plug a gap in the data at every iteration of the algorithm, thus truly relying on asymptotic assumptions, my approach assumed very little difference between 100 and thousands of iterations. Following roughly the same logic that allows practitioners to run a multilevel model with 40–50 countries with Maximum Likelihood estimation, I make the assumption that running the same Bayesian model on 100 samples and then pooling the estimates is similar to a fully Bayesian approach to imputation.[8] Rubin's rules were used to manually pool the estimates and their standard errors between the 100 sets of results (Rubin, 1987).

5.4 Results

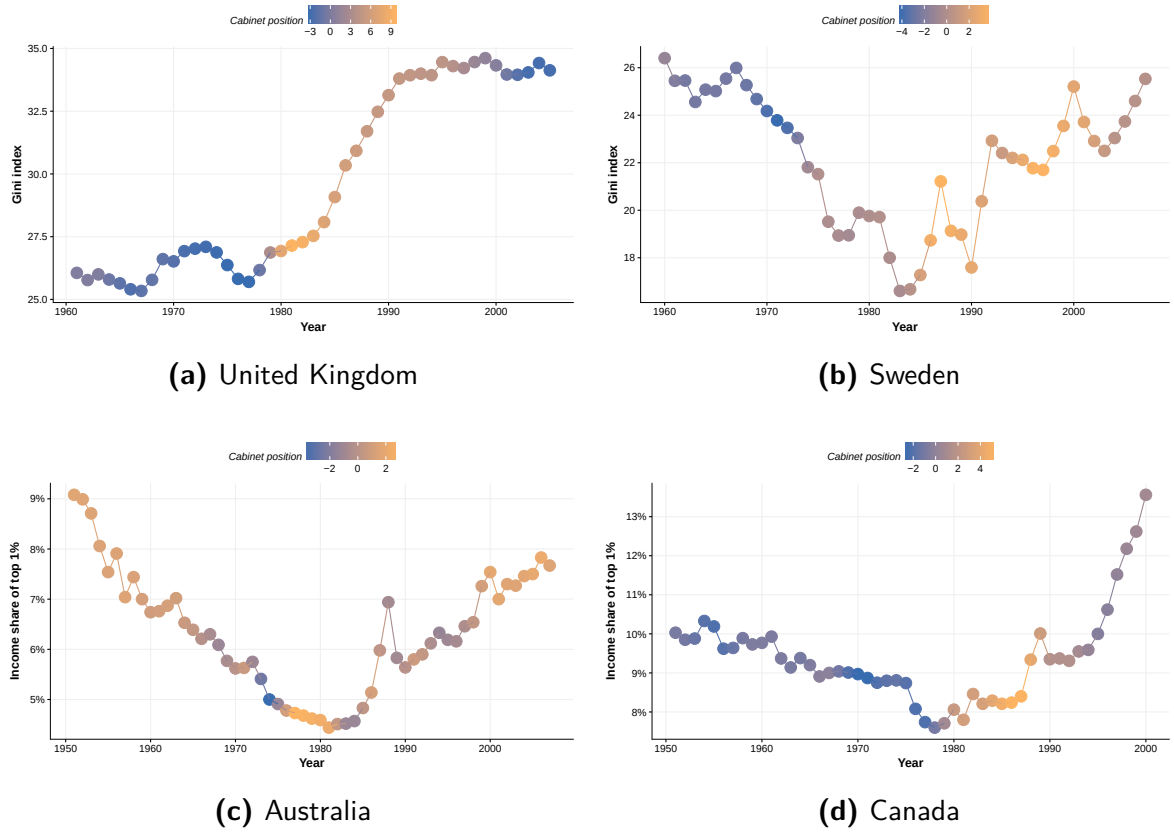
Before presenting the evidence from the multivariate models it is worthwhile to see whether at a basic descriptive level any evidence exists to connect the ideological placement of the government to levels of net income inequality in OECD countries. Experience has shown that unless data hits one right between the eyes, even multivariate analysis results that conclusively show there to be a connection

[7] This is caused by the time-series cross-sectional nature of the data, with different countries exhibiting varying longitudinal trends in GDP per capita, demographic changes, or trade dynamics. This made the Bayesian imputation very difficult, and the canned routines available in `Amelia II` for such data very attractive.

[8] A fully Bayesian analysis would require specifying a missing data mechanism as part of the model syntax, which would be very cumbersome for a TSCS data set like I am using. I am grateful to Daniel Stegmüller of Mannheim University for suggesting this analysis strategy.

between phenomena usually reveal the link to be weak in strength, at best. For this reason, Figure 5.4.1 shows trends in my two variables of interest for four out of the 23 countries in my sample. In the United Kingdom and Sweden, the Gini index of net income inequality is used as a measure, while in Australia and Canada I relied on an alternative measure: the share of income going to the top 1% income earners in each country. The former measure had to be obtained by averaging across the 100 imputations found in the SWIID data, while the latter was obtained from the *World Wealth and Income Database*, and based on actual tax returns data from each country.

Figure 5.4.1: Trends in income inequality and government ideological placement on economic issues (SOC–EC)



(a) United Kingdom **(b)** Sweden

(c) Australia **(d)** Canada

Method: The dots represent yearly measurements on income inequality. The color of the dot represents the ideological placement of the cabinet in place in a particular year, ranging from Left (blue) to Right (orange). The range of ideological placements in each panel is given by the minimum and maximum values encountered in each of the respective countries, over the period studied.

Note: Top two panels plot government ideological placement against the Gini index of income inequality, obtained from the SWIID data (Solt, 2016). The bottom two panels plot government placement against the share of income obtained by the top 1% income earners, obtained from the World Wealth and Income Database (Alvaredo et al., 2016).

When examining the panels of Figure 5.4.1 we see some evidence of party shifts likely being responsible for increases in inequality. At the same time, increases in economic inequality are also found

in cases where governments are clearly Centre-Left, suggesting that other factors apart from ideology are responsible for the trends we see. Start with the United Kingdom, which presents an almost paradigmatic context from the perspective of my theory. From the zenith of Leftism in the mid-1970s, successive cabinets have veered to the Right, most sharply in the first two cabinets led by Margaret Thatcher. Over the same time period, inequality has consistently trended upward, only slightly stabilizing starting from the mid-1990s. Reinforcing the point, this is precisely Labour's period of resurgence, although the graph also makes clear that we are not talking about the same party of the 1960s (Ross, 2000a,b). By the time Tony Blair and "New Labour" came to power, the Labour Party was only slightly more to the Left than the third Thatcher cabinet, and clearly more to the right than the third and fourth Wilson cabinets of the mid-1970s.

The case of Sweden tells of a similar dynamic. The post-1945 period in this country is one of Social-Democratic (SAP) dominance, sometimes in coalition with an agrarian Centre Party, but most often without any additional support. Sustained reductions in inequality can be seen between 1960 and 1975, during the last of the Social-Democratic Erlander cabinets and the first three Palme cabinets. This trend came to a stop by the early 1980s, and gave way to a fluctuating, but nevertheless visible, increase in inequality. Unlike the United Kingdom, though, this is not a story of alternating governments, as the Social Democrats continued to be in government by themselves well into the early 2000s. In a sense, the same party governed over periods in which inequality increased and then decreased. The second panel in the figure shows, however, that this was no longer, strictly speaking, the same party compared to the 1960s. The relationship between the SAP and the trade unions had been damaged in the late 1970s ("the war of the roses"), and the electoral defeats suffered in the 1970s made the SAP embrace a *catch-all* strategy. This resulted in a somewhat watered down economic platform, which included tax reform that allowed for greater cuts to high-income earners and privatization of municipal services (Lane, 1991, pp. 41–42). These policies, in turn, are likely partially responsible for the upswing in inequality that we observe in this country.

The alternating government control between Left and Right parties cannot comprise the whole explanation for the trends in inequality we see, and the case of Australia and Canada illustrate this. In Australia, the period between the 1950s and 80s constitutes an almost uninterrupted domination by the Liberals in coalition with the National Party. The few years of Labour cabinets in the mid-1970s

are clearly visible, as they stand surrounded by Centre-Right governments. At the same time, though, this is a period marked by a falling share of income going to the top 1% income earners. By the early 1980s, though, the Labour party was in full control of the government, a situation which lasted until the mid-1990s. This period coincides, however, with *rising* inequality. Although it is true that the Labour Party, by this point, had veered toward the Centre in economic terms (Lavelle, 2005), it is still hard to account for the period before 1980. Labour cabinets around 1990 resemble, in terms of programmatic emphases, Centre-Right governments from the early 1960s (the last few Menzies cabinets)—the results in terms of inequality trends couldn't be starker, though. Finally, Canada presents us with a reinforcing account. Throughout the 1950s and 60s inequality decreases consistently; this coincides with a string of Liberal successes at the polls, interrupted only by a few years of Conservative governments (the Diefenbaker cabinets of 1957–1962).[9] The rising trend in inequality in the 1980s is certainly associated with a period of Conservative electoral victories; the puzzle is why it continues even after the Liberals reassert control in the 1990s. Part of the answer comes from the change in the Liberals' platform at this time. Facing a large budget deficit and a high level of government debt, the Finance Minister in the 1994 Chrétien cabinet concluded that "For years, governments have been promising more than they can deliver, and delivering more than they can afford. [...] The era of tax and spend government is gone." (in Crowley et al., 2012). The policies of the following years reflected this outlook. At the same time, other factors must surely be responsible as well for the steep increase in inequality: the rise on the financial sector, increasing returns to educational achievement, or the influence of NAFTA on wage growth for skilled and unskilled manual labor.

A few points can be made based on the evidence presented so far. The first refers to the plausibility of a connection between government ideological placement and the level of inequality in a country. While acknowledging that the trends displayed by other countries are sometimes more ambiguous than those presented here, Figure 5.4.1 offers considerable reasons to believe that government ideological placement has a part to play in inequality trends. We see in the case of a few of the countries evidence that both movements to and away from Leftist positions are reflected in fluctuations in inequality; at

[9] In a sense, the Canadian Liberals are to the Conservatives what the US Democrats are to the Republicans. Although somewhat centrist in terms of policies, the Liberals are clearly to the left of the Conservatives (but to the right of the New Democratic Party). Liberal governments in the post-war era have introduced maternity allowances, old age pensions, redistributive payments between Canadian regions, a system of student loans, along with universal health care. Part of the motivation for this was the rise of a social-democratic competitor in the 1940s, the Co-operative Commonwealth Federation (CCF), which threatened to reduce the vote share of the Liberals (Laxer and Laxer, 1977, p. 22).

the same time, other causal factors must clearly play a part as well. The second point refers to the claim that inequality drives party movements (e.g. Tavits and Potter, 2015), for which I find little support in the dynamics presented here. The most important supporting evidence for this is that inequality movements occur *after* government ideological shifts take place, rather than before. Throughout the case studies I have analyzed, the most consistent explanation for the shifts in platforms of Left parties is their desire to re-enter government after being widely perceived as incapable of managing the economy (see Green-Pedersen and van Kersbergen, 2002, pp. 511–519; Keman, 2011, pp. 678–680). Not once is inequality, or careful calculations by rationally-forecasting parties with respect to macroeconomic phenomena, hinted at in these accounts.

5.4.1 Statistical models

There is only so much that visual examinations can tell us–for everything else, these are the multivariate models in the following tables. The specifications presented here rely on Bayesian estimation of fixed-effects models. In order to address the issue of auto-correlated residuals I allow for a lagged dependent variable in all the models. Every specification presented has been run on 100 multiply imputed samples, with the estimates subsequently pooled based on Rubin's rules; a complete set of estimates can be consulted in section 9.2.4. The models use Gini at time $t + 3$ as dependent variable, the same indicator at time t as lagged control, and the fourth set of indices of government placement (doubling of the weight for the party of the Prime Minister).

Models 1 through 3 in Table 5.4.1 all tell a similar story with respect to the effect of union density and cabinet ideological position on Gini_{t+3}, even after controlling for inequality at time t. The further left the emphasis on socio-economic issues of a cabinet, the lower the increase in inequality between the current moment and 3 years into the future. The effect of ideological orientation is statistically significant in the first two models, but loses significance in the third model, with the addition of population demographics to the specification. Nevertheless, the magnitude of the effect is largely preserved, pointing to a high likelihood that a true effect is at play. The effect of union density is also negative, and consistently significant throughout the first three model specifications, confirming established results in the field (e.g. Bradley et al., 2003). Decreases in union density (the predominant pattern in my sam-

Table 5.4.1: Fixed-effects models predicting income inequality

	Model 1	Model 2	Model 3	Model 4
(Intercept)	22.74*	22.72*	21.76*	11.04*
	(2.06)	(2.20)	(2.36)	(2.89)
Gini_t	0.38*	0.38*	0.38*	0.35*
	(0.04)	(0.05)	(0.05)	(0.05)
SOC-EC position	−0.13*	−0.13*	−0.11	0.02
	(0.06)	(0.06)	(0.06)	(0.07)
Union density (%)	−0.67*	−0.72*	−0.68*	0.12
	(0.17)	(0.17)	(0.18)	(0.22)
Inward FDI (% of GDP)		0.04	0.03	0.05
		(0.07)	(0.07)	(0.05)
Export goods (% of GDP)		0.02	−0.00	0.02
		(0.02)	(0.02)	(0.02)
Pop. over 65 (%)			0.11	0.05
			(0.08)	(0.09)
Services employment (%)				0.11*
				(0.04)
N	918	847	847	462
σ	2.57	2.56	2.55	1.55
	(0.12)	(0.12)	(0.12)	(0.07)
Log posterior	−2, 197.41	−2, 021.62	−2, 020.58	−890.44

Method: The models presented are fixed-effects specifications, with Gini at time $t + 3$ as outcome. The lagged dependent variable, along with all other predictors, is measured at time t. Results were produced with the `rstanarm` package, version 2.13.1. Each model was run 100 times; estimates and their uncertainty are pooled using Rubin's rules. Each of the 100 estimates was summarized based on a sample of 3,000 draws from the posterior distribution.

Note: '*' 95% credible interval does not intersect 0. Standard errors presented in brackets. Belgium is considered as a single national entity. Gini estimates were obtained from SWIID, version 5.1, while `SOC-EC` placements for parties were computed based on CMP data, version 2016a. Government composition is found in *ParlGov* data, version March 12, 2016. Estimates for the fixed-effects are not presented here, but are available in the Appendix, in Table 9.2.2. Uncertainty estimates were obtained for the log posterior, but not displayed here.

ple) are associated with increases in inequality in a three-year period.[10] Neither of the two factors which proxy the effect of globalization, nor the structure of the population, appear to have any influence over changes in inequality in the short term. The last model of Table 5.4.1 tries to add the second factor related to development: the share of the population employed in the service sector. Unfortunately, data availability issues and deficient imputed values have still left this predictor with considerable gaps in the yearly series. Neither ideological placement nor union density are statistically significant anymore,

[10]The results should be interpreted in view of the fact that union density and cabinet ideological placement display a moderately strong Pearson correlation of 0.50. No index constructed from the two variables would make theoretical sense, while leaving out union density would produce an unspecified model. As a precaution, I ran such a model without union density, which produced a coefficient for cabinet ideology of −0.09 (S.E.=0.06). Even under such circumstances, then, the effect of ideology continues to be negative.

but this is likely due to the severely truncated sample. This reason, combined with the extremely small improvement in fit gained by adding population structure in Model 3, have led me to favor Model 2 as the most suitable specification.

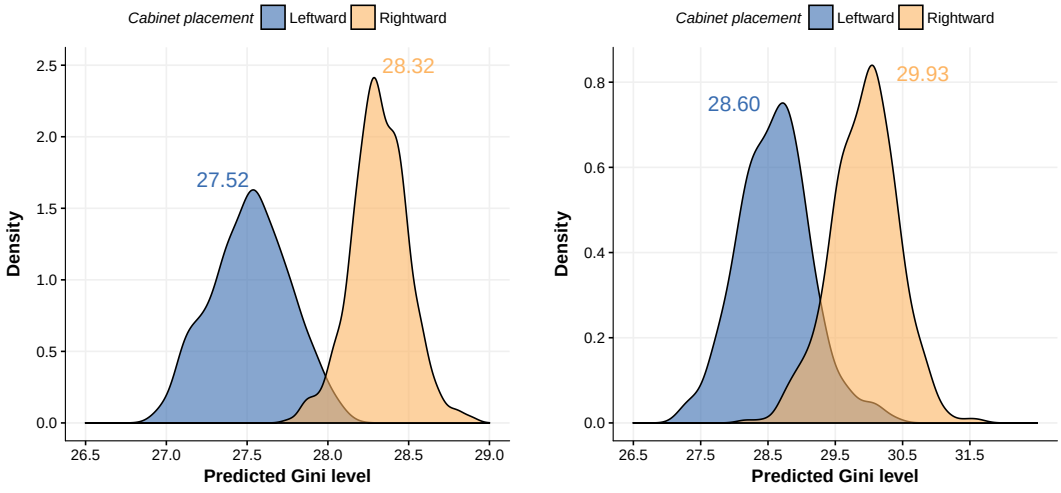
An important issue is whether the effects presented in the table of results are strong enough to warrant further focus on cabinet ideological shifts. I try to present below predictions of the average treatment effect (ATE) of changes in the ideological composition of cabinets on income inequality. As the estimates reported in the tables above are generated through pooling of 100 coefficients and standard errors, such predictions cannot be obtained from the quantities reported in the tables. I adopt an approximation to these results: I select out of the 100 coefficients the ones which are most similar to the pooled coefficients, based on a simple "sum of squared discrepancies" criterion. Using the data set from which they were obtained I re-estimate the model, and rely on the output to obtain the predictions.

I start with the first panel in Figure 5.4.2, which simply shows the overall effect, obtained by changing cabinet ideology by about 5 points (which is the median change in position over time for a cabinet in my sample).[11] Such a change in ideology would increase income inequality, as suggested in my first hypothesis, by about 0.8 Gini points. While such change might seem meagre, it's important to keep in mind that the model already controls for a lagged version of Gini, which doesn't leave room for much remaining variation in inequality. In fact, in my sample, the mean absolute difference in Gini values spaced 3 years apart is only about 2.11 points. In light of this extent of change I consider 0.8 points to be a fairly large effect. In the case of other countries, such as the United Kingdom, shown here in the second panel of the figure, the effects are of comparable magnitude. A change of 10 points in ideological placement is associated with a 1.3 point increase in Gini. Changes of 1.2 points or 0.8 points can also be observed for Norway, in the third panel, or Australia, in the last panel of Figure 5.4.2.

Such effects are comparable to those observed for union density. A shift in density from a relatively high level of 56% to a relatively low one of 20% produces an increase in inequality of about 1.5 Gini points. This change in union density is large, but certainly not out of the realm of the possible. Between 1960 and 2008 Austria saw it's density decrease from about 68% to about 29%, while New Zealand saw a shift from 56.5% to 20.6% between 1970 and 2008. Over similar periods, most Scandinavian countries actually saw their unionization rate increase, in some cases to a very large degree (e.g.

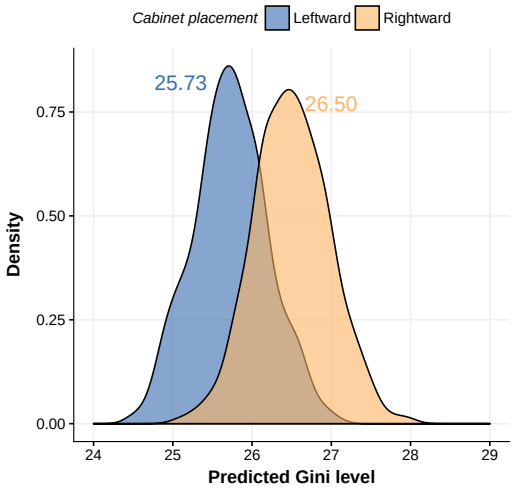
[11] As SOC-EC was obtained by using the logarithm of CMP placements on a variety of dimensions, these points are no longer raw CMP scores, but rather percentage changes in emphasis of a dimension.

Figure 5.4.2: Predictions of changes in Gini produced by shifts in ideological orientations of cabinets

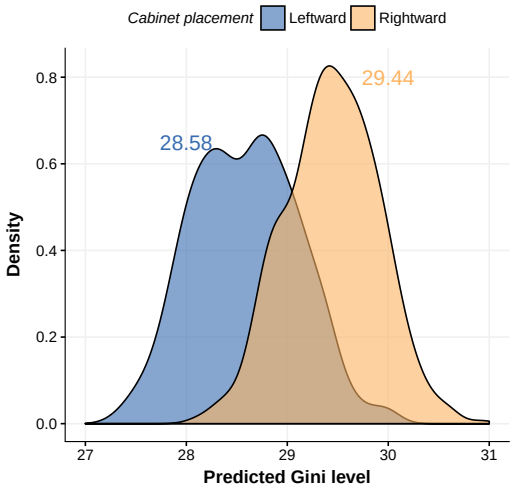


(a) Overall effect

(b) United Kingdom



(c) Norway



(d) Australia

Note: The predictions use estimates from Model 2 in Table 5.4.1. 500 plausible estimates of the value of the Gini index were obtained for each of the levels of cabinet ideological placement and then presented as density plots. The numbers next to the densities depict the expected mean level of the Gini index for a particular cabinet placement.

Finland). Although the direction of effect is suggestive of a causal impact of union density on inequality, I adopt the cautionary perspective of Scheve and Stasavage (2009) in suggesting further analysis to check whether both union membership and inequality are caused by economic forces at play.

The same model used for predictions has been relied on when assessing the model fit, by means of posterior predictive checks. A full set of diagnostic plots can be found in Figures 9.2.3 and 9.2.4 in the Appendix. For now, it suffices to say that the diagnostics suggest the model has a very good fit,

as we would expect from any specification that includes a lagged version of the dependent variable. Replications based on the model are able to faithfully reproduce the actual observations in my sample (Figure 9.2.3). There is some evidence that the model predicts values that are smaller than the actual minimum Gini value in the sample; at the same time, it appears that the mean and the maximum value are, on average, accurately reproduced. Furthermore, the residuals in the model appear to be normally distributed around 0, in the case of the 3 replications conducted based on the model (Figure 9.2.3). Predictions are frequently off when compared to actual observations, but the relationship between the two tends to be linear, with an apparent constant variance of residuals.

Table 5.4.2: Fixed-effects models predicting income inequality with added interaction for period effects

	Interaction model
(Intercept)	22.30*
	(2.20)
Gini_t	0.38*
	(0.04)
SOC-EC position	−0.11
	(0.09)
Union density (%)	−0.62*
	(0.18)
Inward FDI (% of GDP)	0.02
	(0.08)
Export goods (% of GDP)	−0.01
	(0.02)
Post-1985	0.72*
	(0.30)
Post-1985 * SOC-EC	0.05
	(0.13)
N	847
σ	2.54
	(0.12)
Log posterior	−2, 018.59

Method: The models presented are fixed-effects specifications, with Gini at time $t + 3$ as outcome. The lagged dependent variable, along with all other predictors, is measured at time t. Results were produced with the `rstanarm` package, version 2.13.1. Each model was run 100 times; estimates and their uncertainty are pooled using Rubin's rules. Each of the 100 estimates was summarized based on a sample of 3,000 draws from the posterior distribution.

Note: '*' 95% credible interval does not intersect 0. Standard errors presented in brackets. Belgium is considered as a single national entity. Gini estimates were obtained from SWIID, version 5.1, while `SOC-EC` placements for parties were computed based on CMP data, version 2016a. Government composition is found in *ParlGov* data, version March 12, 2016. Estimates for the fixed-effects, and uncertainty estimates for the log posterior, were obtained but are not presented here.

I finally come to my second question, dealing with whether the ability of governments to shape trends in inequality has diminished in the post-1985 period, on account of pressures originating with international capital flows and other factors of globalization. I construct a dummy indicator, measuring whether observations are taken before or after 1985, chosen because it is roughly the mid-point in my 1960–2008 sample of years. More important, though, it is the middle of the decade when a number of Social-Democratic parties had made credible changes in their economic platforms that brought them closer to a centrist position on economic and budgetary issues. The evidence has not been so kind with the second hypothesis (see results in Table 5.4.2). It is rapidly clear, as well as plausible, that the growth of inequality in the post-1985 period is more rapid than before.[12] This effect persists even after controlling for cabinet placement and union density, suggesting that there may be some truth to the claims related to increasing returns to education or skill-biased technological change as driving factors of inequality. However, as evidenced by lack of statistical significance for the interaction term, there is little evidence to support the claim that the effect of ideological placement is weaker in the post-1985 period. My second hypothesis has not been confirmed by the data.

Before moving on, though, there remains the issue of whether the results presented so far are simply due to the particular way in which cabinet position was measured. To ascertain this, I ran again the first three models from Table 5.4.1 with all combinations of dependent variable and the remaining three ways of building the index of cabinet placement. To recap, these were: an average with equal weights assigned to parties, a weighted average using legislative seat shares as weights and, finally, a similar weighted average, but where the Prime Minister's party receives a 50% higher weight. In total, then, $3 \times 3 \times 3 = 27$ specifications were run, to which 9 more will be added in the interest of completeness. These 9 are the specifications that used Gini_{t+3} as an outcome, and a weighted average and a 100% higher weight for the Prime Minister as index of cabinet placement, of which only 3 were presented in Table 5.4.1. From these 36 models I only present the effect of cabinet placement in Table 5.4.3.

The most important point to take from the table is that *all* of the effect estimates for cabinet ideological placement are negative, although there is some variation in magnitude. This variation is present both in terms of how the index of placement is constructed, as well as the time point at which effects in inequality are measured. We find statistically significant results only when using inequality at time

[12] The inclusion of a lagged dependent variable results in an explanation for differences in Gini levels, rather than for the absolute levels themselves.

Table 5.4.3: Effect of cabinet ideological placement on inequality—multiple indices of ideological placement

Gov. placement index	Dependent variable	Model 1 β	Model 1 *SE*	Model 2 β	Model 2 *SE*	Model 3 β	Model 3 *SE*
Equal weights	Gini_{t+3}	−0.10	(0.05)	−0.10	(0.05)	−0.09	(0.05)
	Gini_{t+2}	−0.06	(0.05)	−0.06	(0.05)	−0.05	(0.05)
	Gini_{t+1}	−0.03	(0.04)	−0.06	(0.05)	−0.03	(0.04)
Vote share weights	Gini_{t+3}	−0.11*	(0.05)	−0.12*	(0.05)	−0.11*	(0.05)
	Gini_{t+2}	−0.08	(0.04)	−0.08	(0.05)	−0.08	(0.05)
	Gini_{t+1}	−0.05	(0.04)	−0.05	(0.04)	−0.05	(0.04)
Vote share weights + 50% for PM	Gini_{t+3}	−0.13*	(0.06)	−0.13*	(0.06)	−0.11	(0.06)
	Gini_{t+2}	−0.10	(0.06)	−0.10	(0.06)	−0.09	(0.06)
	Gini_{t+1}	−0.06	(0.05)	−0.06	(0.05)	−0.05	(0.05)
Vote share weights + 100% for PM	Gini_{t+3}	−0.13*	(0.06)	−0.13*	(0.06)	−0.11	(0.06)
	Gini_{t+2}	−0.10	(0.06)	−0.10	(0.06)	−0.09	(0.06)
	Gini_{t+1}	−0.06	(0.05)	−0.06	(0.05)	−0.05	(0.05)

Method: The models presented are fixed-effects specifications which include a lagged dependent variable measured at time *t*. Results were produced with the `rstanarm` package, version 2.13.1. Each model was run 100 times; estimates and their uncertainty are pooled using Rubin's rules. Each of the 100 estimates was summarized based on a sample of 3,000 draws from the posterior distribution.

Note: '*' 95% credible interval does not intersect 0. Standard errors presented in brackets. Belgium is considered as a single national entity. Gini estimates were obtained from SWIID, version 5.1, while `SOC-EC` placements for parties were computed based on CMP data, version 2016a. Government composition is found in *ParlGov* data, version March 12, 2016.

$t+3$ as dependent variable, although effects continue to be negative even when switching to measuring inequality at time $t+2$ or $t+1$. Furthermore, it seems to make little difference whether we compute cabinet placement using a 50% or 100% higher weight for the Prime Minister's office, or even if we use a simple weighted average based on vote shares. The only instance when effects are not statistically significant is when relying on a simple average of the placement of all parties in the cabinet. However, this does not seem to me to be a very credible way of measuring ideological placement, particularly when focusing on economic issues. The German experience with the Red–Green coalition of 1998 is a oft-mentioned case. With only 49 seats, the Greens were clearly the junior partner in coalition with the SPD, which held 252 seats in the *Bundestag*. When it came to labor policy, though, the SPD seems to have taken the lead, with only marginal involvement by the Greens (Reutter, 2004, p. 91). The Greens rather focused on the issues which were of central concern to their electorate, such as phasing-out of nuclear energy and reform of the environment tax (Kern et al., 2004, p. 184). Awarding equal weight to a

junior coalition member for a central area such as economic policy would seem to defy common sense, at least in this particular situation, and would clearly be a poor measure of the actual policies implemented by the Schröder cabinet of 1998. It matters little, then how we measure cabinet programmatic emphasis—its effects on income inequality are always negative and frequently statistically significant, as long as we incorporate a delay of at least 2 years in our measurement of inequality.

5.4.2 Replication of Scheve and Stasavage (2009)

My results here would seem to bring into question the findings of Kenneth Scheve and David Stasavage (2009) (henceforth, S&S), with respect to the extremely limited or non-existent impact of labor market institutions and government partisanship on inequality trends in the long run. The evidence the authors present is compelling: when tracked continuously starting with 1916, the share of income going to the top 10% or 1% income earners is barely influenced by trends in centralized wage bargaining, or the political orientation (Left vs. Right) of the government. In their main analysis, however, government partisanship is proxied by whether the head of government, whether President or Prime Minister, is from a party of the Left.[13]

Some results in line with my expectations are reported in Table 2 on page 234 for the share of income going to the top 1%. At the same time, the authors are dismissive of these effects, arguing that the magnitude of the estimates is too small to constitute an adequate explanation for the trends in inequality observed between 1916 and 2000 (p. 235). In a sense, though, predicting inequality at time $t + 1$ while controlling for inequality at time t is bound to result in small effect sizes, as most of the variation is explained by the lagged dependent variable. Given this, and considering the potential improvements in my measure of cabinet ideology compared to the one Scheve and Stasavage use in the main analysis, I believe that a re-examination of their findings is justified.

This can only be a partial replication, though. For one, their data goes back to 1916, while CMP estimates of party positions mostly stop at 1945 (the United States and Northern Ireland are exceptions to this, with information as far back as the 1920s). Even if such information was available for parties, I possess no readily available source of government composition that goes back further than 1945. Un-

[13] The supplementary appendix contains analyses using a similar measure of partisanship as I use here, but these focus on the 1951–1970 and 1971–2000 period separately. No pooled analysis with the alternative measure of partisanship is attempted. For the 1971–2000 period, the authors find effects in line with the PRA: governments further to the Right are associated with a higher level of inequality (Table 4, page 16 of the supplementary appendix).

der these circumstances, I attempted to replicate their findings, focusing more on the general direction of the effect rather than precise coefficient values. As their data is organized around 5-year periods, I computed the 5-year average of yearly cabinet placements for each of their periods. I then merged this information with their data set, and proceeded to re-test their models, following the specifications as closely as possible.[14]

Table 5.4.4 presents the results of one such attempts at replication. I take one of the models presented in S&S (2009), which measures inequality using the income share of the top 10% income earners, and includes in the specification fixed-effects for both the time period and the country. The results are presented in their paper in the fourth column of Table 2, on page 234, and are reproduced here in the first column of Table 5.4.4. The only difference between my presentation and that of S&S is that I include markers for whether the estimate is statistically significant at the 90% confidence level. The first column of the table shows that although the effect of left executive is negative, as PRA would lead us to expect, it is not statistically significant. This is one of the pieces of evidence that S&S use when concluding that partisanship is, for all intents and purposes, powerless.[15]

In the second column of Table 5.4.4 I conduct a partial replication of their model, by using the same indicator of "Left executive" as S&S use. Here I limit my sample to only those countries and periods for which I also have information on cabinet placement on the `SOC-EC` dimension, which restricts the sample to 113 cases. The halving of the sample is due, first, to the lack of any party placement information before 1945 for most countries and, second, to the inability to compute my cabinet placement index for the entire US series. Even so, with my rough approximation I am able to reproduce fairly well the magnitude and direction of the estimates reported by S&S, with the exception of the dummy indicator for non-democracy. As I only have observations after 1945, all countries in the sample operate under a democratic system. Even so, lagged inequality and decentralized wage bargaining continue to have a statistically significant effect, while union density only narrowly misses significance in my replication. Effects for trade openness, share of population in secondary education, female labor participation, centralized wage bargaining, universal suffrage, and Left executive all maintain their direction, although

[14] Small differences might be caused by the authors' use of Stata, as opposed to my reliance on the `pcse` package for R. In light of the considerable missing data problems I have just described, I consider this to be a very small issue.

[15] S&S's analysis is more complex, involving a series of quantitative, small-N, and qualitative comparisons. Most of these point in the direction of no effect of partisanship on inequality. My re-specification of their models only touches on one of their analyses.

Table 5.4.4: Re-analysis for Scheve and Stasavage (2009) models of top 10% income share

	S&S (2009) results	S&S (2009) replication	S&S (2009) re-analysis
Top 10_{t-1}	0.468*	0.373*	0.359*
	(0.072)	(0.104)	(0.101)
GDP per capita	0.098	−0.021	−0.041
	(0.106)	(0.137)	(0.138)
Trade openness	0.024	0.036*	0.040*
	(0.018)	(0.020)	(0.020)
Secondary educ. share	−2.095	−3.796	−4.533*
	(1.648)	(2.277)	(2.176)
Female participation	−17.734*	−7.404	−7.392
	(7.423)	(7.471)	(7.463)
Cent. wage bargaining	0.079	0.940	0.872
	(0.707)	(0.815)	(0.790)
Decent. wage bargaining	1.622*	2.372*	2.154*
	(0.559)	(0.642)	(0.599)
Union density	−0.078*	−0.055	−0.063*
	(0.027)	(0.037)	(0.036)
Left executive	−0.673	−0.034	
	(0.490)	(0.423)	
SOC-EC placement			−0.144*
			(0.070)
Non-democracy	2.542*		
	(0.991)		
Universal suffrage	0.590	0.657	0.865
	(0.574)	(1.024)	(1.019)
Period FE	*yes*	*yes*	*yes*
Country FE	*yes*	*yes*	*yes*
Countries	13	12	12
Periods (5 years)	17	10	10
N	219	113	113

Note: '*' 90% credible interval does not intersect 0. Panel corrected standard errors presented in brackets. Fixed-effects (FEs) for periods and countries not displayed in the table. All models were run on 10 multiple imputation data sets, with estimates subsequently pooled using Rubin's rules.

their magnitude is sometimes changed due to the sample composition.

The last column of Table 5.4.4 displays the estimates of my analysis, replacing S&S's measure of Left executive with my index of cabinet ideological placement. The version of the index used here relies on seat shares as weights, and boosts the weight of the party which holds the office of Prime Minister by 100%. The results clearly suggest that a more leftward cabinet is associated with a lower degree of

inequality, even after controlling for a variety of economic factors or labor market institutions. This result points to the crudeness of a dichotomous measure like Left executive control, particularly when engaging in cross-national and longitudinal investigations. There is a great deal of difference between the current US Democrats, the German SPD, and the Norwegian Labor Party in terms of policies. These differences are also observed over time, as any observer of the post-war trajectory of the SPD or the UK Labour Party can attest to. In such circumstances, a simple dummy indicator will fail to capture the true effects at play when it comes to predicting inequality.

Table 5.4.5: Effect of cabinet partisanship on income inequality

	DV					
	Top 10% - Top 1%		Top 10%		Top 1%	
S&S (2009)	0.252	−0.346	−0.098	−0.673	−0.445	−0.532*
results	(0.394)	(0.363)	(0.521)	(0.490)	(0.312)	(0.318)
Analyses based	−0.032	−0.099	−0.092	−0.144*	−0.067	−0.061
on SOC-EC	(0.077)	(0.069)	(0.099)	(0.070)	(0.054)	(0.046)
Period FE	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*
Country FE	*no*	*yes*	*no*	*yes*	*no*	*yes*

Note: All estimates reported for S&S analyses obtained from sample of 219 observations, 13 countries and 17 5-year time periods. All estimates in my models obtained from sample of 113 observations, 12 countries and 10 time periods.

Note: '*' 90% credible interval does not intersect 0. Panel corrected standard errors presented in brackets. Fixed-effects (FEs) for periods and countries not displayed in the table. All models were run on 10 multiple imputation data sets, with estimates subsequently pooled using Rubin's rules.

Taking the process one step further, I report in the top part of Table 5.4.5 all the estimates of effect which S&S report in their Table 2. For each dependent variable, they run two sets of models, with and without fixed-effects for countries. In their results, the effect of executive partisanship fluctuates between positive and negative, and is only statistically significant in one specification. The bottom part of the table shows a re-analysis of the same models, this time using the index of cabinet placement based on SOC-EC. It is hard to assess statistical significance based on a sample of 113 cases, but we can at least see that the effect is consistently negative, and significant for the fourth specification. It is difficult to say what effect a larger sample would have on the estimates, but my results have shown that under different specifications the impact of cabinet ideology is consistently in the same direction, albeit rarely statistically significant.

5.5 Implications

More than half a century ago Harold Lasswell defined politics as being essentially about "*who* gets *what*, *when* and *how*?" A few decades earlier V.I. Lenin had pondered the same issue, and found it to be about "who [wins out] over whom?" (*kto kovo?*).[16] The argument made in this paper is that, when it comes to income inequality and redistribution, the answer to the first question can only by found by means of the second question. My results have shown that, over various model specifications, cabinet ideological placement is a consistent determinant of the level of income inequality in a country. Movements to the left on socio-economic issues are associated with a lower level of inequality. Furthermore, this effect can be seen regardless of whether we study the level of inequality recorded 3 or 2 years into the future. The results with respect to inequality one year into the future are more ambiguous, although they do match existing research, which suggests that there is no short term impact of government policy (implicitly, partisanship) on inequality (Kelly, 2005).

The general conclusion of the analysis is that the PRA framework continues to be a useful theoretical lens through which to examine dynamics between parties, economic forces, and the level of income inequality in a country. To the extent that parties of the Left represent the interests of lower-income voters, and these parties make it into office, my analysis has shown that their participation is not without consequences. Presumably through the policies they contribute to enacting, Leftist parties have the power to compress the income distribution. At the same time, there is little evidence to suggest that this power has waned, even in a time of increased pressures due to economic globalization, as in the post-1985 period. Through their participation in government parties have continued to be effective transmission belts for the wishes of their constituencies for either more or less income inequality. Unfortunately, the influence of parties cuts both ways. We can observe, starting from around the 1980s, a consistent shift to the Right of cabinets in a diverse sample of Western European nations. This is due to both Right and Left parties shifting rightward, as can be seen in the case of Germany or the United Kingdom (Ross, 2008), the United States (Erikson et al., 2002, p. 260), or Netherlands, New Zealand, and Belgium (own analyses based on CMP data). With this dynamic in mind, it is fair to say that Left parties have the power to both reduce or allow inequality to increase, depending on how their platforms

[16] Translation found in Schrad (2014, p. 25).

are crafted and which sub-constituency their aim to serve.

Although not approached head-on in this analysis, my results would also appear to question the causal order suggested by Burgoon (2013) or Barth et al. (2015), who see income inequality as a causal factor for party shifts in platforms. I cannot conclusively refute such an argument, although my descriptive presentation has indicated that cabinet shifts have usually *preceded* changes in income inequality. While possible that parties are rationally prospective actors, able to discern economic trends and position themselves in anticipation of these, I see this as highly unlikely. Concerns about the party image, the costs of switching issue positions, as well as the possibility that any movement would create internal dissent, make it far more likely that parties will only shift position on economic/social issues when absolutely forced to by the prospect of consistent electoral defeat. I have argued in my analysis that this was the situation encountered in the 1980s by a number of Leftist parties, who had gained a public image of bad managers of the economy in the 1970s. It was this, rather than any concerns about inequality, that made the parties shift in a rightward direction.

All the conclusions presented so far ought to be interpreted through the prism of the limitations of my analysis. The issue of how to analyze TSCS data with a long time component has recently gotten widespread attention, although matters are far from settled (e.g. Beck and Katz, 2011). I have relied on commonly-used statistical tests to determine the most suitable model specification, but disagreement continues even regarding these tests (see Bell and Jones, 2015, p. 138). A secondary issue is more theoretical: the inability to include a number of predictors which are plausibly connected to income inequality, such as women's labor force participation, technological changes which impact the type of jobs available and the pricing of skills on the market, or returns to education. This has been caused by the insufficient temporal coverage of the available data, which makes any multiple imputation highly imprecise for the earlier decades in my data. The final aspect refers to my measure of cabinet placement, which is still a work in progress due to its inability to control for a number of coalition dynamics. The most important of these is the disproportionate influence of minor coalition partners which are more centrist than the main party, and thus conscious of the limited alternatives of the main party in terms of coalition partners. This position gives them considerable blackmail potential over the portfolio allocation or coalition policies, but this is not yet reflected in my index. Further work will have to address this as well.

In reaching a mid-point to the empirical part of this monograph, it is perhaps worth briefly taking stock of the progress. I have indicated that a more comprehensive framework of understanding of the dynamics between economic inequality and political participation ought to also include the role of political parties. In Chapter 4 I have shown, for a sample of 21 OECD countries, that the impact of economic inequality on turnout is only present in a cross-country perspective. Fluctuations in inequality over time, on the other hand, have no meaningful impact on turnout. Even in a cross-sectional setting, the magnitude of inequality's effect crucially depends on the inclusion of a set of predictors of inequality, such as quality of governance—in the presence of these predictors, the impact of economic disparities largely vanishes. Party system ideological shifts on a standard Left–Right dimension, however, do impact turnout in a consistent and expected manner: movements over time further to the Right in a party system are associated with a decreased probability of turnout for individuals. In the current chapter I have also indicated that political party dynamics can impact the trend in net income inequality over time: cabinets which are further to the socio-economic Right are associated, *ceteris paribus*, with a more accelerated growth of inequality in the short-term future. This effect is likely exerted through the policies implemented by parties once they are in power, such as changes to the tax code, welfare retrenchment, or subsidized public education or health care. If we think back to the proposed framework in Figure 2.4.1, these findings cover two of the causal arrows presented: from parties to economic inequality, and to political participation. The latter causal path, in particular, is presumably mediated through individual perceptions of the policy benefits derived from voting, although additional mechanisms, such as mobilization patterns, could also be at play.

There are still a few questions that linger, and one of these is investigated in the next chapters: How are party platforms influencing individuals' turnout behavior precisely? Furthermore, which citizens are ultimately responsive to such party platform changes? The questions are, in a sense, "manufactured". They are partly an unfortunate byproduct of my use of an all-encompassing indicator for ideological position that obscures the precise ways in which a party platform undergoes changes. In the following chapter I take up the challenge of disaggregating party platform changes into their socio-economic and cultural components. Additionally, I check if my framework can reproduce one of the more startling findings of the *relative power* account: that lower-income voters are far more sensitive to inequality shifts, in how they alter their political participation patterns, than wealthier voters.

6

Party Shifts and the Participation Gap Between Socio-Economic Groups

A COMMON MOTIF in recent political commentary is the deploration of the growing number of voters in advanced industrial democracies who have turned apathetic toward politics in all its civil manifestations (e.g. Anderson, 2000; Engel, 2017). A recent embodiment of this very same motif brings into discussion whether the growth in apathy is concentrated in the working class (Heath, 2016), and whether it might result in support for political outsiders capitalizing on the widespread disenchantment.[1] The analyses in this chapter target precisely the question of whether such a de-mobilization of

[1] Nate Cohn uses the platform provided by the *New York Times* to voice this opinion ("Why Trump Won: Working-Class Whites": https://www.nytimes.com/2016/11/10/upshot/why-trump-won-working-class-whites.html), while Ken Stern does the same for *Vanity Fair* ("Inside how Trump won the white working class": http://www.vanityfair.com/news/2017/01/how-trump-won-the-white-working-class). These are only a few of the many pieces of commentary that either point to economic anxiety or cultural threats stemming from immigration as catalysts of this white flight from the Democratic Party's fold. A similar discussion is taking place in the United Kingdom, with J. D.

lower-income and lower-educated voters can be observed in a wider OECD setting. Additionally, I explore whether party ideological shifts are partly responsible for such a disengagement.

In the previous two chapters, a more granular picture of connections between income inequality, political participation, and party dynamics has emerged. While the jury should be thought of as still out on the question of whether economic inequality is directly associated with turnout changes over time, a more promising "culprit" was put forth in the form of party programmatic changes. Such changes were found to be associated both with levels of income inequality at the aggregate level, *and* shifts in turnout at the individual level. In the current chapter I am left with providing a better account of the way in which party programmatic changes impact turnout than could be offered in Chapter 4. I begin with a focus on the turnout gap between voters placed at opposing ends of the socio-economic status (SES) scale. I then examine separately the sensitivity of the turnout pattern of each group of voters to changes in party platforms. Unlike the presentation made in Chapter 4, though, I now distinguish between a party's socio-economic and cultural platforms (Kriesi et al., 2008), as these can be varied by parties somewhat independently of each other.

On a practical level, the importance of the topic stems from the potential of socio-economically biased political participation to turn into unequal representation (Lijphart, 1997), and for this, in turn, to produce policies which disfavor a particular social class (Fellowes and Rowe, 2004). Welfare eligibility laws and unemployment benefits have been cut in a majority of advanced democracies over the past decades; taxes for high-income earners and capital gains have been reduced in the US; the quasi-universal response to the recent recession has been comprised of harsh austerity policies. While the causal link between these phenomena and unequal participation is bound to be long and tenuous, the analysis presented here makes the first steps toward checking whether the connection is plausible.

On a more theoretical level, the question of whether there is a participation gap, and whether party ideological shifts have contributed to it, is a major factor in how we judge the quality of the democratic systems we live in. Glaring inequalities in participation are incompatible with claims that political systems are representative and strive to give equal weight to the full spectrum of political opinions in the citizenry. Furthermore, the possibility that these disparities in political engagement exist partly due to the action of political actors can help inform any solutions proposed to what is now a full-on

Taylor portraying a revolt of the working class in 2016 against the political establishment in the *New Statesman* ("The Working Class Revolts": http://www.newstatesman.com/politics/uk/2017/02/working-class-revolts).

democratic malaise in most Western European democracies. Complex explanations for declining turnout at least have the sobering effect of making us realize that simple solutions will likely fail. More specifically, for the updated framework I propose in Chapter 2 the investigation I pursue here should reveal whether turnout across all groups of voters is negatively impacted by party platform changes, or whether turnout drops are concentrated in a specific group. If the latter scenario is identified, and this group is constituted of lower-SES voters, then my proposed framework will have explained one of the worrying findings of the *relative power* account: that inequality increases disproportionately impact lower-income voters (Solt, 2008).

The following sections start by expanding the theoretical argument for why we should expect party dynamics to have an influence on participation gaps between socio-economic groups in society. Following this, I will outline a few hypotheses, as well as the data sources and methods used to answer them. The subsequent section presents both descriptive and inferential analyses that tackle the questions I pose, showing how party ideological dynamics are linked to variations in turnout at the individual level. The final section of the paper offers a broader interpretation to these results, along with a few concluding thoughts.

6.1 Turnout Dynamics and Party Ideological Shifts

Variations in aggregate turnout levels in advanced industrial democracies has been one of the most researched topics in political science. While most studies concern themselves with cross-national differences (Blais and Dobrzynska, 1998; Endersby and Krieckhaus, 2008; Franklin, 1999; Gallego, 2015; Jackman, 1987; Jackman and Miller, 1995; Powell, Jr., 1986; Radcliff and Davis, 2000), a few analyses have also probed the longitudinal dimensions of the phenomenon of turnout decline (Abramson and Aldrich, 1982; Franklin, 2004; Gallego, 2009; Miller, 1992). The insights produced by these studies have covered a range of topics, from the strong influence of compulsory voting laws on turnout, to the impact of population size and concurrent elections (for a comprehensive review, see Geys, 2006), and the role played by generational replacement in explaining turnout decline (Franklin, 2004).

The considerable amount of attention awarded to this topic is clearly justified when considering the potential distortions introduced in the mechanism of political representation by unequal turnout (Lijphart, 1997). The intuition that politicians are probably not responsive to the non-participative part

of the electorate is as old as Key Jr.'s *Southern Politics* (1949). In this understanding, without a credible threat of electoral punishment elected representatives have little reason to actively inquire about, and follow through on, the preferences of those most likely not to vote. The precise characteristics of these citizens vary to a limited extent from country to country. In the United States and a host of other democracies they tend to be the individuals with the lowest income and least amount of education in the citizenry.[2] While stopping short of linking it to participation rates, recent analyses indeed suggest that this income-based pattern of skewed representation is present and very strong (Giger et al., 2012; Gilens, 2005; Hill and Leighley, 1992; Rosset, 2013). When there is disagreement in preferences between lower- and higher-income voters, elected representatives appear to overwhelmingly favor the side of higher-income voters (Gilens, 2012), leading to policies which systematically go against the interests and needs of lower-income citizens (Fellowes and Rowe, 2004).

The matter of whether the gap in participation between various groups defined based on socio-economic criteria has been growing, diminishing, or staying constant over time has received far less attention in the literature. While education- and income-based unequal political participation had been observed in the US since the early 1970s (Verba and Nie, 1972), similar cross-national investigations had diagnosed Western Europe as unaffected (Barnes and Kaase, 1979). Indeed, as late as 1995, a common conclusion of studies of turnout in Western Europe was that inequalities based on socio-economic factors were not evident (Topf, 1995, p. 48). More recently, we have begun to recognize that this conclusion was premature. Starting with the evidence presented by Burden (2009) for the United States, and by Bovens and Wille (2011) for the Netherlands[3], there is a growing number of clues that such a gap, based primarily on education, does indeed exist (for cross-national evidence, see Armingeon and Schädel, 2015). Separate findings attest that a growing gap can also be detected in the case of psychological orientations that underpin participation, such as political information (Prior, 2005, 2007).

6.1.1 Drivers of participatory disparities

From establishing the existence of a growing gap in participation, the focus has rapidly changed to explaining what is driving this gap. In the first cross-national analysis of the determinants of rising inequality in turnout between economic or educational groups, Armingeon and Schädel (2015) point to

[2] In Spain or Malta, however, no such pattern can be discerned (Gallego, 2015, p. 6).
[3] Cited in Hakhverdian et al. (2011).

a growing trend of individualism in advanced industrial democracies. The logic of this argument starts from the insight that high rates of political participation are sustained by resources, motivation, and mobilization (Brady et al., 1995; Campbell et al., 1960; Rosenstone and Hansen, 1993). For lower-educated individuals who might not possess the resources or motivation to participate, social organizations and social networks subsidize the costs of acquiring information about the candidates or party platforms. Unions, church groups, organizations such as the Sierra Club or the National Rifle Association—all provide cues as to the ideological consistency and the voting record of candidates, information about voting procedures and requirements, or conduct Election Day mobilization efforts. Seen from this perspective, the recent trend toward reduced membership in associations (Putnam, 1995, 2000) and the declining power of unions (Wallerstein and Western, 2000) have translated into a stronger negative impact on turnout for individuals of a lower socio-economic status (Armingeon and Schädel, 2015; Leighley and Nagler, 2007).

A different explanation for the socio-economic gap in participation has its roots in rational choice theory. The claim made is that the complexity of the voting procedure, as well as that of the choice environment, have a disproportionate impact on low-SES voters, who lack the political sophistication to navigate these situations (Gallego, 2015). However, more complex ballot structures or a higher level of government fractionalization impact high-SES voters very little, as they do possess the requisite level of political sophistication to cope with this environment. Gallego (2015) tests these propositions, both in a cross-national setting and through an experimental approach, and finds support for them. To take but the first case, the turnout level of lower-educated voters in countries with more demanding ballot structures is lower than in countries without these features. On the other hand, ballot complexity barely influences the turnout level of higher-educated voters (p. 84). Through this dynamic the gap in turnout between educational groups is larger in countries that exhibit a more complex choice environment.

6.1.2 The influence of party platform shifts

While both these processes are certainly strong causes for the growing class-based gap in turnout, the argument put forward in this paper is that a second cause is party ideological shifts. Starting with the 1980s and proceeding more vigorously in the 90s, repeated analyses have uncovered a process of 'Americanization' of Left parties in Western Europe: a gradual abandonment of strong claims of eco-

nomic regulation, state ownership of industry and market control, in favor of a centrist position on these issues (Clasen, 2002; Keman, 2011; Lipset, 2001). Such a process has been thoroughly documented in the case of the Australian Labor Party (Lavelle, 2005), the PvdA in Netherlands and the Social Democrats in Denmark (Green-Pedersen and van Kersbergen, 2002), as well as the SPD in Germany and the Labour Party in the United Kingdom (Ross, 2008; Shaw, 1994). To the extent that such an ideological swerve produced a more pro-business set of policies once these parties made it back into office in the 1990s, it is plausible that their core constituencies have not felt well-represented by the party platforms.

This presumed dynamic corresponds with existing insights about the influence of policy shifts on turnout decisions (Adams et al., 2006; Adams and Merrill III, 2003; Brody and Page, 1973). When candidates or parties move farther away from the ideal policy point of their core constituency, both abstention from *alienation* and from *indifference* may ensue. In this instance, the policy proposals advocated by the political actors are too far away from the voter to justify participation and/or are too similar with each other to justify the effort in making a choice. Whether the primary reason for party ideological shifts is electoral defeat (Somer-Topcu, 2009), shifts by other parties (Adams and Somer-Topcu, 2009), or ideological movement of voters (Ezrow et al., 2011) is of little consequence to the unintended consequences of these shifts for voter turnout decisions.

Such a perspective can already be found in the literature on class voting (e.g. Evans and De Graaf, 2013), under the name of the "top-down" approach. It argues that changes over time in the strength of class voting are driven not only by changes in the composition of the classes themselves (the "bottom-up" perspective), but also by how political actors position themselves with respect to the main ideological axes of competition. When parties converge in their policy offerings, as happened in the 1980s and 90s with Labour and the Conservatives' economic platforms in the United Kingdom, the range of choices offered to the electorate is severely diminished. This increases the difficulty of distinguishing between classes in their vote choices, even though their ideological preferences or values have not shifted (Evans and De Graaf, 2013, p. 7). A secondary process could be at play as well. Convergence on one dimension of competition (e.g. economic) likely requires a compensatory divergence on another dimension (e.g. traditionalism), as parties try to maintain a distinctive image with the electorate. To the extent that a secondary dimension of competition becomes stronger, and this cross-cuts the first dimen-

sion, then class voting would be weakened as voters predominantly use the clearest distinction between parties to make a choice (Frank, 2004; but, see Bartels, 2008). In their analysis, Jansen et al. (2013) find some support for this party-centric, or "top-down" perspective. While Left party movements themselves don't impact the magnitude of class voting in 15 OECD countries, party system polarization does: more polarized systems are associated with a higher degree of class voting. In-depth case studies, published as part of the same collective volume (Evans and Tilley, 2013; Gougou and Roux, 2013; Heath and Bellucci, 2013; Hobolt, 2013; Marks, 2013; Weakliem, 2013) find stronger support for the top-down approach, though, leading Evans and De Graaf to conclude that party dynamics play a role in shaping class voting.

In addition to the subjective feeling that participation is not important anymore, given the unappealing policy offerings, lower-class voters are also faced with the issue of mobilization. Both Hill and Leighley (1996) and Wichowsky (2012) find that increased mobilizational efforts, in particular by the Democratic party in the US, produce higher aggregate turnout rates, and a lower socio-economic bias in turnout. These results find confirmation in the analyses of Mark Gray and Miki Caul (2000), who reveal that declines in turnout over time can be linked to matching declines in the organizational power of Left parties and unions. A mobilization-based process can provide subsidized political information, as well as shape the group-membership consciousness and the political demands of particular social groups. Such a dynamic is likely at the root of the finding that a wide gap in participation between African-Americans and whites in the US in the 1950s had all but disappeared in the 60s (Verba and Nie, 1972, chap. 14).

Individual calculations of policy benefits and mobilization are merely two of the factors in a larger causal pantheon, that also has to include perceptions of descriptive representation. As recent analyses for the context of the UK suggest, shifts in participation patterns can also be due to voters' responses to the types of candidates that are fielded by parties (Heath, 2015). Campaign pledges likely sound more credible, and the subjective perception of responsiveness of the political parties is likely heightened, when candidates roughly match the socio-economic characteristics of the core electorate. Attempts to attract a new core electorate, then, ought to result in a altered composition of candidates put forth for election, which then shape perceptions of the voters. An integral part of the strategy of modernization adopted by the UK Labour Party under Kinnock and Blair has been to appeal to the urban, educated

middle-class, for which a roster of candidates these new voters can identify with was essential. Over time, the share of college-educated, urban, middle-class MPs in the Labour party increased, to the detriment of those with a working-class background; a similar process can be spotted in the case of the US Democrats with candidates recruited from the unions.[4] In the face of this trends, working-class voters have responded by disengaging from the political process (Heath, 2016).

Unfortunately, the findings speak little to a possible connection between ideological shifts of Left and Right parties and their mobilization efforts targeting lower-income and lower-educated voters. From a theoretical perspective, it is plausible that political platforms which advocate deregulation, privatization and limited welfare retrenchment could not easily be paired with increased mobilization of working-class voters by parties. Once the decision to go against the core interests of a constituency is made, it is difficult to still hope for widespread mobilization from that constituency in favor of the electoral platform of the party. The alternative perspective is that party ideological shift has followed turnout decline—expecting a disappearance of their core electorate, brought about by deindustrialization, widespread value change and residential fragmentation, Left parties decided to shift position to where a large section of the electorate would be situated. An in-depth coverage of the 1980s and early 1990s of the Labour Party in the United Kingdom suggests this was not necessarily the case (see Shaw, 1994). In this instance, office-seeking concerns trumped ideological consistency. A conscious decision was made to wash away the party's existing image of a bad steward of the economy, and replace it with one of a responsible administrator which could keep spending in check, reduce market regulation to a minimum and keep inflation low, and generally make the welfare system leaner. In addition to generating votes, this strategy would also have the benefit of making Leftist parties more "palatable" as coalition partners to parties which otherwise might have considered the former too radical to co-opt in government (Green-Pedersen and van Kersbergen, 2002).

This is the account I try to find empirical support for in the following sections. Ideological shifts by both Left and Right parties over the 1980–2000 period have led to a gradual political de-activation of lower-income and lower-educated individuals. The transmission mechanisms are multiple and centered both on individual and party calculations. On the individual side, it is likely that an unappealing policy offering for working-class voters (lowered taxes on the wealthy, privatization, welfare state re-

[4]The US information comes via Prof. Michael McQuarrie (personal communication).

trenchment) impacts the calculus of voting, by suggesting that political alternatives are too similar to warrant spending effort on voting. On the organizational side, changes in platforms create new target audiences which need to be activated (middle-class voters and highly educated individuals in the case of Leftist parties). This diverts resources from mobilization efforts targeting the core constituencies of the party (working-class voters, for the Left). The cycle is likely reinforcing, as lowered turnout produces even more skewed policies; in turn, these influence the resources working-class individuals can devote to political participation, and the social networks which are conducive to political mobilization at election time (Schneider and Makszin, 2014).

6.2 Questions

Based on these expectations, I formulate two hypotheses:

H1 The participation gap between low-SES and high-SES citizens has grown in most advanced industrial democracies over the last 5 decades.

H2 Party ideological shifts are contributing to variations in this socio-economic participation gap, even after controlling for other relevant determinants of said gap.

Whereas the first hypothesis will be subjected to both a visual test (examining participatory trends and the turnout gap over time) and a statistical one, the latter will only benefit from a statistical test. Both of these hypotheses follow the spirit of the questions pursued by Evans and De Graaf (2013), and employ a similar methodology on a larger data set. At the same time, though, my efforts here target turnout, while theirs refer to the association between class and voting patterns.

6.3 Data and Analytic Strategy

As the focus of my analysis is the gap in participation probabilities between groups segmented by combinations of education and income, or education and union membership, I first had to obtain these probabilities from the raw data. In each of the elections covered by my sample, I ran a minimal model of turnout, using age, gender, education (two dummy indicators for secondary education completed and at least some tertiary education, with primary education as reference category), income (two dummy

indicators for the first and second income tertile to which the respondent belongs, with the third tertile as reference category) and marital status. Where not all predictors were found in the surveys, the turnout model was not estimated. In this particular instance, smaller models of turnout are, I would argue, justified when considering that the goal is to capture the entire effect of education or income on turnout. Attitudinal predictors such as political interest, efficacy, or political discussion with friends and colleagues constitute potential avenues through which the effect of education might also be transmitted. In an attempt to capture both the direct effect of schooling, as well as the indirect effects plausibly transmitted through these attitudinal predictors, I have chosen to exclude the latter. This aspect of the modeling strategy distinguishes the models here from the ones used in Chapter 4, which included a larger number of predictors. A benefit of paring down the model specifications in the current analysis is that the number of elections that can be covered increases.

For each of the surveys, based on the estimated coefficients, I computed the difference in the probability of participation for members of typical socio-economic groups that might be expected to display diverging participation trends. To begin with, I examined differences between low-SES and high-SES citizens, defined based on education and income. Low-SES respondents were considered as being in the first tertile of income, and who do not have a high school degree. Their high-SES peers, on the other hand, are placed in the third income tertile, and have had at least some college education. I then examined differences based on education and union membership, contrasting union members with no high school education with non-union members who have had at least some college education. The probabilities were obtained based on 1,000 simulations run with the help of the `Zelig` package for R (Choirat et al., 2017), producing an actual empirical distribution of differences. From these distributions, I randomly sampled 100 values, which capture the fact that my estimate of the gap in participation between groups contains some uncertainty. These 100 values represent the dependent variables.

The second stage of this analysis (see Jusko and Shively, 2005; Lewis and Linzer, 2005) consisted of using these differences as outcomes in a series of fixed-effects linear models, where both time-variant predictors of the participation gap are included alongside country dummies. Since the interest is on the longitudinal effect of predictors such as union density, this approach does away with the need to include time-invariant predictors usually related to institutional configurations (e.g. presidentialism, compulsory voting). A potential alternative to this specification exists, under the form of hierarchical

Table 6.3.1: CMP categories used in the construction of placement on a traditional values dimension

Category	Item	Meaning
Traditionalism	per601	National way of life: positive
	per602	National way of life: negative
	per603	Traditional morality: positive†
	per604	Traditional morality: negative‡
	per605	Law and order: positive

Notes: † The item refers to the favorable mentions of the family, of religious institutions, and support for censorship of immoral opinions or behavior. ‡ The item refers to support for divorce, abortion, alternative understandings of family, and separation of church and state.

linear models, of elections nested in countries. However, these would require additional time-invariant predictors at the country level, would be more computationally intensive, and would require additional assumptions about sampled units and parameters. For this reason, I have gone with the simpler and more robust alternative.

The main theoretical predictors of interest are party ideological placements, derived from the *Comparative Manifestos Project* data, version 2016a (Volkens et al., 2016), in the way which was outlined in Chapter 3. To supplement the SOC−EC index, I also obtained party placements on a traditional values dimension, based on the categories presented in Table 6.3.1. With these categories, I computed the traditional values position (TRAD) as outlined in Equation 6.1; higher values on this index suggest a position further to the Left on issues of religion, traditional family, abortion, patriotism, and law and order. Although national variation undoubtedly exists, I expect that a two-dimensional ideological space would do a sufficiently good job at summarizing the political conflict axes in the majority of my countries (Kriesi et al., 2008).

$$TRAD = log(per602 + 0.5) + log(per604 + 0.5) - log(per601 + 0.5) - log(per603 + 0.5) - log(per605 + 0.5) \quad (6.1)$$

A secondary set of indices of party placement take into account movements by both Left and Right parties on the two dimensions outlined above. For both the SOC−EC and TRAD index, I computed a

standard measure of political polarization, as described in Equation 6.2 for the specific case of TRAD. For each election, assuming a total of N parties on the spectrum, polarization is computed as the weighted sum of each party's squared deviation from the average placement on TRAD or SOC-EC, using the party's vote share (s_i) as weights. Both the "raw" measure of party shifts and the indicators of party polarization are lagged by one election, so as to allow for some time between party policy shifts and the appearance of feelings of alienation in voters, which would ultimately lead to electoral dropout.

$$Polarization = \sum_{i=1}^{N} (TRAD_i - \overline{TRAD})^2 \times s_i \tag{6.2}$$

The fixed-effects specifications only allow for predictors at the election-level. Although Gallego (2015) shows no impact of union density on the gap in participation between education groups, such a counter-intuitive result deserves a second examination, which is why I have included union density as a control in my models. The same analysis shows government fractionalization to have an effect on the participation gap, which is why I have included this predictor in the models as well. It is expressed as the probability that two members of the government parties picked at random will belong to different parties. The information was obtained from the *Database of Political Institutions*, the 2015 updated version (Cruz et al., 2015). All other country-level factors that might have an impact on the disparity in participation are captured by the 22 dummy indicators.[5] As union density information is incomplete for a number of countries in my sample, I use multiple imputation through the `Amelia II` package for R, to construct 100 data sets of plausible values for this variable. When the imputations were found to be inadequate, e.g. a drastic "jump" is clearly visible in a series that should exhibit considerable autocorrelation, they were rejected. These imputed values were then merged with the 100 values of the dependent variable, and used in the models presented below. In this sense, the analysis is a quasi-Bayesian one, if we consider that 100 repeated analyses would be asymptotically identical to a fully Bayesian one.

6.4 Results: SES-based Participation Gap

Thinking back to the summary presented in the literature review section, opinions are still mixed on whether inequality in political participation between educational groups has grown over time. While

[5] My sample contains 23 national contexts, owing to the distinction made between US mid-term and presidential elections, with their different turnout levels, as well as that between Flanders and Wallonia in Belgium.

plenty of evidence points to cross-sectional variation in participatory disparities (Gallego, 2015; Schneider and Makszin, 2014), temporal variation has mostly been documented in isolated national contexts (with the exception of Armingeon and Schädel's 2015 study). The results below offer the broadest cross-national test of the existence of such a process at the current moment.

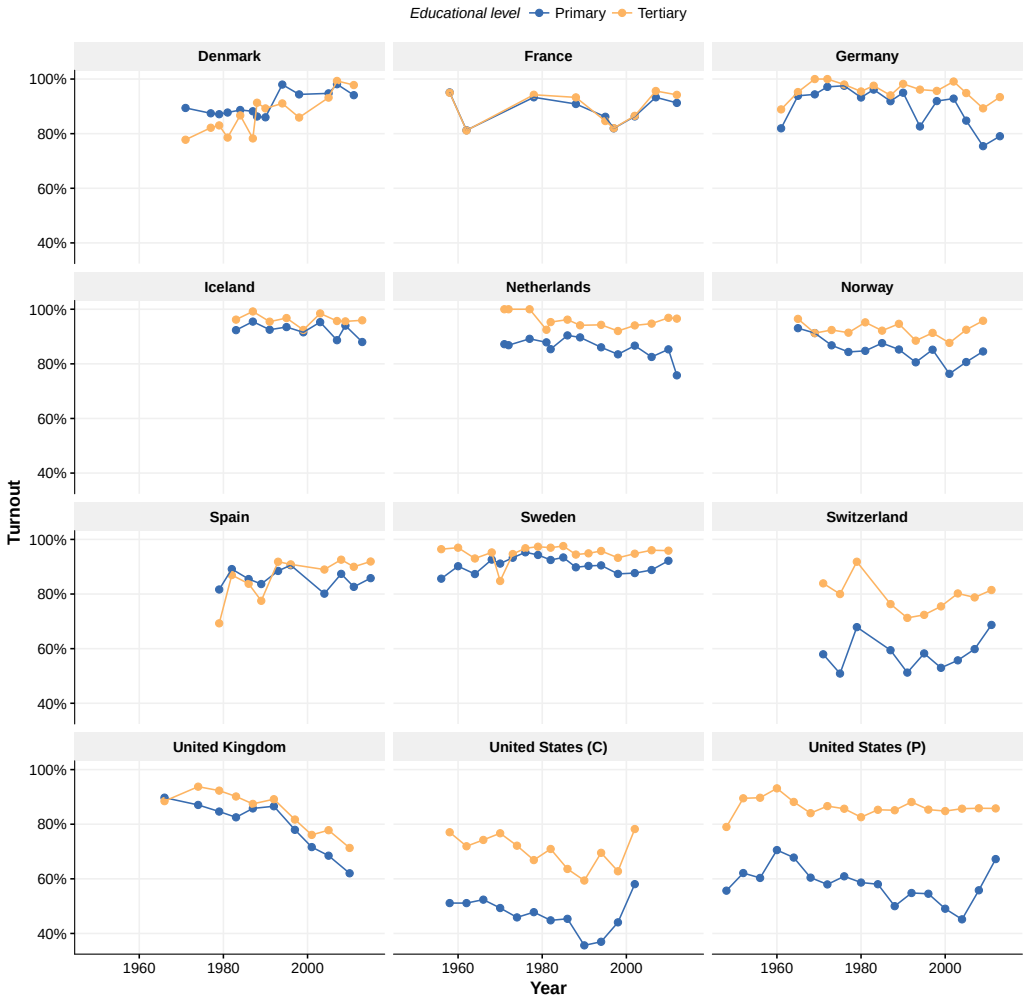
6.4.1 Has the gap grown?

Before presenting the multivariate evidence, though, a rough look at the data offers some clues as to the plausibility of the hypothesis outlined above. Such an examination is also pursued by Armingeon and Schädel (2015), on similar yet smaller data. I start by looking only at education; for each educational group in my data I computed the percentage of voters in that group, and plotted the series over time.

We clearly see strong clues in Figure 6.4.1 that the difference between lower- and higher-educated citizens has grown in recent times, most visibly in the case of a few countries. Whereas Denmark, Iceland, or Sweden display inconsistent trends, Netherlands, Norway, the United States (for presidential elections), or Germany clearly show a widening gap in participation. Even when acknowledging the potential of more muted trends due to uncertainty around the estimates, it seems difficult to reject the dynamics seen in Netherlands or Norway. Other cases present more subtle and complex trends. For close to two decades, the turnout of lower-educated voters in Spain was marginally *higher* than that of higher-educated ones. This helped propel the PSOE in Spain to a string of victories in the 1980s and early 90s. The trend is reversed starting with the 1996 election, whereby higher-educated people consistently turn out to vote at higher rates than lower-educated ones. In the UK, on the other hand, the two educational groups have moved in lockstep. While aggregate self-reported turnout has evidently declined, the difference between educational groups has held steady. Finally, in the United States, the gap has grown constantly since the 1960s, almost entirely due to the gradual demobilization of lower-educated citizens. This is by no means an inexorable trend, as the example of the Obama candidacies show. Starting with 2008, the gap visibly narrows, presumably due to the Democrats' increased mobilization efforts and the charisma of the candidate himself. Even with the muted trends displayed by other countries, then, there would still appear to be, on average, a growing discrepancy in participation between educational groups.[6]

[6] A few countries have been excluded from the graph. Japan and Australia have series that are too short to discern any trend, while the latter is also a country with compulsory voting, which produces a nonexistent gap between education groups

Figure 6.4.1: Turnout rates for respondents with only primary education, compared to those with at least some tertiary education

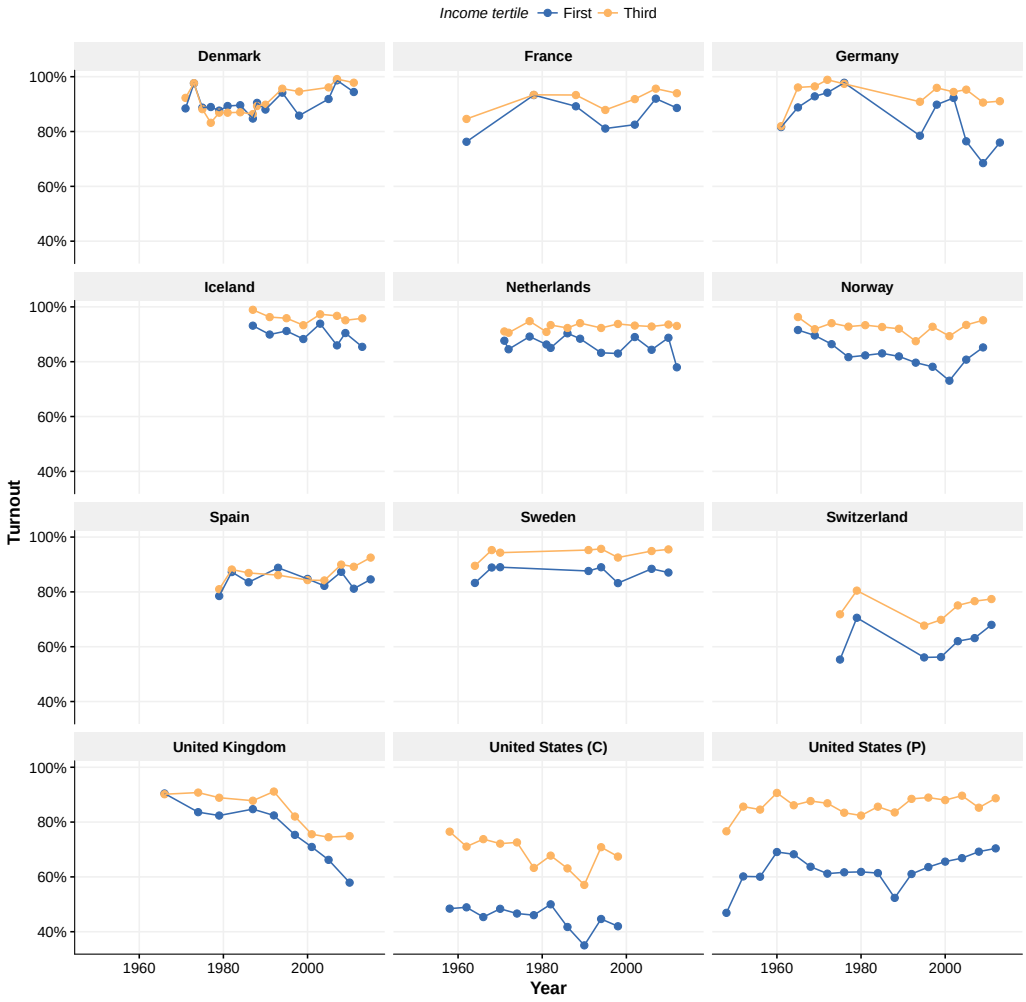


Notes: 1) Figure depicts trends in *self-reported* turnout; 2) Countries with short time series (Japan, New Zealand) or compulsory voting (Australia) have been excluded. For the US, "C" denotes mid-term Congressional elections, and "P" refers to presidential elections.

Curiously, trends for turnout rates between the lower-income and higher-income respondents are considerably more muted. Figure 6.4.2 indicates that a growing participation gap can be observed in the case of a limited number of countries, most notably Germany, Norway and, to an extent, Netherlands as well. However, most other countries do not show a similar trend. In most cases, the two income groups move in tandem, as can be seen in Sweden, France, United Kingdom, or Switzerland. The pattern in US presidential contests presents us with an even greater puzzle. It would appear that educational groups have been growing apart since the 1970s, whereas income groups have stayed constant, and have even

in terms of participation. New Zealand and Israel present no gap in turnout. Italy, on the other hand, shows a gradual drifting apart of the two educational groups, with lower-educated citizens gradually participating less in elections after the abolition of compulsory voting laws in 1993.

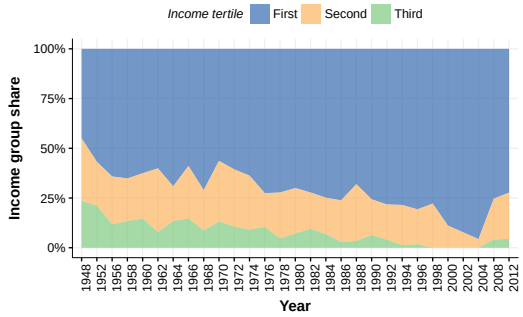
Figure 6.4.2: Turnout rates for lower-income respondents (first tertile), compared to higher-income ones (third tertile)



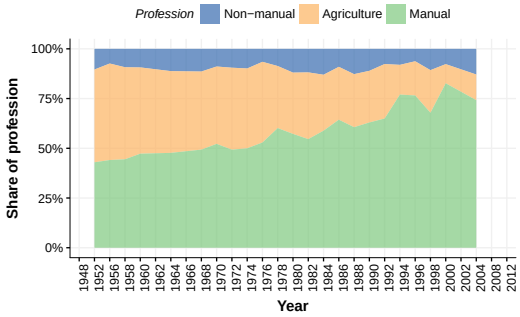
Notes: 1) Figure depicts trends in *self-reported* turnout; 2) Countries with short time series (Japan, New Zealand) or compulsory voting (Australia) have been excluded. For the US, "C" denotes mid-term Congressional elections, and "P" refers to presidential elections.

come closer together since the early 1990s. It is not easy to explain these diverging dynamics, but a possible answer is supplied by the changing composition of the low-income and low-education group in American society. In essence, the low-education group has compounded disadvantages over time when it comes to participation, while the low-income group has grown more diverse over the same period. The top part of Figure 6.4.3 shows how the low-education group has evolved over time. While only about half of those without a high-school degree could expect to end up in the first income tertile in 1948 in the US, by early 21st century this proportion was closer to 80%. The same has happened with respect to type of employment—in 1952 about half of those with low education could expect to end

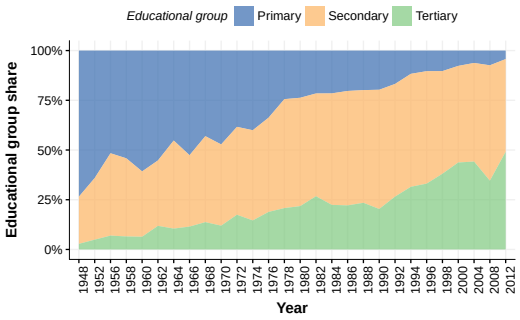
Figure 6.4.3: Composition of low-income and low-education groups in the US over time



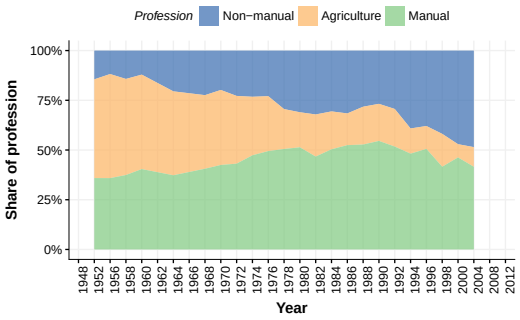
(a) Income composition of the low-education group.



(b) Professional composition of the low-education group.



(c) Educational composition of the low-income group.



(d) Professional composition of the low-income group.

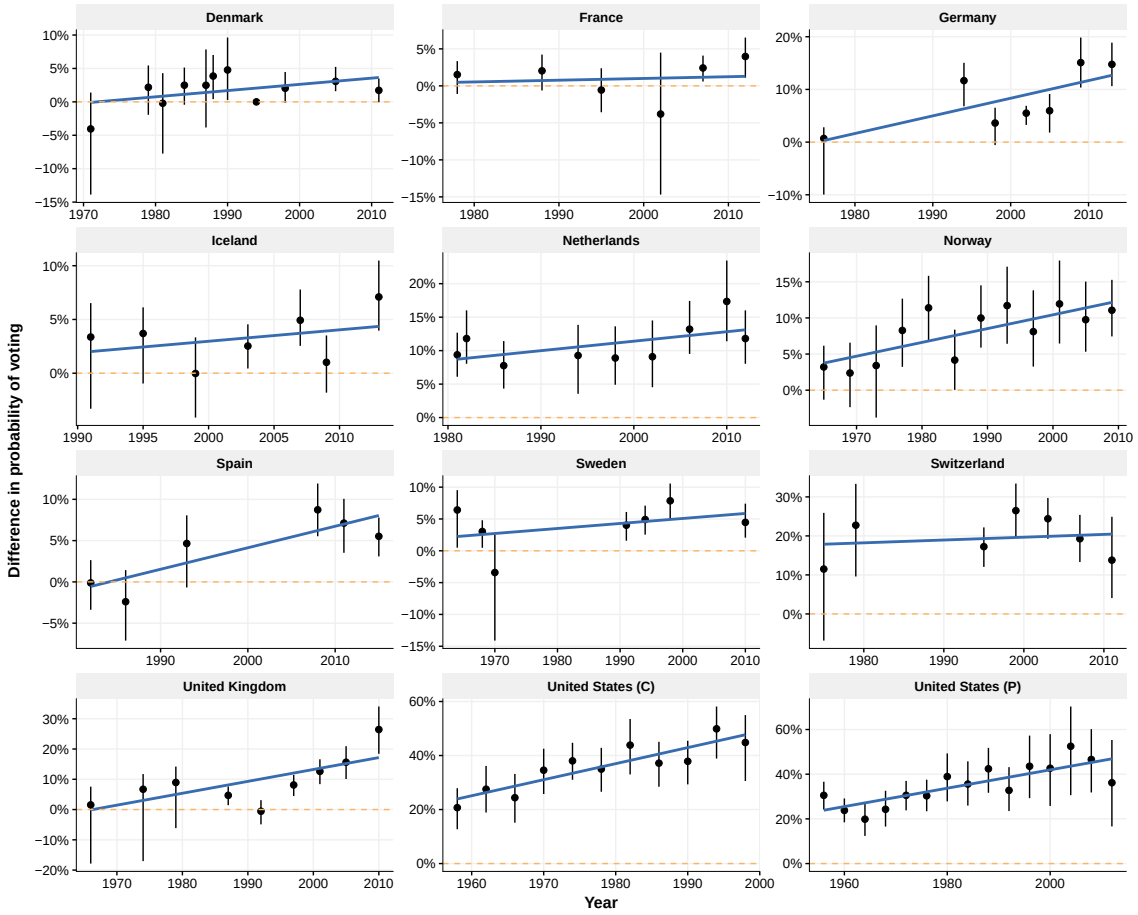
Note: Cross-tabulations based on ANES data, with unweighted data.

up as a manual laborer, while in early 2000s this had grown to 75%. The result of these trends is that having a low level of education has gradually narrowed one's life opportunities, as education is exerting a stronger effect over career choices and income now than in the past. For participation patterns, this has meant that whatever factors were there in the 1950s to cross-cut a low level of education and shield citizens from disengagement (e.g., the potential for steady and sufficient income) are no longer at play in recent times.

Conversely, the low-income group has grown more diverse over time. The bottom part of Figure 6.4.3 suggests that in 1948 we could guess fairly well what education level someone in the bottom income tertile probably had, with 3 out of 4 people in this group lacking a high school degree. By late 2000s, this group displays increased heterogeneity, with close to 50% having at least some college education, and the rest being high school graduates. The same story can be read from the increasingly diverse employment pattern of the low-income group, which by 2004 included close to 50% non-manual work-

ers. This has meant that the low-income group, unlike the low-education one, does begin to show the above-mentioned pattern of cross-cutting factors which shield it from further political disengagement. It now includes more college educated and more non-manual laborers than in the past, which has likely prevented it from experiencing further declines in participation, when compared to the high-income group.

Figure 6.4.4: Difference in probability of turnout between individuals with tertiary and primary education



Note: Points represent probabilities, while vertical lines denote the 95% confidence interval around the probabilities. For the US, "C" denotes mid-term Congressional elections, and "P" refers to presidential elections.

The previous paragraphs have tried to offer an explanation for a discrepancy in participation patterns between income groups and education groups in the US. At the same time, they supply a cautionary tale about the difficulties of measuring participation gaps between socio-economic groups without taking into account the composition of these groups. To try to control for the other factors that may come into play, I used the coefficients for education from the country-year regressions I ran, and plot

them over time. These coefficients capture the effect of education on turnout, while controlling for age, gender, income and marital status, and should therefore offer a better snapshot of the purely *education-based* gap in participation. Figure 6.4.4 does exactly this. The median probability gap is depicted with a circle, while the bars represent the 95% confidence interval for this probability. In 5 of the 11 countries presented in the figure (Germany, Norway, Spain, United Kingdom and the United States) there is a clear trend toward a growing disparity in participation. The rest of the countries covered here either show very muted shifts (e.g. Denmark, Netherlands, or France), or even no trend at all (Switzerland or Iceland).[7] In the case of the United Kingdom the trend can clearly be split up into two periods, which match fairly closely the programmatic dynamics of the Labour Party. Up to the point Tony Blair assumes the leadership of the party in 1994, we are presented with largely trendless fluctuation. After this moment, at which point we can fully speak of Labour as a "Third Way" party, we see a gradual increase in the education-based turnout gap. While my explanation for this trend centers on policy offerings for middle- versus working-class voters, other analyses have targeted descriptive representation: fewer Labour MPs were originating from working-class constituencies, reducing their appeal for working class voters (Heath, 2015, 2016).

To sum up, although the diversity of national trajectories presented in Figures 6.4.1 and 6.4.4 precludes a clear conclusion, the weight of the evidence does seem to point toward a gradually worsening gap in turnout between lower- and higher-educated individuals. The conclusion needs to be qualified, though, in that a few countries are experiencing almost no change in the participation gap, or exhibit complex dynamics that combine diverging and converging trends.

6.4.2 Are party dynamics to blame?

As visual inspections can sometimes be more revealing of the biases of the person doing the inspecting than of any strong trend in the data, I decided to complement these graphs with an actual statistical test of the first hypothesis. I also move away from categorizations based only on education or income, and start taking into account additional dimensions that make up socio-economic groups. I begin in

[7] The case of Sweden is not clear from the panel presented here, but becomes more obvious when plotting the education coefficients from models run without income (as this variable is absent from all surveys between 1970 and 1990). In the case of this country we have two distinct dynamics operating before and after the 1970 election: a gradual reduction in the participation gap, followed by an increase starting with the 1973 election. These movements overlap perfectly with the electoral fortunes of the Swedish Social Democrats, which found themselves increasingly marginalized starting with the 1973 election, following a period of almost four decades of electoral dominance in the country.

this subsection with an examination of low-SES and high-SES differences in participation. In the next I continue with groups based on education and union membership.

Table 6.4.1 contains results from a series of fixed-effects specifications with time included as the only predictor (measured as number of years, with 1948 considered 0). The dependent variable is the difference in probability of participation between low-SES and high-SES individuals. Because of the occasionally severe skew in the distribution of the outcome, data transformations were used. For the gap in turnout probabilities between lower-SES and higher-SES respondents I employed a square root transformation, while for both high- and low-SES turnout I used the logarithm of the reverse of the probability ($101\% - p$). This means that, for the last two outcome variables, a positive coefficient indicates a *negative* effect on the probability of turning out. SES in this case is measured using only education and income—I designate lower-SES to mean respondents without a high school degree, who are in the first income tertile, and high-SES to mean respondents with at least some college years and situated in the third income tertile. A set of histograms of the outcome variables before and after transformations were applied can be seen in Figure 6.4.5. Weakly informative Gaussian priors (with a mean of 0 and a standard deviation of 5) were used for the effect of time in the regressions presented in Table 6.4.1.

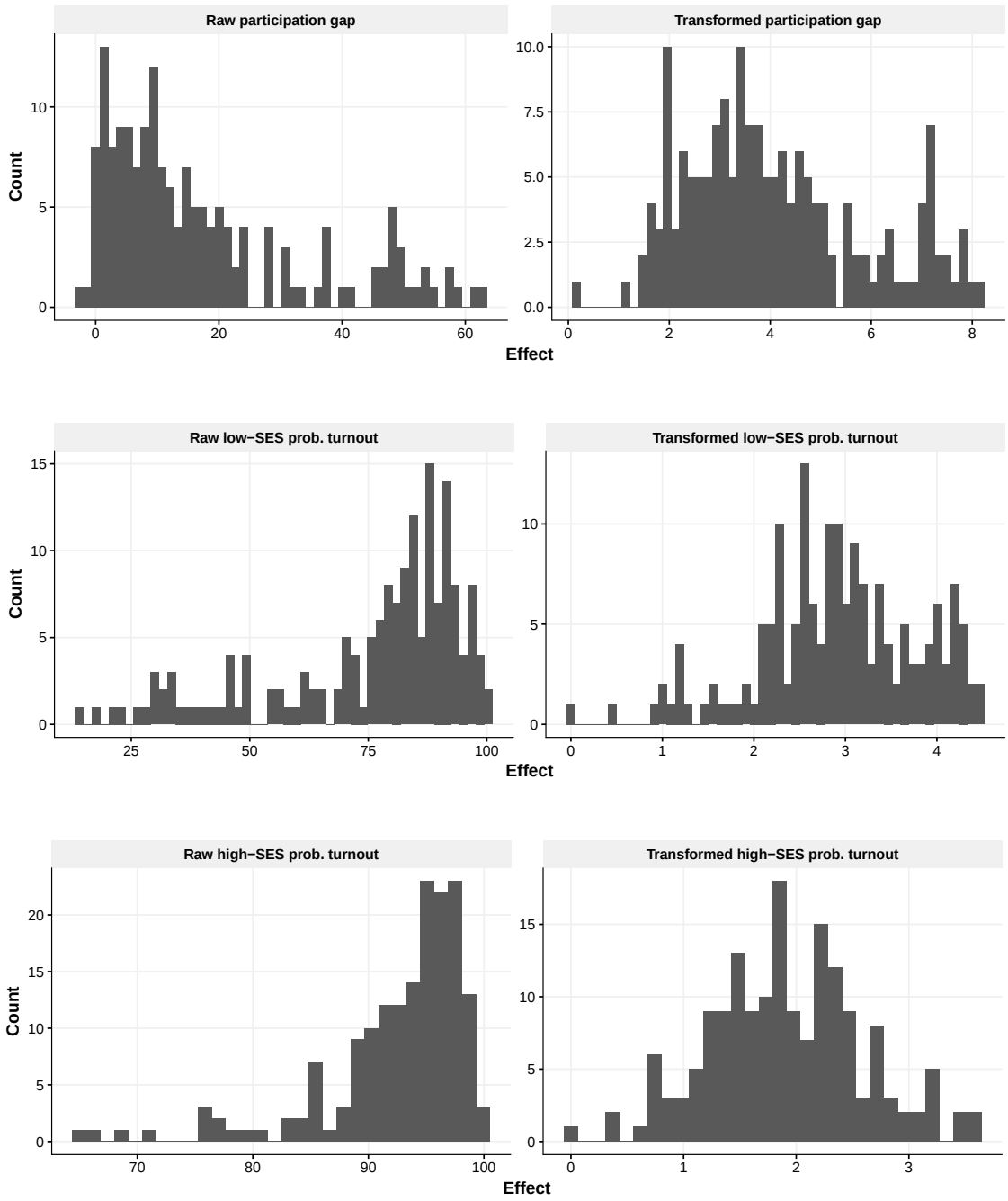
Table 6.4.1: The longitudinal trend in the socio-economic gap in turnout

	Turnout gap	Low SES turnout	High SES turnout
(Intercept)	1.781*	0.832*	0.612*
	(0.887)	(0.243)	(0.273)
Time	0.026*	0.012*	0.003
	(0.006)	(0.003)	(0.003)
σ	0.779	0.438	0.502
	(0.073)	(0.029)	(0.036)
Log Posterior	−223.964	−127.767	−150.236

Method: All models were run on 168 elections, from 23 countries, using fixed-effects models. Results were produced with the `rstanarm` package, version 2.14.1 (Stan Development Team, 2017). Parameters are summarized based on a sample of 3,000 draws from the posterior distribution. Flanders and Wallonia in Belgium were considered two distinct national contexts, due to their different party systems. US presidential and midterm elections were considered two distinct national contexts due to the potentially different dynamics in turnout between the two types of contests.

Notes: Standard errors in brackets. '*' indicates that the 90% credible interval does not intersect 0. DVs are transformed: (1) square root transformation applied to the turnout gap; (2) logarithmic transformation of the reverse of lower-ed. and higher-ed. turnout was used. Credible intervals for the log posterior were obtained, but not displayed in this table.

Figure 6.4.5: Distribution of dependent variables, before and after transformations



Note: X-axes for all panels on the left represent percentages, ranging from 0 to 100%.

The results in Table 6.4.1 offer solid support for Hypothesis 1.[8] The gap in participation between socio-economic groups tends to grow over time, as evidenced by the statistically significant coefficient in the first column of Table 6.4.1. The next two columns in the table suggest that the increase in the

[8] I have chosen to omit the coefficients for the dummy indicators. Full tables of results are available in Table 9.3.1 in the Appendix section.

turnout gap is mainly due to the demobilization of lower-SES citizens, as the turnout of the higher-SES group has stayed virtually constant over the six decades inspected here.

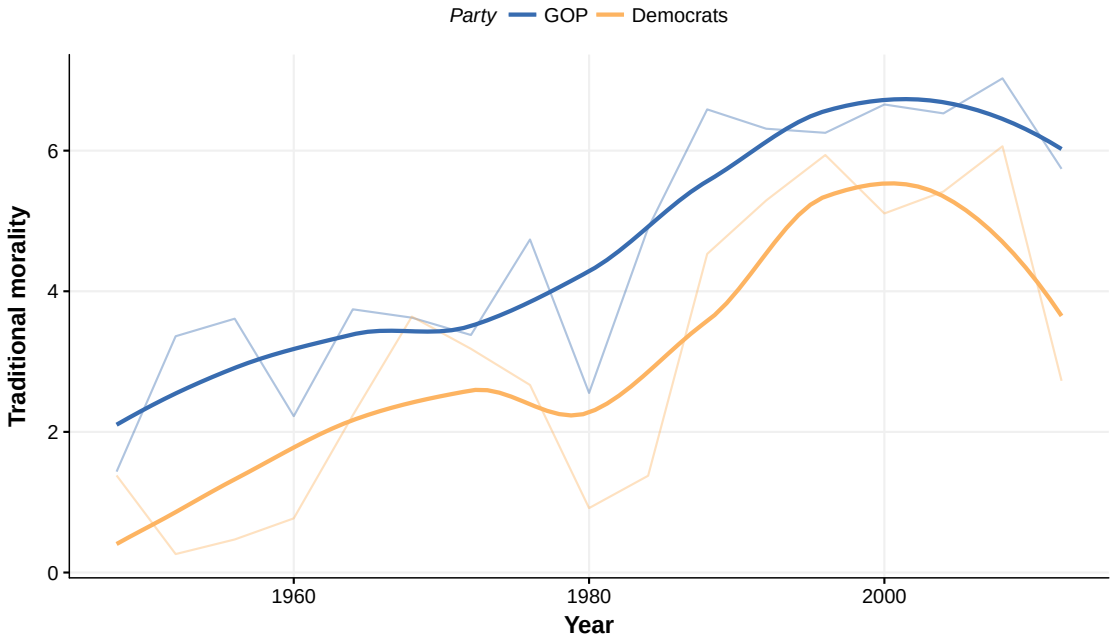
Having established that the gap in turnout has indeed grown over time, I now turn to the question of whether party ideological shifts can explain the dynamic at play between socio-economic groups. To achieve this I include in the models two sets of indicators of party ideological movements on an economic and values dimension, alongside the few statistical controls I have selected. The two sets refer to actual placements on the economic and traditional morality dimensions, as well as two measures of party polarization computed for the same dimensions. In what concerns raw party placements, I have only included shifts by Left parties, as they are expected to have the most consequential impact on lower-educated citizens' decision to participate. Additionally, as there is some coordination and feedback between ideological movements of Left and Right parties, including them both in the model would have led to multicollinearity problems. This situation is illustrated in Figure 6.4.6, which shows how the two major US parties have evolved since the 1920s in terms of their position on issues of traditional morality. Faded lines depict the actual party placement, while full color smooth lines are produced through a *loess* procedure applied to the placements. We see that the Democrats' placement closely tracks that of the Republicans. Following a successful emphasis by the Republican Party under Reagan on issues of crime and family values, the Democratic party adopts similar position in the 1990s, particularly with respect to crime.[9] Similar dynamics to what is observed in the US are present in the United Kingdom, Netherlands, Norway, Canada or Australia, and in a more muddled way, in Germany, France and New Zealand.

The models estimated are again fixed-effects specifications with variable sample sizes, depending on the availability of the predictors.[10] Weakly informative Gaussian priors with a mean of 0 and a standard deviation of 5, $\mathcal{N}(0, 5)$, were chosen for all substantive predictors—these represent the default option in `rstanarm` for generalized linear models. The reader is reminded that, for both `SOC-EC` and `TRAD`, higher values on the measures of ideological placement denote a more Leftward position. Additionally, both these measures, along with the indicators of party polarization, are lagged by one electoral

[9] An ad by the 1992 Clinton/Gore campaign memorably describes the pair as "a new generation of Democrats": tough on crime, and no longer willing to adopt the same tax and spend policies of their predecessors. See http://www.livingroomcandidate.org/commercials/1992/leaders-2#4144 (accessed April 5, 2017).

[10] Government fractionalization could not be computed for the United States, while party shifts based on CMP data were not available for midterm elections in the US.

Figure 6.4.6: Ideological movements on a traditional morality dimension (TRAD) by Republicans and Democrats in the US



cycle, to allow for effect transmission.

Table 6.4.2 shows the first set of these models, for the gap in participation between socio-economic groups.[11] Overall, there are reasons to conclude that Hypothesis 2 has found support in the data, at least when using both measures of party polarization. Greater party polarization on the economic dimension *decreases* the turnout gap between socio-economic groups (see Model 3). Multiple transmission mechanisms are likely at play: greater polarization allows lower-educated individuals to distinguish better between competing political offers. At the same time, a policy that is closer to the ideal point of lower-SES citizens would drive up turnout in this group, as the benefits are greater if Left parties end up in government, as are the losses if these parties don't get into office. Finally, higher polarization is likely correlated with intensified mobilization, which is of greatest importance to lower-SES individuals, who thus get access to subsidized political information.

At the same time, a higher degree of dispersion of political parties on a traditional morality dimension appears to *increase* the turnout gap. Although the effect is not significant at the 90% level, the data supports the conclusion that an effect is at play, as the posterior gets pushed farther away from the

[11] Full results from this model, including estimates for the fixed-effects, can be found in Table 9.3.2 in the Appendix section.

Table 6.4.2: Fixed-effects models of socio-economic turnout gap

	Model 1	**Model 2**	**Model 3**	**Model 4**
Intercept	3.050*	3.054*	3.095*	3.003*
	(0.763)	(0.760)	(0.753)	(0.776)
Union density	−0.012	−0.011	−0.013	−0.001
	(0.010)	(0.013)	(0.012)	(0.013)
Left shifts economic		−0.094*		
		(0.055)		
Left shifts traditionalism		−0.080		
		(0.066)		
Polarization economic			−0.032*	−0.044*
			(0.016)	(0.018)
Polarization traditionalism			0.063	0.036
			(0.041)	(0.042)
Gov. fractionalization				0.069
				(0.669)
σ	0.847	0.841	0.838	0.775
	(0.081)	(0.082)	(0.083)	(0.114)
Log Posterior	−237.789	−212.707	−212.075	−160.242
Countries	23	22	22	21
N	168	148	148	114

Method: Results were produced with the `rstanarm` package, version 2.14.1. Each model was run 100 times; estimates and their uncertainty are pooled using Rubin's rules. Each of the 100 estimates was summarized based on a sample of 3,000 draws from the posterior distribution. Flanders and Wallonia in Belgium were considered two distinct national contexts, due to their different party systems. The United States are counted twice in the sample, contributing both Congressional and Presidential elections.

Notes: Standard errors presented in brackets. '*' indicates that the 90% credible interval does not intersect 0. Square root of the dependent variable was used in all models. Credible intervals for the log posterior were obtained, but not displayed in this table.

$\mathcal{N}(0, 5)$ prior.[12] The estimate of effect is also moderately strong, and is consistent in direction between Models 3 and 4, although it the latter case its magnitude decreases considerably. Part of the reason for this is the substantial reduction in the sample size which occurs due to the loss of the entire series for the United States.

Such a negative effect, i.e. an increase in the turnout gap, would be expected if the polarization on the traditional values axis is predominantly driven by movements of Right parties and the appearance of far-Right challengers. The increasing emphasis on traditional morality in this group of parties would cross-pressure lower-educated voters, who would face a trade-off between an appealing economic pro-

[12] It is not possible to present a precise Bayesian degree of confidence in the fact that the effect is positive, as the estimate presented in Table 6.4.2 is produced by pooling 100 separate estimates, rather by sampling from a posterior distribution.

gram of Left parties and the alluring cultural program of (far-)Right parties. It is these cross-pressures that should produce a decreasing probability of turning out for lower-educated citizens and, therefore, a higher gap in participation. These results confirm, in a partial sense, the findings of Achterberg (2006) with respect to the potential of cultural values to disrupt established patterns of voting. In my analysis, though, rather than increase working class support for Right parties, cultural values salience drives abstention for lower-SES citizens. This is entirely expected if these voters find it less cognitively disruptive to go from support for the Left to abstention, rather than switch their vote outright.

Even the dummy indicators, presented in Table 9.3.2 in the Appendix, hold some insights: the impressive coefficient for the US suggests that the country indeed has greater disparities in turnout than any other, which reinforces past observations (e.g. Gallego, 2015, p. 32). A similarly large disparity is encountered in Switzerland as well, plausibly due to the very large number of referenda in this country, which might lead to voter fatigue particularly at the lower end of the socio-economic scale. On the other hand, union density apparently does not have an effect on the participation gap in any of the models attempted here. In the case of union density my analysis confirms the null findings of Gallego (2015, chap. 5), while for government fractionalization it goes against her findings. In my models high fractionalization does not lead to a larger participation gap between SES groups, when analyzed in a longitudinal perspective.

My raw measures of Left party ideological movements, on the other hand, have produced mixed results. Whereas shifts on an economic dimension seem to have an impact on the turnout gap, the same is not true for the traditional morality dimension. In the latter case, ideological shifts in a rightward direction do not appear to have a statistically significant effect on the gap in participation.

The results in Tables 6.4.3 and 6.4.4 reinforce some of these findings, while also qualifying others. The tables show the influence of the same set of predictors used before for the turnout gap, but this time on lower-SES (Table 6.4.3) and higher-SES turnout probability (Table 6.4.4).[13] I will remind readers again that because the outcome variable is the logarithm of the reverse of the original probability, $log(101\% - p)$, for both sets of models, a negative sign on a coefficient needs to be interpreted as a *positive* effect. The two tables show us that the effect of party shifts is concentrated among lower-SES citizens, with higher-SES ones seemingly impervious to party ideological change in terms of their

[13] Full sets of results from these models, including estimates for fixed-effects, can be found in Tables 9.3.3 and 9.3.4 in the Appendix section.

Table 6.4.3: Fixed-effects models of lower-SES turnout probability

	Model 1	**Model 2**	**Model 3**	**Model 4**
Intercept	1.409*	1.423*	1.434*	1.295*
	(0.199)	(0.204)	(0.204)	(0.215)
Union density	−0.010*	−0.008	−0.010	−0.002
	(0.005)	(0.007)	(0.006)	(0.007)
Left shifts economic		−0.052*		
		(0.027)		
Left shifts traditionalism		−0.040		
		(0.034)		
Polarization economic			−0.012	−0.019*
			(0.008)	(0.009)
Polarization traditionalism			0.039*	0.025
			(0.020)	(0.021)
Gov. fractionalization				0.127
				(0.370)
σ	0.459	0.474	0.475	0.458
	(0.030)	(0.034)	(0.034)	(0.039)
Log Posterior	−135.668	−128.172	−128.587	−101.517
Countries	23	22	22	21
N	168	148	148	114

Method: Results were produced with the `rstanarm` package, version 2.14.1. Each model was run 100 times; estimates and their uncertainty are pooled using Rubin's rules. Each of the 100 estimates was summarized based on a sample of 3,000 draws from the posterior distribution. Flanders and Wallonia in Belgium were considered two distinct national contexts, due to their different party systems. The United States are counted twice in the sample, contributing both Congressional and Presidential elections.

Notes: Standard errors presented in brackets. '*' indicates that the 90% credible interval does not intersect 0. The logarithm of the inverse of the dependent variable, $log(101 - p)$, was used in all models. Credible intervals for the log posterior were obtained, but not displayed in this table.

turnout decision. In Table 6.4.3 we see that the data supports the expected effect of the polarization indicators, and reinforces the findings of the previous analysis. In Model 4 we find that a greater degree of polarization on economic issues *increases* the turnout level of lower-SES citizens. Higher polarization on a morality axis, on the other hand, *reduces* turnout in the same socio-economic category, which is corroborating evidence for my explanation based on cross-pressures. Although only the effect of `TRAD` polarization is significant at the 90% level, we see that the data supports even an effect of `SOC-EC` polarization, as the posterior is pushed farther away from the prior toward positive values. In fact, in Model 4, the effect of `SOC-EC` polarization becomes statistically significant, once I control for government fractionalization.

Table 6.4.4: Fixed-effects models of higher-SES turnout probability

	Model 1	**Model 2**	**Model 3**	**Model 4**
Intercept	0.724*	0.734*	0.720*	0.669*
	(0.206)	(0.205)	(0.204)	(0.229)
Union density	−0.011*	−0.010	−0.011	−0.008
	(0.005)	(0.007)	(0.007)	(0.008)
Left shifts economic		−0.026		
		(0.028)		
Left shifts traditionalism		0.000		
		(0.037)		
Polarization economic			0.004	0.001
			(0.008)	(0.010)
Polarization traditionalism			0.017	0.020
			(0.023)	(0.024)
Gov. fractionalization				0.349
				(0.402)
σ	0.494	0.483	0.482	0.500
	(0.035)	(0.038)	(0.038)	(0.045)
Log Posterior	−147.627	−130.692	−130.592	−111.108
Countries	23	22	22	21
N	168	148	148	114

Method: Results were produced with the `rstanarm` package, version 2.14.1. Each model was run 100 times; estimates and their uncertainty are pooled using Rubin's rules. Each of the 100 estimates was summarized based on a sample of 3,000 draws from the posterior distribution. Flanders and Wallonia in Belgium were considered two distinct national contexts, due to their different party systems. The United States are counted twice in the sample, contributing both Congressional and Presidential elections.

Notes: Standard errors presented in brackets. '*' indicates that the 90% credible interval does not intersect 0. The logarithm of the inverse of the dependent variable, $log(101 - p)$, was used in all models. Credible intervals for the log posterior were obtained, but not displayed in this table.

Unfortunately, the raw measures of Left party shifts again have an ambiguous effect on lower-educated voters. In Model 2 of Tables 6.4.3 and 6.4.4, the coefficients for party placements are not statistically significant, with the exception of rightward shifts on a socio-economic dimension, which is found to *decrease* the turnout of lower-SES citizens. As before, most of the controls do not appear to have an effect on the magnitude of the participation gap. All in all, then, the models have produced mixed support for Hypothesis 2. Party shifts are shown to have an effect on the turnout gap, at least when proxied by ideological polarization on an economic dimension. They also support a claim that polarization on a values dimension has an effect, although it is never statistically significant. When using actual ideological placements, the evidence again supports the view that shifts in the economic

platform matter for turnout, while issues which tap on a traditional morality dimension do not. In this, the conclusions partly mirror those obtained by Jansen et al. (2013), who also find an effect only for polarization measures on the extent of class voting.

A number of additional models were tested, to verify the robustness of the findings. To begin with, a set of controls were sequentially added to Model 3: (1) unemployment, which might exacerbate the turnout gap by shifting the concerns of lower-SES voters to more pressing matters; (2) welfare state generosity, which might shield the same category of voters from the same pressing issues, and allow them to focus on political preoccupations;[14] and, (3) income inequality. Although Chapter 4 has suggested that the latter factor does not have an effect over time on aggregate turnout, it might still be the case that it impacts the *gap* in turnout probabilities. This would occur if lower-SES citizens gradually turn away from politics, as they see economic outcomes are clearly and constantly unfavorable to them (Solt, 2008), while higher-SES citizes mobilize even more, as they have more to lose from redistribution under instances of high economic inequality.

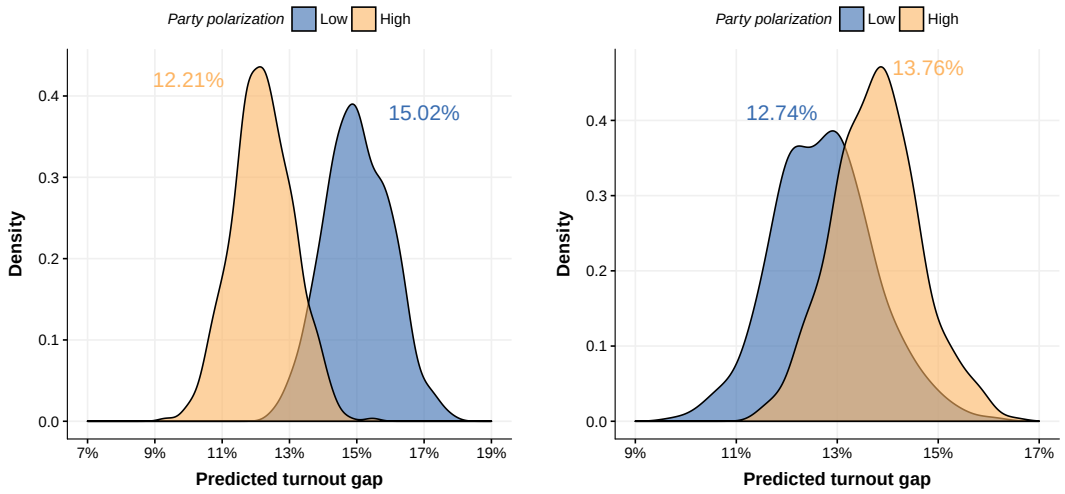
The results of these additional specifications indicate that the substantive conclusions reached so far hold strong. Throughout these checks, the direction of the effect of both TRAD and SOC−EC polarization is maintained: growing party divergence on the former dimension, and diminishing divergence on the latter dimension, lead to a higher turnout gap between SES groups. Throughout these 3 models, the effect of SOC−EC polarization is consistently statistically significant at the 90% level, and of comparable magnitude. The effect of TRAD polarization consistently falls slightly short of this significance threshold, but the weight of the evidence points to an effect at play. Neither the unemployment rate, welfare state generosity, nor the Gini index of inequality, appear to have a statistically significant effect, although for the first and third control the direction of the effect matches what we would expect based on theory.

A final model, a mixed-effects specification, was also tested. The same predictors as before were used at the election-level, while at the country level I replaced the fixed-effects with 3 predictors of the turnout gap: compulsory voting laws (yes/no), welfare state type (liberal vs. rest), and a dummy indicator for whether the country is either the United States or Switzerland. The last control is warranted

[14] A large literature points to a very strong influence of this factor, albeit not only in terms of generosity, but rather of how welfare programs are organized and ran (e.g. Mettler, 2002). The strongest positive effect on participation is found for universal programs which allow recipients to take initiative in contacting the administration, and where the scope for bureaucratic discretion in individual cases is limited (Soss, 1999).

by the considerable turnout gap we observe in these countries. The results turn out similar to those from my fixed-effects specification. Both SOC–EC polarization ($\beta = -0.032$, $SE = 0.016$) and TRAD polarization ($\beta = 0.065$, $SE = 0.040$) maintain their magnitude and their statistical significance at levels reported for the fixed-effects specification above. All in all, although the results are not as strong as initially hoped, particularly for polarization on a values dimension, they have received an indirect boost from their ability to withstand these additional checks.

Figure 6.4.7: Predictions of the turnout gap



(a) SOC–EC polarization **(b)** TRAD polarization

6.4.3 Predictions of the turnout gap

A vastly more intuitive way of presenting the impact of party polarization on the gap in participation is to predict the ATE of reasonable changes in polarization on the turnout disparity. As discussed in the previous chapter, such predictions could not be made based on the quantities reported in the tables. Rather, I re-ran the preferred specification on a sample that yields the closest possible coefficients to those from the tables of results. Using this data, along with the coefficients, I then generated the predictions discussed below.

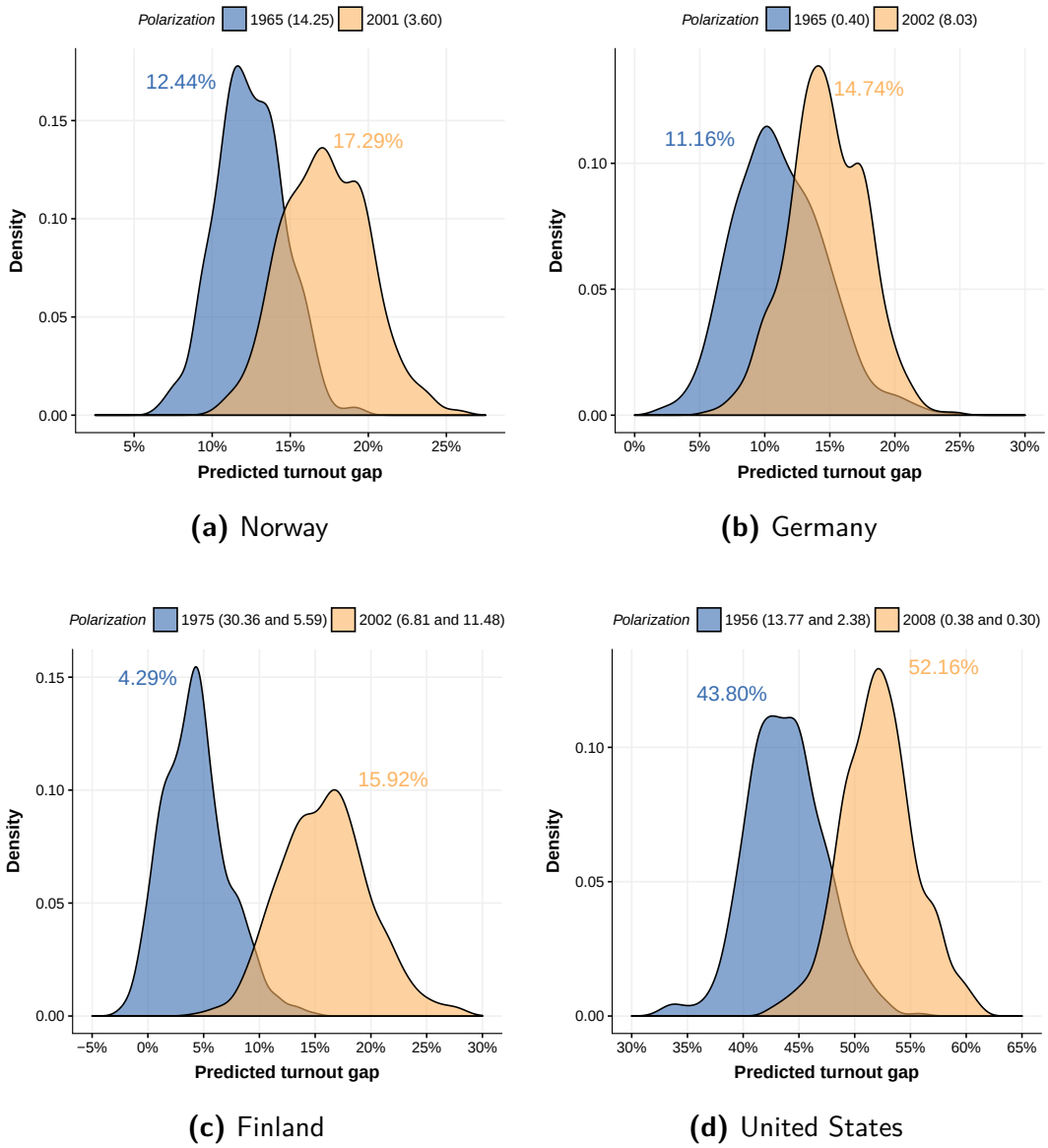
Figure 6.4.7 presents the general case. Polarization on the two dimensions was allowed to vary roughly from the first to the third quartile of the distribution, and predictions were obtained based on estimates from Model 3 in Table 6.4.2. What the two panels show is that even though the effects are in the expected direction, they are fairly small. Greater differences among parties on the socio-economic

dimension would indeed reduce the participation gap, but only by about 2.8 percentage points. Conversely, a more polarized party system on the traditional values dimension would increase the socio-economic participation gap, by about 1 percentage point. The latter difference, in particular, is very small, as reflected in the great degree of overlap between the two predictions in Figure 6.4.7b. To an extent, it is to be expected that polarization on the traditional values dimension would have a weaker effect, as in my argument it acts indirectly, by cross-pressuring individuals. Nevertheless, the modest effect sizes discovered here are less than impressive, to put it mildly. Even more humbling is the realization that many estimates for fixed-effects are greater in magnitude, suggesting that the unexplained country differences are greater than the explained dynamics based on party programmatic shifts.

It must be kept in mind, though, that these estimated dynamics partial out all other influences on the turnout gap, and represent average effects. They also refer to ideological movements on a single dimension, whereas frequently parties move along both dimensions simultaneously, strategically responding to similar shifts in competitor parties or their electorate. To offer a clearer image, then, I focus on the case of specific countries. Take Figure 6.4.8a, where socio-economic polarization in Norway is allowed to change between 1965 and 2001 from 14.25 to a low of 3.60. Over the same period, polarization on the traditional values dimension changed only slightly, from 1.83 to 2.58, which is why it was ignored here. The distributions presented in the panel represent the predicted values for the turnout gap between lower- and higher-SES individuals in 1965 (light blue) and 2001 (light orange), taking into account uncertainty. Between 1965 and 2001, my model would predict a change in the turnout gap of about 4.9 percentage points. Unfortunately, this underestimates the actual dynamics in this country, which moved from a rather low SES-based participation gap, of around 6 percentage points, to one of about 20–21 percentage points in favor of higher-SES citizens. My model, then, only manages to capture about a third of this dynamic. Germany, in Figure 6.4.8b, presents us with a predicted trend based on the traditional values dimension. Over close to four decades, the party system has grown more polarized, which would increase the turnout gap only by about 3.6 percentage points.

Depending on how the two polarization trends evolve over time in tandem, greater or smaller disparities can be observed. Finland, in Figure 6.4.8c, presents a case in point. Over almost three decades, between 1975 and 2002, it experienced depolarization on a socio-economic dimension along with polarization on the traditional values one. In these circumstances, my model would predict a significant

Figure 6.4.8: Predictions of SES-based participation disparities for specific countries



(a) Norway **(b)** Germany

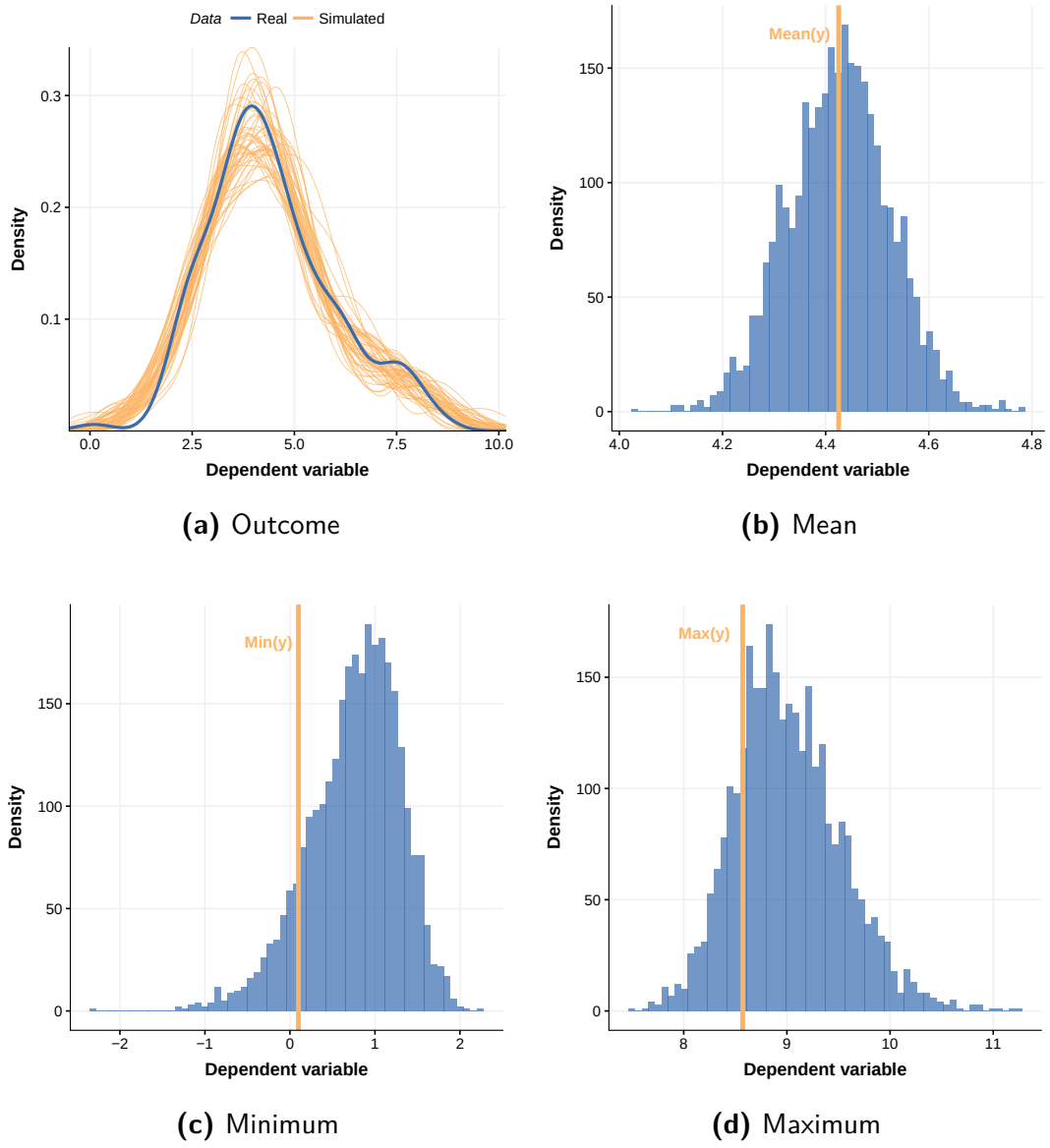
(c) Finland **(d)** United States

increase in the turnout gap, of roughly 11.7 percentage points. On the other hand, the case of the United States in panel 6.4.8d represents a case of depolarization on the socio-economic dimension and roughly no change on the values one. The model would predict an increase of about 8.3 percentage points in the SES-based participation gap. This is much larger than the actual trend, which would have been a *reduction* of 1 percentage point in the gap. Here we have first-hand evidence of the impact of the Obama campaign, as the gap moved from roughly 47% in 1956 to 50% in 2004, but suddenly decreased to 46% in 2008. Without additional predictors, related to intensity of campaign or candidate characteristics, my model naturally errs on occasion.

All in all, there is cause for both restrained celebration and further reflection. Party programmatic changes, as proxied through polarization, do appear to shape the socio-economic participation gap, most clearly with respect to the economic dimension. At the same time, though, the effects are somewhat small in magnitude, and certainly surpassed by the as yet unknown bundle of causal factors that make up a country dummy indicator. If anything, party programmatic shifts are a limited explanation for why the gap in participation between SES groups has grown in recent years.

6.4.4 Model assessment

Figure 6.4.9: Posterior predictive checks for SES-based disparities in turnout (I)



(a) Outcome

(b) Mean

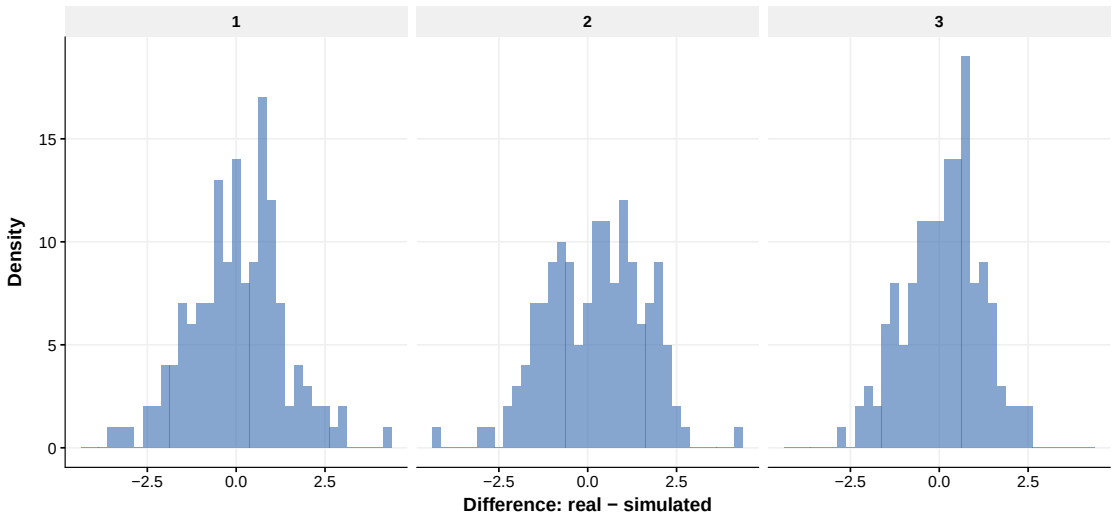
(c) Minimum

(d) Maximum

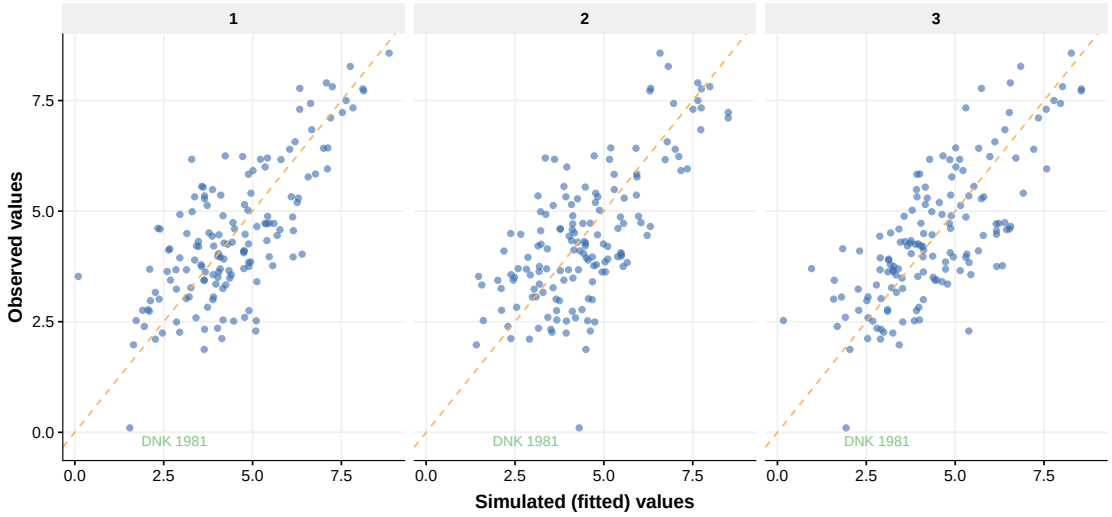
A lingering issue is whether the model is, objectively speaking, well-fitting. The panels presented in Figure 6.4.9 offer part of the answer to this question. They are obtained by conducting posterior predictive checks on Model 3 of the turnout gap. Based on the model parameters, various quantities in the data are simulated. I then compare these simulated quantities with the actual values from the sample, to check how well the model parameters, when applied to the data, can faithfully reproduce the structure of the data. While the first panel focuses on the entire distribution of the dependent variable, the other 3 panels employ posterior predictive checks for the mean of the square root of the participation gap, as well as the minimum and the maximum value of the gap. To begin with, Figure 6.4.9a shows that I am able to replicate the data fairly well, although it must be kept in mind that the simulations are based on Model 3 from Table 6.4.2, which also contains a very large number of statistically significant fixed-effects. Nevertheless, the results are able to reproduce the distribution of the dependent variable relatively faithfully, with discrepancies clearly visible at the tails of the distribution, and somewhat in the middle. The other panels in the figure clarify this assessment further. It is clear that the model predicts the mean in the data set very well. It tends to falter, though, for minimum values of the participation gap, where it clearly overestimates these values. The model performs slightly better in predicting the maximum gap in the data set, as can be seen in the last panel of the figure, where the distribution of simulated maximums falls nearly symmetrically around the actual maximum observed in the data. Even here, though, we observe a slight error of prediction, as my model tends to slightly over-estimate the maximum value of the turnout gap.

Figure 6.4.10 concludes the assessment of model fit. It indicates that the residuals of the model are normally distributed, at least based on the 3 replications that were done. At the same time, there is still a great deal of error when making specific predictions, as shown in the plot of fitted vs. observed values in Figure 6.4.10b. A number of cases are badly predicted by my model, in particular at the mid-point of the turnout gap. One case that is clearly badly predicted in the replications presented in the panel is Denmark for the 1981 election. I have also conducted "Leave-One-Out" (LOO) validation on Model 3, by checking whether some cases have a strong influence on the parameters, but these checks have not revealed anything problematic.

Figure 6.4.10: Posterior predictive checks for SES-based disparities in turnout (II)



(a) Distribution of residuals



(b) Fitted vs. observed values

6.5 Results: Additional Socio-Economic Distinctions

Numerous ways exist in which societal groups can be delimited, and it's likely that only some of these distinctions are politically relevant with respect to inequality in participation. While education or age are divisions that likely reveal distinctive participation patterns, others, such as gender or religious background, might not in some of the societies under examination in my study. To verify the extent to which such a gap is present in other categories, I have continued by also dividing all samples based on edu-

cation and union membership. By contrasting the participatory disparities between lower-educated union members and higher-education non-members, I hope to show that the influence of party programmatic shifts also extends to other relevant cleavage dimensions. A secondary goal is to mitigate the counter-argument that by choosing diametrically opposed categories on two dimensions (education and income), I have been self-serving. Contrasting low and high positions on both these dimensions at the same time has likely produced large differences in participation. Effects uncovered for these probabilities might not hold up for other ways of dividing the population. To address this, I use education and union membership as relevant dimensions, and assess the difference in probability of participation between lower-educated union members and higher-educated non-members. While education is likely a source of substantial differences, union membership can help boost the participation rates of lower-educated citizens, thus reducing the gap.

Table 6.5.1 shows the estimates from the models which were tested; a full set of results, including fixed-effects, are made available in Table 9.3.5 in the Appendix section. It is plainly visible from the table that the hurdle posed for the predictors proved to be too formidable. While the effects observed for the two measures of party polarization preserve the direction of their effect, their magnitude is considerably diminished (Model 3). There is some indication that the effect of party shifts on a traditional values dimension is still present, although it is not significant at the 90% level. Corroborating evidence is supplied by using the same predictors to explain the absolute level of turnout of the two social groups defined here. I find that the effect of Left shifts on traditionalism is indeed negative for individuals with a low level of education and not members of a union, and is furthermore statistically significant at conventional levels. Sadly, none of the other predictors referring to party programmatic shifts undergo any change in their magnitude or significance in these models.

The puzzling nature of the null finding warranted a further exploration. The first suspect is, of course, union density, which we find having a consistently negative and statistically significant effect on the turnout gap in Models 1 through 3. Could it be that the strong effect of union density is suppressing that of party programmatic changes? A supplementary model indicates this is partly the case. Excluding union density from Model 3 results in a statistically significant negative effect of SOC−EC polarization on the turnout gap, as I expected ($\beta = -0.028$, $SE = 0.016$).

Other interesting conclusions can be drawn from the results, though, particularly in terms of the

Table 6.5.1: Fixed-effects models of turnout gap based on education and union membership

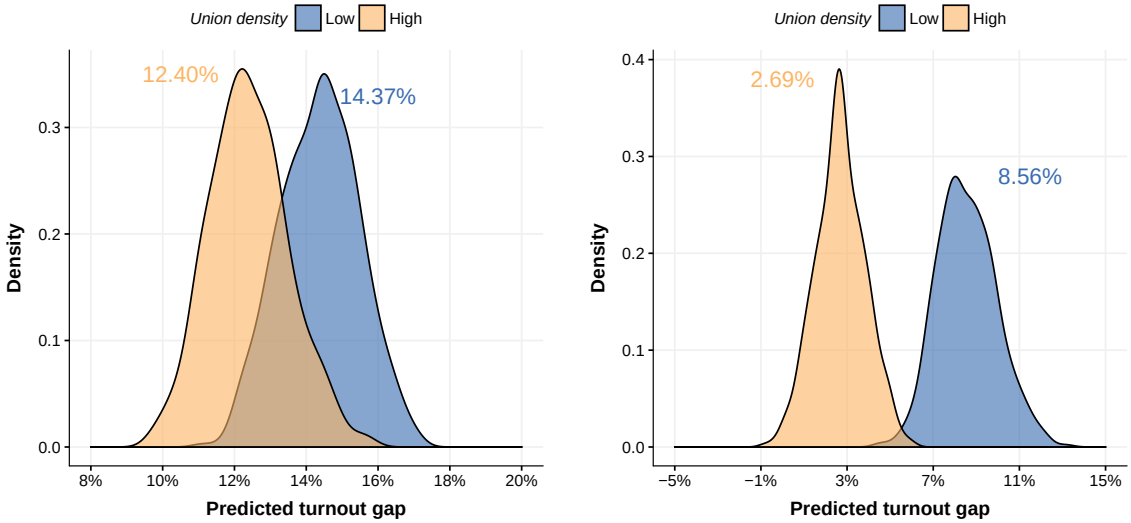
	Model 1	**Model 2**	**Model 3**	**Model 4**
Intercept	3.834*	3.806*	3.850*	3.978*
	(0.832)	(0.833)	(0.832)	(0.915)
Union density	−0.030*	−0.024*	−0.025*	−0.015
	(0.012)	(0.014)	(0.014)	(0.017)
Left shifts economic		−0.026		
		(0.053)		
Left shifts traditionalism		−0.095		
		(0.064)		
Polarization economic			−0.020	−0.023
			(0.017)	(0.018)
Polarization traditionalism			0.038	0.049
			(0.039)	(0.043)
Gov. fractionalization				−0.323
				(0.640)
σ	0.860	0.867	0.867	0.899
	(0.109)	(0.115)	(0.116)	(0.147)
Log Posterior	−251.081	−229.370	−229.481	−193.907
Countries	23	21	21	20
N	177	159	159	128

Method: Results were produced with the `rstanarm` package, version 2.14.1. Each model was run 100 times; estimates and their uncertainty are pooled using Rubin's rules. Each of the 100 estimates was summarized based on a sample of 3,000 draws from the posterior distribution. Flanders and Wallonia in Belgium were considered two distinct national contexts, due to their different party systems. The United States are counted twice in the sample, contributing both Congressional and Presidential elections.

Notes: Standard errors presented in brackets. '*' indicates that the 90% credible interval does not intersect 0. Square root of the dependent variable was used in all models. Credible intervals for the log posterior were obtained, but not displayed in this table.

effect of union density. Figure 6.5.1 tries a relatively unorthodox comparison, between the effect of union density on the gap in turnout between low-SES and high-SES groups, and the same gap between lower educated union members and higher educated non-members. In both cases, union density is allowed to vary from one standard deviation below the mean, to one standard deviation above. The predicted gap is plotted as a distribution, taking into account uncertainty. We clearly see that the effect of union density is much stronger, as we would certainly expect, for the group contrast that involves union membership. In this case, a decline of 2 standard deviations in density would produce a higher participation gap by 5.9 percentage points. On the other hand, a 2 standard deviation decline in density would only produce a 2 percentage point rise in the participation gap between low- and high-SES

Figure 6.5.1: The effect of union density of the turnout gap for two contrasting socio-demographic groups



(a) Education and income **(b)** Education and union membership

Note: The left panel shows the effect of union density on the gap in turnout between lower- and higher-SES individuals, and is based on Model 3 from Table 6.4.2. The right panel shows the effect of union density on the turnout gap between lower educated union members and higher educated non-members, and is based on Model 3 from Table 6.5.1.

respondents. It is true that the distribution of the gap in participation is wider for education and union membership than it is for socio-economic status[15], but I contend that this cannot fully explain the magnitude of the difference observed. Rather, we are presented with direct evidence of the consequences of declining union power on the participation gap between union members and non-members.

A quick glance at the model check plots (found in Figures 9.3.1 and 9.3.2 in the Appendix section) indicates that further work is needed, though. The leptokurtic distribution of the response variable means that my model's predictions tend to have more variation than the actual outcome variable. The first panel in Figure 9.3.1 shows that predictions are particularly off at the lower and higher ranges of the participation gap. As was the case with the models for the SES-based turnout disparity, the mean of the data is predicted fairly accurately, but not the minimum or the maximum. My model overestimates the minimum and underestimates the maximum in the data, which is a common feature when the outcome variable has fat tails. Overall, the residuals of the models are normally distributed, but it is also clear that a few cases are not well predicted by my model. Again, this is the case with Denmark in 1981, and the Belgium–Flanders election of 1991. To check the stability of the estimates, I proceeded to run

[15] The range is 114 for the former, but only 73 for the latter. It is also true that the sample sizes differ by around 10–15 observations between the two models.

Model 3 again, this time without a number of cases that have an outsized influence on the posterior: Canada in 2008, France in 1978 and 1988, Spain in 1982, Portugal in 1985, and Greece in 2009 and 2012. Unfortunately, this did not change the magnitude of effects uncovered for the party polarization indices, although it has confirmed the clear negative impact of union density on the turnout gap ($\beta = -0.040, SE = 0.012$).

6.6 Implications and Conclusions

The results presented so far point to an influence of party shifts on the turnout probability of lower-SES individuals, and on the turnout gap between lower- and higher-SES citizens, albeit not in the way I originally envisioned. Rather than party ideological placements *per se*, it is party polarization that stimulates or depresses turnout and the participation gap. Whereas recent evidence points to specific party programmatic changes as having an effect (Heath, 2016), my results can only address the influence of systemic party polarization on participation patterns. This offers circumstantial evidence for one of the mechanisms in my proposed framework—that party dynamics influence turnout by means of individual perceptions of the utility of choosing between competing platforms. In times when such party programs are more distinct from each other on a socio-economic axis, turnout is predicted to rise, particularly at the lower end of the socio-economic scale. The dynamics I uncover here are more complex than this, though. Utility is shaped both by socio-economic and cultural platforms, and polarization on the latter axis *decreases* turnout, presumably due to the cross-pressures lower-SES voters are subjected to. At the same time, the fact that the utility term in the personal calculus of voting is a fairly weak one, when compared to the expressive benefits component, helps explain why the effects uncovered here are not very strong.

The implications for my framework are wider still, and a set of novel findings prove to be the more exciting ones. Political parties are not the only organizations that can impact turnout patterns. Unions can also influence the participation gap between socio-economic group, along with income inequality patterns. More important for my proposed framework, though, is that unions likely achieve this through reducing the costs of participation, or conferring expressive benefits, rather than any direct influence over the utility term. Ultimately, unions cannot directly make any policy promises, even if they can offer sufficient hints as to their ability to sway Social Democratic parties. On the other hand,

unions can directly provide information to members, and remind them of their "debt of solidarity". One example of this is the appeal to its members made by the AFL-CIO in the 1982 US Congressional elections, suggesting that a vote against union-busting Republicans is a matter of solidarity. This message, combined with increased activity during the campaign, likely helped drive up turnout (Uhlaner, 1989). While still embryonic, I believe my findings speak to a similar kind of dynamic, and to the potential for multiple avenues of transmission of effects from political organizations to individual-level decisions to participate.

The first implication of these findings is that party dynamics can also play a part, albeit a limited one based on the evidence presented here, in the decline of participation observed in Western European democracies. There can be no doubt that changes at the individual level play a major role. A considerable body of evidence links increasing political apathy, dwindling political trust and growing individualization to fading turnout rates in Western Europe. At the same time, though, party dynamics also have a role to play in this process. Their ideological shifts impact participation in a multitude of ways. At a purely cognitive level, growing party differentiation in terms of platforms allows voters to distinguish more easily between party platforms and to get a sense of the implications of one party being in or outside of government. This facilitates the voting decision, particularly for individuals with lower levels of education. At the level of campaigns, growing polarization can also translate into increased resources allocated to mobilizing the electoral base, and therefore a reduction in the turnout gap. The causal pathway can become more intricate, as could be seen in the case of polarization on traditional values. Growing divergence can also decrease turnout by splitting a constituency: to the extent that Right parties position themselves as defenders of traditional moral values, the core working-class constituency of the Left can be cross-pressured, and potentially opt out of participating altogether.

Similar arguments have been made before, although typically with respect to class voting. In an early contribution Evans et al. (1999) find that the low extent of class voting in the 1997 British general elections can partly be explained by the centrist movement of the Labour party under Tony Blair (see also Evans and Tilley, 2013). At the same time, the argument can be extended to differences in participation, as Weakliem and Heath (1999) try to do. Class differences in participation should be particularly sensitive to party strategies and appeals. Parties can subsidize the cost of acquiring and synthesizing information particularly for the groups that are least capable, in relative terms, of doing so on

their own (lower educated citizens, with precarious manual employment and low level of income). My results imply that such a phenomenon is indeed taking place, confirming the insight of Przeworski and Sprague (1986) with respect to the damaging consequences for participation of Leftist parties' pursuit of "supra-class strategies".

There is clearly agency involved, then, on the part of both voters and parties. The second implication of the results, though, is that agency is bounded. As Left and Right parties dynamically respond to each other's strategies and ideological movements, my results imply that there is limited scope for far-reaching unilateral strategy changes. The bulk of the evidence presented here shows that Left parties' shifts, in and of themselves, have a restricted explanatory power. How parties of the Left *and* Right react to their competitors' moves, in an attempt to win votes and shape constituencies, is a far more important explanatory factor. Rather than focus on isolated actions taken by parties or electoral blocs, future analyses would best be served by an approach that targets dynamics at play in the entire party system.

A question lingers: If party dynamics have only a small influence on the participation gap, what are the other factors that shape this disparity? A prime candidate is changes at the level of values (Armingeon and Schädel, 2015). Growing individualism, and a gradual decline of involvement in civil society organizations (Putnam, 2000), have meant that there is less scope for participation in politics, particularly for people from a lower socio-economic background. In their contact with political issues they find less support from their social networks, and are increasingly harder to reach through mobilization attempts. This has combined with a rise in government complexity, that requires growing specialized knowledge on the part of individuals to be able to assess and hold accountable political activities. In the face of this trend, it is perhaps understandable why there is a growing sense that regular individuals cannot influence government. We can also factor in a more inquisitive media landscape, exposing scandals ranging from the Pentagon Papers or Iran-Contra in the US, or the Flick Affair in West Germany, to the more recent disclosures about the cosy relationships between government officials and bankers before the financial crisis of 2008, or those made by the Panama Papers leaks. Rising individualism, on the one hand, and declining social capital, trust in government, and political efficacy, on the other, have all likely contributed to decreasing participation rates. To the extent that individualism, political efficacy, and social capital have disproportionately impacted those without the resources to navigate

the political landscape on their own, then inequality in participation should have grown. None of these factors could be included in my models, at either the individual-level or the aggregate one, but they likely represent part of the answer to why turnout inequality has been increasing in recent times.

While Gallego (2015) focuses on a wider set of institutional factors that drive the participation gap, in this chapter I have chosen to examine party platform dynamics. A number of changes and additions would strengthen the conclusions of the paper, from supplementary controls in the model to uncertainty estimates around the party placement score obtained from CMP data. To this I can also add the need for a finer indicator of polarization, which distinguishes between movements of Left/Right parties to/away from the position of the median voter. These improvements will hopefully be taken up in future work. More crucial, though, is the need to determine how much freedom of movement parties have when changing the course of their platforms. An issue which I have consciously ignored here, and which Evans and De Graaf (2013) only briefly discuss, is the prospect that parties change course *because of* changes in the composition and size of their constituencies. At least in the case of the United Kingdom, Heath (2015) dismisses this as being a poor match to reality. Although the share of the working class began its decline in the 1950s, the Labour party only began making "supra-class" appeals in the late 1980s and early 1990s. Nevertheless, if the experience of other countries aligns more closely with an account of the primacy of social structure over political agency, the story of how party platforms and voters' participation impact each other becomes a far more complex and fascinating one than I could present in these pages.

The preceding three chapters have depicted the links between party ideological shifts, individual-level participation, and income inequality by means of a very broad brush. Dynamics were captured through the use of large-N analyses, and statistical models occasionally needed to be restricted in the interest of producing a satisfactory sample size. In the following chapter I switch to an in-depth perspective, examining the party dynamics, income inequality trends, and turnout patterns in three countries in my sample: the United Kingdom, Sweden, and Netherlands. This is pursued primarily in the interest of clearing up one of the major assumptions made in my analysis: that changes in a party's manifesto will be reflected in policies after the election (Thomson et al., 2017). Nevertheless, the presentation has additional benefits as well, the most important of which is its ability to put my model to the most adequate quality test: how it fares in the face of real-world historical developments.

7

Party Dynamics and Turnout: the UK, Sweden, and the Netherlands in Comparative Perspective

While admittedly told from a birds-eye view, the preceding three chapters have offered an account of how, in a longitudinal perspective, party programmatic shifts influence both income inequality levels as well as turnout patterns in the citizenry. Expanding the *relative power* framework to include party dynamics provides a much more complex picture of the environment surrounding the voter at the moment at which the turnout decision is made. Parties can shape both the utility of turning out and the costs associated with participation, or subjective feelings of group membership, which then result in a modified turnout calculus. Additionally, through the policies implemented while in office, or disputed while in opposition, parties can also influence the level of economic inequality at the national level. I have tried to offer a set of coherent answers to how these dynamics operate, but

there is only so much persuasion that one can expect large-N quantitative analyses to induce. In the following sections, then, I take a step back from the stream of model specifications, to focus on what the results have pointed to so far. Following this, I put some of these findings into context, but illustrating how they play out in three of the countries in my sample: the United Kingdom, Germany, and Sweden. The goal of this chapter is to overcome a few of the limitations of my analyses, in terms of the assumptions they have had to make, and to ground the findings in actual political and macroeconomic developments in a set of advanced industrial democracies.

7.1 Summary of Findings

I started my investigation by arguing that there are sufficient reasons to justify the inclusion of political parties in the *relative power* framework. Party dynamics could lie at the source of both changes in turnout, through the appeal of their party platforms or their mobilization strategies, and shifts in economic inequality, by means of the policies (not) implemented while in office. Their exclusion, as well as the need to understand the dynamics between these phenomena both cross-sectionally and longitudinally, have prodded me to conduct a re-examination of the hitherto strong and consistent impact of inequality on turnout, or a host of political attitudes, uncovered by existing studies. The final aim extended past a modest replication, though. My suggested modifications to the existing theoretical scaffolding provided a wider causal frame of reference in which dynamics between individual-level turnout and income inequality could be studied over time.

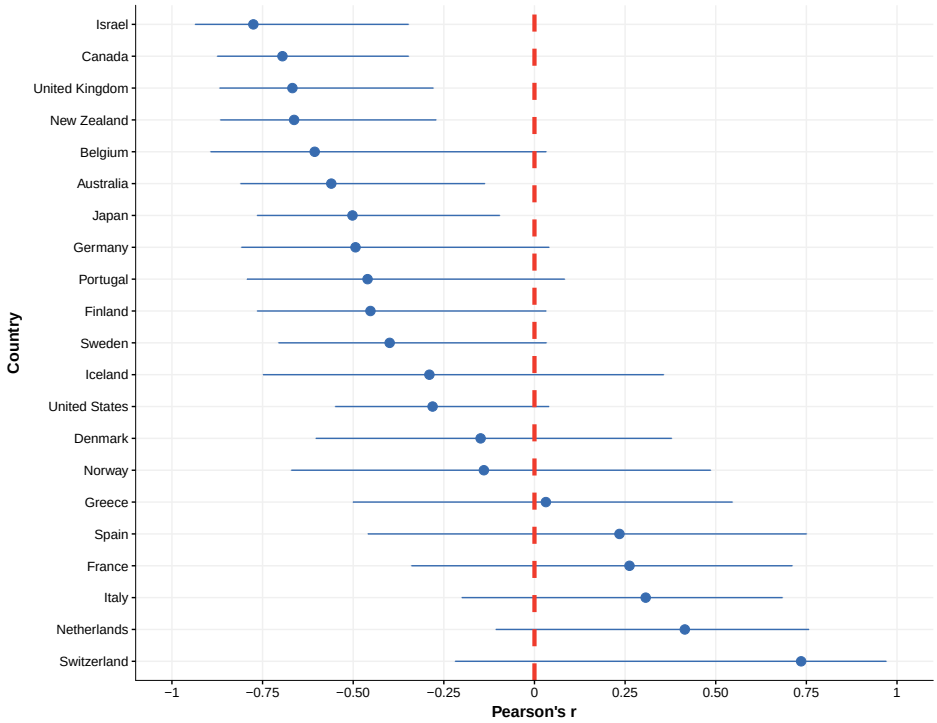
Using an original data source of over 250 elections from 21 OECD countries, partly based on the *True European Voter* project, my analyses in Chapter 4 have shown that although the existence of a cross-sectional association between inequality and turnout has not been entirely ruled out, no such link can be uncovered over time as well. A series of three-level mixed-effects model specifications show that, if anything, the impact of income inequality on turnout over time is *positive*: higher levels of economic disparity could lead to higher levels of turnout. Turning the focus to satisfaction with democracy produces comparable conclusions: while the cross-sectional effect of economic inequality on satisfaction is negative, the longitudinal impact is yet again *positive*. When comparing the magnitude of effects, for both turnout and satisfaction, we see that the cross-sectional impact of economic inequality tends to be very strong in some specifications, on par with that of some individual-level predictors. The longitudi-

nal impact, however, is extremely weak and mostly drowned out by the considerable uncertainty around the estimate. I have not had the possibility to thoroughly test the cross-sectional link between inequality and turnout as well, due to restrictions imposed by my limited sample size of only 21 countries. Nevertheless, I have suggested that there is sufficient reason to doubt this connection, as inequality is associated with other phenomena as well: perceptions of corruption, or the quality of government.

The results presented in Chapter 4 withstand a few robustness checks, but it is nevertheless true that further analyses, replications, and testing on other samples is needed before reaching a clear conclusion as to the varying cross-sectional and longitudinal impact of economic inequality on turnout. Yet, if we take the results at face value, a puzzle is evident, which Figure 7.1.1 tries to illustrate through a set of within-country correlations between voting-age population (VAP) turnout and income inequality. If indeed there is no longitudinal impact of inequality on turnout, why do we see in the majority of countries a clear negative relationship over time between the two? Elections in which economic inequality is high are also the ones in which turnout tends to be low, in relative terms. The subsequent two chapters strive to explain this empirical association by means of a confounding variable, which, I posit, influences both income inequality and turnout over time. This variable is party ideological change. Its effect on turnout has already been recorded by the analyses in Chapter 4: over time, movements in the party system toward the ideological Right result in a lower turnout probability at the individual level. The following chapters, though, refine this crude set of observations so as to better understand the influence of parties on the inequality–turnout dynamic.

Chapter 5 examines whether party programmatic shifts over time influence the level of income inequality in a country. The presumed causal mechanism is represented by the type of economic, labor market, and welfare policies which parties implement while in office. The further Right parties move in terms of these policies (think of the Labour Party in the UK between 1980 and 2000, or the UK Conservatives between the mid-1960s and mid-1980s), the higher the level of income inequality is expected to be. This is primarily due to the minimal restraints placed on market mechanisms in the allocation of income, or to a set of active labor market policies and a leaner welfare safety net. My theoretical account draws primarily on the *power resources approach*, in considering the dynamics of economic inequality as a function of the extent of working-class organization under the form of trade unions and Leftist parties. In certain respects, though, I depart from this framework: I take into account both the electoral

Figure 7.1.1: Correlation between income inequality and VAP turnout over time

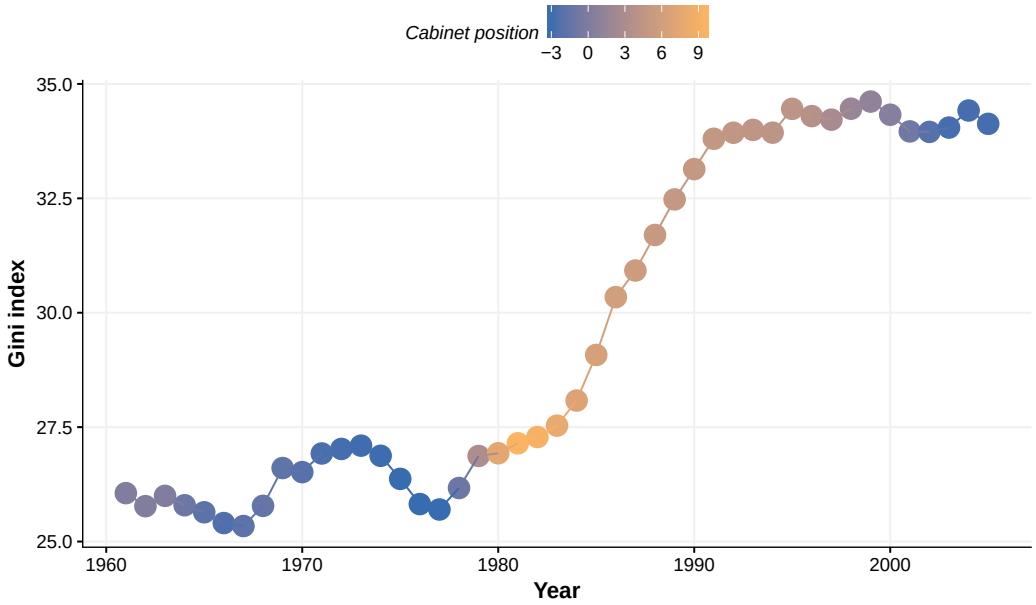


Note: Voting age population turnout obtained from the Institute for Democracy and Electoral Assistance. Gini information taken from the *Standardized World Income Inequality Database*, version 5.1 (July 2016). Gini values were averaged over the 100 multiply imputed values. Horizontal lines depict 90% confidence intervals. Sample size is between 10 and 14 elections for most countries; the US includes both Presidential and midterm elections.

power of parties, as well as their *profile*—what it is they pledge to do once in office. Through the use of a new indicator of government placement (Döring and Schwander, 2015), for a sample of 23 OECD countries with yearly observations between 1960 and 2007, I show that governments which are further to the Right, in terms of economic platform, are associated with higher levels of economic inequality in the future. This effect can be interpreted in two ways, and to illustrate them I use here the example of the UK, presented in Figure 7.1.2.

Naturally, when a transition from a Left-wing to a Right-wing government occurs, income inequality is predicted to climb in the near future. Between 1975 and 1985 in the UK the ideological pendulum swung hard: the Wilson and Callaghan Labour cabinets of the second half of the 1970s gave way to the first and second Thatcher Conservative cabinets. This was promptly followed by an increase in inequality. However, the effect can be captured through a longer-term perspective as well. By the time the Blair cabinets of the late 1990s and early 2000s came to hold the reigns of the economy, their redistributive impact was clearly different than what we see in, say, Sweden in the 1960s or 1970s (see

Figure 7.1.2: Income inequality and government ideological placement trends in the UK



Note: Graph is identical to the one displayed in Figure 5.4.1a. Larger values on the cabinet position indicator denote a cabinet placement that is further to the ideological Right.

Figure 5.4.1b). Part of the reason for this discrepancy is that this was no longer the same party that Wilson or Callaghan had lead. It was more professionalized in terms of campaign strategy, and more PR-focused (Shaw, 1994). More important, though, it was less committed to a partnership with trade unions, more sensitive to inflation and less sensitive to unemployment trends, and willing to move away from "tax-and-spend" policies or from generous welfare arrangements. Consequently, we see that the level of economic inequality decreases only very slightly in the 1997–2008 period.

Chapter 6 returns to the first piece of the puzzle, the ways in which party ideological change influences turnout decisions, but with a finer set of instruments. Here I draw again on the literature which establishes a link between party/candidate policy moves and voters' calculations of the benefits of turnout out in an election (e.g. Adams and Merrill III, 2003). When a party moves closer to an electoral competitor, and further away from their own core constituency, the turnout calculus for a member of the "core" changes. Such a shift places the party further from the voter's ideal policy point; if this distance becomes too great, abstention by *alienation* ensues. This process is reinforced when such a move brings the party very close to its competitor, producing abstention by *indifference*. In such an instance the voter finds little need to participate in the election, as power alternation would not make a consider-

able difference in terms of subsequent policies (the "Tweedledum" and "Tweedledee" situation). For the same group of 21 countries, I show in this chapter that party movements, operationalized as party polarization changes, do have an impact on the turnout gap between voters with a high socio-economic status (SES) and their lower-SES peers. Furthermore, the effect is particularly concentrated in the latter constituency, while higher-SES individuals appear unresponsive to party ideological shifts.

As party competition is frequently carried out along two cross-cutting dimensions (Kriesi et al., 2008), this impact is transmitted through two corresponding avenues, which I now incorporate in my analysis. First, a greater degree of polarization on a socio-economic axis of competition leads to a narrower turnout gap between SES-based groups. Presumably, in such a high-stakes situation voters feel compelled to participate at the polls, as seeing one's favorite party make it into power holds a large payoff. Second, polarization on a traditional values dimension can *exacerbate* the turnout gap. This potentially occurs through cross-pressures on the vote choice of lower-SES citizens. As parties come closer together on a socio-economic axis, more of the electoral competition is carried out on the traditionalism axis. This has clearly been the case in the United States over the 1980s and 1990s with the issue of crime, and in the UK over the 1990s and 2000s. Here, lower-SES voters are conflicted between their economics-based preference for the Left, and values-based preference for the Right. In such an instance, unwilling to switch her vote for lack of a more suitable political offer, it might be perfectly reasonable for a voter to abstain altogether.

Unlike the tentative tests carried out in Chapter 4, the analyses described just now benefit from finer measurements of party placement, increased sample size, as well as the ability to point to the different sensitivities of socio-economic groups to party movements. It's precisely lower-SES voters that appear most responsive to party polarization dynamics, rather than higher-SES ones. A likely reason for this finding is that depolarization in the 1980s and 1990s has been produced, more often than not, by Left parties moving closer to the ideological Center (Keman, 2011). The finding points to the probable mechanism through which party dynamics impact turnout: a change in the benefits the individual derives from voting, produced by the altered distance between policy platforms. On the other hand, my analyses also show that the macro–micro dynamic could also be transmitted through changing participation costs, or through expressive benefits, as shown by the sensitivity of union members to union strength.

7.2 Unexamined Assumptions and Other Loose Ends

For all the insights that the "bird's-eye" view produces on a variety of connected phenomena, something is lost. Space and data constraints have required me to make a number of assumptions about causal mechanisms and timing. To begin with, I was constrained to consider that the influence of party programmatic change on macroeconomic trends must be transmitted by means of policies. However, multiple mechanisms could be at play: economic agents might prospectively react to party fortunes ahead of the elections by altering their investment and hiring strategies in the future. With an expected tax increase produced by a Social Democratic victory at the polls, firms could decide to put off investments and delay hiring of staff; the added unemployment would produce a rise in economic inequality.[1] Additionally, party campaign pledges might simply be a means for parties to feign concern about an issue, without actually following up on it, if sufficiently credible "obstacles" and "constraints" can be later found. A typical example of this is the strong pledge in the late-1970s and early-1980s UK Conservatives' statements that public expenditure will be brought down. In fact, the trend for the 1979–1984 period was that of an *increase* in public expenditure, and even over a longer period (1980–1993) total spending seems to have remained constant (Rhodes, 2000b, p. 44).[2] Similar cases are Blair's 1999 introduction of extensive programs to alleviate child poverty, even though the 1997 New Labour manifesto contained no mention of this goal, or Thatcher's proposed reforms to the earnings-related component of state pensions in 1985 after having stated in the 1983 campaign that there were no plans to change this system.

A second assumption refers to my belief that any change of government would produce a change in the income distribution *with a time lag*. There is no research that I am aware of which examines the time it takes a government to impact the income distribution in a country.[3] At the same time, there is sufficient reason to suppose that this time lag would differ between countries. In some systems, political decisions on economic matters can be adopted and implemented in a matter of a few quarters. Other systems might involve greater delays, produced by negotiations among coalition partners, consultations with social partners (e.g. employers' associations), or further compromises forced by powerful unions.

[1] I am, yet again, grateful to Daniel Stegmüller for this suggestion.

[2] Admittedly, part of the reason for this was the growing unemployment of the period, which required increased spending on benefits at the same time as the benefit generosity was being reduced.

[3] Alesina et al. (1997, chap. 4) have looked at such lagged effects for inflation rate and GDP growth.

I was unable to introduce this level of specificity in my quantitative analyses, but an in-depth discussion of a few national trajectories should illuminate to what extent my assumed lag is valid.

A classical trade-off between breadth and depth, as well as the need to critically inspect some of my assumptions, have led me to also add, in the following sections, a discussion of how the connections between economic inequality, turnout, and party programmatic changes have played out over time in a few countries. I have chosen to concentrate on the United Kingdom, Sweden, and Netherlands. Although all three represent cases where depolarization on a socio-economic policy dimension takes place between 1960 and 2000, the precise timing of this phenomenon varies between countries, allowing for interesting conclusions on the link between policy shifts and turnout. Additionally, as the reader can discern from the following sections, the countries also present variation over time in income inequality dynamics. These three-way trend comparisons, between inequality, turnout and policy shift, will cast further doubt on the tenability of the inequality–turnout link. Finally, the countries have also been selected for maximum variation on a welfare state type dimension, with a liberal (United Kingdom), social democratic (Sweden), and corporatist (Netherlands) type all represented (Esping-Andersen, 1990).

For each of the countries, a set of plots was combined with the goal of giving the reader a "one-stop-shop" look at dynamics in party ideological placement, income inequality, and turnout. Using Figure 7.3.1 on page 179 as a typical example, each collection of plots is structured in a similar way. The top two panels in the figure present trends over time in party polarization on the two dimensions I use throughout my analyses in Chapter 6 (`SOC-EC` and `TRAD`), as well as the turnout levels of lower-SES and higher-SES voters computed based on the individual-level data I use in these analyses. The middle two panels depict trends in party placement for Left and Right clusters of parties, for each of the two programmatic dimensions. The bottom two panels show longitudinal trends for income inequality, based on the SWIID data, and voting-age population turnout, respectively, based on data from the Institute for Democracy and Electoral Assistance. While undeniably a bit crowded, the plot has the advantage of easily allowing for visual comparisons across a range of phenomena, in order to assess to what extent they are plausibly linked. The one exception to this ordering was made for Sweden, where an income question is missing for 2 decades in the middle of the series; in this instance I use the turnout levels for educational groups instead of SES-based ones.

The following sections continue with three accounts of specific national trajectories, while a concluding section will evaluate to what extent my assumptions from the large-N analyses in the previous chapters find confirmation in the case of these three countries.

7.3 United Kingdom: the Right leads and the Left follows

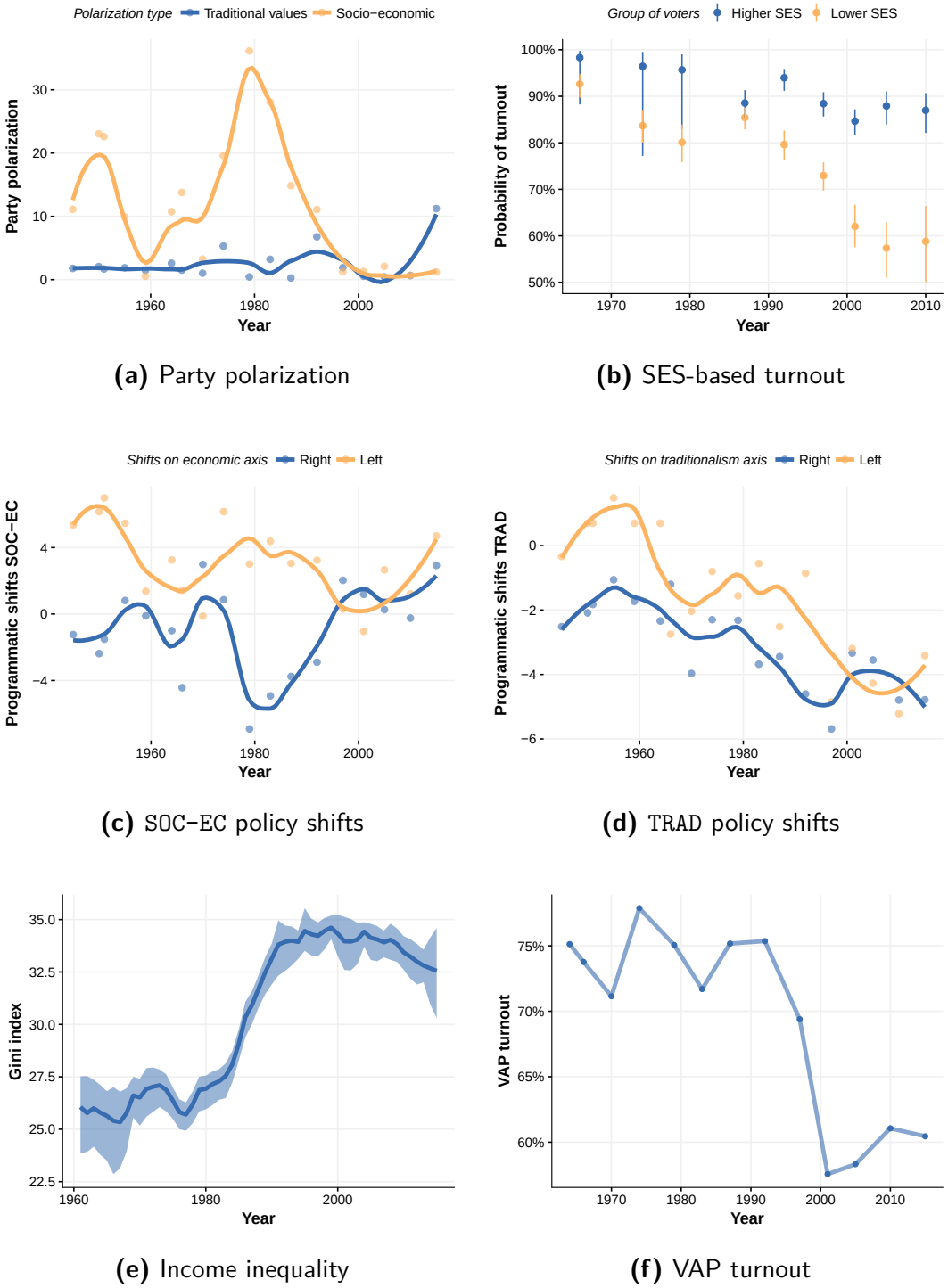
The case of the United Kingdom can only be adequately understood in light of the particular economic problems that have plagued the country for the entire 1950–1970 period. A relatively uncompetitive industrial system, in combination with a political consensus on targeting full employment, resulted in a "boom-and-bust" pattern of growth. To achieve higher employment domestic demand was stimulated, which in turn increased imports while absorbing potential exports. When this resulted in an unsustainable balance of payments, the government opted for putting the brakes on the economy by reducing demand at the cost of higher unemployment (Rhodes, 2000a, p. 164). This then set the stage for the next boom, followed by the requisite bust.

Even in such a fluctuating climate, with public expenditure under occasional stress from large numbers of benefits claimants, the late-1940s and 1950s mark the consolidation of the welfare state in Britain. Many of the legislative initiatives were taken by the Labour cabinets of Clement Attlee[4], with Conservatives occasionally arguing that welfare spending places too high a burden on public expenditure (Rhodes, 2000a, p. 165). In Figure 7.3.1a this is the smaller polarization peak around 1950, evidence of a less consensual post-war climate than is commonly assumed now. Never truly generous to begin with, this welfare system was frequently put under further strain by the economic pattern of "stop–go" growth. As a result of these pressures the system was often tweaked, such as in the 1956–1958 period by the Eden and Macmillan Conservative cabinets, or the Wilson cabinets of the second half of the 1960s.

The 1970s represented the "perfect storm" of economic problems. A more competitive and globalized international market had limited use for Britain's products, frequent surges of unemployment would impact government finances, while unions would regularly ask for wage increases to match the occasional high levels of inflation. To this I must add, of course, the two oil shocks of the period, which

[4]The Family Allowance Act of 1946, the National Health Service Act of 1946, the National Assistance Act of 1948, or the Housing Act of 1949, among others.

Figure 7.3.1: Trends for the United Kingdom



Note: Both the polarization measures and the party ideological position measures are obtained based on Comparative Manifesto Project data, version 2016a. Income inequality placements obtained from the Standardized World Income Inequality Database (SWIID). Turnout data for voting age population is obtained from the Institute for Democracy and Electoral Assistance (IDEA). All *loess* curves fit with a span of 0.4, to allow for a finer trend to be visible.

contributed to the balance of payments dysfunctionalities. When the Heath cabinet was brought down on a wave of large-scale industrial unrest prompted by enacted retrenchment to housing and pensions,

as well as pay freezes, the Wilson cabinet of the mid-1970s tried an alternative solution. The aim was to bind unions to a compact, in which wage restraint was traded against higher taxes on the wealthy, further nationalization of industry, as well as rent and price controls (Rhodes, 2000b, p. 34). This strategy could not work in the long term, though, as the labor movement in the UK was extremely fragmented, making the top-down imposition of a centralized agreement very difficult. Without this restraint the cutbacks required by the IMF bail-out of 1976 quickly prompted further industrial action, marking the beginning of the "Winter of Discontent".

The 1970s were also the start of a clear trend of growing polarization on economic platforms between Labour and the Conservative Party. While Labour threw its lot in with the unions, the Conservatives slowly underwent a conversion to market principles, acerbic individualism, and a view of the clear economic benefits resulting from a limited welfare safety net. With the proviso that too much may be read from only 2 points of data, it is probable that the spike in turnout we see in the 1974 and 1979 elections is partially due to this growing polarization between parties. If anything, inequality trends appear to be of limited help in explaining the turnout dynamic, as over the 1970–75 period inequality seems to have *increased* slightly.

Thus, in the aftermath of the "Winter of Discontent" the Thatcher era began. It ought to be noted that the pre-1979 period only represented a golden era of the British welfare state by comparison with what came after. I have tried to suggest that during this period frequent cuts were made when the need arose; cumulatively, these tended to erode the quality of services provided in the health system, in schools, or in public housing (Rhodes, 2000b, p. 36). Nevertheless, these pale when measured against what came after. Tory platforms contained a host of measures that would reduce state involvement in the market, along with the involvement of social actors, such as unions. With the 1979 budget tax cuts were implemented, with the standard rate lowered from 33 to 30 percent, and the top rate from 83 to 60 percent; VAT, on the other hand, was increased from 8 or 12.5 percent to 15 percent (Rhodes, 2000b, p. 42). In 1988 even these income tax levels were further cut, to 25 percent for the standard rate and 40 percent for the top rate. In terms of the labor market, a sustained effort against unions was carried out, complementd by measures which strengthened the position of employers vis-à-vis labor. Unions were made legally liable for picketing and secondary industrial action. The rights of employees who refused to join a union were strengthened. Starting with 1990, unofficial strikers could be legally dismissed.

Workers' rights were further restricted by a series of acts that went against ILO conventions, making work more precarious and reducing the legal protections afforded to workers in cases of dismissal.

Welfare was pared down as well. In 1980, the basic pension ceased to be indexed to the higher between prices and earnings, and was only indexed to prices (Pierson, 1994, p. 59). In 1982 earnings-related supplements to National Insurance payments were cut altogether (Rhodes, 2000b, p. 47). In the same year unemployment benefits started to be taxed, while further cuts to the pension system were implemented in the Social Security Act of 1986. Many more legal changes were operated in the 1980s, thoroughly documented by Atkinson and Micklewright (1989) and designated by Paul Pierson as "death by a thousand cuts"—most led to clear retrenchment in the benefits received by the unemployed. The cuts were later on paired with the introduction of active labor market policies, which required some workers to participate in training programs or risk forfeiting their benefits. As the generosity of Unemployment Benefit was being curtailed, families had to make greater use of the means-tested alternative, Supplementary Benefit. After the sweeping success achieved in the 1983 elections, even this latter program was to be pruned further, in favor of expanding the Family Income Supplement—an income-support program for the working poor (Pierson, 1994, pp. 110–113).

Finally, there is public housing, which by 1979 covered about 30 percent of British households. Prominently introduced in the 1979 manifesto, the "Right to Buy" program allowed residents in public housing to buy their unit, at deep discounts (between 30 and 50 percent) compared to the market price. Multiple goals were achieved with this single policy. An important source of Labour patronage was disrupted; a sizable 'gift' was made to an important part of the core constituency of the Tories (the middle class); the remaining part of the public housing system was damaged, as the best units had now been bought up—this justified further cuts. The "Right to Buy" program was a complementary policy to a wider platform of privatization, which started timidly at first, but then picked up speed after 1982: British Telekom, British Gas, British Steel, BP, or utilities like water and electricity. Such privatizations of public utilities, or of rail or postal systems, amount to regressive taxation, inasmuch as the maintenance and smooth running of the system is now ensured through a flat tax (the market price), as opposed to progressive government taxation (Meek, 2014).

All in all, as Pierson (1994) summarizes it, "the 1980s turned out to be a brutal decade for the poor" (p. 100). When assessing the cumulative scope of these policies, it is perhaps understandable

why, based on MARPOR data presented in Figure 7.3.1c, the Tory platforms of 1979 and 1983 were the most extreme of the entire post-war era in terms of their economic pledges. The distributional effect of this package of policies is difficult to overstate. As seen here in Figure 7.3.1e income inequality worsened considerably over a period that overlaps almost perfectly with the Thatcher cabinets. In terms of wages, Machin (1996) shows that over the 1980–92 period wage growth at the 10th percentile of the distribution was flat, while the 50th and particularly the 90th percentiles registered considerable wage increases. At the same time, there is some evidence that inequality responded to the large number of policies of the 1979–1982 period with a delay of roughly 2 years. A very clear and rapid upward trend in inequality, based on SWIID estimates, can only be observed starting with 1984, a few years after the Thatcher cabinet engaged in a consistent policy course (this can be observed slightly better in Figure 7.1.2). We also see, in the last panel of Figure 7.3.1, that this sharp increase in inequality does not match any corresponding drop in turnout over the same period of time, casting a doubt on the possibility of a contemporaneous connection between the two.[5]

A consistent drop in turnout is in fact observed starting from the late 1990s, which matches very well the trend of depolarization on a socio-economic dimension. This is partly due to the transformation of the Labour Party into "New Labour" under Neil Kinnock, John Smith, and Tony Blair. It is equally due to the more centrist placement of the Tories under John Major, which had to accept that some government programs could not be cut further. At the same time, Figure 7.3.1b shows that this drop in turnout was much greater among lower-SES voters than higher-SES ones, and that it occurred over a period that matches Labour's ideological transformation very well. Furthermore, my party-centric account is also reinforced by the fact that, starting with 1997, the Labour party won elections even despite the decreased support from the working-class. This suggests that the party tapped into an alternative source of support (the urban, educated middle-class), even at the cost of ignoring the policy wishes of its core supporters. The depolarization seen after the mid-1990s is also reflected in the policies parties pledged to implement. In an attempt to gain a reputation as a responsible steward of the economy, Labour effectively promised to continue some of the major policies of the Thatcher cabinets, such as the lowered tax rates on top incomes (Sinclair, 2007, p. 190). The "politics of envy", as Blair called it, was to come to an end. The party officially renounced its goal of increasing public

[5] Hirschman and Rothschild (1973) are the only ones, to my knowledge, to theorize a *delayed* reaction between income inequality and political attitudes, which could apply to inequality and turnout as well.

ownership of industry, as well as any claim to having a privileged connection to unions (Taylor, 2007, p. 219). On the industrial policy side, there was no attempt to revive manufacturing or offer temporary relief to industries which were experiencing a decline, and no repeal of the legal restrictions established by Thatcher on trade unions (Crafts, 2007, p. 276). The primary concern would be keeping inflation low, even at the cost of higher levels of unemployment. Corporate tax was reduced in 1997, and there was a greater focus on promoting skill-formation and research and development activities, as means to achieve a greater degree of competitiveness on the international markets (Crafts, 2007). All in all, a considerable proportion of the Labour platform with respect to industrial policy or welfare simply continued on the path set by Thatcher.

This last statement requires some qualification, though, which also bears implications for my measure of party programmatic shifts. In spite of all the assurances given to the business environment, and the electorate at large, that there would be no return to the classical Labour policies of the 70s and early 80s, Blair engaged in a considerable amount of "stealth" taxation and redistribution (Sinclair, 2007, p. 208). As promised during the electoral campaign of 1997, public spending was maintained for two years at similar levels to those set during the previous Conservative cabinet. After this period, though, a number of new measures were proposed, some of which could not really be reconciled with the new direction of the party. In March of 1999 a clear pledge was made to eradicate child poverty in the UK, while in April the minimum wage is introduced. A large tax on pension funds is levied annually, which along with the tax on privatized utilities, was used to fund tax credits for working families, small grants to incentivize job-seekers to accept work, increases in child benefits, minimum incomes for pensioners, and a lower tax rate on low-income earners (Rhodes, 2000a, pp. 180–181; Stewart, 2007). More important, a clear goal of increasing health and education funding was stated, with particular focus on prioritizing funds for poorer areas. If Thatcher instituted death by a thousand cuts, it's also fair to say these policies represented partial reanimation by a hundred stitches. A number of these measures, though, are not captured by my index of party placement, likely leading to an under-estimation of the polarization level in this period in the UK.

In the aggregate, the impact of these measures is obscured by a considerable increase in top incomes during the very same period. When the data is disaggregated, though, a different story emerges. Income growth for the poorest two quintiles was marginally higher than for the other three during

Blair's tenure. Surprisingly, this was also the case under John Major, but it stands in stark contrast to the Thatcher period, when a clear ascending pattern is visible—the wealthier income groups saw larger income growth than the poorest (Stewart, 2007). To reiterate, this does not resonate very well with the trends we see in turnout. The Blair period registers a considerable drop in voting, from around 70 to below 60 percent, at the same time as the economic fortunes of the poorest marginally *improve*. There is little reason to assume this drop in turnout was due to feelings of economic resentment during the Blair decade, or to inequality-induced feelings of political powerlessness. A more plausible reason for this drop, I have argued, is the impressive degree of depolarization which occured during the late 1980s and early 1990s. Apart from impacting campaign messages and mobilization strategies for parties, this ideological shift likely also altered the policy benefits which citizens receive from voting and, through these, their willingness to cast a ballot.

7.4 Sweden: the Left in control?

In many ways, Sweden presents us with a simplified case: a context with a dominant Social Democratic party throughout most of the post-World War I period. Between 1932 and 2006 the SAP (*Sveriges Socialdemokratiska arbetareparti*) was the controlling party in government for 66 out of 75 years (Lindbom, 2016, p. 37). In fact, the SAP can be considered the dominant party on the entire political spectrum, averaging 46% of the popular vote from the 1930s throughout the 80s, and never dipping below 40% (Pontusson, 1987, p. 6). At the same time, I will argue that, at least with respect to income inequality trends, the SAP cannot shoulder the entire blame. A number of developments since the 1980s, particularly the gradual breakdown of centralized wage bargaining and other corporatist arrangements, are co-responsible for rising inequality, and these did not originate with the SAP. Additionally, even the proposed platforms on economic issues that the Social Democrats put forth can be traced, in a sense, to the preferences of the labor movement, and in particular the main blue-collar union federation, the LO (*Landsorganisationen*). These two *caveats* represent important corrections to my theoretical narrative, which so far has not seriously entertained the possibility of constraints on party policy shifts, or of factors not connected to party politics that could drive inequality.

The broad contours of the Swedish model of labor–capital relations were set in the 1938 Basic Agreement. Following a period of higher unemployment and intensive industrial action in the 30s,

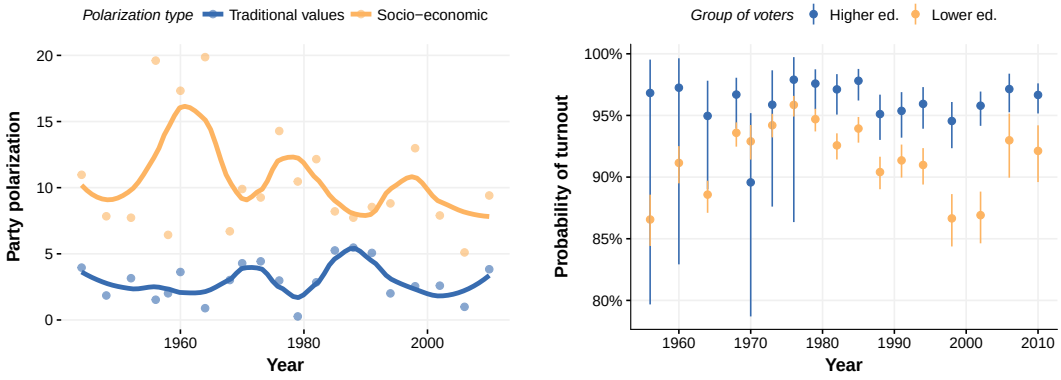
the government threatened to intervene directly into the labor market. This credible threat was the incentive that led to the 1938 agreement, whereby labor obtained the promise of legislation targeting full employment and social reforms in exchange for peace, while employers received assurances that there would be no state involvement in economic planning, in exchange for agreeing to centralized wage bargaining. Additionally and implicitly, unions and the government recognized the right of employers to make business decisions (including firing workers) without significant constraints from the state. In other words, bargaining could only encompass wages, work hours, and benefits (Pontusson, 1992, p. 161).

Yet it would be wrong to consider this equilibrium as too consensual—periodic crises appeared and needed to be addressed. The first of these, not visible in any of the plots in Figure 7.4.1, occurred in the late 40s, with the "Postwar Program" of the SAP. This was a clear attempt to go beyond the agreed confines of the Basic Agreement: the SAP proposed actively preventing unemployment crises, in case the private sector was unable, through a range of interventions into the economy, culminating with nationalizations (Lewin and Lindvall, 2016, p. 587). The center-right parties, backed by employers, responded with considerable vigor to this direct challenge on employer prerogatives, arguing that such involvement in the economy could only lead to subversion of political freedoms and democratic life. Ultimately, though, both sides yielded: employers realized the SAP was electorally too strong, and the SAP saw that employers proved to be fairly responsible in managing their workforce.

The subsequent two periods of political antagonism, though, are clearly visible in my data: the increases in polarization on the socio-economic axis that occurred in the first half of the 1960s and the second half of the 70s (see Figure 7.4.1a). Neither of these two episodes can be strictly attributed to any strategic considerations by the SAP, but mostly to the demands made by the LO, which the SAP reluctantly accepted.[6] The polarization of the 60s, due entirely to the leftward movement of the SAP (see Figure 7.4.1c), represented a new industrial policy offensive triggered by the LO's adoption of the Rehn–Meidner model of industrial relations in the 1950s. While not advocating state involvement in the economy, the plan did institute centralized solidaristic wage bargaining, whereby wages were compressed by improving the relative position of low-skilled employees. The rationale was that this wage-

[6]The Postwar Program was most likely due to the need to stem the growing electoral success of the Communist party (Pontusson, 1987, p. 8). The LO remains an important source of support for the SAP. Even in recent times it supplies around one fifth of the budget of the SAP. In the 1998 campaign over 200,000 elected union officials campaigned on behalf of the SAP (Aylott, 2004, p. 77; cited in Anthonsen et al., 2011, p. 128).

Figure 7.4.1: Trends for Sweden

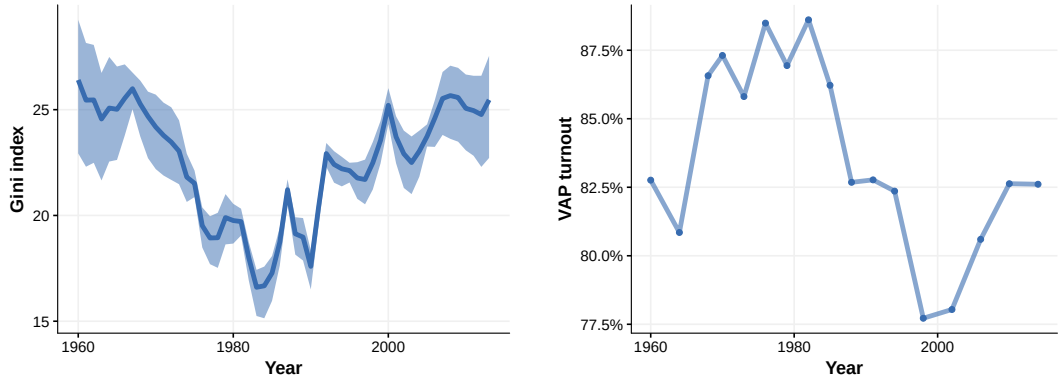


(a) Party polarization

(b) Education-based turnout

(c) SOC−EC ideological shifts

(d) TRAD ideological shifts



(e) Income inequality

(f) VAP turnout

Note: Both the polarization measures and the party ideological position measures are obtained based on Comparative Manifesto Project data, version 2016a. Income inequality placements obtained from the Standardized World Income Inequality Database (SWIID). Turnout data for voting age population is obtained from the Institute for Democracy and Electoral Assistance (IDEA). All *loess* curves fit with a span of 0.4, to allow for a finer trend to be visible. As an income question was not asked in Sweden between 1970 and 1990, the SES-based turnout plot was replaced with one depicting educational categories.

setting strategy would gradually cull the least efficient companies, and allow more room for expansion to the most efficient ones. The inevitable higher rate of unemployment that would result could be addressed through active labor market policies and investments in job training. The plan promised higher profits for (efficient) businesses and high wages for blue-collar workers, without necessarily sacrificing the goal of full employment. Although employers and the centre-right parties rejected the intrusion that active labor market policies represented, consensus was eventually reached at the end of the 1960s.

The second period of dissent occurs at the end of the 1970s, and can be attributed to two factors. On the one hand, the period saw the emergence of a public debate on the various failures of the Swedish welfare state. The critique, raised by sociologists and social workers, pointed to new types of marginalized populations: immigrants, welfare recipients, or the disabled (Andersson, 2016, p. 569). The second, more important, push originated with unions. Convinced that the poor results of the 1966 local elections, and the lukewarm results in the 1973 national ones, were due to the party's estrangement from its "true" Leftist ideology (Pontusson, 1992, p. 128), the SAP becomes receptive to the wishes of the LO. The union, on its part, realizes that the scope for wage increases through bargaining is very slim in the post-oil-crisis climate, and pushes instead for a platform of greater industrial democracy (Svensson, 2016, p. 616). In response, the SAP passed laws that targeted union involvement in corporate decision-making beyond just wages and benefits, stronger work security legislation, and stricter safety regulations. Most seriously of all, the SAP agreed to consider a series of wage-earner funds. Under such a scheme, part of company profits would have to be converted into shares, and sold to funds controlled by unions. These funds would receive seats on company boards, and through such a mechanism would exercise control over decision-making.[7]

It is plausible that these two episodes of polarization contributed to the increase in turnout we observe in the 1970s (see Figure 7.4.1f).[8] The adversarial positions of the SAP and its union backers, on one side, and of the centre-right parties and employers' associations, on the other side, likely led to a greater degree of electoral mobilization and a heightened sense of importance of the election and, through these, to higher turnout. The greater mobilization of lower-educated voters is plainly visible in

[7] The sole respite came in the early 70s, when both the SAP and the center-right opposition agreed on the need to combat the economic slowdown created by the collapse of the Bretton Woods system and the first Oil Shock. Both the SAP, and the 1976 center-right Falldin cabinet, implemented expansionary fiscal policies throughout the 70s, with unique determination and consistency among OECD members (Lewin and Lindvall, 2016, p. 586).

[8] Other factors are at play as well, such as the decision to organize national and local elections on the same day, starting with the 1970 election.

the second panel of Figure 7.4.1, as turnout in this group increases from an estimated 86% to 96%, based on my turnout models. The policies implemented as part of the Rehn–Meidner model, along with the expansionary measures pursued in the 1970s and the gradually higher taxes on the wealthiest 10% (Roine and Waldenström, 2008, p. 381), certainly contributed to the decrease in inequality observed in Figure 7.4.1e over the 1960–1980 period. Yet, in spite of this positive effects, the very same policies served to embitter the employers' associations, which saw the creeping statism as a violation of the spirit of the Basic Agreement of 1938. Even with wage-earner funds implemented in the early 1980s in a much diluted form, years of discontent with the distortions introduced by the welfare state, the high labor costs and wage demands, and the considerable growth in the public sector made employers unwilling to compromise anymore.

The first sign of decay came in 1983, when a large employers' association, representing ABB, Volvo, and Saab, negotiated an agreement with the *Metall* union outside of the framework set up by the LO and the *Svenska Arbetsgivareföreningen* (SAF, the main employers' confederation). By 1984 employers pressured unions into more fragmented, industry-level, negotiations, and even with a temporary return to peak-level bargaining in the second half of the decade, the agreements allowed for more leeway at the industry level than before (Pontusson, 1992, p. 118). In 1991, the SAF took the final step by withdrawing from all boards and agencies, including the National Labor Market Board, and transformed itself into a lobbying organization (Lindvall and Sebring, 2005; Svensson, 2016). Coordination in wage-setting still took place, along with interest mediation, but the change in corporatist patterns after 1991 was palpable. So were the effects. As seen in Figure 7.4.1e, income inequality begins to climb starting with the mid-1980s, and in this early period the rise is linked to growing inequality in pre-tax and pre-transfer incomes (Fritzell, 1993). This is precisely the type of inequality we would expect to be most sensitive to changes in the mechanisms through which market incomes are allocated. A further clue is provided by Fredriksson and Topel (2010), which point to the fact that neither Norway nor Finland experienced any rise in inequality in this period, even though they were subjected to similar economic and demographic transformations as Sweden (p. 99). The sole factor which distinguishes Sweden from the rest is the breakdown in corporatist institutions in this period.

Weakened corporatist arrangements were not the only cause, however. From the ideological extremes of the late-1960s, in terms of Leftist economic policy, the SAP veered to the Right over the

1980s and particularly the 90s. In small bursts at first, then more consistently, the SAP introduced a variety of Third Way reforms. Fiscal adjustments were abandoned in the wake of the Oil Shocks, in favor of currency devaluations that were meant to boost the export sector. Austerity in the public sector was introduced by an active resistance to wage increases in this area, and through employment freezes. Pensions were not adjusted in line with the currency devaluations. By 1990, a broader set of policies was implemented by both center-left and center-right cabinets, partly spurred by the very severe economic crisis that hit Sweden in the early 1990s. In 1990 the SAP embraced inflation targeting as an overriding goal of economic policy, even if this would come at the cost of higher unemployment. In the pursuit of this goal the central bank was gradually given more independence over the 1990s. Pension generosity was cut, by not indexing the base amount to inflation, and then by calculating pensions between 1993 and 1998 at 98% of the normal base amount. Other changes aimed at adjusting pensions to real economic growth and to changes in life expectancy, and at allowing a fraction of individual contributions to go into individual investment funds (Anderson, 2001, pp. 1078–80). The more fundamental change, though, is the transformation of the pension system from one based on defined benefits to one relying on defined contributions, which was meant to improve the flexibility of the system in the face of economic downturns. Unemployment benefits were not spared either. Individual contributions had to be increased, and benefits were reduced from 90% to 80%, and then to 75% of qualifying income. The eligibility rules themselves were tightened, and measures were taken to limit the possibility of repeatedly switching between cash payments and active labor market programs, in what became known as the welfare "carousel" (Anderson, 2001, pp. 1080–83).

In relative terms, these limited retrenchment policies are not solely or even mainly responsible for the trend of growing inequality seen in the 90s and 2000s. Although their effects were undoubtedly regressive, they cannot be considered as the main causes for the consistent rise in inequality in Sweden after the early 80s. For one, retrenchment measures were sometimes compensated with other policies, such as the 12% decrease in the VAT on food, or the higher taxes on top incomes and on property that accompanied the 1994 reduction of unemployment benefits (Benner and Vad, 2000, p. 430). Additionally, they have been rather limited in scope, particularly when compared to similar episodes in the UK or US, and have sometimes been rolled back after only a short amount of time. This is the case, for example, with unemployment benefits, which were increased again to an 80% replacement level after

criticism from the unions (Benner and Vad, 2000, p. 433). Two important sources of rising inequality, though, are the deregulation of financial markets in the 80s (Roine and Waldenström, 2012), which sent the Stockholm Stock Exchange soaring over the 1980s (13% increase in value) and 90s (16% increase), and tax reform. 1991 saw a major overhaul of the tax system, which considerably reduced the capital gains tax, and is responsible for the sudden spike in inequality between 1990 and 1991 we see in Figure 7.4.1e. Further cuts in capital gains tax were performed in 1992 (from 30% to 25%) and in 1994 (from 25% to 12.5%), before a sudden increase back to 30% took place in 1995 (Roine and Waldenström, 2012, p. 574).

The increase in inequality observed starting with the early 1980s matches quite well the decline in turnout. In Figure 7.4.1b this is easily visible, as the two educational groups gradually grow distant in their predicted turnout rates beginning with the early 1980s. However, there is reason to believe that the underlying cause for both trends in inequality and turnout lies in party dynamics. Turnout decreases occur at the same time as both center-left and center-right party blocs swing in a rightward direction on economic policy in the late 1970s and early 1980s. While inequality trends cannot help explain the increase in turnout after 2000, party shifts can, as we see both Left and Right party blocs move in a more leftward direction in terms of economic policy. This movement partially represents a response to the Financial Crisis of 2008, when all parties agreed on the need to pursue active macroeconomic policies and to strengthen the welfare safety net (Lewin and Lindvall, 2016, p. 589). At the same time, it also represents a response by the SAP to the growing electoral success of the Swedish Left Party, which obtained 12% of the vote in the 1998 election, as the SAP sunk to its lowest score since 1922, 36.4% (Allen, 2009, p. 640). This electoral defeat was interpreted as a need to move away from policies that come close to a Blairite understanding of "third way", which the party promptly did.

7.5 Netherlands: buffering effect of corporatism

In the Dutch case the reader is confronted with a puzzle, easily discerned from Figure 7.5.1 on page 192. There has been a significant degree of centripetal movement in the Dutch party system, and this has been associated with considerable policy changes in the direction of welfare state retrenchment. Indeed, by some accounts, over the 1980s and 90s Netherlands implemented one of the most extensive efforts at welfare retrenchment out of all OECD countries (Green-Pedersen, 2001, p. 137). At the same

time, there is little evidence that this has resulted in a clear impact on income inequality, when measured either through the Gini index (Figure 7.5.1e) or through top income shares (Atkinson and Salverda, 2005). The disconnect between these two phenomena, which, I claim, are linked, will highlight the role of corporatist arrangements in mitigating inequality dynamics that might arise from programmatic shifts. In the interest of expediency, as well as due to causal amalgamation, the link between party dynamics and turnout will not be discussed in depth. Despite a visible connection between depolarization on the socio-economic connection and a drop in turnout starting with the 1970s, it is impossible to determine the strength of the link. This is because the timeline overlaps with the abolishment of compulsory voting in 1967, masking any potential effects of party dynamics.[9]

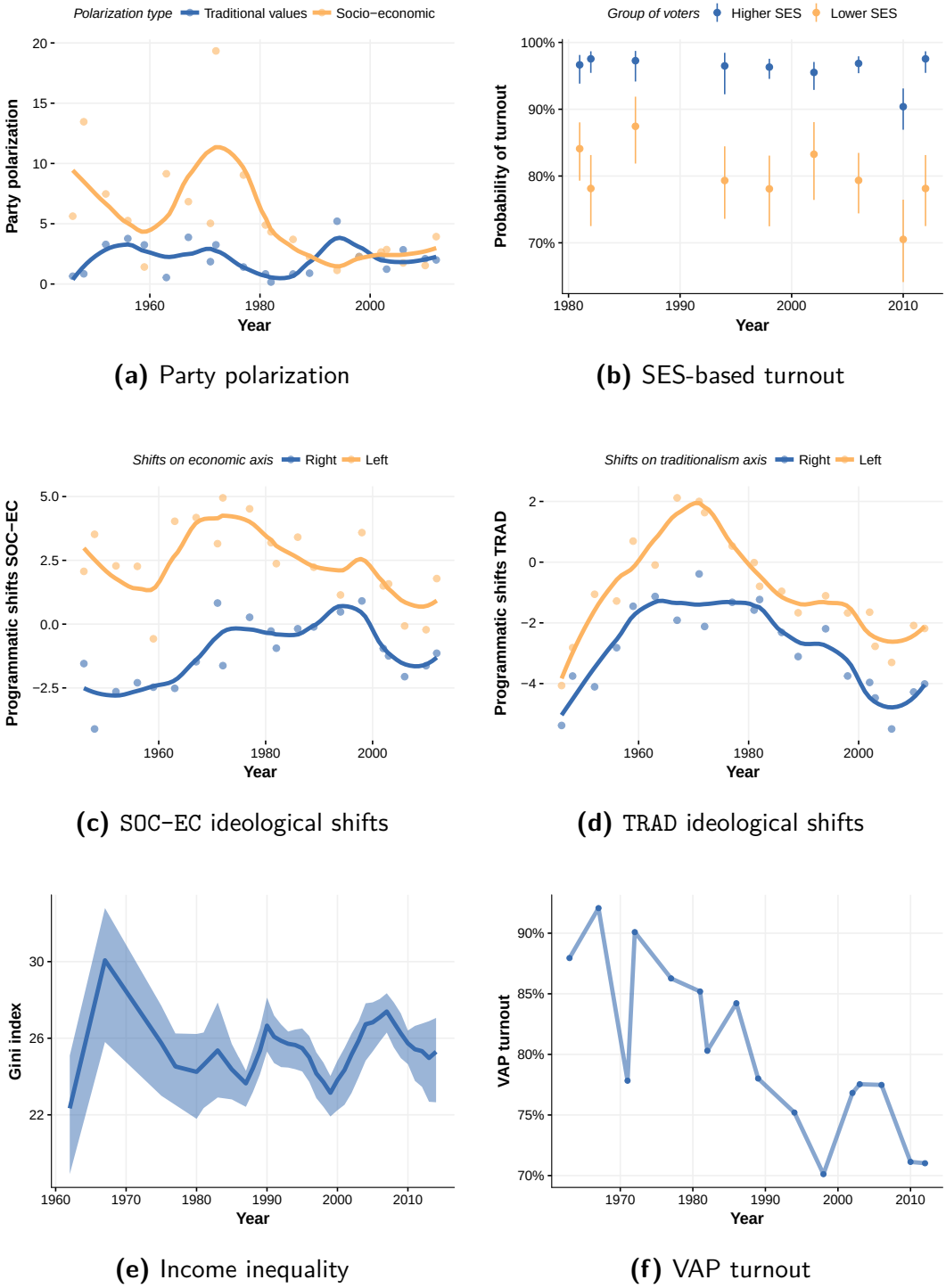
The late 1960s and early 1970s represent the peak of party polarization on a socio-economic dimension in the Netherlands. The facilitating conditions for this are generally clustered into the term "depillarization"—a weakening of citizens' psychological attachment to their pillar's organizational structure, as well as a corresponding weakening of the links between pillar organizations themselves. This process manifested itself through secularization, but also decreasing organizational membership, and increased willingness to go outside one's pillar (e.g. for schooling, health care, or marriage) (Andeweg and Irwin, 2005, pp. 36–39). In response to this, and under the influence of a "new left" wing, the Dutch Labor Party (*Partij van de Arbeid*, PvdA) embarked on a strategy of polarization. The goal was to reconfigure the party system along clear electoral alternatives, as in Westminster systems, and to make the party more attractive in conditions of declining voter–party attachments (Tromp, 1989).[10] The strategy seemed to work—the religious parties changed their platforms in a more centrist direction (Figure 7.5.1c), while the 1973 elections marked the return to power of the PvdA.

The 1960s and 70s also represent the peak of welfare state development in Netherlands. Throughout the first half of the 20th century welfare arrangements were made in the country, although not as universal programs consecrated through law, as in Scandinavian countries. Such arrangements were generally concluded as part of collective agreements between unions and employees, and grew over time to include sickness and pension provisions, as well as child allowances (Trampusch, 2006, p. 125).

[9] The same reason prevents an assessment of the link between income inequality and turnout. 30 years after compulsory voting was abolished, though, we see a rise in turnout, around the memorable 2002 elections. This does not appear to be associated to inequality, as over the same period inequality, in fact, *increases*.

[10] The strategy was also designed to potentially split the newly-formed Christian-Democratic Appeal (*Christen-Democratisch Appél*, CDA), for issues on which there was intra-party disagreement, such as the peace movement.

Figure 7.5.1: Trends for the Netherlands



Note: Both the polarization measures and the party ideological position measures are obtained based on Comparative Manifesto Project data, version 2016a. Income inequality placements obtained from the Standardized World Income Inequality Database (SWIID). Turnout data for voting age population is obtained from the Institute for Democracy and Electoral Assistance (IDEA). All *loess* curves fit with a span of 0.4, to allow for a finer trend to be visible.

In the post-war period, though, these arrangements are formalized as fairly generous government programs which covered *all* citizens rather than only employees: old-age pensions in 1956, support for

widows and orphans in 1959, child benefits in 1962, medical insurance in 1967, and support for the disabled in 1976 (Andeweg and Irwin, 2005, p. 191).[11] Such growth was matched by an increase in spending: between 1950 and 1960 social transfers as share of GDP almost doubled, and then doubled again between 1960 and 1970 (Zanden, 1997, p. 55). Its effects on inequality, though, are unmistakable: we see in Figure 7.5.1e a consistent decline in income inequality, starting from the early 1970s up to the late 1980s.

In the 1980s, both growing party polarization and welfare state generosity came to a halt. The PvdA largely abandoned its strategy of polarization once it realized it could not split the CDA, and that its behavior was in fact pushing the CDA and VVD closer together, in addition to stealing votes from more extreme Left parties (Tromp, 1989, p. 95). Starting with 1981, when the PvdA announced it would be willing to enter into a cabinet with either the CDA or the VVD, the Left in Netherlands gradually shifted toward the center on economic issues. On welfare generosity an elite consensus had developed around the idea that the oversized welfare state was not economically sustainable, particularly considering the very expensive public sector, and the substantial degree of overload in the system of disability benefits. While the first problem was connected to the linkage between private and public wages, the second had more to do with employer and union abuse of the disability benefit system (Hemerijck et al., 2000, p. 218). Employers would use a disability classification for older, and therefore less productive and more expensive, workers. Unions, on the other hand, tacitly accepted this subterfuge, as disability payments continued indefinitely, while unemployment benefits expired after a set period, and both were equally generous (Andeweg and Irwin, 2005, p. 193). Starting with the center-right cabinets of CDA and VVD between 1982 and 1989, and continuing with the center ones of PvdA in coalition with either the CDA or the VVD, retrenchment was implemented. Unemployment benefits were frozen between 1983 and 1989, but also between 1993 and 1995, while replacement levels dropped from 80% of previous income to 70%. Finally, in 1994, eligibility criteria were made stricter (Green-Pedersen, 2001, p. 972). Pension and disability benefits were also frozen over the same two periods of time, but the cutbacks were much more severe in the case of the disability program. Replacement rates were also lowered from 80% to 70%, and all workers below 50 would be subjected to

[11] Very few of these programs were actually PvdA initiatives, but rather of center-right governments made up of the People's Party for Freedom and Democracy (*Volkspartij voor Vrijheid en Democratie*, VVD) in coalition with the religious parties. Zanden (1997) hypothesizes that this is also a consequence of depillarization, as religious parties were worried that ever more secular poor voters would turn to the PvdA without an appealing platform.

a mandatory medical examination to assess the level of disability. Finally, for milder forms of disability, requirements to accept alternative employment were tightened (Hemerijck et al., 2000, p. 222). As was the case in Sweden, a tax reform was also enacted, simplifying the system and lowering the top rates to from 72% to 60%. Corporate income tax was reduced from 43% to 35%, while the VAT was first increased from its 16% level, and then gradually decreased to 17.5% (Kam, 1996).

The link I posit in my framework, between party programmatic shifts and policy changes, holds in the case of Netherlands. The subsequent step, though, from policy shifts to changes in income inequality, does not. As is plainly seen in Figure 7.5.1e, income inequality rose for a short period of time in the late 1980s, only to experience a decline throughout the 1990s, bringing it to an even lower level in 2000 than in 1980. Such a trend firmly contradicts a main causal path of my framework. The explanation for it, I believe, lies in the way in which corporatist institutions can "buffer" the harsher effects of welfare rollback. Unlike the British case, in Netherlands welfare retrenchment has not implied an relinquishment of welfare provision to the forces of the market, but a devolution of sorts to the level of the social partners (Trampusch, 2006). At this level, wage moderation in exchange for benefits could be negotiated between unions and employers, which would partly offset the cuts operated by the government. This was the case with "vocational training, labour-market policy and early retirement, and [...] top-ups of public benefits in sickness, unemployment and disability" (Trampusch, 2006, p. 126). One typical instance is unions' agreement to give up on price indexation for wages in exchange for working-time reductions granted by employers. Another case is the 1996 agreement on flexible employment, which loosened slightly the protections against termination of regular employment, in exchange for greater rights for part-time workers. Other strategies bear more resemblance to Blairite "stealth" retrenchment. Although salaries and benefits were frozen in 1983, special provisions were made for the most vulnerable categories: the poor and families living on only one income (Hemerijck et al., 2000, p. 216). A government plan to secure a job or placement in a further education program for every recently-unemployed person (under 12 months) was launched in parallel with stricter activation requirements for the unemployed. Without such arrangements the growth in inequality observed in the 1980s would have likely been greater.

The same compensatory approach was adopted for the tax reform in 1990. Tax rates for top incomes were reduced, but at the same time a number of deductions were phased out. Corporate income

tax was lowered in 1988, but the investment tax credit was eliminated at the same time (Kam, 1996, p. 199). The streamlining of the system was combined with a broadening of the tax base, which ensured that tax revenues remained roughly constant. The approach was continued with the 2001 tax reform, when the tax allowance at the marginal tax rate was replaced with a tax credit (a fixed amount), which increased the progressivity of the system. This added to a smaller amelioration of the regressive character of the tax system, obtained through the increase in the threshold over which no social security contributions were due (Salverda et al., 2013, p. 150). Through these avenues, as well as the use of part-time employment contracts to minimize unemployment, economic inequality over the 1980s and 1990s has largely fluctuated with no clear trend.

7.6 Adapting the Framework

The specific trajectories in the United Kingdom, Sweden, and Netherlands, illustrate a handful of theoretical weaknesses of my framework, a few empirical deficiencies in my measures, along with some ways in which the framework and the analysis could be improved. On the theoretical front, the case of Sweden highlights how political parties do not change platforms in a fully exogenous manner, with complete freedom and based only on considerations of office, as I have implicitly assumed so far. In fact, their movements are constrained to a greater degree than I envisioned originally. The first checks on movement come from smaller parties, such as The Left or the Greens in Germany, National Front in France, the UK Independence Party (UKIP), the Party for Freedom (*Partij voor de Vrijheid*, PVV) in the Netherlands, or the Left Party in Sweden. The popularity and platform choices of these smaller parties can interfere with the centripetal or centrifugal tendencies of the party system. This was the case after 2008 in Sweden, when the Social Democrats veered back to the Left, under the growing electoral threat posed by the Left Party, but also in the 1940s in Canada, with the Liberals threatened by the Co-Operative Commonwealth Federation. It can also be seen in Denmark, with the restrictive immigration position of the Social Democrats in the wake of the Danish People's Party success at the end of the 1990s, or the similar position of the Austrian Social Democrats around 2006, as a result of the influence of the FPÖ (Bale et al., 2010). When seen in this light, my approach of using a dichotomous split between Left and Right is clearly inadequate. A finer measurement could be obtained by distinguishing between Old and New Left/Right parties, with the "New" category comprising ecological and far-right

parties. Left parties could be expected to shift to the Center to a greater degree in systems without a New Left party, e.g. the United Kingdom, than in countries where such a party exists and is relatively successful, e.g. Sweden (Arndt, 2013).

Unions represent the second source of constraint over Left parties, particularly in countries with high levels of union density, e.g. Denmark, Finland, Iceland, Norway, Belgium, or Sweden. In such systems the reliance of Social Democratic parties on material and logistic support from unions during election periods, as well as on the unions' ability to mobilize members, leads to a considerable block on any unilateral decision to alter the party policy platform. As I showed in the case of Sweden, such party shifts can still occur, albeit against the backdrop of a clear economic crisis, which forced unions to choose between voluntary reductions in wages and benefits, and higher levels of unemployment. In the absence of such powerful exogenous events Left parties are considerably more reticent to advocate welfare retrenchment.

A second theoretical amendment refers to the role played by Christian-Democratic parties in a few of the countries in my sample, e.g. Netherlands or Belgium. Such parties do not easily fit into my "Left vs. Right" framework, while at the same time exerting an appreciable amount of influence over the policy choices of Social Democratic or Liberal and Conservative parties. The strong preference of these parties for an encompassing welfare state, and their centrist ideological position, makes them frequent vital partners in a governing coalition, but also difficult cohabitants if the goal is welfare retrenchment. Rather than a simple dynamic between two party blocs, a more accurate representation of political developments for a number of countries would be to also incorporate a third bloc, the Center. Depending on its electoral strength it can shape the programmatic platforms of both Left and Right parties, generally toward a minimal degree of welfare retrenchment. Such an addition to the framework would also partially address the simplistic assumption that parties of the Left/Right *always* want welfare state expansion/retrenchment (Häusermann et al., 2013). Instead of assuming a fixed position on retrenchment, adding a Center bloc could explain variation over time as a function of office-seeking behavior in a party system where the coalition participation of Christian-Democratic parties is essential.[12]

A further issue, this time with my measurement of party ideological movements, is the difficulty

[12] The point made by Silja Häusermann and her coauthors is more general, in the sense that it also includes how changing core constituencies of Social Democratic parties (from blue-collar working class to white-collar professionals) impacts the programmatic position on the welfare state of these parties.

of producing an accurate indicator. To begin with, "stealth" retrenchment and redistribution, as in the case of the Blair cabinets, cannot be easily incorporated. The sudden appearance of these policies, without prior warning by means of inclusion in an election manifesto, means that the connection between platform changes and inequality trends is more muddled than at first glance. A more accurate measure could be produced by using news reports detailing government policies (Kriesi et al., 2008). These news items are closer to the actual perceptions citizens have of parties' positions in the ideological space, and could incorporate any changes in policy in between two elections. Unfortunately, no such measure exists at the moment for even a majority of countries or years in my sample. In addition to "stealth" policies, my measure of party movement is also plagued by the inability to distinguish between retrenchment policies that favor the market or corporatist institutions outside the market. The experience of Netherlands showed that party movements toward the ideological center need not lead to a marketization of welfare provision. In the case of corporatist countries, it could mean a devolution toward the social partners. In Netherlands this was done to shift responsibility for any cutbacks away from the state, as well as to induce a greater degree of responsibility among the social partners themselves. Such a devolution had a limited impact on income inequality in the Netherlands, illustrating a further difficulty in trying to establish a clear party shift–inequality link.

An additional complication for this link is encountered in the case of both Sweden and Netherlands: the influence of both wage bargaining institutions, and tax reforms, on net income inequality. For Sweden we have seen how inequality trends are partly explained by the breakdown of corporatism in the late-1980s and early-1990s. In both countries occasional revisions of the tax code represent a mechanism through which inequality trends are shaped. Particularly with respect to this factor my measure of party positions is revealed to be inadequate. Only one of the categories in the MARPOR data makes reference to taxes (`per402`), and only in the context of a broader array of policies intended to stimulate entrepreneurship. Even if such a category was available, however, it is doubtful whether it could capture the many tweaks the tax code affords policymakers. The Dutch case revealed an instance where a lowered top tax rate was partially counterbalanced by the elimination of deductions. This, and other tweaks, are completely absent from my measure of party ideological change, but ideally ought to be included.

Addressing a few of these issues could help in elucidating a few trends which my framework is cur-

rently unable to tackle. A prominent example of this is the post-2000 period in Germany, when despite rising polarization on a socio-economic dimension, and a leftward move by the SPD (in government at the time), income inequality grew and turnout declined. Another instance is Canada between the 60s and 80s, when a clear trend of growing polarization on socio-economic issues, and stasis on traditional values, is associated with a turnout decline of roughly 10 percentage points. Predictions could hopefully be refined in such contexts by improving on the measurements of the concepts or refining the causal framework. Further improvement could come from the successful incorporation of institutional changes over time in an account of turnout changes, such as the abolishment of compulsory voting in Netherlands, or the 1993 electoral reform in New Zealand.

8

Conclusion

In a 2011 article, Joseph E. Stiglitz summarized the link between economic inequality and political outcomes as "Wealth begets power, which begets more wealth".[1] It is easy to adapt this convenient, if somewhat reductionist, phrase to the study of the links between income inequality and political participation: economic disparity begets alienation, which (potentially) begets further disparity. In the preceding chapters I have argued that the first part of this comparatively less pithy statement does not find support if tracked longitudinally in advanced industrial democracies. Over time, fluctuations in inequality appear unconnected to turnout variation in a sample of 21 OECD member countries. A modified framework was proposed, which adds the ideological shifts of parties as important and temporally preceding factors for both trends in economic inequality and turnout dynamics. Through the policies they implement while in office, parties' programmatic shifts influence the extent of inequality

[1] "Of the 1%, by the 1%, for the 1%", *Vanity Fair*, May 2011.

in incomes or wealth. The same policies shape the extent to which voters perceive participation as consequential, the ability of citizens to meaningfully distinguish between competing electoral alternatives, or the costs of participation. These connections have been pursued, at the individual level, on the most comprehensive longitudinal data set assembled up to this moment with this purpose in mind.

With respect to turnout, the findings go against the results of most studies on this topic—in a longitudinal perspective, income inequality at the national level does not appear to influence individual-level turnout. Neither does it seem to affect satisfaction with democracy, a political attitude commonly interpreted as a marker of support for democratic institutions. Part of the reason for the discrepancy between my results and those of other investigations could plausibly lie in the setting (OECD vs. a wider sample), and the perspective adopted (longitudinal vs. cross-sectional). Although I have tried to address the matter of the cross-sectional influence of inequality on turnout with the help of a few preliminary tests, more methodical investigations ought to provide a more suitable test of the strength of the connection. I am more confident, though, about the longitudinal link—the data does not support the existence of such an association (see Stockemer and Parent, 2014; Stockemer and Scruggs, 2012).

Naturally, it is important to circumscribe this conclusion. The setting is the national level; at the local level a relationship might nevertheless exist—I was simply unable to test for it with my data. Additionally, the conclusion holds only for the period under study: roughly five decades between 1960 and 2010. As media reports on inequalities of income have increased in frequency in the aftermath of the 2008 global financial crisis, it is possible that voters have begun to incorporate this information in their turnout decisions. This would result in an altered relationship between inequality and turnout. Finally, it only covers the impact of income inequality; wealth inequality appears to display different patterns of variation, both across countries and over time.[2] It might still be the case that wealth inequality, which is higher than income disparities, has an impact on turnout.

8.1 Contributions and Implications

With these constraints in mind, though, the results somewhat alter our understanding of the "inequality paradigm" in political science. To begin with, economic disparity does not beget either democratic

[2] The work of Jesper Roine and Daniel Waldenström points to the comparable levels of wealth inequality in the United States and Sweden; at the same time, the two countries are radically different in terms of income inequality.

dissatisfaction or political disengagement from the most consequential form of political participation: voting. This would mean that the frequently-invoked "vicious" cycle between inequality and turnout is not at play. Even though disparities in turnout between socio-economic groups might drive economic inequality, by means of skewed representation, the feedback loop is interrupted. While there might be other reasons why economic inequality should be of concern in a democracy, e.g. its potential to distort attitudes toward redistribution, or to corrode trust and social solidarity, changes in turnout is not among them. This suggests that there still exists a possibility for the current trends of worsening inequality to be dampened by means of standard democratic processes. Whether this indeed comes to pass might depend more on the available political programs offered by parties, rather than the degree of apathy in the population.

My findings have slightly narrowed the scope of the paradigm, but I hope that my general account has also widened it, by highlighting the wider constellation of social and economic forces which shape both inequality and turnout. Continuing to study the impact of economic inequality in a causal vacuum, without a deeper focus on the factors that shape inequality is, in my opinion, no longer productive. A multitude of causes are responsible for changing income inequality, from union density trends and labor market institutions, to skill-biased technological change, patterns of educational achievement, immigration, or quality of government. I contend that any comprehensive explanation of a link between inequality and political trust, civic participation, attitudes to redistribution, or feelings of solidarity, should take into account this wider causal framework, inasmuch as it applies to the phenomenon under study. Not incorporating this causal web into a theoretical account might risk wrongly attributing to economic inequality effects that are, in fact, caused by other factors, such as corruption or labor market changes.

A further implication is that politics does matter, both for the distribution of income in society and for patterns of participation in the electorate. To complement the pervasive focus of economists on processes such as technological change, immigration, skill acquisition, or trade, political factors are shown here to clearly impact the level of inequality in a country (Bartels, 2008; Stiglitz, 2012). Stressing this connection is perhaps most important, as a growing dual process of marketization and individualization is obscuring the role government can play in regulating phenomena like globalization. Even though some degree of constraint always exists, governments are not powerless in the face of techno-

logical change or trade. Outright stopping these processes is unfeasible, but managing them is fully within the realm of the possible. It is hard to reconcile a perspective that is only based on economic factors with actual developments in the economies of advanced industrial democracies. Economic factors cannot account for why inequality in the UK spiked in the 1980s, but then flattened in the second half of the 90s, a period in which the pressures of globalization were surely higher. Neither can they account for the Dutch experience, where inequality barely inched upward over the 1980–2010 period, or the Canadian one between 1980 and 1995, or the Irish one (where inequality *decreased* between 1980 and 2010). All of these countries have presumably been subjected to similar economic and demographic forces, yet it is clear that their trajectories of economic inequality have been vastly different. The disparity between similar economic inputs yet differing inequality outputs can be addressed, I believe, by a greater focus on political factors, in particular the policies parties advocate.

While voters might not respond to aggregate inequality, they do appear sensitive to shifts in parties' ideological placement, a conclusion which holds regardless of whether individual-level or country-level data is used. The finding points us in a direction that was prominent four decades ago, but which has since gone out of favor in turnout research: how political cleavages, and their selective activation, can either reinforce turnout disparities or mollify them (e.g., Verba et al., 1978). This perspective highlights that it is not only individual-level factors that impact turnout—from value change and expansion of educational opportunities, to growing distrust of political actors and institutions. Political actors also play a role in this process, which is to a certain extent independent of the concerns and motivations of their core supporters. Their choices as to which constituency to target with what message impacts voters' assessment of the utility of participation and the perceived stakes of the election. In a more direct manner, these choices also alter the costs of participation by supplying the voter with processed political information and voting recommendations. In turn these factors influence the turnout decision. Such a framework does not fully "absolve" voters, but neither does it burden them with the full responsibility for declining turnout rates across most consolidated democracies. Its strength is in conceptualizing turnout as the result of a confluence of party strategies and voter traits, each partly influencing each other but each also driven by exogenous factors, such as electoral system constraints, welfare state characteristics, or party system configuration.

On a more pessimistic note, though, the democratic implications of a growing turnout gap be-

tween socio-economic groups ought to be of great concern. Over time, it appears that it is precisely the more disadvantaged in our societies who become disengaged from the political process, and opt not to have their voice heard during elections. This trend can help in partly explaining the declining electoral fortunes of Social Democratic parties across a range of European countries (Netherlands, Austria, the United Kingdom, Germany), after a period of consistent success in the 1990s and early 2000s. At the same time, my results also show that this was, in some measure, a case of party "self-harm" rather than exclusively voter betrayal. The Austrian Chancellor, Christian Kern, incisively summarized this dynamic when addressing SPÖ voters in the wake of his party's disastrous showing in the 2016 Presidential elections: "I understand your disappointment [...]. You haven't strayed, we have. It is not your fault, it is ours."[3] The gradual convergence of a number of mainstream parties on the center-Right and center-Left toward a common set of neoliberal principles has resulted in a pool of voters ever worse represented by the available political alternatives. Although open to speculation, it is possible that these voters would otherwise prefer a stronger welfare state, greater protection from the pressures of globalization, a restriction on immigration, and enhanced job security. Even though I do not pursue this thread in any of my analyses, the gradual deactivation of these voters could provide an answer for why populist movements which combine a right-wing cultural platform with a center-left economic platform have been so successful in the past years. Elements of economic protectionism and promises of alleviation of economic hardships for working-class voters can be encountered in the platforms of Donald Trump's 2016 campaign in the US, as well as Bernie Sanders' in the same context, but also in the case of the UK Independence Party, or the *Front National* in France.[4] Inasmuch as they are able to target this constituency, left "unguided" by traditional Social Democratic parties, my expectation is that their electoral fortunes will improve even further. Conversely, where Social Democratic parties have not strayed too close to the ideological center with their platforms, the expectation is that populist movements will not find the fertile ground they seek (for circumstantial evidence, see Coffé, 2008).

My results suggest "yes" is the answer to Paul Krugman's question, as it applies to a wider uni-

[3] Esther King, "Austria pushes to preference locals ahead of EU workers", *Politico*, January 12, 2017.

[4] Some limited evidence of contagion exists, with the SPÖ promise in 2017 to limit immigration into Austria from Eastern European countries, or the Labour Party's manifesto for the 2017 UK general election, where limited nationalization is mentioned. Similarly, the German SPD under Martin Schultz is making a clear attempt to repair its relationship with labour unions ahead of the 2017 elections, by declaring that "mistakes" were made—a reference to the Schröder cabinet's welfare retrenchment under the form of *Agenda 2010* (Florian Eder, "In campaign debut, Martin Schultz leans left", *Politico*, February 22, 2017).

verse of cases: "Can anyone seriously deny that our political system is being warped by the influence of big money, and that the warping is getting worse as the wealth of a few grows ever larger?" Yes, at least with respect to turnout. And, yet, caution should be exercised. As with any large-N analysis, my results speak better to trends *in the aggregate* rather than to idiosyncratic trajectories. It is fully plausible that economic inequality, *under particular circumstances*, could adversely impact democratic representation by skewing policy outcomes toward wealthier citizens. In the presence of loose party financing regulations, such as in the aftermath of the *Citizens United vs. FEC* US Supreme Court decision, rising inequality could create incentives for concerted attempts to influence campaign outcomes and promote specific issues in the public arena. When combined with geographic segregation, amplified economic inequality could produce decreased social solidarity, as social contact between income groups is reduced, and bridging social capital is impaired. Finally, if such inequality trends are developing at the same time as a process of partisan electoral redistricting, the outcome might be a more polarized legislature, with representatives increasingly elected from more ideologically homogeneous districts. To the extent partisan identification is increasingly linked to income, this could produce greater gridlock in matters of redistributive policies (McCarty et al., 2006). While a few or all of these conditions in combination might produce the dynamic Paul Krugman discusses, the reality is that they are not present in all countries in my sample, or at the same time. At least with respect to turnout and satisfaction with democracy, I suspect this is why I do not uncover an effect over time in my group of countries.

8.2 Future Directions

The findings from the previous chapters are best considered springboards and initial leads toward a more refined understanding of how political institutions and party dynamics influence both macroeconomic trends and individual-level political behavior and attitudes. Although large-N analyses could continue to yield insights into these phenomena, they also pose difficulties in terms of data availability and comparability, along with a considerable loss in specificity. On account of these shortcomings, I believe a better understanding of these dynamics could be achieved by adopting a more targeted approach, in the context of a single country, or a smaller group of countries. Restricting the sample in this manner comes with benefits, in the form of an increased ability to account for macro developments, such as institutional changes, better quality data, and the ability to simplify statistical models through

the use of a most similar/different systems design (Achen, 2002).

The range of questions that could be fruitfully tackled with such an approach suffers little restriction. To begin with, the inequality–turnout link could be probed again, this time using a finer measurement instrument than the Gini index, under the form of decile ratios (P90/P10, or P50/P10). While not as widely available as the Gini index, decile ratios are more sensitive to changes at the tails of the distribution. Furthermore, the ratios can record whether growing inequality is due to the wealthiest doing better, the poorest doing worse, or a combination of these processes that also involve the middle of the income distribution. It is possible that turnout among specific subgroups in the population is sensitive not to the aggregate level of inequality, but to how inequality between this group and the middle-income earners, or the wealthiest, has evolved. The added value of this approach is that different policies are responsible for inequalities at different ends of the income distribution. Top incomes are more sensitive, in the short term, to changes in top tax rates and financial sector liberalization and deregulation. Bottom incomes are presumably more reactive to changes in union bargaining strength and welfare state retrenchment efforts. A more precise focus on specific income-based groups and policies could likely yield more precise results as to the impact of economic inequality on turnout.

As mentioned in the previous chapter as well, a refinement of my framework could also take the form of an examination of the institutional conditions that facilitate a party's ideological shifts. This could also extend to whether these shifts ultimately result in changes in the turnout gap between socio-economic groups. Such an investigation would require moving beyond a conceptualization of "Left" and "Right" as monolithic entities, and distinguishing between Old/New Left or Right parties. Institutional conditions such as the electoral system, the degree of polarization, and the presence of powerful centrist parties could influence the extent to which Old Left/Right parties are willing to change their platforms. Additionally, the electoral strength and platforms of New Left/Right parties could also exert an impact over the strategies of the other parties in the political system. The interactions in the system are assuredly complex, but could be teased out in a systematic manner if observed longitudinally in a single country, or a small set of political systems. With such a focus novel questions, beyond the grasp of my analysis, would open up. The most important one is whether lower-SES voters could be re-engaged in the political system by a new political movement, such as a populist party. Another issue is what type of response from the established parties would be elicited by the appearance of a populist move-

ment, and how would this impact turnout disparities between socio-economic groups. Answering these questions, and others like them, would require a more in-depth focus on the constraints parties operate under when deciding whether to alter their programmatic platforms.

Thinking back to the framework proposed in Chapter 2 it becomes clear that my analyses here have only scratched the surface of the links between economic inequality, participation, and turnout. My findings have indicated a few ways in which to enrich the framework, such as the role of unions in shaping both inequality and participation, or that of corporatist arrangements as a key mediating factor in the link between party policy and economic disparities. At the same time, my results have only truly spoken to one transmission mechanism from political parties to voters, *via* calculations of utility based on policy differences. The remaining pathways are a fertile area of research. The way in which party ideological shifts are reflected in changes of mobilization strategies is still an unexplained feature in my model. Considerably more important is to understand the manner in which party or unions appeals can shape a subjective sense of group membership and, through this, the expressive benefits obtained from participation. In this monograph this topic has only been hinted at, but never tackled directly, due to a lack of cross-national or longitudinal information. Pursuing these avenues could hold the key to explaining a few dynamics that my framework cannot yet account for. In both the US and the UK party platforms have converged over the same time period, yet higher-educated voters in the US have maintained their participation level, while their British counterparts have gradually dropped out. More generally I have not been able to account for why more cognitively sophisticated voters (with higher levels of education) have not reacted to diminished benefits from voting, due to platform convergence, in the same way as their less sophisticated peers. These questions should be pursued as well, in the search for a more comprehensive explanation for how the party–voter link is weakened due to the strategic choices parties make.

To pursue these ideas, though, I firmly believe that a narrower perspective should be adopted, as the insights provided by large-N analyses based on reduced statistical models cannot be extended too far. Focusing on a single country over time could enhance our understanding greatly, by allowing for better specified models and a higher degree of comparability between survey questions. The real gain, though, is in the ability to accurately track changes in party positions and in the monetary fortunes of finely-delimited socio-economic groups in the population. In this way, a more solid comprehen-

sion of the ways parties target constituencies with policies and messages, and how these constituencies then respond in their turnout behavior, can be achieved. They could also allow for the construction of rudimentary measures of interference of wealthy elites in the political process, in the hope of better addressing whether considerations of relative power play a role in turnout dynamics. Over time, such fine-grained answers could hopefully be aggregated in a larger framework intended to cover a wider group of OECD countries.

Having addressed the past five decades in my analysis, it is useful to briefly bring up the future as well. If party dynamics are a cause of both inequality trends and turnout patterns, could an alteration of these dynamics dampen or reverse the trends we see in inequality or political participation? While also keeping in mind Yogi Berra's warning with respect to predictions about the future, I would nevertheless offer a cautiously optimistic answer. We see that countries have been able, through a diverse array of tax and labor market policies, to resist most of the economic pressures of globalization and to keep economic inequality in check. We also find cases where galvanizing candidacies with a potent economic message have driven up turnout among lower-SES voters, particularly in the 2008 and 2012 Obama campaigns. The candidate's racial appeal undoubtedly played a role in this increased mobilization, but it would be hard to deny that so did the message. With both these links holding, there is indeed a path to a slightly more democratic and economically equitable system. The key word being, unfortunately, *slightly*. I consider it improbable that political platforms as extensive, in terms of redistribution, as those of the 1950s and 60s could be attempted again. Value change and growing individualism have meant that there is less demand for these platforms than there was half a century ago. Even if this demand could be "manufactured" anew, the facilitating conditions for such a redistributive effort have disappeared. Union density rates have been on a descending slope for roughly four decades in a majority of OECD nations, while corporatism has taken a leaner form, or has been outright weakened to the point of disappearance. In the absence of such factors, it is hard to believe that inequality would be reduced by much. In the end, though, it might be worth pursuing this goal even in the face of limited returns to efforts expended, if only to remind ourselves that politics is not powerless in the face of seemingly tidal trends such as economic inequality or declining voter engagement.

9

Appendices

This section presents results which are not essential to the main arguments made in the empirical chapters. Full model results can be found here, along with additional specifications that were tested. Results are arranged based on the chapter where the evidence is first presented.

9.1 Chapter 4

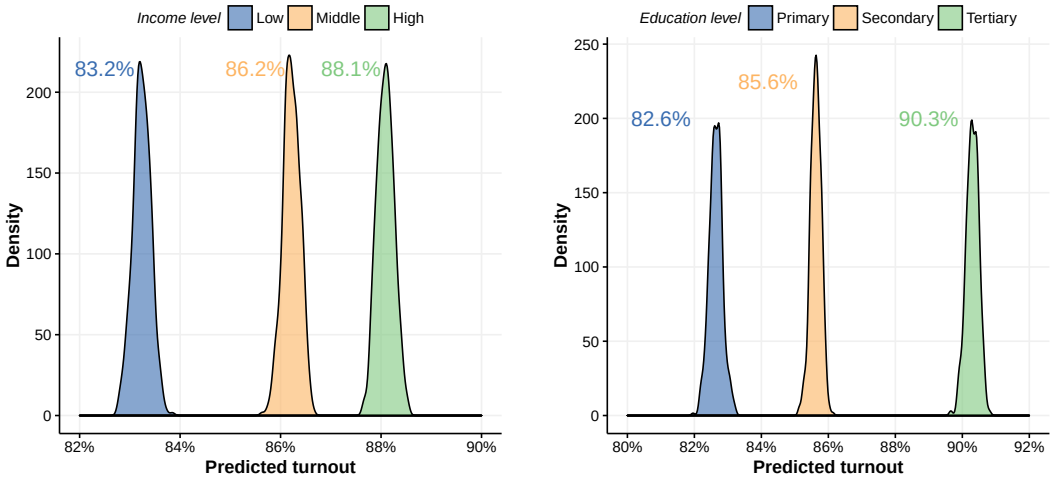
9.1.1 Turnout models: full results

Table 9.1.1: Three-level mixed-effects hierarchical models of individual-level turnout

	Model 1	Model 2	Model 3	Model 4
Intercept	2.25*	3.29*	3.61*	4.20*
	(0.16)	(0.68)	(1.00)	(0.85)
Age (decades)	0.26*	0.26*	0.26*	0.26*
	(0.01)	(0.01)	(0.01)	(0.01)
Male	−0.03	−0.03	−0.03	−0.03
	(0.02)	(0.02)	(0.02)	(0.02)
Primary education	−0.81*	−0.81*	−0.81*	−0.81*
	(0.03)	(0.03)	(0.03)	(0.03)
Secondary education	−0.53*	−0.53*	−0.53*	−0.53*
	(0.03)	(0.03)	(0.03)	(0.03)
Low income	−0.48*	−0.48*	−0.48*	−0.48*
	(0.02)	(0.02)	(0.02)	(0.02)
Middle income	−0.20*	−0.20*	−0.20*	−0.20*
	(0.02)	(0.02)	(0.02)	(0.02)
Married	0.41*	0.41*	0.41*	0.41*
	(0.02)	(0.02)	(0.02)	(0.02)
Church attendance (high)	0.42*	0.42*	0.42*	0.42*
	(0.02)	(0.02)	(0.02)	(0.02)
Union member	0.27*	0.27*	0.27*	0.27*
	(0.02)	(0.02)	(0.02)	(0.02)
Political interest (high)	1.10*	1.10*	1.10*	1.10*
	(0.02)	(0.02)	(0.02)	(0.02)
Compulsory voting	0.65*	0.74*	0.76*	0.79*
	(0.32)	(0.32)	(0.31)	(0.27)
USA or CHE	−1.83*	−1.69*	−1.65*	−1.95*
	(0.40)	(0.39)	(0.42)	(0.34)
Union density		−0.03	−0.01	−0.03
		(0.11)	(0.11)	(0.12)
Effective no. of parties		−0.05	−0.05	−0.07
		(0.11)	(0.11)	(0.11)
GDP/capita (10,000)		−0.04	−0.04	−0.05
		(0.04)	(0.04)	(0.05)
Gini		−0.37		
		(0.23)		
Gini long.			0.22	0.36
			(0.47)	(0.47)
Gini cross.			−0.48	−0.68*
			(0.35)	(0.30)
RILE long.				−1.05*
				(0.51)
RILE cross.				1.22*
				(0.47)
Log Posterior	−47,406.07	−47,409.98	−47,409.51	−47,412.03
N	142,337	142,337	142,337	142,337
Elections	92	92	92	92
Countries	19	19	19	19
SD: Election (Intercept)	0.49	0.49	0.49	0.50
SD: Country (Intercept)	0.48	0.46	0.48	0.33

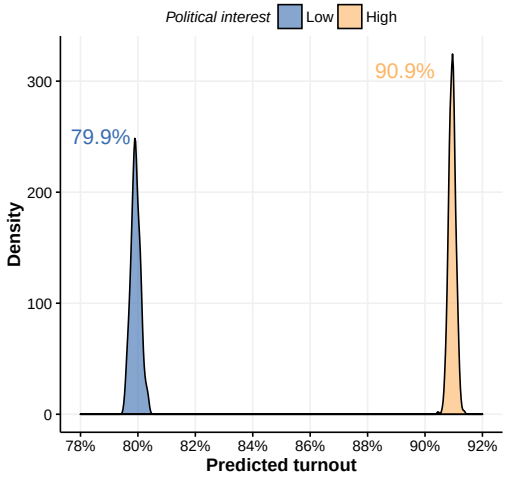
Note: '*' 95% credible interval does not intersect 0. Parameters summarized based on a sample of 3,000 draws from the posterior distribution.

Figure 9.1.1: Predictions of turnout level: individual-level factors



(a) Income level

(b) Educational achievement



(c) Political interest

Note: The predictions use estimates from Model 4 in Table 9.1.1. 500 plausible estimates of turnout were obtained for each of the contrasting levels of Gini or compulsory voting and then presented as density plots. The numbers next to the densities depict the expected average level of turnout.

9.1.3 Turnout models: additional specifications

Although they were left out of the main results, I tested additional specifications for some of the models presented in Chapter 4. To begin with, I wanted to check the possibility that an interaction effect exists between income and the Gini index, as found by Solt (2008). To the specification presented in Model 4 of Table 9.1.1 I therefore add an interaction between the low income dummy indicator and longitudinal Gini, and present only the quantities of highest interest below in Table 9.1.2. Full results are available upon request.

Table 9.1.2: Turnout specification with interaction effect between income and inequality

Predictor	β
Low income	-0.49^{*}
	(0.03)
Gini long.	0.33
	(0.46)
Low income × Gini long.	0.03
	(0.14)

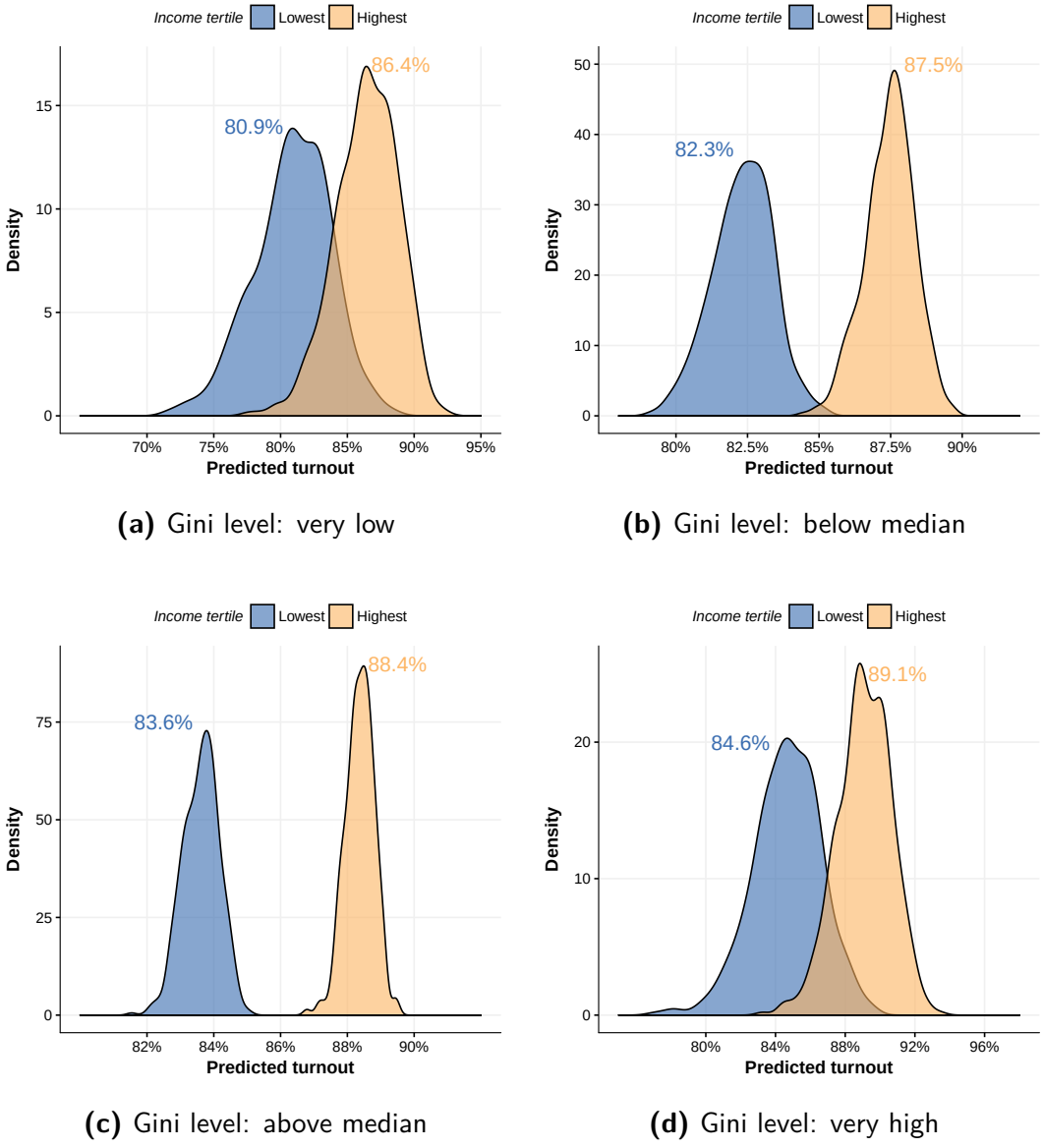
Note: '*' 95% credible interval does not overlap 0. Standard errors in parentheses. Model was run on a sample of 142,337 individuals, 92 country-years, and 19 countries. Results were produced with the `rstanarm` package, version 2.15.3. Parameters are summarized based on a sample of 3,000 draws from the posterior distribution.

The results show there to be no evidence of an interaction effect between income inequality over time and an individual's income. As in past specifications, the evidence would point toward a *positive* effect of inequality on the turnout probability, and no difference between lower-income and higher-income voters in how they respond to inequality. A clearer way of seeing this is by plotting the expected turnout probability for individuals in the first tertile and third tertile, at different levels of inequality. If indeed an interaction effect is present, we ought to see a change in the probability gap between richer and poorer citizens as inequality grows. The four panels in Figure 9.1.2 do not suggest any interaction effect: as we move from panel 9.1.2a to 9.1.2d, we can see that the turnout gap does not change in any meaningful way. The difference in turnout probability between the wealthiest and the poorest third in society stays fairly constant at between 4.5 and 5.5 percentage points, regardless of the level of inequality over time.[1] On the other hand, as we would expect based on the positive coefficient for longitudinal

[1] It is evident from the panels that as we get further toward the middle of the distribution for Gini values, the precision of the estimate increases considerably, judging from the reduced degree of overlap between the distributions and the higher distribution densities.

Gini, at higher levels of income inequality it appears that both poorer and wealthier voters turn out in slightly greater numbers. The small increase, of about 2 or 3 percentage points, is drowned out by a considerable amount of uncertainty in the estimates, though.

Figure 9.1.2: Turnout gap between richer and poorer citizens under different levels of inequality



(a) Gini level: very low

(b) Gini level: below median

(c) Gini level: above median

(d) Gini level: very high

Note: 500 plausible estimates of turnout were obtained for each of the contrasting levels of personal income, for four different levels of Gini, and then presented as density plots. The numbers next to the densities depict the expected average level of turnout. For Gini level the median was chosen as reference point, with the four levels set at: 5 points below, 2 points below, 1 point above, and 4 points above.

The issue of large uncertainty bounds for my estimates of Gini has been particularly vexing. In the main analyses I have tried to strike a middle ground, conscious of the fact that any increase in the number of level-1 predictors automatically involved a sample size loss at the level-2. This has left the

door open to questions regarding the way in which my estimates for the effect of Gini or party shifts would change with a larger sample of country years. I pursue this question further here.

To address these concerns I have started by reducing the individual-level specifications—I allow only age, gender, income, and education as predictors of turnout. To further boost the sample size at the level-1 I have used multiple imputation for each of the election surveys, wherever possible.[2] This procedure yielded 10 multiply imputed data sets for each of 187 election studies with valid information on all the predictors mentioned above. Data availability issues at the aggregate level reduced the sample size even further, but the analyses I report below are nevertheless based on a sample size of about 360,000 individuals and 159 country years. In terms of level-2 sample size, this represents a roughly 74% improvement over the turnout models reported in Chapter 4, which made use of only 92 country years. At the level-1, the improvement has been about 153% compared to previous models, obtained, of course, at the cost of an underspecified model at the individual level.

Each of the 10 versions of the individual data were merged with aggregate-level predictors of turnout. Unlike the main models though, here I use 10 randomly selected values for Gini at the national level, out of the 100 supplied in the SWIID. This should offer a more realistic uncertainty interval for the effect of income inequality. The size of the data, though, make it extremely cumbersome to run all 10 versions with a Bayesian model. I therefore opted for a Frequentist estimation, using the `lme4` package; the 10 estimates and their standard errors were then pooled using Rubin's Rules (Rubin, 1987). The results of the estimation can be seen in Table 9.1.3.

Even in the presence of a greatly expanded sample of elections, and with a reduced level-1 specification, the results presented here reinforce the main conclusions of Chapter 4. Left unpartitioned, income inequality has a clear negative effect on turnout in Model 1. It's important to consider, though, that the 0.44 decrease in the logged odds of turning out to vote is produced by a *10-point* increase in Gini, as a result of my rescaling procedure. When disaggregated into a longitudinal and a cross-sectional component the familiar pattern first observed in Table 4.5.1 re-emerges: increases in Gini over time have no statistically significant impact on turnout probabilities. Cross-sectional differences in income inequality, though, have a clear *negative* effect on turnout: higher levels of inequality are associated with a lower average turnout probability at the individual-level. The same results appear with respect to the influ-

[2] Where one of the four predictors was completely absent from the survey, no imputation could be performed.

Table 9.1.3: Three-level mixed-effects hierarchical models of individual-level turnout: Frequentist estimates from multiply imputed data (I)

	Model 1	Model 2	Model 3
Intercept	4.16*	4.16*	5.11*
	(0.39)	(0.56)	(0.53)
Age (decades)	0.29*	0.29*	0.29*
	(0.00)	(0.00)	(0.00)
Male	−0.07*	−0.07*	−0.07*
	(0.01)	(0.01)	(0.01)
Primary education	−0.75*	−0.75*	−0.75*
	(0.02)	(0.02)	(0.02)
Secondary education	−0.50*	−0.50*	−0.50*
	(0.02)	(0.02)	(0.02)
Low income	−0.63*	−0.63*	−0.63*
	(0.01)	(0.01)	(0.01)
Middle income	−0.24*	−0.24*	−0.24*
	(0.02)	(0.02)	(0.02)
Compulsory voting	1.10*	1.10*	1.00*
	(0.26)	(0.26)	(0.22)
USA or CHE	−1.07*	−1.07*	−1.38*
	(0.35)	(0.34)	(0.29)
Union density	0.02	0.02	0.02
	(0.06)	(0.06)	(0.06)
Effective no. of parties	−0.10	−0.10	−0.09
	(0.07)	(0.07)	(0.07)
GDP/capita (10,000)	0.00	0.00	0.01
	(0.03)	(0.03)	(0.03)
Gini	−0.44*		
	(0.14)		
Gini long.		0.00	0.29
		(0.26)	(0.26)
Gini cross.		−0.44*	−0.72*
		(0.20)	(0.19)
RILE long.			−1.52*
			(0.34)
RILE cross.			1.44*
			(0.33)
SD: Election (Intercept)	0.41	0.41	0.41
SD: Country (Intercept)	0.43	0.43	0.33
logLikelihood	−132, 840	−132, 840	−132, 835
AIC	265, 710	265, 712	265, 705
BIC	265, 872	265, 885	265, 899
N	360, 784	360, 784	360, 784
Elections	159	159	159
Countries	21	21	21

Note: '*' $p < 0.05$. Standard errors in parentheses. Estimates and standard errors have been pooled using Rubin's Rules; measures of model fit have been averaged over the 10 iterations. Model run with `lme4` package for R, version 1.1-13 (Bates et al., 2015).

ence of party shifts on a `RILE` dimension: a negative effect of rightward shifts on turnout over time, but a positive effect across countries. Table 9.1.4 shows estimates from a series of models that add, relative to the 3 models in Table 9.1.3, two-way additive interactions between inequality or party ideological shifts and individual-level income. Without wishing to dwell too much on each model in turn, the most

important finding is that there does not appear to be a disproportionate effect of income inequality on the turnout of lower income individuals. This challenges a central prediction of *relative power theory*, which would predict the existence of such a dynamic. This conclusion holds, for my sample, irrespective of whether longitudinal trends (Model 4) or cross-sectional differences (Model 6) in inequality are used. Party ideological shifts on a generic RILE dimension do not disproportionately impact lower income citizens either, although the findings of Chapter 6 will reveal that part of the problem lies in the overly-broad nature of the RILE index itself.

Table 9.1.4: Three-level mixed-effects hierarchical models of individual-level turnout: Frequentist estimates from multiply imputed data (II)

	Model 4	**Model 5**	**Model 6**	**Model 7**
		[irrelevant predictors excluded]		
Gini long.	0.27	0.27	0.27	0.27
	(0.27)	(0.28)	(0.29)	(0.27)
Gini cross.	−0.68*	−0.68*	−0.64*	−0.68*
	(0.20)	(0.22)	(0.23)	(0.20)
RILE long.	−1.43*	−1.44*	−1.43*	−1.42*
	(0.38)	(0.38)	(0.41)	(0.39)
RILE cross.	1.38*	1.38*	1.38*	1.44*
	(0.35)	(0.35)	(0.39)	(0.37)
Gini long. × Low income	0.00			
	(0.10)			
RILE long. × Low income		0.02		
		(0.08)		
Gini cross. × Low income			−0.07	
			(0.05)	
RILE cross. × Low income				−0.10
				(0.06)
SD: Election (Intercept)	0.44	0.44	0.44	0.44
SD: Election Low income	0.24	0.24	0.24	0.24
SD: Country (Intercept)	0.32	0.32	0.32	0.32
logLikelihood	−132, 671	−132, 671	−132, 670	−132, 670
AIC	265, 384	265, 384	265, 382	265, 381
BIC	265, 611	265, 611	265, 609	265, 608

Note: '*' $p < 0.05$. Standard errors in parentheses. Estimates and standard errors have been pooled using Rubin's Rules; measures of model fit have been averaged over the 10 iterations. Model run with `lme4` package for R, version 1.1-13 (Bates et al., 2015). All models fit on a sample of 360,784 individuals, in 159 elections, from 21 countries.

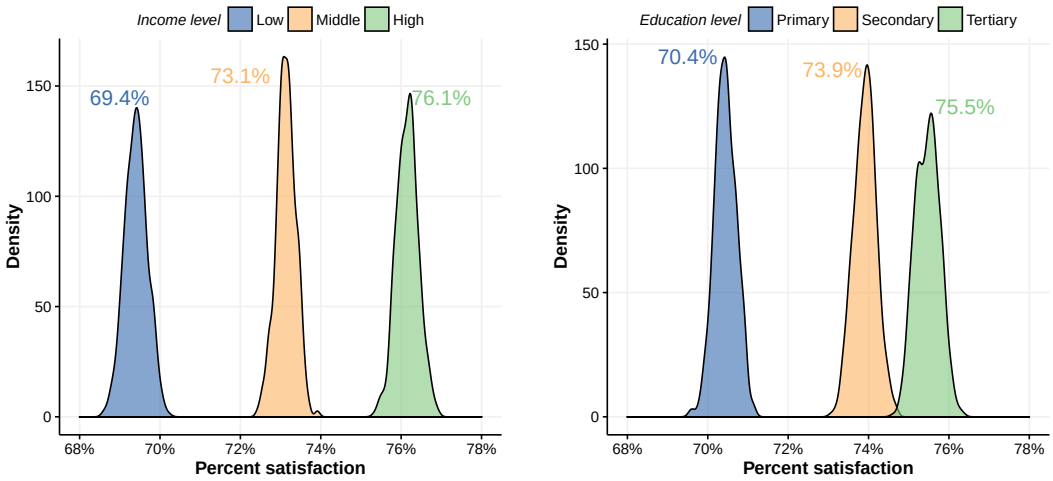
9.1.4 Satisfaction with democracy models: full results

Table 9.1.5: Three-level mixed-effects hierarchical models of individual-level satisfaction with democracy

	Model 1	**Model 2**	**Model 3**	**Model 4**
Intercept	0.63	1.72	2.28	−1.84
	(1.00)	(1.52)	(1.27)	(1.52)
Age (decades)	0.04*	0.04*	0.04*	0.04*
	(0.01)	(0.01)	(0.01)	(0.01)
Male	0.01	0.01	0.01	−0.01
	(0.02)	(0.01)	(0.01)	(0.02)
Primary education	−0.28*	−0.28*	−0.28*	−0.33*
	(0.02)	(0.02)	(0.02)	(0.03)
Secondary education	−0.09*	−0.09*	−0.09*	−0.16*
	(0.02)	(0.02)	(0.02)	(0.02)
Low income	−0.37*	−0.37*	−0.37*	−0.41*
	(0.02)	(0.02)	(0.02)	(0.02)
Middle income	−0.17*	−0.17*	−0.17*	−0.21*
	(0.02)	(0.02)	(0.02)	(0.02)
Divorced or widow/er	−0.12*	−0.12*	−0.12*	−0.13*
	(0.02)	(0.02)	(0.02)	(0.02)
Catholic	0.03	0.03	0.03	0.06*
	(0.02)	(0.02)	(0.02)	(0.02)
Atheist	−0.37*	−0.37*	−0.37*	−0.38*
	(0.02)	(0.02)	(0.02)	(0.02)
PR electoral system	0.14	0.06		
	(0.34)	(0.35)		
Unemployment (%)	−0.14*	−0.13*	−0.15*	−0.02
	(0.04)	(0.04)	(0.04)	(0.07)
Gini	0.09			
	(0.31)			
Real GDP growth (%)	0.05	0.05	0.04	0.07
	(0.04)	(0.05)	(0.05)	(0.04)
Gini cross.		−0.25	−0.43	0.04
		(0.47)	(0.42)	(0.38)
Gini long.		0.34	0.23	−0.78
		(0.42)	(0.41)	(0.73)
RILE cross.			0.87	
			(0.57)	
RILE long.			0.40	
			(0.38)	
GEE cross.				1.67*
				(0.40)
GEE long.				0.36
				(0.62)
Log posterior	−60,557.29	−60,558.34	−60,559.08	−43,050.77
N	111,764	111,764	111,764	76,969
Elections	63	63	63	46
Countries	14	14	14	14
SD: Election (Intercept)	0.52	0.52	0.52	0.43
SD: Country (Intercept)	0.52	0.52	0.44	0.30

Note: '*' 95% credible interval does not intersect 0. Parameters summarized based on a sample of 3,000 draws from the posterior distribution.

Figure 9.1.3: Predictions of aggregate democratic satisfaction: individual-level factors



(a) Income level **(b)** Educational achievement

Note: The predictions use estimates from Model 3 in Table 9.1.5. 500 plausible estimates of turnout were obtained for each of the contrasting levels of Gini or compulsory voting and then presented as density plots. The numbers next to the densities depict the expected average level of turnout.

Table 9.1.6: Two-level mixed-effects hierarchical models of individual-level turnout

	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	1.84*	1.87*	1.82*	2.02*	2.03*
	(0.19)	(0.20)	(0.19)	(0.31)	(0.26)
Age (decades)	0.24*	0.26*	0.25*	0.24*	0.27*
	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)
Male	−0.10*	−0.07	−0.08	0.02	0.00
	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)
Primary education	−0.63*	−0.75*	−0.69*	−0.98*	−0.92*
	(0.06)	(0.07)	(0.06)	(0.08)	(0.08)
Secondary education	−0.38*	−0.43*	−0.40*	−0.60*	−0.55*
	(0.06)	(0.07)	(0.06)	(0.07)	(0.07)
Low income	−0.40*	−0.44*	−0.44*	−0.41*	−0.45*
	(0.06)	(0.06)	(0.06)	(0.07)	(0.07)
Middle income	−0.13*	−0.15*	−0.15*	−0.14*	−0.17*
	(0.05)	(0.06)	(0.06)	(0.07)	(0.07)
Married	0.41*	0.37*	0.36*	0.36*	0.36*
	(0.04)	(0.05)	(0.04)	(0.06)	(0.06)
Church attendance (high)	0.42*	0.39*	0.41*	0.33*	0.33*
	(0.05)	(0.05)	(0.05)	(0.06)	(0.06)
Union member	0.32*	0.28*	0.29*	0.23*	0.25*
	(0.05)	(0.06)	(0.06)	(0.08)	(0.08)
Political interest (high)	0.91*	0.96*	0.94*	1.16*	1.09*
	(0.05)	(0.05)	(0.05)	(0.07)	(0.06)
Compulsory voting	0.86*	1.36*	1.23*	0.82	1.04
	(0.32)	(0.43)	(0.39)	(0.71)	(0.60)
USA or CHE	−0.82	−0.95*	−0.77	−1.09	−1.13
	(0.47)	(0.46)	(0.44)	(0.82)	(0.60)
Gini	−0.56	−0.43	−0.36	−0.49	−0.41
	(0.42)	(0.39)	(0.41)	(0.59)	(0.49)
Union density	0.00	0.00	0.00	0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Corruption		0.02*			
		(0.01)			
Governance quality			3.26		
			(1.77)		
Infrastructure quality				0.16	
				(0.50)	
Gov. effectiveness					0.68
					(0.52)
Log posterior	−8, 858.60	−7, 374.18	−7, 850.84	−5, 187.03	−5, 565.56
N	30, 447	24, 431	26, 094	17, 745	19, 694
Countries	19	16	17	12	13
SD: (Intercept)	0.33	0.19	0.28	0.30	0.48

Note: '*' 95% credible interval does not intersect 0. Parameters summarized based on a sample of 3,000 draws from the posterior distribution. While not significant at the 95% level of confidence, quality of governance is significant at the 90% level.

9.2 Chapter 5

9.2.1 Index of government ideological placement

The main data sources for constructing the index of ideological placement are the *ParlGov* data set and the *Comparative Manifesto Project* (CMP). Seat share information and government composition data from the first source was merged with placement data from the second source, to obtain a list of all governments between 1950 and 2007 in the 22 countries analyzed here.[3] For each of the parties in these governments, the CMP provided placements on a wide range of dimensions. The `SOC-EC` index, on which the chapter is based, was constructed as outlined in Chapter 3 (Equation 3.3), using the strategy described in Lowe et al. (2011) in order to obtain a positional index.

Using this positional index, four summary measures were constructed for each of the governments in the *ParlGov* data.

1. A simple average of the scores across all parties in government, for each of the four dimensions. This is based on the assumption that regardless of the size of the party, each member of the governing coalition is a 'veto player'. As such, they can trigger a governmental crisis by withdrawing from the coalition in case a policy proposal is not acceptable (see Ha, 2012).

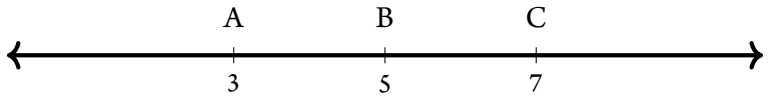
2. A weighted average of the scores across all parties in government, for each of the dimensions, using the party seat shares in the legislature as weights. In addition, a correction was applied for the party which received the office of Prime Minister, as this party presumably has a greater influence over the direction of policy than other members in the coalition. The correction consists of artificially increasing by 50% the seat share of the party which holds the office of Prime Minister, and computing the weighted average using this distribution of seats.

3. A weighted average similar to the one above, but with a higher correction factor. In this instance, the share of seats was increased by 100% for the party which held the office of Prime Minister.

4. A weighted average with no correction for holding the office of Prime Minister. The actual seat shares were used as weights.

[3] In the case of Japan no placement information could be obtained between 1950 and 1960. No democratic elections were organized in Spain and Portugal prior to 1977 and 1975, respectively.

Figure 9.2.1: Placement of three hypothetical parties



As an example, let's take a hypothetical election, where three parties, A, B, and C, split between themselves all of the votes cast in this election (see Figure 9.2.1). Party A received 35% of legislative seats, party B received 25%, and party C received 40%; in my example, parties A and B go on to form the government. In this instance, party A's leader becomes the Prime Minister.

Using the first method of computing ideological placement, the goverment's position is

$$\frac{3+5}{2} = 4 \tag{9.1}$$

Using the second method, party A's share of seats becomes $35\% + 35\% * 1/2 = 52.5\%$. As a result of this, the placement of the government is

$$\frac{3 * 52.5 + 5 * 25}{52.5 + 25} = \frac{282.5}{77.5} = 3.645 \tag{9.2}$$

Using the third method, party A's share of seats becomes $35\% + 35\% = 70\%$. As a result of this, the placement of the government is

$$\frac{3 * 70 + 5 * 25}{70 + 25} = \frac{335}{95} = 3.526 \tag{9.3}$$

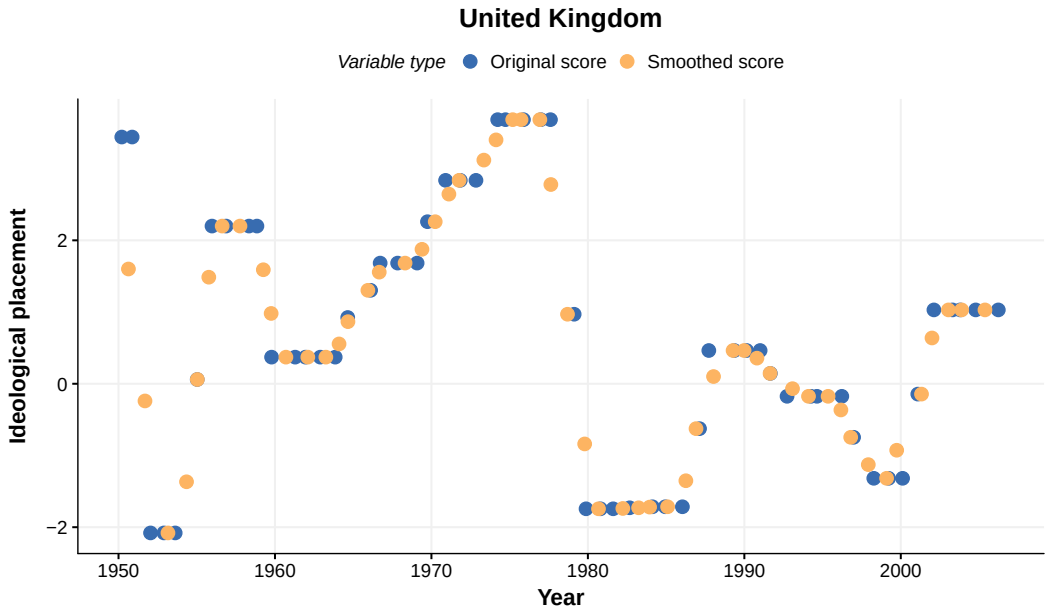
Finally, using the fourth method, the placement of the government is

$$\frac{3 * 35 + 5 * 25}{35 + 25} = \frac{230}{60} = 3.833 \tag{9.4}$$

We can see from this simple example how awarding a greater influence to A, first by weighting using seat shares, and then by correcting for the office of the Prime Minister, gradually 'pulls' the position of the government toward A.

For each year between 1960 and 2007 for which data was available, I identified the cabinet which was in power. In instances where more than one cabinet was in power, as when a new cabinet is appointed in May-August, an average of the two cabinets in power in that year is constructed. Using the

Figure 9.2.2: Ideological placement of UK cabinets, 1951–2007



example of Canada, the cabinet which exerted policy influence in 1993 is the "Mulroney II + Campbell" cabinet. The Campbell cabinet began operating in June 25, 1993, making 1993 such an instance of a 'shared' year. In other instances, three cabinets might have been operating throughout one year (eg, 1960 in Italy, with the Segni II, Tambroni and Fanfani III cabinets), which required an average of the three. If one cabinet clearly operated for a longer time than the other two, this was weighted double in the averaging process. In instances where a cabinet was in existence for less than 45-50 days, this was ignored by my formula, and the subsequent cabinet was used in the calculations. Finally, the general rule has been that if a cabinet was inaugurated between April and September, it was considered as having been influential for only half a year (or even less). However, if said cabinet was inaugurated earlier than the end of March, it was considered to have been influential for the entire year. In the instances when the cabinet was appointed after the beginning of October, its influence was considered to have been exerted over the course of the following year.

Given that a cabinet could be in power for anywhere between 1 and 4 years, this produces identical ideological placement scores for all years covered by the same cabinet.[4] When estimating models with a lagged dependent variable this artificially biases the estimates of effect, as trends in income inequality appear unconnected to largely stationary values of ideological placement. As a correction for this, I

[4]For a similar logic applied to party positions, see Budge and Hofferbert (1990).

computed a smoothed value of the ideological placement score, by using a rolling moving average. For every year *t*, the ideological score of the cabinet was replaced by a mean of the ideological scores of years *t-1*, *t*, and *t+1*.[5]

An example using UK cabinets can be seen in Figure 9.2.2. The dark points represent the original ideological placement scores, which remain fixed for 3–4 years at a time (e.g. early 1960s, mid-1970s, early and late 1980s). The gray points are the smoothed ideological scores, which show a more fluid transition from year to year.

[5] This naturally led to a lower sample size, as the first and last year in the series for each country were lost. In one case (Italy in 1995) this led to non-adjacent years being averaged together. The phenomenon is caused by the fleeting presence of the technocratic cabinet of Lamberto Dini, which doesn't have an ideological placement score and thus had to be removed from the analysis.

9.2.2 Variable sources and coding for Chapter 5

Union density was obtained from Jelle Visser's data set on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, version 5.1 (September 2016) (http://www.uva-aias.net/en/ictwss). Union density is computed as the proportion of union members out of the total number of wage-earning workers, and is available for most of the countries in my sample starting with 1960. Information on annual *FDI inflows* has been taken from the United Nations Conference on Trade and Development, and is available for most of the countries in my sample starting with 1970 (http://unctadstat.unctad.org/wds). The values are expressed in USD at current prices and current exchange rates, in millions.

The data on *share of workers* employed *in services* has been obtained from the World Bank (http://data.worldbank.org/indicator), and is available for nearly all countries in the sample starting from 1980. This is expressed as the share of the active working population employed in the service sector. Information on *exports of goods and services* was taken from the same source, and is expressed as the share of the GDP which is attributed to these trade activities. The final indicator obtained from World Bank data is the *share of the population above 65 years of age*.

9.2.3 Descriptive statistics for Chapter 5

Table 9.2.1 displays correlations between the main predictors used in the statistical models: union density (UD), FDII (FDI inflows), employment in the service sector (ES), export of goods as share of GDP (EG), share of population above 65 (PO65), GDP per capita (GDPC), and ideological position of the government on a socio-economic dimension (SOC-EC). Due to the very high correlation between GDP per capita and share of employment in the service sector, the former predictor was excluded from all models tested.

Table 9.2.1: Correlations between predictors

	UD	FDII	ES	EG	PO65	GDPC	SOC-EC
UD	-						
FDII	-0.03	-					
ES	0.13	0.33	-				
EG	0.21	0.35	0.37	-			
PO65	-0.15	0.20	0.11	0.21	-		
GDPC	-0.16	0.32	0.72	0.34	0.56	-	
SOC-EC	-0.04	-0.04	-0.28	-0.03	-0.03	-0.16	-

Note: Cells present Pearson's correlation coefficients that are averaged across the 100 imputed data sets for the same pair of variables

9.2.4 Full model estimates for Chapter 5

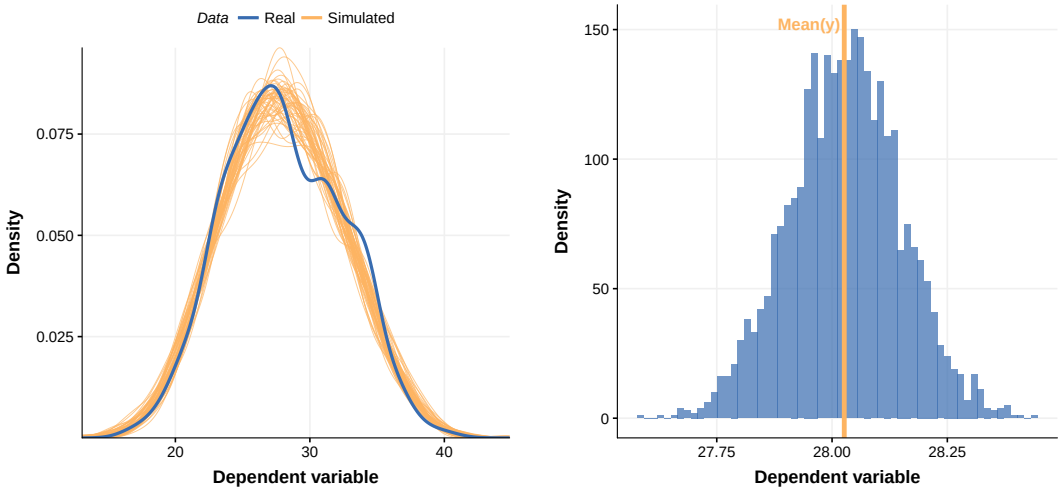
Table 9.2.2: Fixed-effects models predicting income inequality—full estimates

	Model 1		Model 2		Model 3		Model 4	
	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.
(Intercept)	22.739*	(2.064)	22.721*	(2.202)	21.755*	(2.359)	11.036*	(2.888)
Gini_t	0.379*	(0.044)	0.381*	(0.046)	0.377*	(0.046)	0.349*	(0.053)
SOC-EC position	−0.132*	(0.063)	−0.129*	(0.064)	−0.115	(0.064)	0.023	(0.065)
Union density (%)	−0.669*	(0.169)	−0.716*	(0.176)	−0.683*	(0.178)	0.117	(0.216)
Inward FDI (% of GDP)			0.039	(0.067)	0.029	(0.067)	0.050	(0.047)
Export goods (% of GDP)			0.015	(0.020)	−0.001	(0.022)	0.019	(0.023)
Pop. over 65 (%)					0.109	(0.077)	0.047	(0.093)
Services employment (%)							0.106*	(0.035)
Austria	−1.800*	(0.594)	−2.000*	(0.699)	−2.228*	(0.723)	−2.372*	(0.947)
Belgium	−2.225*	(0.609)	−2.901*	(0.981)	−2.736*	(0.978)	−5.037*	(1.170)
Canada	−1.135*	(0.589)	−1.371*	(0.622)	−1.098	(0.661)	−1.140*	(0.563)
Denmark	−2.323*	(0.663)	−2.491*	(0.791)	−2.665*	(0.814)	−5.395*	(0.968)
Finland	−2.208*	(0.670)	−2.334*	(0.752)	−2.391*	(0.756)	−4.770*	(0.900)
France	−1.503*	(0.747)	−1.699*	(0.757)	−1.919*	(0.785)	−0.599	(0.955)
Germany	−1.995*	(0.602)	−2.318*	(0.645)	−2.728*	(0.694)	−1.624	(0.918)
Greece	2.369*	(0.743)	2.299*	(0.740)	1.893*	(0.833)	3.095*	(0.996)
Iceland	−1.030	(0.735)	−1.275	(0.881)	−0.977	(0.858)	−4.649*	(0.995)
Ireland	0.762	(0.649)	0.564	(1.000)	0.891	(0.993)	1.811	(1.280)
Israel	1.910*	(0.790)	1.757	(0.897)	2.189*	(0.929)	1.432	(0.783)
Italy	1.993*	(0.624)	1.924*	(0.645)	1.583*	(0.706)	2.082*	(0.860)
Japan	−1.702*	(0.797)	−1.638*	(0.787)	−1.760*	(0.829)	0.865	(1.013)
Luxembourg	−1.778*	(0.635)						
Netherlands	−2.712*	(0.645)	−3.376*	(0.941)	−2.883*	(0.975)	−4.302*	(1.096)
New Zealand	1.717	(0.925)	1.514	(0.994)	1.769	(0.929)	3.262*	(1.048)
Norway	−2.480*	(0.620)	−2.783*	(0.793)	−2.921*	(0.804)	−5.310*	(0.890)
Portugal	2.292*	(0.906)	2.078*	(0.934)	1.889	(0.991)	4.517*	(1.311)
Spain	−0.098	(0.768)	−0.340	(0.771)	−0.571	(0.786)	1.935	(1.001)
Sweden	−3.263*	(0.667)	−3.380*	(0.747)	−3.826*	(0.816)	−6.662*	(1.137)
Switzerland	−2.058*	(0.782)	−2.476*	(0.900)	−2.357*	(0.897)	−2.251*	(0.975)
United Kingdom	0.361	(0.588)	0.202	(0.600)	−0.074	(0.626)	1.700	(0.652)
σ	2.568	(0.116)	2.557	(0.117)	2.551	(0.118)	1.550	(0.073)
N	918		847		847		462	
Log-posterior	-2,197.41		-2,021.62		-2,020.58		-890.44	

Method: The models presented are fixed-effects specifications, with Gini at time $t + 3$ as outcome. The lagged dependent variable, along with all other predictors, is measured at time t. Results were produced with the `rstanarm` package, version 2.13.1. Parameters are summarized based on a sample of 3,000 draws from the posterior distribution.

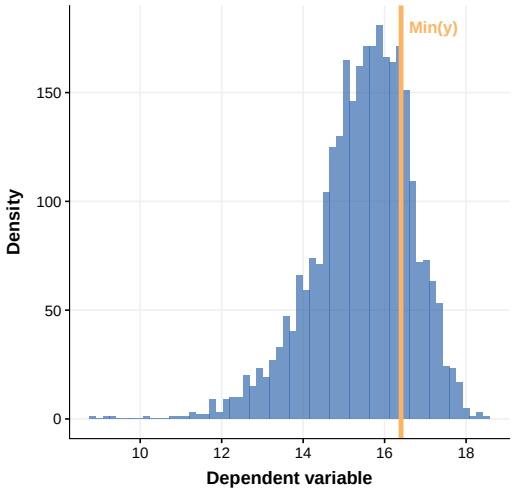
Note: '*' 95% credible interval does not intersect 0. Standard errors presented in brackets. Belgium is considered as a single national entity. Gini estimates were obtained from SWIID, version 5.1, while `SOC-EC` placements for parties were computed based on CMP data, version 2016a. Government composition is found in *ParlGov* data, version March 12, 2016. Uncertainty estimates were obtained for the log posterior, but not displayed here. Australia represents the reference category.

Figure 9.2.3: Posterior predictive checks for models of trends in income inequality (I)

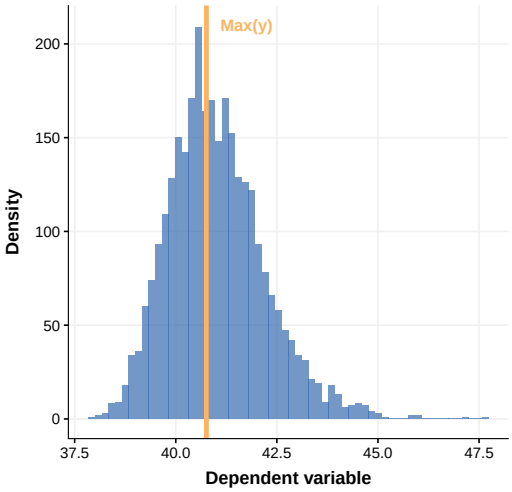


(a) Outcome

(b) Mean



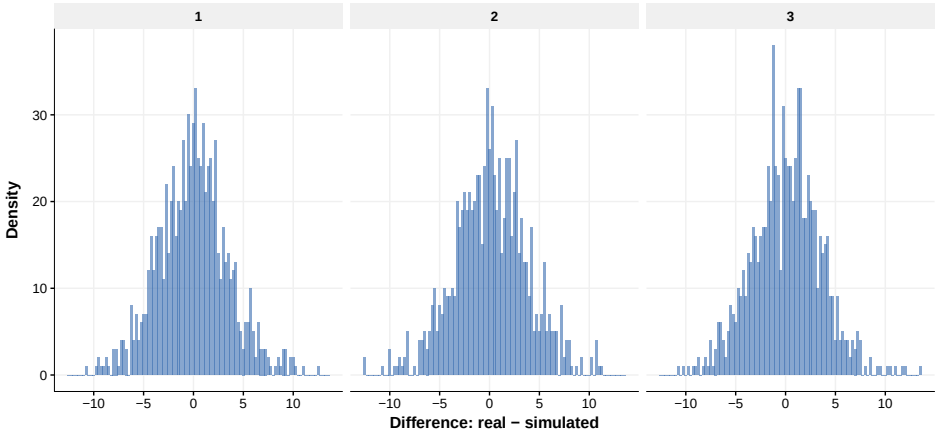
(c) Minimum



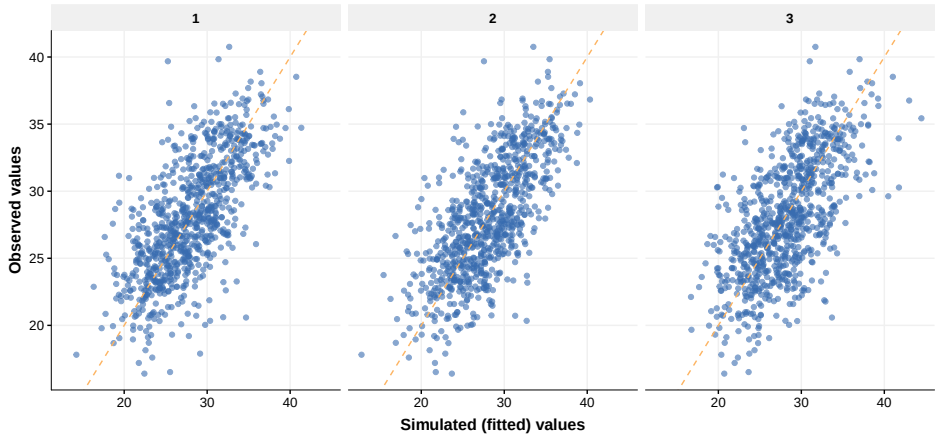
(d) Maximum

Note: The predictive checks are based on Model 2 from Table 9.2.2.

Figure 9.2.4: Posterior predictive checks for models of trends in income inequality (II)



(a) Distribution of residuals



(b) Fitted vs. observed values

Note: The predictive checks are based on Model 2 from Table 9.2.2.

9.3 Chapter 6

9.3.1 Models of participation gap between SES groups

Table 9.3.1: The longitudinal trend in the socio-economic gap in turnout

	Turnout gap		Low SES turnout		High SES turnout	
	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.
(Intercept)	1.781*	(0.887)	0.832*	(0.243)	0.612*	(0.273)
Time	0.026*	(0.006)	0.012*	(0.003)	0.003	(0.003)
Belgium–Flanders	−0.433	(0.585)	−0.454	(0.350)	0.142	(0.390)
Belgium–Wallonia	0.469	(0.598)	0.758*	(0.349)	0.480	(0.400)
Canada	1.743*	(0.449)	1.726*	(0.225)	1.294*	(0.253)
Denmark	0.275	(0.413)	0.684*	(0.240)	0.723*	(0.268)
Finland	1.143*	(0.482)	1.372*	(0.248)	1.060*	(0.280)
France	0.472	(0.489)	1.114*	(0.261)	1.174*	(0.302)
Germany	1.435*	(0.526)	1.275*	(0.258)	0.475	(0.316)
Greece	2.474*	(1.014)	1.974*	(0.496)	1.339*	(0.582)
Iceland	0.355	(0.471)	0.796*	(0.264)	0.581*	(0.307)
Israel	0.436	(0.552)	0.720*	(0.319)	0.858*	(0.344)
Italy	0.159	(0.684)	0.264	(0.384)	0.530	(0.480)
Japan	1.070*	(0.647)	1.831*	(0.298)	1.586*	(0.342)
Netherlands	1.758*	(0.487)	1.599*	(0.245)	0.785*	(0.272)
New Zealand	0.629	(0.428)	1.080*	(0.245)	0.948*	(0.276)
Norway	1.587*	(0.461)	1.610*	(0.231)	1.089*	(0.263)
Portugal	1.801*	(0.596)	1.864*	(0.290)	1.590*	(0.342)
Spain	0.526	(0.489)	1.283*	(0.262)	1.319*	(0.302)
Sweden	1.079*	(0.507)	1.261*	(0.260)	0.758*	(0.302)
Switzerland	3.191*	(0.561)	2.476*	(0.250)	2.000*	(0.290)
United Kingdom	1.766*	(0.525)	1.805*	(0.241)	1.422*	(0.304)
United States (C)	4.997*	(0.595)	3.111*	(0.240)	2.452*	(0.267)
United States (P)	4.798*	(0.578)	2.797*	(0.226)	1.500*	(0.253)
σ	0.779*	(0.073)	0.438*	(0.029)	0.502*	(0.036)
Log-Posterior	−223.964*	(12.794)	−127.767*	(6.264)	−150.236*	(7.428)

Method: All models were run on 168 elections, from 23 countries, using fixed-effects models. Results were produced with the `rstanarm` package, version 2.14.1. Parameters are summarized based on a sample of 3,000 draws from the posterior distribution. Flanders and Wallonia in Belgium were considered two distinct national contexts, due to their different party systems. US presidential and midterm elections were considered two distinct national contexts due to the potentially different dynamics in turnout between thw two types of contests.

Notes: Australia represents the reference category. Standard errors in brackets. '*' indicates that the 90% credible interval does not intersect 0. DVs are transformed: (1) square root transformation applied to the turnout gap; (2) logarithmic transformation of the reverse of lower-ed. and higher-ed. turnout was used.

Table 9.3.2: Fixed-effects models of socio-economic turnout gap

	Model 1		Model 2		Model 3		Model 4	
	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.
(Intercept)	3.050*	(0.763)	3.054*	(0.760)	3.095*	(0.753)	3.003*	(0.776)
Union density	−0.012	(0.010)	−0.011	(0.013)	−0.013	(0.012)	−0.001	(0.013)
SOC-EC shift			−0.094*	(0.055)				
TRAD shift			−0.080	(0.066)				
SOC-EC polarization					−0.032*	(0.016)	−0.044*	(0.018)
TRAD polarization					0.063	(0.041)	0.036	(0.042)
Gov. fractionalization							0.069	(0.669)
Belgium–Flanders	−0.504	(0.630)	−0.505	(0.628)	−0.560	(0.624)	−0.440	(0.597)
Belgium–Wallonia	0.397	(0.635)	0.293	(0.643)	0.359	(0.636)	0.455	(0.616)
Canada	1.607*	(0.468)	1.607*	(0.473)	1.545*	(0.468)	1.807*	(0.495)
Denmark	0.093	(0.440)	0.153	(0.441)	0.112	(0.440)	0.178	(0.450)
Finland	1.155*	(0.512)	1.150*	(0.550)	1.140*	(0.547)	1.177*	(0.546)
France	0.397	(0.523)	0.279	(0.552)	0.349	(0.552)	0.458	(0.541)
Germany	1.432*	(0.556)	1.543*	(0.565)	1.211*	(0.573)	1.732*	(0.580)
Greece	2.748*	(1.080)	3.015*	(1.098)	2.729*	(1.066)	2.857*	(1.027)
Iceland	0.497	(0.507)	0.431	(0.505)	0.509	(0.503)	0.374	(0.517)
Israel	0.135	(0.596)	0.256	(0.702)	0.464	(0.700)	−0.147	(1.009)
Italy	−0.278	(0.733)	−0.256	(0.740)	−0.374	(0.740)	−0.320	(0.912)
Japan	1.233*	(0.681)	0.734	(1.177)	0.781	(1.169)	0.934	(1.151)
Netherlands	1.710*	(0.512)	1.603*	(0.507)	1.625*	(0.505)	1.722*	(0.505)
New Zealand	0.620	(0.458)	0.616	(0.458)	0.576	(0.455)	0.666	(0.452)
Norway	1.317*	(0.471)	1.312*	(0.470)	1.272*	(0.467)	1.545*	(0.497)
Portugal	1.884*	(0.638)	1.877*	(0.635)	1.839*	(0.630)	1.913*	(0.622)
Spain	0.560	(0.526)	0.425	(0.555)	0.368	(0.549)	0.474	(0.543)
Sweden	0.743	(0.525)	0.770	(0.528)	0.710	(0.521)	0.949	(0.579)
Switzerland	3.134*	(0.587)	3.134*	(0.585)	3.020*	(0.581)	3.158*	(0.585)
United Kingdom	1.561*	(0.539)	1.550*	(0.534)	1.418*	(0.529)	1.819*	(0.529)
United States (C)	4.506*	(0.578)						
United States (P)	4.430*	(0.569)	4.392*	(0.564)	4.374*	(0.560)		
σ	0.847*	(0.081)	0.841*	(0.082)	0.838*	(0.083)	0.775*	(0.114)
Log-Posterior	−237.789*	(13.175)	−212.707*	(11.464)	−212.075*	(11.801)	−160.242*	(15.776)
Country	168		148		148		114	
N	23		22		22		21	

Method: Results were produced with the `rstanarm` package, version 2.14.1. Parameters are summarized based on a sample of 3,000 draws from the posterior distribution. Flanders and Wallonia in Belgium were considered two distinct national contexts, due to their different party systems. The United States are counted twice in the sample, contributing both Congressional and Presidential elections.

Notes: Australia represents the reference category. Standard errors presented in brackets. '*' indicates that the 90% credible interval does not intersect 0. Square root of the dependent variable was used in all models. Credible intervals for the log posterior were obtained, but not displayed in this table.

Table 9.3.3: Fixed-effects models of lower-SES turnout probability

	Model 1		Model 2		Model 3		Model 4	
	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.
(Intercept)	1.409*	(0.199)	1.423*	(0.204)	1.434*	(0.204)	1.295*	(0.215)
Union density	−0.010*	(0.005)	−0.008	(0.007)	−0.010	(0.006)	−0.002	(0.007)
SOC-EC shifts			−0.052*	(0.027)				
TRAD shifts			−0.040	(0.034)				
SOC-EC polarization					−0.012	(0.008)	−0.019*	(0.009)
TRAD polarization					0.039*	(0.020)	0.025	(0.021)
Gov. fractionalization							0.127	(0.370)
Belgium–Flanders	−0.467	(0.364)	−0.479	(0.375)	−0.501	(0.375)	−0.346	(0.375)
Belgium–Wallonia	0.746*	(0.364)	0.676*	(0.375)	0.724*	(0.372)	0.869*	(0.373)
Canada	1.685*	(0.236)	1.684*	(0.246)	1.662*	(0.247)	1.855*	(0.264)
Denmark	0.629*	(0.252)	0.649*	(0.259)	0.635*	(0.259)	0.725*	(0.272)
Finland	1.414*	(0.264)	1.431*	(0.285)	1.449*	(0.286)	1.556*	(0.292)
France	1.082*	(0.274)	0.951*	(0.296)	1.004*	(0.297)	1.165*	(0.302)
Germany	1.277*	(0.271)	1.336*	(0.280)	1.142*	(0.288)	1.545*	(0.318)
Greece	2.093*	(0.517)	2.236*	(0.538)	2.104*	(0.534)	2.279*	(0.525)
Iceland	0.894*	(0.277)	0.847*	(0.287)	0.898*	(0.285)	0.917*	(0.299)
Israel	0.627*	(0.334)	0.595	(0.399)	0.738*	(0.400)	−0.092	(0.641)
Italy	0.111	(0.401)	0.096	(0.414)	0.075	(0.415)	0.174	(0.540)
Japan	1.921*	(0.312)	1.821*	(0.530)	1.844*	(0.531)	2.035*	(0.527)
Netherlands	1.590*	(0.257)	1.526*	(0.265)	1.555*	(0.265)	1.703*	(0.270)
New Zealand	1.102*	(0.258)	1.088*	(0.264)	1.077*	(0.265)	1.216*	(0.270)
Norway	1.507*	(0.241)	1.494*	(0.248)	1.483*	(0.249)	1.712*	(0.267)
Portugal	1.934*	(0.307)	1.917*	(0.316)	1.908*	(0.317)	2.034*	(0.318)
Spain	1.322*	(0.277)	1.272*	(0.298)	1.257*	(0.298)	1.411*	(0.301)
Sweden	1.121*	(0.269)	1.128*	(0.276)	1.103*	(0.276)	1.260*	(0.332)
Switzerland	2.472*	(0.263)	2.461*	(0.270)	2.403*	(0.274)	2.566*	(0.277)
United Kingdom	1.727*	(0.252)	1.711*	(0.259)	1.663*	(0.262)	1.998*	(0.277)
United States (C)	2.907*	(0.244)						
United States (P)	2.639*	(0.232)	2.611*	(0.238)	2.613*	(0.238)		
σ	0.459*	(0.030)	0.474*	(0.034)	0.475*	(0.034)	0.458*	(0.039)
Log-Posterior	−135.668*	(6.118)	−128.172*	(5.939)	−128.587*	(6.090)	−101.517*	(5.815)
Country	168		148		148		114	
N	23		22		22		21	

Method: Results were produced with the `rstanarm` package, version 2.14.1. Parameters are summarized based on a sample of 3,000 draws from the posterior distribution. Flanders and Wallonia in Belgium were considered two distinct national contexts, due to their different party systems. The United States are counted twice in the sample, contributing both Congressional and Presidential elections.

Notes: Australia represents the reference category. Standard errors presented in brackets. '*' indicates that the 90% credible interval does not intersect 0. The logarithm of the inverse of the dependent variable ($log(101 - p)$) was used in all models.

Table 9.3.4: Fixed-effects models of higher-SES turnout probability

	Model 1		Model 2		Model 3		Model 4	
	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.
(Intercept)	0.724*	(0.206)	0.734*	(0.205)	0.720*	(0.204)	0.669*	(0.229)
Union density	−0.011*	(0.005)	−0.010	(0.007)	−0.011	(0.007)	−0.008	(0.008)
SOC-EC shifts			−0.026	(0.028)				
TRAD shifts			0.000	(0.037)				
SOC-EC polarization					0.004	(0.008)	0.001	(0.010)
TRAD polarization					0.017	(0.023)	0.020	(0.024)
Gov. fractionalization							0.349	(0.402)
Belgium–Flanders	0.174	(0.385)	0.154	(0.380)	0.169	(0.377)	0.225	(0.403)
Belgium–Wallonia	0.513	(0.396)	0.470	(0.393)	0.519	(0.390)	0.574	(0.410)
Canada	1.323*	(0.250)	1.339*	(0.250)	1.351*	(0.250)	1.388*	(0.285)
Denmark	0.762*	(0.267)	0.768*	(0.264)	0.771*	(0.262)	0.753*	(0.288)
Finland	1.135*	(0.281)	1.198*	(0.300)	1.247*	(0.296)	1.292*	(0.320)
France	1.165*	(0.299)	1.041*	(0.311)	1.072*	(0.311)	1.155*	(0.336)
Germany	0.478	(0.313)	0.511*	(0.308)	0.422	(0.320)	0.425	(0.368)
Greece	1.344*	(0.574)	1.382*	(0.570)	1.377*	(0.563)	1.457*	(0.589)
Iceland	0.661*	(0.305)	0.643*	(0.305)	0.671*	(0.301)	0.766*	(0.337)
Israel	0.924*	(0.342)	0.903*	(0.422)	0.974*	(0.416)	0.444	(0.693)
Italy	0.584	(0.472)	0.551	(0.469)	0.618	(0.467)	0.582	(0.644)
Japan	1.628*	(0.337)	2.136*	(0.540)	2.151*	(0.538)	2.270*	(0.571)
Netherlands	0.804*	(0.268)	0.783*	(0.267)	0.818*	(0.264)	0.876*	(0.286)
New Zealand	0.995*	(0.275)	0.985*	(0.271)	0.999*	(0.271)	1.049*	(0.293)
Norway	1.103*	(0.258)	1.093*	(0.257)	1.107*	(0.255)	1.153*	(0.292)
Portugal	1.660*	(0.339)	1.649*	(0.335)	1.662*	(0.333)	1.698*	(0.355)
Spain	1.365*	(0.300)	1.384*	(0.314)	1.397*	(0.313)	1.465*	(0.337)
Sweden	0.752*	(0.296)	0.758*	(0.294)	0.756*	(0.292)	0.714*	(0.356)
Switzerland	2.036*	(0.287)	2.023*	(0.284)	2.016*	(0.285)	2.067*	(0.308)
United Kingdom	1.432*	(0.300)	1.421*	(0.296)	1.442*	(0.295)	1.695*	(0.312)
United States (C)	2.446*	(0.255)						
United States (P)	1.485*	(0.246)	1.475*	(0.242)	1.491*	(0.242)		
σ	0.494*	(0.035)	0.483*	(0.038)	0.482*	(0.038)	0.500*	(0.045)
Log-Posterior	−147.627*	(7.411)	−130.692*	(7.700)	−130.592*	(7.622)	−111.108*	(6.858)
Country	168		148		148		114	
N	23		22		22		21	

Method: Results were produced with the `rstanarm` package, version 2.14.1. Parameters are summarized based on a sample of 3,000 draws from the posterior distribution. Flanders and Wallonia in Belgium were considered two distinct national contexts, due to their different party systems. The United States are counted twice in the sample, contributing both Congressional and Presidential elections.

Notes: Australia represents the reference category. Standard errors presented in brackets. '*' indicates that the 90% credible interval does not intersect 0. The logarithm of the inverse of the dependent variable ($log(101 - p)$) was used in all models.

9.3.2 Models of participation gap between groups defined based on education and union membership

Table 9.3.5: Fixed-effects models of turnout gap based on education and union membership

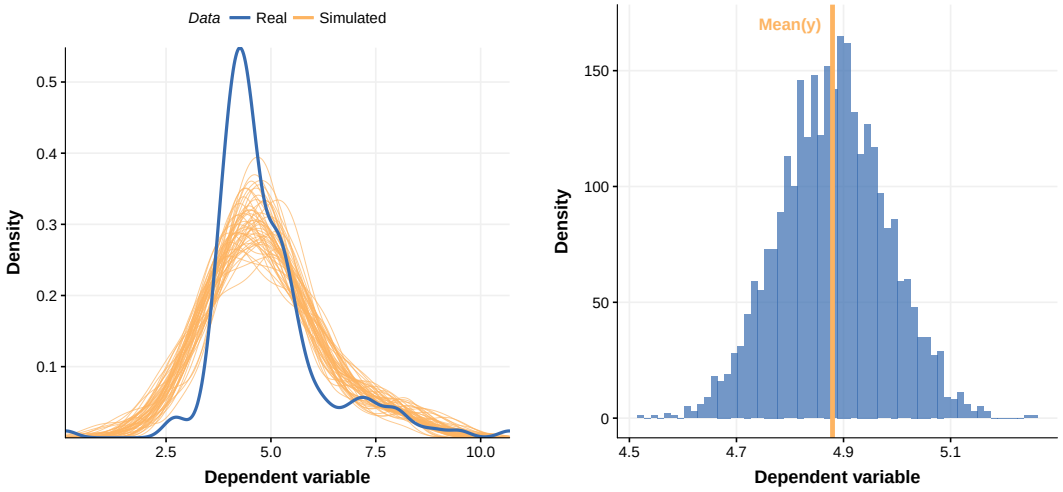
	Model 1		Model 2		Model 3		Model 4	
	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.
(Intercept)	3.834*	(0.832)	3.806*	(0.833)	3.850*	(0.832)	3.978*	(0.915)
Union density	−0.030*	(0.012)	−0.024*	(0.014)	−0.025*	(0.014)	−0.015	(0.017)
SOC-EC shifts			−0.026	(0.053)				
TRAD shifts			−0.095	(0.064)				
SOC-EC polarization					−0.020	(0.017)	−0.023	(0.018)
TRAD polarization					0.038	(0.039)	0.049	(0.043)
Gov. fractionalization							−0.323	(0.640)
Belgium–Flanders	−0.118	(0.599)	−0.091	(0.605)	−0.134	(0.604)	−0.262	(0.731)
Belgium–Wallonia	−0.588	(0.636)	−0.588	(0.649)	−0.603	(0.641)	−0.726	(0.757)
Canada	0.445	(0.560)	0.313	(0.574)	0.350	(0.566)	0.196	(0.731)
Denmark	−0.399	(0.558)	−0.380	(0.558)	−0.431	(0.562)	−0.553	(0.690)
Finland	0.596	(0.560)	0.647	(0.613)	0.593	(0.604)	0.420	(0.720)
France	−0.714	(0.825)	−0.639	(0.820)	−0.525	(0.840)	−0.572	(0.958)
Germany	0.094	(0.544)	0.128	(0.545)	0.034	(0.561)	−0.197	(0.703)
Greece	−0.517	(0.818)	−0.421	(0.811)	−0.530	(0.825)	−0.631	(0.940)
Iceland	−0.060	(0.618)	−0.084	(0.625)	−0.038	(0.619)	−0.222	(0.772)
Israel	0.263	(0.591)	0.262	(0.596)	0.156	(0.606)	−0.247	(0.760)
Italy	−0.299	(0.600)	−0.089	(0.618)	−0.191	(0.619)	−0.358	(0.779)
Japan	2.212*	(0.919)						
Netherlands	0.757	(0.557)	0.715	(0.568)	0.728	(0.562)	0.618	(0.690)
New Zealand	0.395	(0.586)	0.431	(0.592)	0.397	(0.592)	0.309	(0.726)
Norway	0.319	(0.538)	0.346	(0.543)	0.303	(0.543)	0.317	(0.694)
Portugal	−0.090	(0.669)	−0.072	(0.672)	−0.113	(0.676)	−0.241	(0.784)
Spain	−0.209	(0.617)	−0.254	(0.679)	−0.287	(0.681)	−0.402	(0.802)
Sweden	0.233	(0.540)	0.179	(0.558)	0.187	(0.545)	0.018	(0.673)
Switzerland	1.802*	(0.607)	1.829*	(0.611)	1.785*	(0.610)	1.546*	(0.742)
United Kingdom	0.016	(0.590)	0.013	(0.593)	0.006	(0.593)	−0.094	(0.706)
United States (C)	3.114*	(0.599)						
United States (P)	3.331*	(0.608)	3.334*	(0.611)	3.316*	(0.611)		
σ	0.860*	(0.109)	0.867*	(0.115)	0.867*	(0.116)	0.899*	(0.147)
Log-Posterior	−251.081*	(20.326)	−229.370*	(19.032)	−229.481*	(19.108)	−193.907*	(19.833)
Country	23		21		21		20	
N	177		159		159		128	

Method: Results were produced with the `rstanarm` package, version 2.14.1. Parameters are summarized based on a sample of 3,000 draws from the posterior distribution. Flanders and Wallonia in Belgium were considered two distinct national contexts, due to their different party systems. The United States are counted twice in the sample, contributing both Congressional and Presidential elections.

Notes: Australia represents the reference category. Standard errors presented in brackets. '*' indicates that the 90% credible interval does not intersect 0. The logarithm of the inverse of the dependent variable ($log(101 - p)$) was used in all models.

9.3.3 Assessment of models for participation gap between groups defined based on education and union membership

Figure 9.3.1: Posterior predictive checks for disparities in turnout based on education and union membership (I)

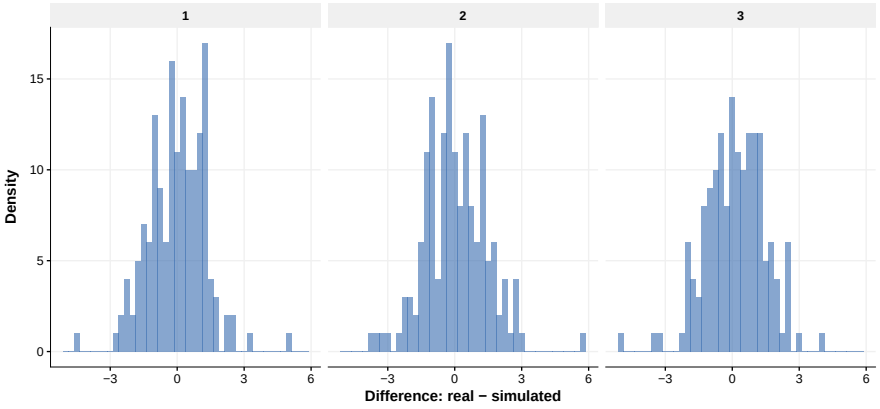


(a) Outcome **(b)** Mean

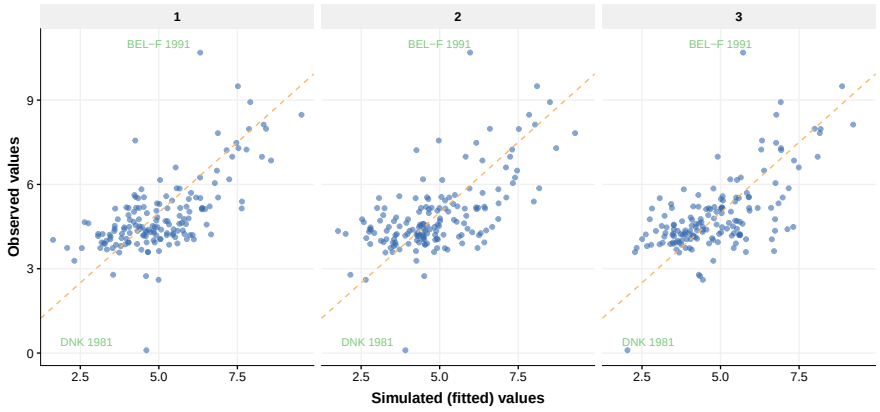
(c) Minimum **(d)** Maximum

Note: The predictive checks are based on Model 3 from Table 9.3.5.

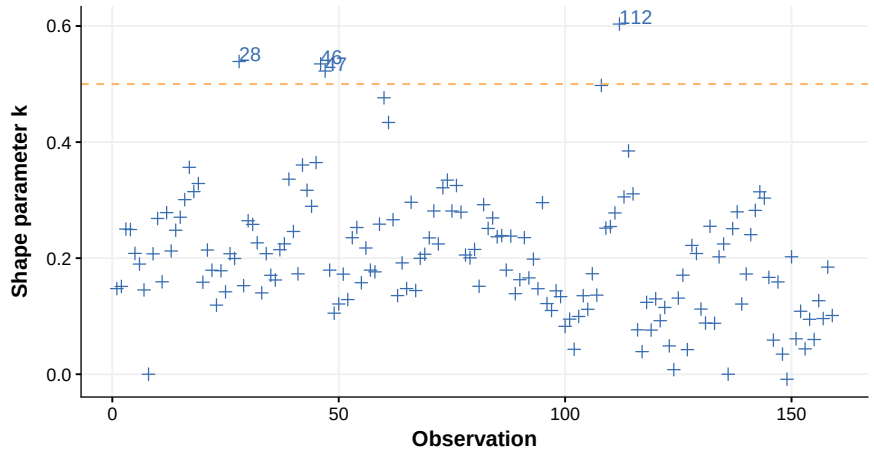
Figure 9.3.2: Posterior predictive checks for disparities in turnout based on education and union membership (II)



(a) Distribution of residuals



(b) Fitted vs. observed values



(c) Influential cases

Note: The predictive checks are based on Model 3 from Table 9.3.5.

9.4 Sources of data

The following data sets were used in constructing the individual-level data I rely on throughout the analyses presented in the preceding chapters. As mentioned in Chapter 3, the series for Germany, Greece, Iceland, Italy, Norway, Portugal, Spain, Sweden, and Switzerland were not sourced directly, but rather taken as found in the *True European Voter, Advanced Release 7* data set.[6]

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