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Social Stratification, Life Course, and Political Inequality

Advisor: Francesco C. BILLARI

Co-Advisor: Ross MACMILLAN

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Leo AZZOLLINI

ID number: 1568559

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A Cristina, amore della mia vita,

sei la luce che mi guida quando l'oscurità pare infinita.

Per questa e altre mille ragioni la presente tesi è a te dedicata,

mia musa, mia gioia, mia tenera amata.

Thesis Abstract

The topic of this thesis is the relationship between social stratification and inequality in electoral participation in European countries, examined from a life course perspective. This participatory inequality across social strata is considered as particularly worrisome by social scientists, due to a potential vicious circle arising between socio-economic and political inequalities. The goal of this thesis is to contribute to the exploration of said vicious circle, focusing on theoretical perspectives originating in sociology, at the intersection of social stratification and life course research: unemployment scarring, precarious work, relative cohort size, and age-class intersections. Broadly, I posit how the impact of individual social stratification on turnout is moderated by contextual-level dynamics, such as the unemployment rate, the size of the birth cohort, and the ideological convergence in the party system. I test the hypotheses by fitting logistic and multilevel regressions to data from the European Social Survey, combined with data from the EUROSTAT, Fraser Institute's World Project, and the International Database of the US Census for Chapters 1-3. In Chapter 4, I integrate data from British Social Attitudes, the British Election Study, and the Manifesto Research on Political Participation in the case study of Great Britain.

The key findings are the following: unemployment scarring decreases electoral participation by 10%, but its impact is amplified (up to 17%) by lower contextual unemployment, and nullified by higher levels of the latter. Precarious work decreases probability of voting in 21 European countries, on top of traditional predictors such as social class and education. In contrast with the Easterlin Hypothesis, larger Relative Cohort Size increases electoral participation, especially in upper social strata. Ideological convergence in Great Britain depresses the turnout of the working class and the self-employed, and this is driven mainly by younger cohorts within those classes. In sum, integrating the social stratification and life course approaches sheds new light on how inequality in electoral participation is jointly affected by individual and contextual characteristics. In future work, this joint approach may orient research on additional socio-political outcomes, towards a broader research programme on the Political Sociology of Inequalities.

Thesis Introduction

At the dawn of research in social sciences, Aristotle of Stagira addressed the dangers that inequalities pose to any community (*Politics*, 2019 [IVth Century BC]). Aristotle considered inequality as potentially deadly for peace, insofar its excessive levels would create "*a state of slaves and despots, of people that envy and people that despise*" (*Politics*, V, 1295b). Furthermore, Aristotle identified inequality as the prime "*origin of rebellions" (Politics,* V, 1301b), as affluent groups seek to retain their privileges, while struggling groups may revolt to reduce inequalities. Therefore, Aristotle considered economic inequality as particularly dangerous when it sparks conflicts between different social groups, defined by their position in the social hierarchy.

More than two millennia later, economic inequality is still central to debates in academia and the wider public sphere, with a voluminous body of work highlighting the dangers it poses to economic development and social peace (Sen, Fitoussi, Stiglitz, 2009; Piketty, 2014; Atkinson, 2015). Yet, comparatively less attention has been paid to how socio-economic inequalities shape *political* inequalities (Manza, 2015), and the dangers this relationship poses for democracy.

While political inequality can take different forms (Verba, 1996; Manza, 2015), its first and foremost form is the unequal distribution of the *right to vote*. As argued by Dahl (2006), universal suffrage is the cornerstone of contemporary democratic societies, as it most powerfully embodies the principle of political equality among citizens. The right to vote is a fundamental prerequisite for democracy (Przeworski, 2009), as it can activate the full range of political rights for citizens (Piven and Cloward, 2000). Despite suffrage being (almost) universal in contemporary democracies, the actual *exercise* of the right to vote is deeply influenced by social stratification (Verba, Nie, and Kim, 1987; Lijphart,

1997; Leighley and Nagler, 2014): in recent years turnout rates have been consistently falling in Western countries, compared to the Bretton Woods era (Gray and Caul, 2000; Franklin, 2004).

This is considered as particularly problematic by Verba (1996) and Lijphart (1997), who defined inequality in political participation across social strata as the *"unresolved dilemma of democracy"*. If social marginality and political exclusion combine, they may create a *"vicious circle of inequalities"* (Acemoglu and Robinson, 2012): if socio-economic inequalities shape inequalities in participation, these will extend to representation and responsiveness of elected officials (Verba, 2016), favouring affluent and engaged groups over socially struggling and alienated groups. This worrisome scenario lays fertile ground for the rise of authoritarian forces (Rydgren, 2007), posing a direct threat to the health of democracy.

Social scientists can play a key role in addressing this risk, focusing on a central objective (Manza, 2015): explore the links between socio-economic and political inequalities, and understand how public policy may weaken them.

Therefore, the aim of this thesis is to contribute to said research objective. To do so, I focus on theoretical perspectives originating in sociology, and more specifically in social stratification and life course research. While voluminous bodies of work across political science and political economy have provided numerous explanations for differences in electoral participation (Downs, 1957; Powell, 1986; Jackman, 1987; Blais, 2004; Geys, 2004; Smets and Van Ham, 2013; Stockemer, 2017), their integration with sociological perspectives can shed new light on the phenomenon, by identifying scarcely investigated but powerful determinants of inequality in electoral participation. Therefore, this thesis relies on the analytical lens of political sociology, integrating interdisciplinary perspectives to better understand political outcomes (Sartori, 1969).

I do so in four empirical chapters, focusing on the perspectives of unemployment scarring (Ch. 1) and precarious work (Ch. 2) from economic sociology (Gangl, 2006; Kalleberg, 2009), relative cohort

size (Ch. 3) from social demography (Ryder, 1965; Easterlin, 1978), the intersections of age and class (Ch. 4) from political socialisation and class non-voting (Jennings and Niemi, 1978; Plutzer, 2002; Evans and Tilley, 2017).

In the next section, I will articulate the overarching frame integrating social stratification and life course approaches, and how it guides the four empirical enquiries.

Theoretical Framework: Social Stratification and the Life Course Approach

To broadly conceptualise the relationship between social stratification and political inequality, I start from Max Weber's (2010 [1956]) three-component theory of stratification. In his *"Class, Status, and Party"* essay, Weber argued how power took different forms: economic power, determined by the market position; prestige, determined by standing in society; and political power, determined by party action (Weber, 2010 [1956]). Weber clearly recognised how these different forms are deeply intertwined: *"the distribution of power between the typical groups of a community participating in this distribution is done with what we call the 'social order'…*[which] *is highly determined by the economic order, and in its turn reacts upon it."* (Weber, 2010 [1956], p. 138).

This link constitutes the antecedent of the voluminous scholarship on *class voting*, exploring the relationship between social class membership and party choice (Alford, 1967; Lipset and Rokkan, 1967; Butler and Stokes, 1974; Korpi, 1986; Manza, Hout, and Brooks, 1995; Evans, 1999, 2000; Oesch, 2008; Maraffi *et al.*, 2008; Evans and De Graaf, 2013; Heath and Bellucci, 2013; Oesch and Rennwald, 2018). More recently, a rising pattern is that of class *non-voting*: differences in turnout between social classes are increasing, overall (Evans and Tilley, 2017; Heath, 2018). In both cases, social class shapes political action. Then, should not both party choice and electoral participation be considered forms of political power, albeit different?

This insight leads me to modify the Weberian conceptualisation of the latter: if stake in a party provides access to communal action set to increase power, abstaining from elections represents a voluntary relinquishment of its most basic form in the political domain. If this abstention is shaped by a relative lack of economic power, we can see how socio-economic stratification leads to *political* stratification.

To enquire on how these two types of stratification are connected, the Weberian concept of class provides additional guidance: while the literature has mostly focused on class voting and non-voting from the perspectives of clearly defined social classes such as the Erikson-Goldthorpe-Portocarero class schema (Erikson, Goldthorpe, Portocarero, 1979) or the horizontal schema by Oesch (2006), Weber's (2010 [1956]) concept of class was more broadly defined. A Weberian class arises when "*1) a large number of people have a specific causal component of their life chances in common; 2) this causal component is represented exclusively by economic interests in the possession of goods and the opportunities of income; 3) the causal component is represented under the conditions of the commodity or labor markets ('class situations')*)" (Weber, 2010 [1956], p.138).

While these definitions apply to social classes, in any of their different classifications (EGP - Erikson *et al.*, 1979; Esping-Andersen, 1993; Oesch, 2006; ESEC - Rose and Harrison, 2007), they can also be broadened to other characteristics. The causal component could also be envisaged as a disparity in the possession of agricultural vs financial goods, representing the urban-rural cleavage described by Lipset and Rokkan (1967). In a broader perspective, these socioeconomic differences in the social structure can be differentially salient as participatory or choice cleavages due to the mobilisation strategies of political forces (Lipset and Rokkan, 1967), who can transform a conflict in a choice cleavage (Bartolini and Mair, 1990). Therefore, political power in a Weberian sense can shape both choice and participatory cleavages. While the former type of cleavage is the most widespread in studies of class voting, by expanding the notion of a Weberian class more light can be shed on the latter, starting from the position in the labour market: unemployment scarring (Gangl, 2006) and

precarious work (Kalleberg, 2009). While the scholarly attention on the relationship between unemployment and electoral participation is far from being new (Lipset, 1959; Rosenstone, 1982), the debate on whether the former leads to electoral mobilisation or withdrawal is active to this day (Burden and Wichowsky, 2014; Emmenegger, Marx, and Schraff, 2015; Marx and Nguyen, 2016; Rovny and Rovny, 2017). However, the literature on micro-level unemployment has mostly focused on *current* experiences of unemployment (Marx and Nguyen, 2016), while less attention has been paid to the role of *past* experiences of unemployment (see Emmenegger *et al.*, 2015 for a notable exception). Shifting the focus from the present to the past, a vast body of work documents how these experiences have a long-lasting, *scarring*, effect on a plethora of outcomes, ranging from the domains of labour market (Gangl, 2006) to health (Ardito *et al.*, 2011), family (Mooi-Reci and Ganzeboom, 2015), education (Lindemann and Gangl, 2019), and political trust (Giustozzi and Gangl, 2016). Considering this literature, there is clear theoretical value in applying the framework of unemployment scarring to electoral participation, separating the effects of past unemployment experiences from those of current unemployment experiences and social class.

This is the primary goal of Chapter 1 of this thesis: "*Scar Effects of Unemployment on Electoral Participation*". However, the insight that past experiences of unemployment matter for electoral participation, perhaps more than current experiences, led me to a further realization. Beyond being a cornerstone of stratification research, work on unemployment scarring belongs also to the interdisciplinary research program known as the "Life Course approach" (Billari, 2003). The Life Course approach is primarily concerned with the study of human lives, from a variety of perspectives including social demography, social psychology, and economic sociology (Elder, 1994). Through multiple exchanges with my advisory committee, it became clear that this approach could be instrumental for turnout research, as its central themes of individual development, geo-historical context, linked lives, and timing of life (Elder, 1994; Giele and Elder, 1998) may guide research on electoral participation. Therefore, I hereunder outline the four empirical chapters, and how the life course approach orients their analyses.

Chapter 1: The Scar Effects of Unemployment on Electoral Participation: Withdrawal and Mobilisation across European Societies

Do past unemployment experiences generate scarring effects on electoral participation? This question is nested within a wider one: whether unemployment increases or decreases electoral participation, which constitutes a longstanding debate in political sociology (Lipset, 1960; Rosenstone, 1982). A large component of this debate stems from a lack of clarity on the level of analysis: scholars of unemployment focusing on the micro level find evidence supporting withdrawal (Rosenstone, 1982), while those focusing on the macro level find evidence supporting mobilisation (Burden and Wichowsky, 2014). More recent contributions interacting the macro and micro find opposite results (Marx and Nguyen, 2016; Aytaç *et al.*, 2018).

In this context, the life course approach provides greater clarity: we need to clearly distinguish the impact of the macro-historical context (at the national and sub-national levels), and of the micro life experiences, in both the present and *past* forms. At the micro level, I do so by extending the framework of the scar effects of unemployment to individual electoral participation, focusing on the mechanism of social stigma (Gangl, 2006; Knabe and Rätzel, 2011; Mooi-Reci and Ganzeboom, 2015). At the macro level, I examine competing hypotheses on whether the unemployment rate determines electoral mobilisation vs. withdrawal, comparing the mechanisms of blame attribution (Burden and Wichowsky, 2014) and opportunity costs (Radcliff, 1992). At the macro-micro level, I examine competing hypotheses on the impact of the unemployment rate on the micro effect, contrasting habituation (Oesch and Lipps, 2013; Heggebø and Elstad, 2017) and combination of adversities (Marx and Nguyen, 2016). I test these hypotheses relying on the multilevel Rounds 7-8 (2014-2016) of the European Social Survey, for 22 European countries. I fit to this data logistic regressions with country and year FE, country robust standard errors and design weights. As we shall see, the findings reflect both scholarly positions: there is withdrawal at the micro level, mobilisation at the macro, and habituation at the macro-micro, providing a possible synthesis point to the debate.

Yet, the way in which unemployment affected political participation appeared to be only a component of a wider relationship between labour market disadvantage and political agency. The proliferation of unemployment experiences can be framed within a broader phenomenon: the rise of precarious work, the employment that is "*unpredictable*, *uncertain*, *and risky*" (Kalleberg, 2009, p. 2), with dire consequences in the domains of the job market, family, and health (Kalleberg, 2009).

What is, then, the value of investigating electoral participation from the perspective of precarious work, as opposed to the more conventional predictors such as social class and education, or the framework of unemployment scarring used in Chapter 1? Despite being closely related to traditional indicators of social stratification, the novel feature of precarious work is its *anxiety* mechanism (Standing, 2012). In the past, a well-defined occupation was the cornerstone of political identity (Alford, 1967), due to a clear sense of self-direction (Kohn and Schooler, 1983). In contrast, the uncertainty generated by precarious work prevents the formation of stable occupational identities, and therefore, impede the development of political agency. To test this hypothesis, I first draw on literature in economic sociology, labour economics, and social psychology (Kohn and Schooler, 1983; Kalleberg, 2009; Standing, 2012; Wright, 2016) to identify five key dimensions of precarious work.

By fitting logistic regressions of electoral participation on precarious work and controls to European Social Survey data (2008-2018), with country and year fixed effects, I find the following: individuals with more dimensions of precarious work are considerably less likely to vote (up to 10%), controlling for traditional indicators of SES. This effect holds in 21 out of the 32 countries analysed.

These findings show how occupational denizenship translates to *political* denizenship: those workers with limited rights in the labour market tend also not to exercise their electoral rights, posing an issue of these disadvantages cumulating over the life course (DiPrete and Eirich, 2006).

Chapter 3: The More, the Merrier? Cohort Size, Social Stratification, and Inequalities in Political Participation across Societies

Whereas I rely primarily on economic sociology perspectives in Chapters 1 and 2, Chapter 3 draws extensively from social demography, leveraging on the linked lives theme of the LC approach. Here, the focal question is how the size of a birth cohort relatively to the population (RCS) affects the former's electoral participation. This question originates from competing perspectives, respectively Ryder's (1965) cohort socialization/solidarity and Easterlin's (1978) relative income mechanism. While both authors did not directly address electoral participation, both predicted that cohorts with larger sizes would have, respectively, a greater and a smaller impact on the political process. In this chapter, I develop the mechanisms by Ryder (1965) and Easterlin (1978) through the resource participation theory in political science, typically addressed as the "Civic Voluntarism" model (Brady, Verba, and Schlozman, 1995). I do so by identifying how the resources of *"time, money, and civic skills"* are differentially allocated across the social stratification dimensions of education, income, and social class. Beyond envisaging the latter as mediators for the focal relationship, I further develop the hypotheses based on Ryder and Easterlin to account of the role of social stratification, examining the differential impact of larger RCS on electoral participation across social strata. Therefore, beyond the clear role of individual development, the linked lives theme emerges dominantly by taking two forms: on one hand, individuals are grouped on the basis of the membership in the same birth cohort, which faces the same challenges in terms of the socio-historical process (Mannheim, 1952). On the other hand, linked lives also refer to social origins: parental SES shapes differences in how children deal with said challenges, segmenting the cohort size impact on turnout. By fitting OLS regressions with Country FE to ESS data from 2002 to 2016, I find that RCS increases electoral participation, and that this is mainly driven by high education and social class, but not high income. This shows how the key mechanism linking RCS to electoral participation is civic skills, whereas Easterlin's income mechanism is the smallest and least influential mediator.

Chapter 4: How Party Ideological Convergence accentuates Class differences in Voter Turnout: the Role of Age and Values

While Chapters 1-3 focus on European countries with a comparative mindset, in Chapter 4 I focus on a specific country: Great Britain. In this Chapter, I rely on all the four themes of the Life Course approach to enquire how social stratification and demographic characteristics affect electoral participation in Britain.

The key goal of this Chapter is to bridge together the two key streams of research on electoral participation in Britain: class non-voting (Evans and Tilley, 2017; Heath, 2018), and youth abstention (Heath, 2007; Smets, 2012, 2016; Blais and Rubenson, 2013). More specifically, the scholarship (Evans and Tilley, 2017; Heath, 2018) shows how the primary driver of class non-voting is ideological convergence towards the economic centre and social liberalism, which alienates the working class, traditionally left-wing and socially authoritarian (Lipset, 1959). In this Chapter, intersecting theoretically social class and age suggests how this turnout decline may be actually driven by the *younger members* of those classes. To test this hypothesis, I fit logistic regressions to BSA, BES and MARPOR data in the 1983-2017 timeframe.

The findings are the following: ideological convergence depresses electoral participation overall, but most powerfully for the working class and the self-employed class, and even more for their younger members. The mechanism underpinning this finding emerges from the interaction of the timing of life and individual development themes. As suggested by Plutzer (2002), turnout is habitual in nature: older individuals vote out of automaticity (Aldrich, Montgomery, and Wood, 2011). This suggests a differential impact of ideological mismatch: when ideological convergence presents undesirable options to younger individuals (mostly in the working class), they refrain from voting. I formally test this mechanism through KHB (Breen, Karlson, Holm, 2013) de-composition analysis. The findings highlight how the electoral participation of individuals depends on the linkage between convergence (geo-historical dynamics), their social class (linked lives), their age (timing), and values (agency).

On Data and Methods

Before turning to the empirical Chapters, I provide here a brief outline of the overall strategy for the selection of data and analytical methods. In terms of data, the European Social Survey constitutes the spine of this thesis, being the main source of data for Chapters 1-3. The key advantage of the ESS is that it provides data on both electoral participation and socio-demographic characteristics for individuals across several different countries in Europe and in the Near East, and over time.

While the analyses in Ch. 1-3 rely on the same survey as a pillar, they focus on different components of the ESS: Chapter 1 focuses on the multilevel Rounds 7-8 (2014-2016), Chapter 2 focuses on the standard Rounds 4-9 (2008-2018), while Chapter 3 focuses on the standard Rounds 1-8 (2002-2016). Furthermore, in Chapters 1-3 the ESS data is integrated with further datasets: EUROSTAT data on macro-level unemployment and sub-national population characteristics for Chapter 1; data on costs for worker dismissal from the Economic Freedom of the World Project of Fraser Institute for Chapter 2; the International Database of US Census data to compute RCS for individuals in all birth cohorts in the 25 countries involved in Chapter 3. Similarly, I integrate data from the MARPOR, British Social Attitudes, and British Election Survey in the case-study of Great Britain in Chapter 4.

The integration of ESS with different datasets allows me to examine how electoral participation is jointly shaped by both contextual dynamics (*e.g.*, the unemployment rate) and individual socio-demographic characteristics (*e.g.,* unemployment scarring, level of education, social class). This multilevel interest reflects the influences of the life course and analytical sociology approaches: a more complete analysis of electoral participation as an action should consider both the macro and the micro components (Coleman, 1986), or agency and structure (Emirbayer and Mische, 1998). While Chapter 2 focuses only on the micro level, to explore precarity dimensions in greater depth, the central contributions of Chapters 1, 3, and 4 emerge precisely from the theoretical and empirical cross-level interactions. Methodologically, this mindset is matched with cross-level interactions in linear (Chapter 3) and logistic regressions with fixed effects (Chapters 1 and 4), as multilevel models are not warranted due to ICC. Having discussed the overall data and methods, let us move to Chapter 1.

Thesis Development

Before proceeding to the Chapters, I would like to document how this thesis was developed. During the third week of my PhD, I knocked on the door of Ross Macmillan, to ask his feedback on a tentative research project: how cabinet stability fosters economic growth. Coming from programs in Economics, I considered growth as a goal *per se*. Ross Macmillan posed to me the first key question: *"What about inequality?"*. From this input, I started thinking about social stratification through a Sociological lens. On December 9th, 2016, almost four years before the day in which I am writing these words, I adapted that question: *"What about **political** inequality?"*. These intertwined questions sparked a research interest: exploring how social stratification influences inequality in political participation. On the same day, while running my first regressions on how income decile influenced electoral participation in the European Social Survey, I noticed how the voting difference between old and young individuals was almost thrice as large as that between the top and the bottom income deciles. This led me to a further realization: socio-economic gradients play a key role, but socio-demographic characteristics are also crucial. Later in the program, I knocked on the door of Francesco Billari, who posed the following crucial question: "*What is the role of the life course?"*, and subsequently introduced me to the Age-Period-Cohort problem. With his guidance, I managed to systematize how relative cohort size (which I discovered during the Population Studies PhD course) and age played a role in shaping electoral participation. The last question was posed during my third year by Gøsta Esping-Andersen: *"Ask yourself as a sociologist: under what conditions?"*. This question was instrumental in broadening my perspective on how social stratification and the life course affect electoral participation in different contexts, which is most evident in Chapters 1 and 4. The latter Chapter was written during my Visiting Period at Nuffield College in Oxford, where Geoffrey Evans greatly helped me understand the vast body of work on class voting, and the rising one on class *non*-voting. To all of them, I owe my deepest gratitude for their continued guidance and support, from opening the door when I knocked, to this day, in which I submit this thesis on how social stratification and the life course shape inequality in electoral participation across Europe.

Chapter 1

The Scar Effects of Unemployment on Electoral Participation:

Withdrawal and Mobilisation across European Societies

Does unemployment increase or decrease electoral participation? A considerable body of work has examined this classic question, focusing on employment position and the unemployment rate. However, this literature has not yet examined the role of past experiences of unemployment, which negatively affect several socio-economic outcomes. In this paper, we extend the framework of unemployment scarring to study electoral behaviour. First, we posit that unemployment scars decrease electoral participation. Second, we formulate competing hypotheses on the effects of the unemployment rate at the country, NUTS1 and 2 levels. We test these hypotheses relying on Rounds 7-8 (2014-2016) of the European Social Survey, for 22 European countries. Results from logistic regressions with country and year FE indicate that citizens with long unemployment scars are 10% less likely to vote than the non-scarred. We further find that higher unemployment rates at the sub-national levels slightly increase turnout, while there is no significant effect at the country level. For the same levels, we find that lower unemployment rates exacerbate the individual scarring effect on turnout up to 17%. These findings remark how the framework of the scar effects of unemployment can shed further light on the relationship between social stratification and political behaviour.

1.1 Introduction

Does unemployment increase or decrease electoral participation? Since Lipset (1960) this is a key question for political sociology, given that jobs shape citizens' positions in the social hierarchy (Weber, 2009 [1922]), their integration in society (Durkheim, 1933; Putnam, 2000; Brand, 2015), and their political attitudes (Lipset and Rokkan, 1967; Kitschelt and Rehm, 2014). The relationship

between unemployment and turnout is a component of the broader scholarship on social stratification and political behaviour, at the forefront on research on the crisis of social democracy (Lindvall and Rueda, 2014) and on the rise of ethnonationalist forces (Rydgren, 2007; Emmenegger *et al.*, 2015; Gidron and Hall, 2017; Norris and Inglehart, 2019).

Despite the salience of this issue for academia and the wider public sphere, there is still no consensus in the scholarship as regards the direction of the relationship. Rosenstone (1982) codified the debate in two main positions: mobilisation vs. withdrawal. Proponents of the former argue that unemployment increases voter turnout, as the unemployed flock to the polls in order to pressure the government into pro-employment policies (Lipset, 1960). On the contrary, proponents of the latter articulate that unemployment decreases voter turnout: the unemployed are busy keeping their "*body and soul together*" (Rosenstone, 1982, p. 26), which decreases interest in politics (Wolfinger and Rosenstone, 1980). The divide persists in more recent works, with Burden and Wichowsky (2014) on the mobilisation side, and Emmenegger, Marx, and Schraff (2015), Marx and Nguyen (2016), and Rovny and Rovny (2017) on the withdrawal side. This literature has mainly focused on the role of social class and current employment position at the micro level (Rueda, 2005; Rehm, 2009; Rovny and Rovny, 2017), and on the unemployment rate at the macro-level (Arceneaux, 2003; Charles and Stephens, 2013; Burden and Wichowsky, 2014).

However, there is scarce attention on a further aspect of unemployment: past unemployment experiences. A voluminous body of research finds that said experiences shape a plethora of negative outcomes, which do not cease in the moment former workers sign another contract. Rather, they tend to last well in the long-term. These realised risks are addressed in the literature as the *"scar effects of unemployment"* (Clark *et al.,* 2001; Arulampalam *et al.*, 2001; Gangl, 2006). These scar effects are multiple, and range from more classic adverse labour market outcomes as lower income and re-employment chances (Gangl, 2004, 2006; Dieckhoff, 2011), gender and ethnic discrimination in the

labour market (Mooi-Reci and Ganzeboom, 2015; Birkelund, Heggebø, and Rogstad, 2017), to education (Lindemann and Gangl, 2019; Mooi-Reci *et al.*, 2019), divorce (Goñalons-Pons and Gangl, 2018), health (Wilson and Walker, 1993; Korpi, 2001; Knabe and Rätzel, 2011; Virtanen, Janlert, and Hammarström, 2011; Ardito *et al.*, 2017), and social and political trust (Nguyen, 2017; Giustozzi and Gangl, 2018; Schraff, 2018).

If past experiences of unemployment generate scars across physical, social, economic, and political domains, they may also negatively affect electoral participation. Thus, the absence of research on the scar effects of unemployment on electoral participation is problematic: if individuals experiencing socio-economic and health hardships are also less likely to participate in elections, this may create a vicious circle between socio-economic marginality and political marginality (DiPrete and Eirich, 2006). If these scar effects of unemployment on electoral participation are further amplified by macro-level unemployment, the overall situation would be further exacerbated. Therefore, understanding how unemployment scars (micro) and rates (macro) jointly shape electoral participation is important for the health of democracy (Lijphart, 1997). In this paper, we address these gaps in three ways:

First, we posit that past experiences of unemployment have a scarring impact on electoral participation, similarly to other socio-economic outcomes.

Second, we examine the impact of unemployment rate on electoral participation, at different macro levels (country, NUTS1, NUTS2).

Third, we examine how the unemployment rate at different macro levels moderates the impact of past experiences of unemployment on electoral participation.

To do so, we rely on multilevel data from Rounds 7 and 8 of the European Social Survey (2014 - 2016). We fit to this data logistic regressions with country and year fixed effects, with robust standard errors clustered on countries, and design weights. The substance of our findings is that past experiences of unemployment decrease electoral participation, while higher unemployment rates at the sub-national levels increase participation. When micro and macro levels are combined, the

individual scar effects are stronger when the unemployment rate is lower. Thus, we find support for *both* mobilisation and withdrawal arguments, respectively at the macro and micro levels.

1.2 Previous Studies and Hypotheses

Scar Effects of Unemployment on Social and Economic Outcomes

The concept of unemployment scarring originates from stratification research, where it is considered as a "trigger event" (Gangl, 2004): experiencing job loss causes disruptions over individual life courses across several domains (Ellwood, 1982; DiPrete, 2002; DiPrete and McManus, 2000). In this section, we outline research on the material and psychological scars of unemployment, focusing on the mechanisms, which we then adapt to electoral participation.

For what concerns the labour market scars of unemployment, these range from increased risk of further unemployment after re-employment (Arulampalam *et al.*, 2001; Gangl, 2006; Brandt and Hank, 2014; Barbieri and Cutuli, 2016), lower re-employment chances (Luijkx and Wolbers, 2009; Schmelzer, 2011), and loss of job control authority after re-employment (Dieckhoff, 2011). This body of research points to stigma as the driving mechanism: employers rely on past unemployment experiences to assess the quality of workers, also due to perceived losses in human capital (Lockwood, 1991; Becker, 1993; Van Belle *et al*., 2018). Therefore, those with unemployment experiences will have lower re-employment chances and lower wages (Arulampalam *et al.*, 2001; Gangl, 2006), potentially generating a vicious circle of unemployment experiences and bad jobs. However, Gangl (2006) found how this stigma mechanism could be partially offset by labour market institutions such as unemployment insurance and Employment Protection Legislation: by mitigating the costs of unemployment spells, former workers would be less prompted to accept lower-quality jobs and wait for better-quality jobs, thus loosening the aforementioned vicious circle.

Moving from material to psychological consequences of unemployment, Clark *et al.* (2001) find that experiences of unemployment would decrease life satisfaction up to three years afterwards. They draw the underpinning mechanism from social psychology: a body of research (Hill, 1977; Goldsmith *et al.*, 1996) found how unemployment had negative effects on the internal efficacy of individuals, leading to adverse effects in terms of productivity. Knabe and Rätzel (2011) further specified this mechanism: the scars on well-being are not only driven by the experience of unemployment *per se*, but also by the fear of *future* unemployment. In line with the external stigma or sorting mechanism (Lockwood, 1991; Gangl, 2006), those that have been unemployed in the past will consider themselves more at risk of further unemployment. Mooi-Reci and Ganzeboom (2015) further highlight how the mechanisms underlying scarring are socio-psychological, finding how stigmatization is more prevalent among men than women. This points to a pattern where unemployment drives stigmatization through societal norms: in countries where male-breadwinner norms are more widespread, Goñalons-Pons and Gangl (2018) find how job losses among husbands would be more likely to end in divorce, relatively to job losses among wives. Similarly, Lindemann and Gangl (2019) find that paternal unemployment decreases children's likelihood of entering into tertiary education through a socio-psychological mechanism: reducing their optimism about success in life. However, the scar effects of unemployment are not limited to the labour market or households: Giustozzi and Gangl (2018) find how unemployment experiences generate permanent scars on trust in parliamentary bodies, with the effect being mediated by life dissatisfaction and economic difficulties, both subjective and objective.

In light of these streams of research, we can identify stigma as the main mechanism, in two forms: external, where the unemployment experience leads employers (or spouses) to consider the former workers as lower in quality; and internal, where the experience leads former workers to lower self-esteem, undermining their self-efficacy. If through this mechanism, unemployment spells can generate lasting scars on several outcomes including political trust, there is a clear rationale to employ them as predictors of electoral participation.

Micro: Scar Effects of Unemployment on Electoral Participation

But how can we connect these mechanisms to electoral participation? Research on the political effects of economic hardships points to internal efficacy as the key mechanism: lower internal efficacy leads to political alienation (Rosenstone, 1982; Emmenegger, Marx and Schraff, 2015; Marx and Nguyen, 2016). The core of this mechanism comes from Rosenstone (1982). While not explicitly reasoning in terms of internal efficacy, he argued how unemployment would lead individuals to focus inwardly, to "*keep their bodies and souls together, and not bother with remote concerns like politics*" while dealing with difficult job searches. Additionally, Rosenstone (1982) argued how unemployment disrupts social relationships: former workers largely lose interactions with former colleagues, and may be stigmatised by members of other networks. Emmenegger, Marx, and Schraff (2015) further fleshed out this alienation mechanism by drawing from socio-psychological literature on self-efficacy (Lane, 1959; Balch, 1974; Gecas, 1989; Rosenstone and Hansen, 1993). They posit that labour market hardships disrupt an individual's self-assessed competence to influence politics. In their words, if individuals "*feel like failures*" in the labour market, this will undermine their self-perceived political competence, and decrease voter turnout. Marx and Nguyen (2016) further build on the mechanism of low political efficacy, theorising and empirically finding how current unemployment "*impairs self-concept, social contact, and material and cognitive resources*", thus depressing political involvement.

Integrating perspectives from the streams of research on the socio-economic scar effects of *past* unemployment, and on the participatory effects of *current* unemployment, we articulate the following. Unemployment experiences, *in the past*, permanently undermine the internal efficacy of workers through stigma (Arulampalam *et al.*, 2001; Gangl, 2006; Mooi-Reci and Ganzeboom, 2015) and alienation (Rosenstone, 1982; Marx and Nguyen, 2016) mechanisms. Additionally, they will undermine trust in parliamentary institutions (Giustozzi and Gangl, 2018), decreasing motivations for voting. These effects will not cease in the moment the workers sign another contract, but will stay in the long run. Thus, we argue that the realised risk of unemployment, in the past, will negatively affect

electoral participation, in addition to the effects of well-established predictors of electoral participation, such as social class, education, and current employment position (Verba, Nie, and Kim, 1987; Gallego, 2007; Smets and Van Ham, 2013). Therefore, we posit that:

Hypothesis 1 – Individuals with unemployment scars will be less likely to vote than individuals without those scars.

Macro: Does the Unemployment Rate lead to Mobilisation or Withdrawal?

At the macro-level most contributions support the Mobilisation hypothesis, highlighting three mechanisms. The first is provided by Lipset (1960), who argues that macro "*pressures with which individuals cannot cope*", such as inflation or the unemployment rate, will drive citizens to vote in order to seek an institutional solution. In his view, citizens consider voting as a last resort for problems they cannot deal with personally. Another stream of research (Brody and Sniderman, 1977; Lewis-Beck and Stegmaier, 2000) identifies a second mechanism: blame attribution. When the unemployment rate is higher, the higher mobilisation comes from citizens that are blaming the incumbent for the adverse conditions at the macro level (Arceneaux, 2003). Therefore, elections provide a chance for dissatisfied citizens to punish the incumbents (Burden and Wichowsky, 2014). A third and related mechanism is that of complacency: Burden and Wichowsky (2014) posit that good socio-economic conditions do not attract the attention of citizens towards politics, and the lack of blame to attribute entails lower levels of electoral participation.

Drawing from this mobilisation scholarship, we posit the following:

*Hypothesis 2 – Higher unemployment rates at the macro level **increase** voter turnout, overall.*

However, the empirical evidence supporting this hypothesis is mainly focused on the United States (Lim and Sander, 2013; Charles and Stephens, 2013; Burden and Wichowsky, 2014), with the two-party system of the US facilitating punishment of the incumbent, by supporting the opposition party.

One of the few contributions examining the issue in a comparative perspective is that of Radcliff (1992), who however focuses on macroeconomic conditions, without singling out unemployment. Radcliff (1992) argues how greater economic duress pushes individuals away from politics through opportunity costs, while better socio-economic conditions mitigate the adverse effects of duress. A further mechanism in support of withdrawal at the macro level can be posited by aggregating the mechanisms driving withdrawal at the micro level: social stigma and the disruption of social relationships (Verba, Nie, and Kim, 1987; Wolfinger and Rosenstone, 1980; Rosenstone, 1982; Emmenegger *et al.*, 2015; Marx and Nguyen, 2016). Theoretically, if a higher proportion of citizens in the geographical unit is exposed to unemployment, more citizens may withdraw from electoral participation at the same time, driving down the aggregate voter turnout. Therefore, the competing withdrawal hypothesis is the following:

*Hypothesis 3 – Higher unemployment rates at the macro level **decrease** voter turnout, overall.*

Macro and Micro: Does the Unemployment Rate Moderate the Scar Effects on Turnout?

In the past sections, we have outlined the mechanisms linking unemployment to turnout at the micro and macro levels. However, analysing them separately may impair the full picture: if macro-level unemployment rises and aggregate turnout follows suit, who is voting more? Are those scarred by unemployment mobilising due to their hardships, are the non-scarred employed flocking to the polls, or are both categories participating more? On the other hand, it would be unreasonable to expect the micro scar effects to be uniform across contexts with different aggregate unemployment rates. On this matter, Lim and Sander (2013) provide evidence that the direction of the relationship may be the

opposite at the macro and micro levels: when examining only individual unemployment and participation, they find support for the withdrawal hypothesis.

In this section, we therefore address the following question: under what conditions do past experiences of unemployment scar electoral participation? As highlighted by Gangl (2006), the extent to which unemployment scars the work-trajectories of individuals largely depends on the characteristics of the labour market that are present in the country. Shifting to electoral participation, we have two competing cases: higher rates of unemployment may **mitigate** or **exacerbate** the scarring effect on turnout at the micro level. We review the mechanisms supporting both strands, and formulate the associated hypotheses.

A first mechanism supporting mitigation is habituation, which comes from a considerable body of work across economic sociology, social psychology, and labour economics. The habituation hypothesis holds that the negative effects of unemployment on well-being are mitigated when the experience is widely shared, and exacerbated when it is not (Clark, 2003). The driving mechanism is differential social stigma: Danckert (2017) finds that experiencing unemployment personally, or having relatives with such experiences, reduce the subjective stigma of unemployment. Focusing on self-rated health, Heggebø and Elstad (2018) further link habituation to societal norms, drawing from Clark and Oswald (1994, p. 647): "*it is harder to put up with unemployment if one lives in a place where few people are without a job*". In such a situation, the unemployed "*would be more likely to attribute their job loss to some personal failing*" (Turner, 1995). Empirical findings on the habituation hypothesis are mixed: Clark (2003) finds that it holds in British regions with a relatively high unemployment rate, while Oesch and Lipps (2013) find no positive significant effect in Germany and Switzerland.

Despite this lack of empirical consensus, habituation is a well-suited mechanism for our mitigation hypothesis: past unemployment experiences may be less stigmatised internally and externally when

the unemployment rate is high. Therefore, if the experience is widely shared, jobless spells may affect electoral participation less.

In the same direction, further mechanisms are blame attribution (Brody and Sniderman, 1977) and voting as a last resort (Lipset, 1960): when the unemployment rate is higher, scarred individuals may shift the blame to the government and consider government policy as the only viable solution to a common predicament, and thus vote more. In terms of existing evidence on the current unemployment status, a study relying on blame attribution is that of Aytaç *et al.* (2018). They find that in the United States unemployed individuals tend to mobilise when macro-level unemployment is high, and to withdraw when it is not. This pattern is explained as follows: when macro-level unemployment is high, the contestant has an incentive to inflame the anger of the jobless to punish the incumbent. Adapting these mechanisms to past experiences of unemployment, it follows that:

*Hypothesis 4 - Higher unemployment rates **mitigate** the scar effects of unemployment on turnout.*

Theoretically, the opposite case is also possible: high unemployment rates may combine with individual scars in depressing turnout even further. As highlighted by a body of research (Paul and Moser, 2009; Noelke and Beckfield, 2014), higher contextual unemployment means greater difficulties in re-employment, which could further alienate scarred citizens from politics (Rosenstone, 1982). Turning to empirical findings, Marx and Nguyen (2016) find that in Europe the withdrawal effects of current unemployment are exacerbated by higher rates of country unemployment. In line with the macro findings by Radcliff (1992), Marx and Nguyen (2016) find that while micro unemployment depresses internal political efficacy, better socio-economic conditions at the country level moderate the withdrawal effect of individual unemployment: lower unemployment, lower income inequality, higher economic development, more generous welfare regimes. Drawing on this literature, it follows that:

*Hypothesis 5 - Higher unemployment rates **exacerbate** the scar effects of unemployment on turnout.*

Summary of Mechanisms and Hypotheses

A key element that emerges in the review of the contrasting hypotheses is the geographic unit considered as the level of analysis: the evidence supporting mobilisation at the macro level mostly relies on sub-national contexts, whether they are states (Burden and Wichowsky, 2014; Aytaç *et al.*, 2018) or regions (Clark, 2003). On the other hand, evidence in favour of withdrawal is at the country level (Marx and Nguyen, 2016). Therefore, we need to account for the possibility that the moderating effect of the unemployment rate may vary between different macro levels. To do so, we specify sub-hypotheses for Hypotheses 2-5: *a* for the country level, *b* and *c* for the NUTS1 and 2 levels. We summarise the mechanisms and hypotheses in Table 1.1.

Table 1.1 – Summary of Mechanisms and Hypotheses

Variable(s)	Level	Mechanism	Turnout Effect
Unemployment Scarring	Micro	Social Stigma and Alienation Disruption of Social Relationships	Withdrawal (*H1*)
Unemployment Rate	Macro	Blame Attribution/Complacency Voting as a Last Resort	Mobilisation (*H2*)
		Opportunity Costs Aggregation of Micro Effects	Withdrawal (*H3*)
Unemp. Rate and Scarring	Macro-Micro	Habituation Blame Attribution/Complacency Voting as a Last Resort	Mitigated Withdrawal (*H4*)
		Combination of Adversities	Exacerbated Withdrawal (*H5*)

1.3 Dataset

The European Social Survey is administered on a biennial basis to about 50,000 individuals per Round, and it has been administered to a total of 34 countries across Europe, as of the latest Round (2018). In this paper, we rely on the two latest available multilevel Rounds of the ESS (7 – 2014, 8 - 2016). These datasets provide information on micro and macro variables. The latter refer to countries, macro-regions (NUTS1), and regions (NUTS2). We provide descriptive statistics in Table 1.2.

Turnout

Our dependent variable is the reported voter turnout of the respondent in the last national elections, drawn from the variable *vote* in the ESS. The variable *vote* has been recoded to a binary structure, dropping respondents not eligible to vote. Furthermore, we have restricted the sample to individuals over the age of 18, according the most common threshold concerning eligibility to vote in national elections. Therefore, our recoded dependent variable exhibits 1 when the respondent voted in the last national elections, and 0 when the respondent did not.

Unemployment Scarring

To control for the presence of unemployment scars, we rely on the variables *uemp3m* and *uemp12m*, binary dummy variables capturing whether the respondent has been unemployed for more than 3 months and more than 12 months. The *uemp12m* variable refers only to those that have experienced unemployment for more than three months. Therefore, we build a single variable that takes three values: 0 if the respondent has not experienced unemployment for more than 3 months – "No Scar", 1 if the respondent has experienced unemployment for more than 3 months, but less than one year – "Short Scar", and 2 if the respondent has experienced unemployment for more than 1 year – "Long Scar". Furthermore, the other variables in the ESS capturing unemployment spells refer only to periods dating back to 5 and 10 years before the time of interview, thus excluding the effect of unemployment spells that may have occurred before that timeframe.

Table 1.2 – Descriptive Statistics

Variable	N	Mean/Percent	St.Dev	Min	Max
Turnout	64,215	0.780	0.41	0	1
Unemployment Scarring	64,215	0.419	0.802	0	2
No Scar	45,362	70.64%			
Short Scar (>3 Months)	10,827	16.86%			
Long Scar (>12 Months)	8,026	12.50%			
Social Class (ESEC)	64,215	4.60	2.92	1	9
Large Employers, Higher Mgrs/Professionals	12,206	19.01%			
Higher Supervisors, Lower Mgrs/Professionals	12,511	19.48%			
Intermediate Occupations	5,008	7.8%			
Small Employers and Self-Employed	4,283	6.67%			
Small Employers and Self-Employed (Agri)	1,201	1.87%			
Lower Supervisors, and Technicians	5,140	8.00%			
Lower Sales and Service	9,478	14.76%			
Lower Technical	6,758	10.52%			
Routine	7,630	11.88%			
Level of Education (ES-ISCED)	64,215	4.059	1.825	1	7
Higher Tertiary (ES-ISCED V2)	8,541	13.30%			
Lower Tertiary (ES-ISCED V1)	7,640	11.90%			
Vocational Training (ES-ISCED IV)	9,543	14.86%			
Upper Secondary, Upper (ES-ISCED IIIa)	11,695	18.21%			
Upper Secondary, Lower (ES-ISCED IIIb)	12,403	19.31%			
Lower Secondary (ES-ISCED II)	8,984	13.99%			
Primary (ES-ISCED I)	5,409	8.42%			
Labour Market Position	64,215	2.359	1.680	1	6
Paid Work	36,185	56.35%			
In Education	1,832	2.85%			
Unemployed or Inactive	3,056	4.76%			
Retired	17,345	27.01%			
Housework or Community Service	1,688	2.63%			
Sick or Disabled	4,109	6.40%			
Age	64,215	51.588	17.155	18	114
Religious	64,215	0.591	0.492	0	1
Gender	64,215	0.477	0.499	0	1
Native	64,215	0.917	0.277	0	1
Minority	64,215	0.047	0.212	0	1
Unemployment Rate (Country)	62,123	8.87%	4.15	3.3%	23.07%
Unemployment Rate (NUTS1)	30,569	9.06%	5.44	2.95%	31.53%
Population Size (thousands) (NUTS1)	30,569	6,278.96	3,914.82	657.39	17,865.52
Population Density (NUTS1)	30,569	332	667.20	6	5570.6
GDP per capita - PPP (NUTS1)	30,569	105.20	29.80	44	206
Unemployment Rate (NUTS2)	35,793	9.58%	5.35	2.88%	32.65%
Population Size (thousands) (NUTS2)	35,793	2,365.63	2,005.47	83.87	12,117.13
Population Density (NUTS2)	35,793	310.60	673.47	3.4	6,478.5
GDP per capita - PPP (NUTS2)	35,793	101.97	33.32	42	183

Descriptive Statistics with design weights. Data: ESS Multilevel, Rounds 7-8 (2014-2016)

Socio-Demographic Controls

We include controls for the key dimensions of labour market marginality, social class and labour market position (Rovny and Rovny, 2017), as well as traditional predictors of voter turnout: level of education, age, religiosity, migrant and ethnic status, and gender (Gallego, 2007; Smets and Van Ham, 2013). For social class, we transform the ISCO-08 measures (*isco08*) into social classes according to the European Socio-Economic Classification (ESEC) by Rose and Harrison (2007). To do so, we rely on the *iscogen* STATA package developed by Jann (2019)[1]. Labour market position is captured through the *mnactic* variable. For the level of education, we rely on the ES-ISCED classification present in the ESS (*eisced*). To measure respondents' age, religiosity, native/migrant background, and gender, we rely on the variables *agea, rlgblg, brncntr, blgetmg,* and *gndr*. All variables are binary, except age.

Macro Variables

Finally, we rely on the variables *cntry*, *nuts1*, and *nuts2* to identify each geographical unit. The former are 22: Austria, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Hungary, Iceland, Ireland, Israel, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland[2]. The NUTS1 and 2 included are listed in Appendix Tables A.2-A.5. We exclude from the NUTS1 regressions the units that have a single NUTS1 region for each country, as they do not feature sub-national variation (Czech Republic, Denmark, Estonia, Finland,

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[1] For purposes of robustness, we have also run our analyses using the class schemas by Erikson, Goldthorpe, and Portocarero (1979) and Oesch (2006). The findings for the focal unemployment variables are equivalent to using ESEC.

[2] We exclude from the original sample Belgium due to its compulsory voting policy, and Russia due to concerns on the fairness of its elections, having a score of 0.34 vs. a European average of 0.82 in the Clean Elections Index (V-Dem, 2020)

Ireland, Lithuania, Norway, Portugal). Similarly, we exclude from the NUTS2 regressions the countries with a single NUTS2 region (Estonia, Lithuania).

Our second focal independent variable is the unemployment rate, measured at each contextual level. The measure of unemployment rate embedded in the multilevel ESS dataset is provided by the Eurostat, for each year. To operationalise it we compute five-year averages of the unemployment rate, more specifically for 2009-2014 (Round 7), and 2011-2016 (Round 8). The purpose of this measurement is to provide a structural measure of unemployment in the geographical context, in order to reflect the degree of social stigma associated with joblessness[3] .

The descriptive statistics for the unemployment rate are presented again in Table 1.2, together with measures of population size, population density (per km^2), and GDP per capita in purchasing power parity (PPP) for the NUTS1 and NUTS2 levels, measured in 2014 and 2016.

We provide descriptive statistics for the unemployment rate at the country level in Appendix Table A.1, and for the NUTS1 and 2 levels in Appendix Tables A.2-A.5.

1.4 Analytical Strategy

To study how our explanatory variables affect voter turnout, we fit logistic regressions to the ESS data. As voter turnout is a binary dependent variable, logistic regressions are preferable to OLS estimation. We rely on robust standard errors using countries as clusters to mitigate heteroskedasticity, and design weights to account for group differences in the probability of being interviewed. We present exponentiated coefficients in the form of Odd Ratios, presenting probabilities of voting relatively to selected baselines.

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[3] For purposes of robustness, we report results from using the yearly (2014 and 2016) rates of unemployment in place of the five-year averages in Appendix Table A.7, and the associated MEMs in Figures A.1 and A.2. Results are equivalent to using the five-year averages.

For Hypothesis 1, the purpose of country fixed effects is to control for unobserved heterogeneity at the country level, such as the electoral system and cultural aspects. Similarly, we rely on fixed effects for years in order to capture common time trends.

For Hypotheses 2-5, the presence of different levels may call for the use of multilevel models. However, the number of countries which would constitute our higher-order units is 22, below the thresholds of 25 (linear) and 30 (logistic) required for the contextual effects in multilevel models to be unbiased (Bryan and Jenkins, 2015). Therefore, we will rely on specifications with country FE. As the unemployment rate is measured as the average for the 2009-2014 and 2011-2016 periods, it is time-variant. Therefore, it will not be captured by the country FE, but it will only display the within-country variation in probability of voting as the unemployment rate changes.

To capture the role of macro-level unemployment rate while controlling for time-invariant unobserved heterogeneity at the country level, we also examine the effect of unemployment rates at the macro-regional (NUTS1) and regional (NUTS2) levels. Sub-national variation in unemployment rates can be considerable in some cases, with countries such as Germany and Italy featuring regions at the opposite ends of the spectrum: Bavaria-DE2 (2.95%, less than the 5th percentile of the overall distribution) vs. Berlin-DE3 (11.45%, over 75th percentile of the overall distribution); Bolzano/Bozen – ITH1 (3.95%) vs. Calabria – ITF6 (20.65%). Therefore, the sub-national contexts of the 22 European countries provide an adequate setting to examine the role of unemployment rates at the NUTS1 and 2 levels. In the associated models, we rely on FE for countries and years, and control for established predictors of turnout which may confound the effect of the unemployment rate, such as population size, density, and GDP per capita (Franklin, 2004; Blais, 2006). To conduct our statistical analyses, we rely on the following commands in STATA 14.2: *logistic, margins, marginsplot.*

1.5 Results

Table 1.3 – Unemployment Scarring and Electoral Participation

|	Overall
Unemployment Scarring - Baseline: No Scar	
Short Scar (>3 Months)	0.863***
	(0.027)
Long Scar (>12 Months)	0.833***
	(0.045)
Social Class (ESEC) - Baseline: Large Emps. and Higher Mgrs/Professionals	
Higher Supervisors and Lower Mgrs/Professionals	0.891**
	(0.039)
Intermediate Occupations	0.866**
	(0.047)
Small Employers and Self-Employed	0.683***
	(0.051)
Small Employers and Self-Employed (Agri.)	0.703***
	(0.065)
Lower Supervisors and Technicians	0.670***
	(0.024)
Lower Sales and Service	0.607***
	(0.031)
Lower Technical	0.561***
	(0.037)
Routine	0.514***
	(0.031)
Level of Education - Baseline: Less than Lower Secondary (ES-ISCED I)	
Lower Secondary (ES-ISCED II)	1.291***
	(0.081)
Upper Secondary, Lower (ES-ISCED IIIb)	1.590***
	(0.143)
Upper Secondary, Higher (ES-ISCED IIIa)	2.125***
	(0.181)
Advanced Vocational (ES-ISCED IV)	2.438***
	(0.242)
Lower Tertiary Education (ES-ISCED V1)	2.948***
	(0.331)
Higher Tertiary Education (ES-ISCED V2)	3.712***
	(0.489)
Labour Market Position - Baseline: Paid Work	
In Education	1.229*
	(0.113)
Unemployed or Inactive	0.729***
	(0.040)
Retired	0.772**
	(0.046)
Sick or Disabled	0.685***
	(0.0393)
Housework or Community Service	0.946
	(0.065)
Age	1.035***
	(0.003)
Religious	1.469***
	(0.079)
Gender - Baseline: Woman	1.128**
	(0.049)
Native	2.742***
	(0.412)
Minority	0.782*
	(0.093)
Country and Year Fixed Effects	Yes
Pseudo-R^2	13.23%
N	64215

Logistic regressions with design weights. Cluster-Robust Standard errors in parentheses. Data: ESS Multilevel, Rounds 7-8 (2014-2016)
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 1.3 reports the results of the logistic regressions of electoral participation on unemployment scarring with country and year FE, robust standard errors clustered around countries and design weights. Against the baseline of those without unemployment scars longer than 3 months, short (>3 months) and long (>12 months) unemployment scars respectively decrease probability of voting by 13.7% and 16.7% ($p<0.001$). The results for the socio-economic controls are in line with the literature on turnout: probability of voter turnout is lower among members of lower social classes, the lower educated, the currently unemployed, younger individuals, the non-religious, women, migrants, and ethnic minorities. To better interpret the coefficients of unemployment scarring, we depict in Figure 1.1 the Marginal Effects at the Means with 95% Confidence Intervals for the focal variable.

Figure 1.1 – Marginal Effects of Unemployment Scars on Electoral Participation
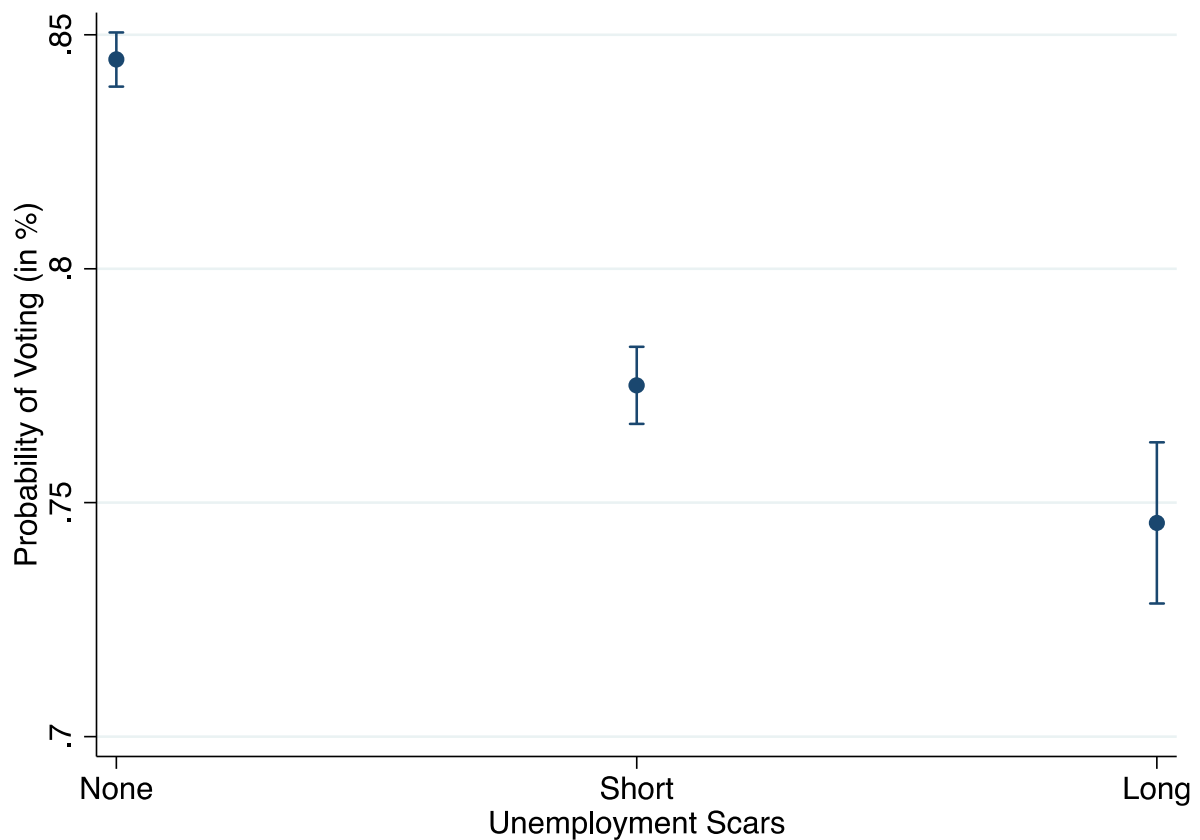
Note: Graph depicting Marginal Effects at the Means with 95% Confidence Intervals for the impact of unemployment scars (None: <3 Months; Short: >=3 Months; Long: >=12 Months) on Probability of Voting. Computed with *margins* and depicted with *marginsplot* in STATA 14.2, after the logistic regression in Table 1.3 with cluster-robust standard errors and design weights. Source: European Social Survey, Rounds 7 and 8. Multilevel datasets.

The non-scarred have a probability of voting of 84.47%, which is 9.91 pp. higher than the 74.55% of the long-scarred. The probability of voting for the short-scarred sits in the middle at 77.50%, and is statistically different from both the non- and long-scarred, as the 95% Confidence Intervals do not overlap. In terms of effect size, an increase of 1 SD in the independent variable corresponds to 8.57% of a SD for the dependent variable. Therefore, these results support Hypothesis 1: controlling for established predictors of turnout, unemployment scarring decreases electoral participation, albeit with a limited effect size.

Macro – Unemployment Rate and Electoral Participation

Table 1.4 – Unemployment Scarring and Rates, at the Country, NUTS1 and 2 levels

	Country	Country	NUTS1	NUTS1	NUTS2	NUTS2
	Baseline	*Interactions*	*Baseline*	*Interactions*	*Baseline*	*Interactions*
Unemployment Scarring - Baseline: No Scar						
Short Scar (>3 Months)	0.861***	0.685***	0.889**	0.697***	0.848***	0.674***
	(0.028)	(0.030)	(0.037)	(0.045)	(0.030)	(0.040)
Long Scar (>12 Months)	0.825***	0.585***	0.813**	0.594***	0.821**	0.604***
	(0.044)	(0.062)	(0.060)	(0.066)	(0.052)	(0.072)
Unemp. Rate, 5-Years Average	1.041	1.032	1.031**	1.013	1.022*	1.006
	(0.033)	(0.033)	(0.011)	(0.012)	(0.009)	(0.010)
Unemployment Scarring x Unemp. Rate						
Short Scar x Unemp. Rate		1.026***		1.028***		1.025***
		(0.005)		(0.004)		(0.005)
Long Scar x Unemp. Rate		1.037***		1.033***		1.030**
		(0.009)		(0.008)		(0.010)
NUTS Population Size (thousands)			1.000**	1.000**	1.000	1.000
			(0.000)	(0.000)	(0.000)	(0.000)
NUTS Population Density			1.000	1.000	1.000	1.000
			(0.000)	(0.000)	(0.000)	(0.000)
NUTS GDP per capita - PPP			1.003	1.002	0.999	0.999
			(0.002)	(0.002)	(0.002)	(0.002)
Socio-Demographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Country and Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo-R^2	13.24%	13.29%	12.36%	12.45%	13.18%	13.24%
BIC	56505	56473	26481	26456	31917	31895
N	62123	62123	30569	30569	35793	35793

Logistic regressions with design weights. Cluster-Robust Standard errors in parentheses. Data: ESS Multilevel, Rounds 7-8 (2014-2016)
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Let us move to the competing Hypotheses 2 and 3. The Baseline columns of Table 1.4 reports the results of the logistic regressions with country and year FE as in Table 1.3, adding the averages of the unemployment rate for the 2009-2014 and 2011-2016 periods, in the three geographic levels.

Furthermore, we include controls for Population Size (in thousands), Density, and GDP per capita (PPP) at the NUTS levels. For the sake of graphical clarity, we do not report here the results for the socio-demographic controls, which are in line with the coefficients in Table 1.3. The full results are available in the Appendix Table A.6.

Starting from the Country level, the results show how the increase in the unemployment rate increases electoral participation. However, this effect is not statistically significant.

To further clarify this, we depict in Figure 1.2 the MEMs for the unemployment rate at the country level, at the 10th, 25th, 50th, 75th, 90th, and 95th percentiles[4].

Figure 1.2 – Probability of Voting, by Unemployment Rate – Country Level
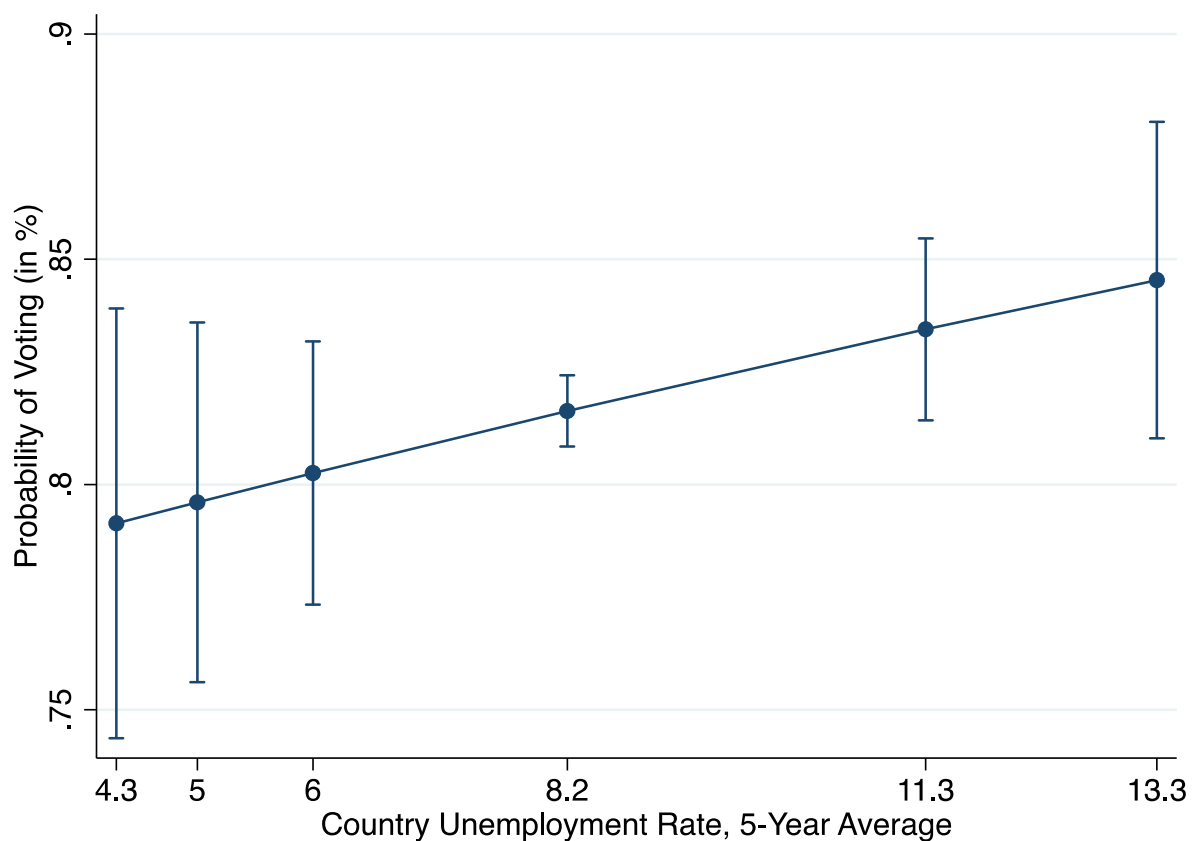
Note: Graph depicting Marginal Effects at the Means with 95% Confidence Intervals for the impact of the unemployment rate on Probability of Voting. Computed with *margins* and depicted with *marginsplot* in STATA 14.2, after the logistic regression in Table 1.4 – Column 1 with cluster-robust standard errors and design weights. Source: European Social Survey, Rounds 7 and 8. Multilevel datasets, with data on Country Unemployment Rate from Eurostat.

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[4] We skip the 5th percentile as it is almost identical to the 10th.

The MEMs confirm the finding in Table 1.4: while there is an increase, it is not statistically significant, as the 95% Confidence Intervals overlap. Therefore, neither Hypothesis 2a or 3a are supported. Let us move to the sub-national levels: in both NUTS1 and 2, higher rates of average unemployment over the last 5 years increase probability of voting: by 3% (p<0.01) and 2.2% (p<0.05) respectively. As before, we depict the MEMs for Probability of Voting in Figure 1.3.

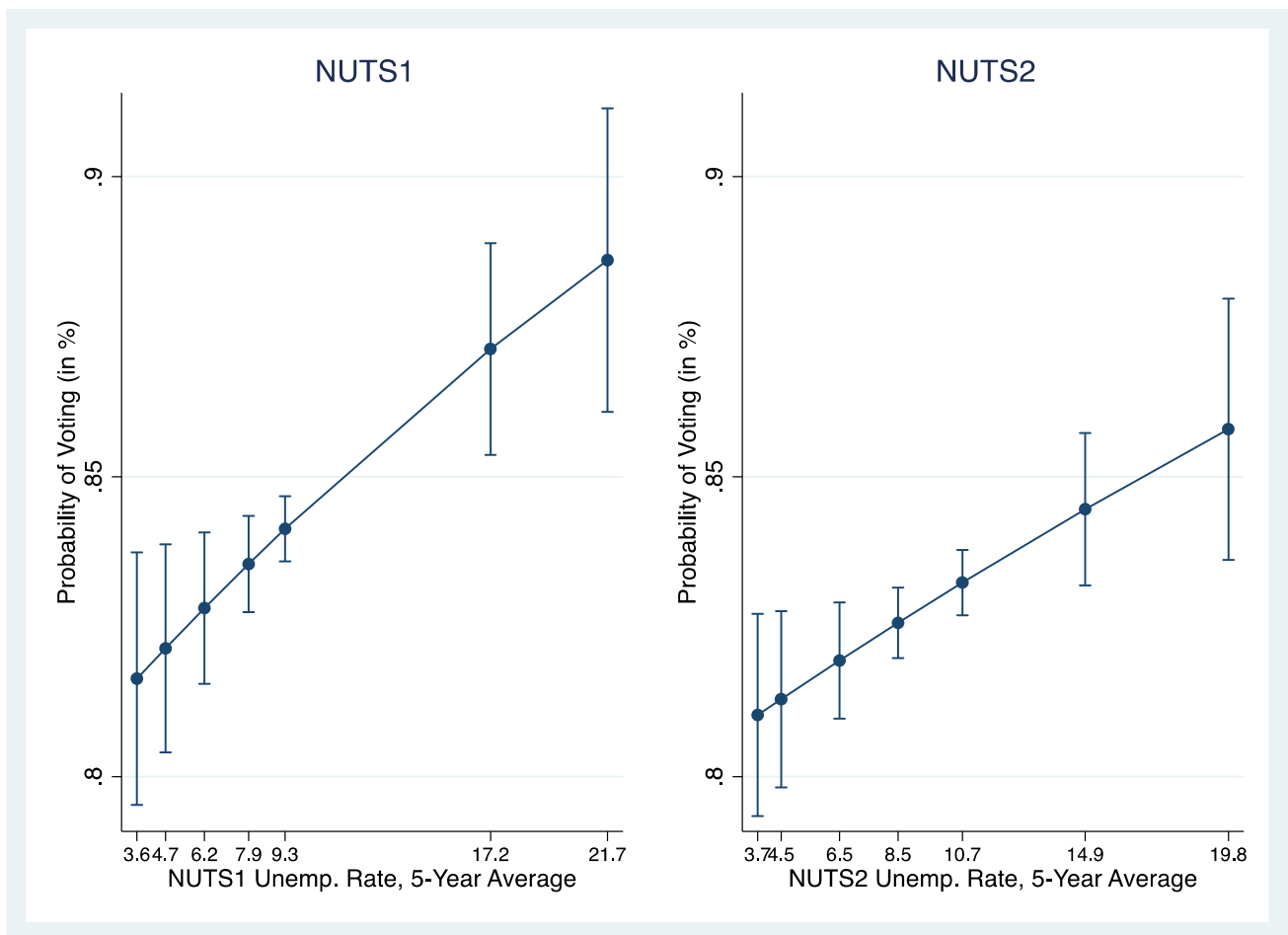**Figure 1.3 – Probability of Voting, by Unemployment Rate – NUTS1 and 2 Levels**

Note: Graph depicting Marginal Effects at the Means with 95% Confidence Intervals for the impact of the unemployment rate on Probability of Voting. Computed with *margins* and depicted with *marginsplot* in STATA 14.2, after the logistic regression in Table 1.4 – Columns 3 and 5 with cluster-robust standard errors and design weights. Source: European Social Survey, Rounds 7 and 8. Multilevel datasets. Data on Contextual Variables from Eurostat.

The y axis is identical, while the x axes report the 5th, 10th, 25th, 50th, 75th, 90th, 95th percentile for unemployment rate for each level. In both levels, the increase in the unemployment rate leads to statistically significant increases in Probability of Voting. For NUTS1 macro-regions, probability of

voting grows by 6.98 pp., from 81.63% to 88.61%. NUTS2 regions exhibit a similar pattern, with probability of voting growing by 4.76 pp., from 81.03% to 85.79%. While effect sizes are very limited (4.7% and 1.59% of a SD for the dependent variable), the direction of the effect is positive, supporting the mobilisation Hypotheses 2b and 2c over their competing withdrawal counterparts.

Macro and Micro – Joint Impact of Unemp. Rate and Scarring on Electoral Participation

Having examined both micro and macro levels, let us analyse their joint impact on electoral participation. The Interaction columns of Table 1.4 report the two-way interactions between micro-unemployment scarring and the average unemployment in the last five years for each different geographic unit. First, we assess whether the interactions are statistically warranted. We do so by comparing the Bayesian Information Criteria for each pair of Baseline and Interaction specifications. Consistently for all levels, the BICs are lower in the Interaction models than in the Baselines, by respectively 32, 25, and 22 points. These values are at least twice as large as the threshold of 10 set by Raftery (1995) as "very strong support" for model selection. This pattern is corroborated by the Pseudo-R^2 which are consistently higher in the Interaction models relatively to the baseline, albeit by small quantities. Starting again from the Country level, the interaction is positive and statistically significant for both the short- and the long-scarred (p<0.001). Figure 1.4 reports the associated MEMs.

The results are mixed: examining each individual pattern separately, the increase in the unemployment rate does not entail statistically significant changes, as the 95% CI overlap from the 5th to the 95th percentiles. However, the difference in Probability of Voting between the non-scarred and the long-scarred changes in magnitude: it is 16.74% at the 10th percentile and 8.31% at the 95th. Both are statistically significant, as the 95% CI do not overlap.

The contrast between the results entails we cannot fully reject the null hypothesis for the competing Hypotheses 4a and 5a: while the direction is in line with Hypothesis 4a, the change in individual probabilities of voting is not statistically significant, while the reduction of the gap in probability of voting is significant.

Figure 1.4 – Probability of Voting, by Unemployment Scarring and Rate – Country Level
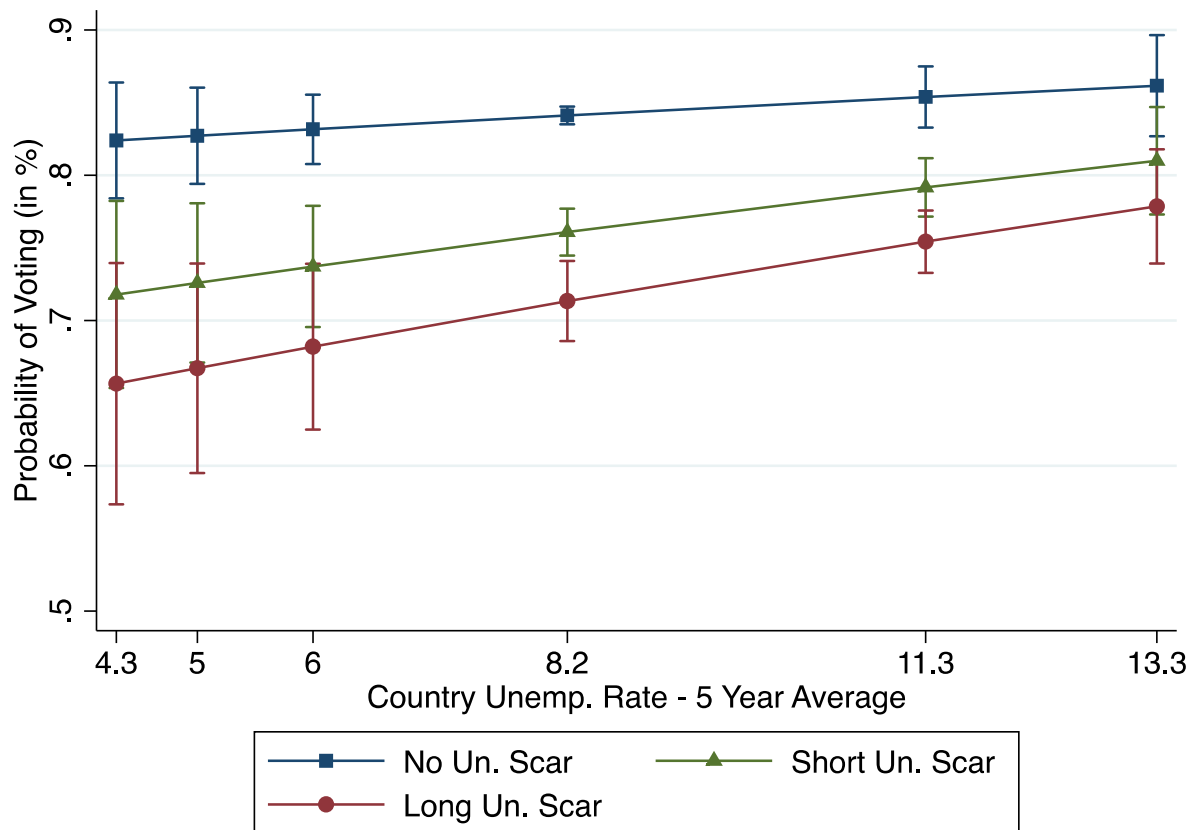
Note: Graph depicting Marginal Effects at the Means with 95% Confidence Intervals for the impact of unemployment scars (None: <3 Months; Short: >=3 Months; Long: >=12 Months) and the unemployment rate on Probability of Voting. Computed with *margins* and depicted with *marginsplot* in STATA 14.2, after the logistic regression in Table 1.4 – Column 2 with cluster-robust standard errors and design weights. Source: European Social Survey, Rounds 7 and 8. Multilevel datasets Multilevel datasets, with data on NUTS1 and 2 Unemployment Rates from Eurostat.

Finally, we move to the interactions between unemployment scarring and the average unemployment rate in the last 5 years for the NUTS1 and 2 levels. In both levels, the interaction coefficients are positive and statistically significant at the p<0.001 threshold, except for the long-scarred in NUTS2 (p<0.01). We depict once more the MEMs for the Probability of Voting in Figure 1.5.

Figure 1.5 – Probability of Voting, by Unemployment Scarring and Rate – NUTS1 and 2 Levels
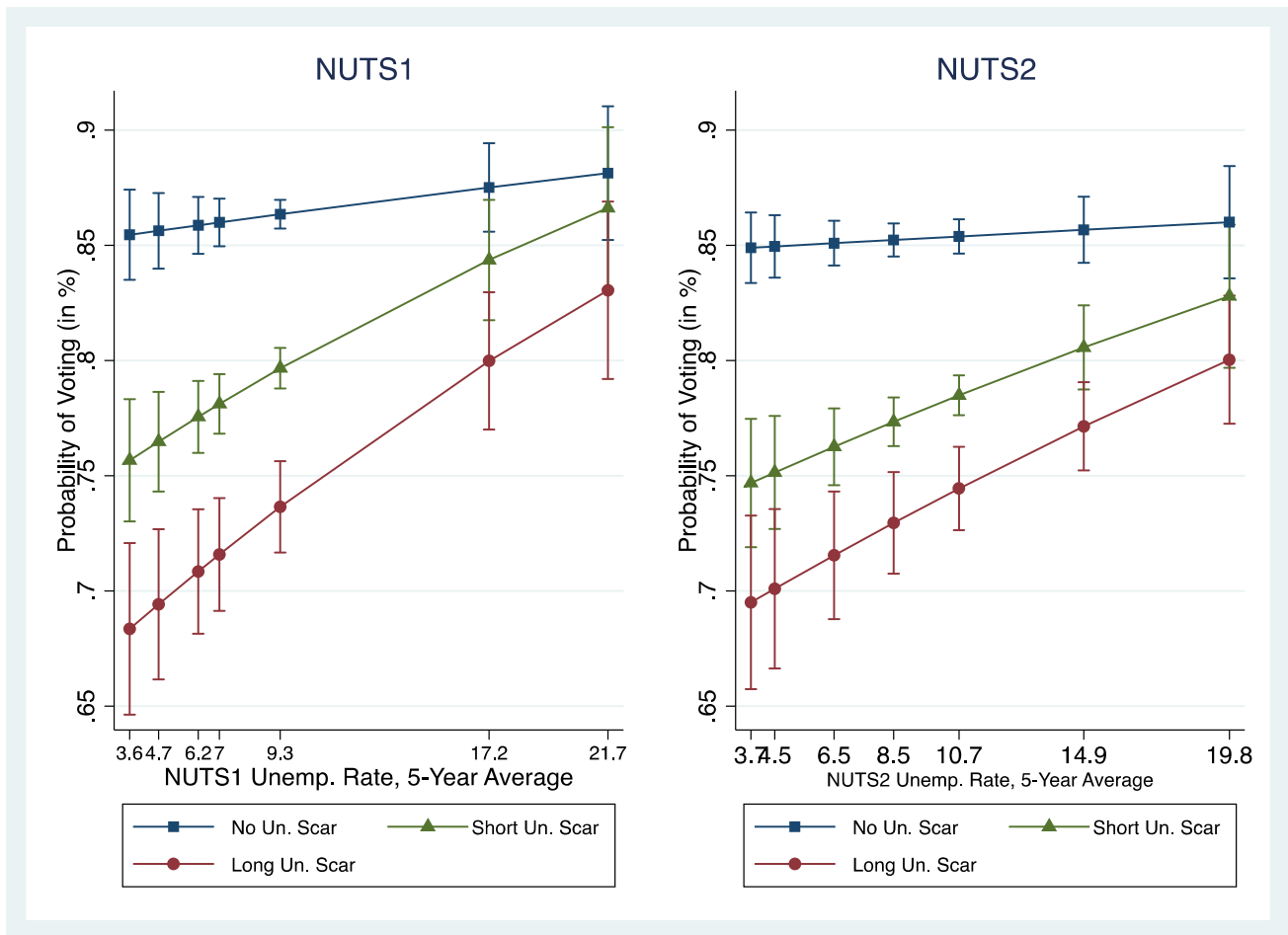

Note: Graph depicting Marginal Effects at the Means with 95% Confidence Intervals for the impact of unemployment scars (None: <3 Months; Short: >=3 Months; Long: >=12 Months) and the unemployment rate on Probability of Voting. Computed with *margins* and depicted with *marginsplot* in STATA 14.2, after the logistic regression in Table 1.4 – Columns 4 and 6 with cluster-robust standard errors and design weights. Source: European Social Survey, Rounds 7 and 8. Multilevel datasets, with data on NUTS1 and 2 Unemp. Rates from Eurostat.

The y axis is identical, while the x axes report the 5th, 10th, 25th, 50th, 75th, 90th, 95th percentile for unemployment rate, for each geographic level. In both NUTS1 and 2 contexts, the pattern is the same: the gap in probability of voting is largest at the 5th percentile of unemployment rate of NUTS1 and NUTS2, respectively amounting to 17.10% (11.8% SD) and 15.38% (10.31% SD). As the unemployment rate increases, the gap decreases, staying statistically significant until the 90th percentile. For the NUTS1, the difference between the non- and long-scarred is not significant at the 95th percentile, while it is 5.97% and significant for NUTS2.

These changes in Probability of Voting are driven by the short- and long-scarred, who are markedly more likely to vote as the unemployment rate increases, in a statistically significant way. On the other hand, there is no statistically significant change for the non-scarred.

These results show how unemployment scarring is most harmful to electoral participation when the unemployment rate is low. On the contrary, in contexts with highest unemployment rate, unemployment scarring drives only limited (NUTS2) and non-significant (NUTS1) differences in probability of voting. Therefore, these results support Hypotheses 4b-c over Hypotheses 5b-c: unemployment rate at the macro level mitigates the withdrawal effect of scarring at the micro level. We elaborate on these results in the conclusive section.

1.6 Discussion and Conclusion

In this paper, we addressed three questions: do past experiences of unemployment scar electoral participation? Does the unemployment rate at different macro-levels increase or decrease voter turnout? And finally, does the macro-unemployment rate moderate the micro effect?

Our answers are the following: past unemployment experiences decrease electoral participation by about 10%, controlling for well-established predictors of turnout, with country and year FE. The unemployment rate increases electoral participation, but this is not significant at the country level, whereas it is significant at the NUTS1 and 2 levels, albeit modestly. Our key finding comes from interacting the two levels: scarring at the micro level is mitigated by higher unemployment rates at the macro level. Thus, our answer to the mobilisation vs. withdrawal question is *both:* withdrawal at the micro level and mobilisation at the macro level, providing a possible synthesis point for the longstanding debate in political sociology since Lipset (1960) and Rosenstone (1982).

These findings support Hypothesis 1 at the micro level, and Hypotheses 2 and 4 across the NUTS1 and 2 levels. We summarise the findings and the effect sizes in Table 1.5.

Table 1.5 – Summary of Findings, with Statistical Significances and Effect Sizes

Variable(s)	Level	Marginal Effect	Sig.	Effect Size
Unemployment Scarring	Micro	-9.9%	Yes	8.57% SD
Unemployment Rate	Country	+5.4%	No	2.49 % SD
	NUTS1	+7.00%	Yes	4.7% SD
	NUTS2	+4.8%	Yes	1.59% SD
Scarring and **Low** Un. Rate	Country	-16.74%	Yes	12.67% SD
Scarring and **High** Un. Rate		-8.31%	Yes	7.74% SD
Scarring and **Low** Un. Rate	NUTS1	-17.10%	Yes	11.8% SD
Scarring and **High** Un. Rate		-5.08%	No	3.78% SD
Scarring and **Low** Un. Rate	NUTS2	-15.38%	Yes	10.31% SD
Scarring and **High** Un. Rate		-5.97%	Yes	6.96% SD

Marginal Effects at the Means computed after logistic regressions with design weights and Cluster-Robust Standard Errors. Data: ESS Multilevel, Rounds 7-8 (2014-2016)

While the effect size for the micro-level effect is limited, this is obtained controlling for traditional predictors of voter turnout such as social class, current labour market position, education, and age, in addition to country and year FE. The key contribution of the individual-level findings is that unemployment experiences in the past do not only create lasting negative outcomes in the realms of labour market, of family, health, and political trust, but also in terms of electoral participation. Considering these negative outcomes together, the scar effects of unemployment may trigger a circle of cumulative disadvantage over the life course (DiPrete and Eirich, 2006), where socio-economic and health vulnerabilities shape political marginality. This is another facet of the *"unresolved dilemma of democracy"* described by Lijphart (1997), where political marginality may shape unequal representation and responsiveness of elected officials towards the most struggling strata of society, further worsening their conditions.

The second contribution relates to the impact of unemployment rate at the macro level: we find evidence in favour of mobilisation across the sub-national levels, in line with previous research on the topic (Burden and Wichowsky, 2014; Aytaç *et al.*, 2018). However, the effects are very small. The key contribution comes from the macro-micro effect: unemployment scarring is stronger where the unemployment rate is lower, consistently across the different geographic contexts. These findings highlight how the driving mechanism is linked to different societal norms, in line with research on habituation (Clark and Oswald, 1994; Turner, 1995; Clark, 2003; Heggebø and Elstad, 2018).

A caveat is needed for the macro-micro effects with countries: while the gap between the long-scarred and the non-scarred is statistically significant across all levels of unemployment rate, and shrinks from -16.74% to -8.31% as the latter rises, the change in the probability of voting of the short- and long-scarred is not statistically significant. Therefore, we report the macro-micro effects at the country level on probability of voting as statistically significant, while the macro-level effect is not.

While this is reassuring insofar there is no reinforcement between structural and individual adversities, long-scarred citizens of countries such as Germany, Great Britain, the Netherlands, and Norway are more than 10% less likely to vote than the non-scarred. This effect becomes more powerful at the sub-national level, with scarred citizens being up to 17.10% less likely to vote than the non-scarred when the unemployment level is below the 10th percentile. This is valid across NUTS1 areas such as Western Austria (AT3), Baden-Württemberg (DE1) and Bavaria (DE2), and NUTS2 areas such as Prague (CZ01), Bolzano/Bozen (ITH1), Oslo (NO01), and Zeeland (NL34). Thus, we find that the scar effects of unemployment on electoral participation are powerful across a range of geographical contexts in Europe.

The key limitation of this paper is the cross-sectional nature of the data: while we leverage on retrospective questions, we do not know exactly when the unemployment spell took place. After

having examined the scar effects on turnout across 174 regions and 22 countries, future research may enquire on this relationship by relying on panel data, possibly approaching causality through individual fixed effects. However, this is restricted to countries that have panels with both socio-economic and electoral data (*e.g.*, BHPS/Understanding Society in Great Britain, GSOEP in Germany, LISS in the Netherlands). Therefore, this paper establishes new correlations across different contexts, which may be further explored in causal framework with nation-specific datasets. Future research may also expand this framework to further socio-political outcomes, such as attitudes on redistribution and migration, party choice, and engagement in civil society.

In conclusion, unemployment scars electoral participation, as well as several socio-economic outcomes. The effect is particularly harmful when the unemployment rate is low, and next to null when joblessness is higher. Therefore, extending the framework of the scar effects of unemployment to electoral outcomes can further shed light on the relationship between social stratification and political behaviour, which is crucial in the contemporary Europe of lower turnout rates and rising ethnonationalist forces.

Chapter 2

Are Bad jobs Bad for Democracy? Precarious Work and Political Participation in Europe

While socioeconomic inequality in voting has been central for research on political participation, recent years have seen radical changes in labour relations. The key issue is increasing prevalence of precarious work, involving dimensions as non-indefinite tenure and limited control over work activities. While some have speculated on the political implications of precarity, empirical evidence is still limited. To address this gap, we develop a framework that connects the multiple dimensions of precarious work to political participation. We test these ideas using data from 32 countries from the European Social Survey (2008-2018). Results indicate that precarious work is both strongly connected to traditional indicators of SES and has large, independent effects on probability of voting. We corroborate these results through IV estimation and heterogeneity analyses across countries. Findings show how precarious work heightens socio-economic stratification in political participation, undermining the universality of the right to vote and the health of democracies.

2.1 Introduction

"One human, one vote": this is the essence of universal suffrage, as summarised by its advocate George Howell in the late 19th Century. The universality of the right to vote is a central pillar for contemporary democratic societies, as it engenders the principle that all citizens are politically equal (Piven and Cloward, 2000; Dahl, 2006). Thanks to the spread of democratic institutions and politics (Torfason and Ingram, 2010), universal suffrage can be considered a key feature of the World Polity (Meyer *et al.*, 1997). Despite these achievements, the *exercise* of the right to vote has been consistently declining across advanced democracies (Gray and Caul, 2000; Blais and Rubenson, 2013). At the same time, it has become more socially stratified (Verba, Nie and Kim, 1987; Verba,

1996), leading to inequality in political participation. Lijphart (1997) framed this phenomenon as the "*unresolved dilemma of democracy*": inequalities in participation translate to inequalities in political representation and policy responsiveness, posing a direct threat to democracy.

Not surprisingly, the issue of socioeconomic stratification in political participation is central to a voluminous body of work across political science and sociology. In works spanning several decades, the relationship between socioeconomic status (SES) and political participation has attracted attention from different perspectives, focusing on the various forms of SES such as social class, education, employment status, or income (Wolfinger and Rosenstone, 1980; Powell, 1986; Jackman, 1987; Blais 2004, 2006; Franklin 2004; Leighley and Nagler, 2013).

At the same time, some have highlighted the need to move "beyond SES" (Brady, Verba, and Schlozman, 1995). The crux of their argument is that political participation is a function of resources, broadly including *time* for political activity, *money* to make contributions, and *civic skills* that increase the likelihood of political engagement. Although SES is not dismissed in its entirety, the so-called resource model (Brady, Verba, and Schlozman, 1995) considers work and occupation, the traditional pillars of SES, as only indirect determinants of political participation (Brady, Verba, and Scholzman 1995). Given this, attention shifts from issues of SES and social class to issues of cognitive and behavioural resources as the primary determinants of political participation.

However, the decentering of work and SES may be premature. In the recent decades, the social underpinnings of SES have exhibited paradigmatic changes. After the 1970s, the traditional system of labour relations in place since World War II (Polanyi, 1944) has been radically reconfigured by the flexibilization of work (Kalleberg, 2009) with considerable implications for social class and SES (Standing, 2011). Although rooted in the widespread use of limited (or even absent) contracts, precarious work is increasingly viewed as work with a mixture of limited tenure, low job control and organizational influence, cyclical unemployment, and financial vulnerability (Burgess and Campbell,

1998; Rodgers and Rodgers, 1989; Kalleberg, 2011). In this paper, we argue that precarious work can extend the understanding of the relationship between socioeconomic inequalities and electoral participation, from both the theoretical and empirical perspectives. On this basis, precarious work may be crucial for a contemporary account of socioeconomic inequalities in political participation, broadening the theoretical scope on how SES continues to shape politics after the Great Recession.

2.2 Precarious Work and Formal Political Participation

The origins of precarious work

The last decades of the 20th century saw the emergence of new logics of labour, emphasising flexibility above all else in the relations of production (Rodgers and Rodgers, 1989; Kalleberg, 2009; Standing, 2011). In the words of Kalleberg (2009, p.2), precarious work is "*employment that is uncertain, unpredictable, and risky for the point of view of the worker*". Literature on this phenomenon emphasises how the spread of flexible labour contracts produced not only temporary jobs, but a more broadly "casual" employment. Flexibility extended beyond contract tenures, and included different forms (Barbieri, 2009). A first is *functional* flexibility, where workers are expected to be functionally flexible and do different tasks depending upon ever changing need, even within the same firm. This pattern is exacerbated by the presence of labour brokers (Theron, 2005), which staff firms depending upon short-term needs. Not surprisingly, modes of compensation changed from salaried positions or predictable wages to piece-meal compensation based on short-term contracts or tasks completed. Indeed, the new relations of labour were increasingly ephemeral, unpredictable, and often insufficient for the management of everyday life (Standing, 2011). Traditional notions of SES and social class that frame much of the prior work on political participation assumed, quite rightly in most cases, that work was reasonably stable in form and largely permanent at least within generations. People typically had the same functional job over the majority of their working lives, with few organisational changes (Standing, 2011). Given this, type of occupation and employment relationship

were crucial to classify workers into SES (*e.g.*, Hauser and Warren, 1997) or social classes (*e.g.*, Erikson and Goldthorpe, 1992)[5].

These classifications constituted the basis for political science research on how social class shapes party choice (Alford, 1967; Lipset and Rokkan, 1967; Butler and Stokes, 1974), and electoral participation (Verba, Nie, and Kim, 1987).

In contrast, precarious work is more informal with few of the social contract relationships typical of the traditional working class (Kalleberg, 2009, 2011). Some suggest that a lack of control over labour is the key feature (Standing, 2011). While limited control stretches back to the dawn of the industrial revolution, contemporary analysts suggest much greater scope. Precarious jobs are characterized by insecure employment, in subordination to labour brokers rather than producers (Kalleberg 2009, 2011). Alternatively, it involves work for some multifaceted and multinational entity of which workers have little knowledge. Precarious work also involves increased job insecurity, a lack of stable, continued employment (Rodgers and Rodgers, 1989). For some, duration of work is known; for others, employment may cease with little warning. In either situation, stringing together jobs will involve a complex combination of efficacy, planning, and luck. As such those in precarious work are likely to have significant gaps in employment and precarious workers are typically subject to cyclical unemployment (Standing, 2011). Precarious workers often try to mitigate the situation by having multiple part-time jobs (Worth, 2018).

Limited control also stretches to tasks. While the traditional proletariat lacked control over what they did, they typically did the same types of tasks day after day and this may have been fundamental to occupational identification and class affiliation (Kohn and Schooler, 1983; Weeden and Grusky,

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[5] Social mobility was clearly an important aspect of both class and socioeconomic analysis, yet the lion's share of research focused on mobility across rather than within generations.

2005). In contrast, precarious workers tend towards being "jacks-of-all-trades" where a multiplicity of skills or basic soft skills has greater value in the modern marketplace. Lack of control also applies to prospects for social mobility. In traditional work, hierarchies of positions were well established and procedures for movement between ranks are known. For modern precarious workers, positions are known to be temporary and disconnected from formal organizational structures. As such, social mobility involves not work but attainment of stable, long-term employment (Wright, 2016). Finally, all of the above culminates in financial vulnerability whereby those in precarious work struggle to manage expenses of everyday living because of low compensation, gaps in employment, or a combination of the two. In several countries, the vast majority of people have very little in the form of liquid savings (UK Office of National Statistics, 2018) and the average unemployed person can last a couple of months at most without either income support or incurring debt (US Survey of Consumer Finances, 2016). For those in precarious work, financial vulnerability is endemic, cyclical, and a feature of everyday life.

Precarious work and likelihood of voting

While the body of work connecting precarious work to politics is nascent, different strands of research highlight how the former has a considerable impact on the latter. The mainstays of discussion have focused on the relationship between precarious workers and the traditional working class (Standing, 2016; Wright, 2016) and the broad implications for political orientation (Johnson, 2016). However, this strand of research has not formally examined the different roles of precarious work and traditional socioeconomic stratification for electoral participation. We argue that this difference is rooted in socio-psychological mechanisms: precarious workers are described as experiencing "*anger, anomie, anxiety, and alienation*" (Standing, 2011, pp. 19-25). Their anger reflects frustration of their inability to gain stable footholds in an unaccommodating labour market, coupled with recognition of limited

ladders for social mobility. Anomie is a feeling of passivity born of despair that reflects experiences of and enduring prospects for "artless, career-less jobs" coupled with sustained "*condemnation lobbed...by politicians and middle-class commentators castigating them as lazy, directionless, undeserving, socially irresponsible or worse*" (Standing, 2011, p. 19). Anxiety reflects the continuous cycle of temporary work that fails to provide a social and economic safety net. Precarious workers fear both losing the meagre footholds that they have and the impending sense that one wrong move or one mischance "*could tip the balance between modest dignity and being a bag lady*" (p. 20). Finally, precarious workers suffer grinding alienation that "*arises from knowing that what one is doing is not for one's own purpose or for what one could respect or appreciate, it is simply done for others, at their behest*" (p. 20).

While there is considerable work on labour market disadvantage and electoral participation (Jahoda, Lazarsfeld, and Zeisel, 1933; Rosenstone, 1982; Emmenegger, Marx, and Schraff, 2015; Marx and Nguyen, 2016; Rovny and Rovny, 2017. See Chapter 1 of this thesis for a more detailed review), this strand of research has not focused on the peculiar features of precarious work.

Some link precarious work to cohort variation in political participation, formal and informal, but acknowledge that empirical evidence is limited (Milkman, 2017). Others suggest that precarious work has increased the allure of authoritarian, right-wing political groups (Disch, 2011; Standing, 2014). Others go the opposite direction and argue for natural affinities between precarious workers and traditional labour politics (Braga, 2016). Still others suggest that the precariat may occupy a uniquely postmodernist position that allows them to occupy an increasingly important political space between the utilities of the "proletariat" and the "salariat" and that is expressed as an eclectic blend of formal and informal participation (Standing, 2016). The lack of clear theoretical expectations likely reflects the difficulties of inferring multiple social psychological orientations from precarious work, orientations that themselves have vague and contradictory relationships to political participation

(Aberbach, 1969; Markus and MacKuen, 1993; Marsh, O'Toole, and Jones 2006; Valentino *et al.,* 2011).

To address this gap in the literature, we adopt a different strategy and focus on the five key characteristics of precarious work and articulate why they should influence political participation. We do so for each characteristic and then for the cumulative experience of precarious work. Consider first the issue of non-indefinite work. Research on political socialization has long viewed work as a locus of political identity (Alford 1967; Heath *et al.* 1991). Here, prior work has emphasized type of work as producing particular political alignments with a particularly salient example being links between manual labour, working class identity, and labour politics (Evans, 2000). Yet the rise of widespread temporary work undermines the formation of an occupational identity with knock-ons for political identity (Standing, 2011). Ephemeral work prevents one from seeing oneself as a particular type or class of worker, as well as undermines the perception, by co-workers, by friends, by family, that one is a type of worker or member of a particular social class. Those in precarious work float between jobs and simply lack the worktime to forge social ties that would foster a particular identity. Without a firm occupational identity, political preferences are unlikely to coalesce and political participation should diminish.

A second connection to political participation comes from control over work and organizational influence. Classic work in social psychology shows that the type of work that people do translates into variation in "occupational self-direction," a sense of agency and efficacy for occupational tasks (Kohn and Schooler, 1983). Occupational self-direction further generalizes into self-directed orientations to self-worth and society (Kohn and Schooler, 1983). More specifically, those whose work involves simpler tasks, those who experience greater supervision, and those whose work is more routinized are likely to become more authoritarian, less likely to be self-confident and not self-deprecating, and more fatalistic, anxious, and conformist in their ideas. Research in political psychology anticipates that such factors influence propensity to vote. Acevedo and Krueger (2004)

argue that belief in personal relevance for electoral outcomes is a key determinant of voting. Importantly, belief in personal relevance is conceptually similar with generalized perceptions of agency (*e.g.*, Emirbayer and Mische, 1998) underpinning self-directedness (*e.g.*, Kohn and Schooler, 1983). Other aspects of agentic personality are also associated with greater likelihood of voting, including higher cognitive ability (Denny and Doyle, 2008), diligence (Smets and van Ham, 2013), lower ambivalence/alienation (Adams *et al.*, 2016), and greater political efficacy (Pattie and Johnston, 1998). In general, powerlessness in the workplace translates into perceived powerlessness in other realms of social and political life. If individuals lack basic control on the everyday tasks they perform or on the conditions of their organization, they may consider it pointless to participate in elections and to try to have a say in political processes.

A further dimension of precarious work is unstable employment or the presence of employment gaps. A defining feature of precarious work is its non-indefinite character. This, virtually by definition, increases the likelihood of gaps in employment. In social terms, gaps in employment or frequent change is likely to prevent the formation of stable and durable social relationships in the workplace that are considered instrumental to electoral participation (Rosenstone, 1982). Multiple channels exist. First, precarious work creates social distance and social distinctions among workers whereby those more permanent positions have different networks and workplace identities than those whose jobs are more ephemeral (Standing, 2014). The more one is outside the labour force or "between jobs" the less they are likely to form stable, long-term relationship that foster political socialization. This has implications for broad-based political identification that traditionally has been a very powerful motivation for political participation (Gray and Caul, 2000). Second, those in precarious jobs are often at odds with one another, locked in a perpetual competition for a stable, long-term job (Standing, 2011). Such competition again undermines the formation of a collectivity, and a collective identity that fosters political socialization. Third, the unemployed, particularly chronic or cyclically unemployed who rely on government support, are increasingly demonized and disparaged (Jones and

Novak, 2012). While the consequences of this are broad, those in precarious work are increasingly viewed as "other" and hence socially and politically alienated from social institutions (Handler and Hasenfeld, 2006). Such alienation has knock-on effects for trust in social institutions and civic mindedness that are themselves fundamental drivers of political participation (Denny and Doyle, 2008). In the aggregate, employment gaps should depress electoral participation by undermining political identification, by fostering competition and alienation, and by undermining trust and civic mindedness.

Finally, financial insecurity should also undermine political participation. Financial insecurity is endemic to precarious work. Even when employed, precarious work is typically associated with lower pay, as well as poorer benefits including support for health care and pensions (Kalleberg, Reskin, and Hudson, 2000). At the same time, financial insecurity also reflects vulnerabilities that accrue from gaps in employment. Evidence from the US Survey of Consumer Finances (2016) indicates that the average person has savings for approximately one to two months of support. Likewise, the UK Office of National Statistics (2018) reports that forty percent of adults have less than £1000 in savings which would last them about one month. Although largely at a conceptual level, research on social stratification and voting emphasizes financial stress as the link between low SES and decreased political participation. Rosenstone (1982, p. 26) for example argues that inequality in political participation reflects the focus of those of lower status being focused on "*keeping their body and soul together*" and caring for their families. Particularly in "post-material" societies (Inglehart, 1997), political discourse increasingly reflects what Maslow (1943) would deem to be "higher order" values. Yet those experiencing financial insecurity are likely to be focused on "lower order" needs, such as securing shelter and subsistence, and hence may have less interest in politics and political issues that emphasize other priorities. As a corollary, financial vulnerability may also undermine trust in political institutions by fostering perceptions that political institutions are unresponsive and ambivalent to the

needs of precarious workers. Financial vulnerability in the end should uniquely undermine political participation.

Four further issues follow. First, the impact of the different dimensions of precarious work is likely cumulative, even if they operate independently in depressing electoral participation. As argued by Standing (2011), the multiple dimensions of precarious work deprive individuals of an occupational identity within a clear hierarchy. Therefore, individuals experiencing multifaceted precarious work lack "industrial citizenship" (Standing, 2011), or membership in a defined social class, making it very difficult to coordinate competing individuals into a voting bloc, as unions historically did for the proletariat (Lipset and Rokkan, 1967; Evans, 2000). Second, the consequences of precarious work should be independent of traditional indicators of low SES. These include family and respondent's social class, educational attainment, employment status, and income. As such, they represent both a new vector of socioeconomic inequality in political participation that is not easily subsumed under traditional conceptualizations of class and status (Standing, 2016; Wright, 2016). Third and derivative, markers of precarious work should add to the effects of traditional indicators of SES. There is no reason to think that traditional markers of SES have declined in importance and hence the addition of indicators of precarious work should increase the overall scope of socioeconomic differentiation.

Fourth and finally, the relationship between the different dimensions of precarious work and political participation is likely to be heterogeneous across a range of countries and welfare state regimes. Barbieri (2009) argues that variation in welfare state regime shapes the meaning of precarious work for individual workers. It does so in two ways. First, it shapes overall exposure to precarious work. Countries with more expansive social welfare are more likely to have labour regulations that limit both temporary work and increase control over work and employment. Countries that are more market oriented are less likely to intervene in labour relations. Second, welfare state regimes provide variable amount of extra-market supports on issues of low income, unemployment, health care, and pensions.

Stratification research has speculated that the consequences of precarious work should be weakest in the strong welfare state contexts of Scandinavian countries and strongest in Anglo-Saxon and Eastern European regimes, where market forces and market logics are more universal (Kim *et al.*, 2009). Expectations are less precise for the hybrid market-welfare orientations of Continental countries or the familial-oriented Mediterranean countries. As prior work is ultimately quite vague, our goal is to evaluate how robust the association between precarious work and turnout is across countries with an eye towards whether welfare state regimes moderate effects.

With this background, the analyses that follow address three questions. First, how does precarious work relate to traditional indicators of SES? In answering this question, we flesh out the broader dimensionality of SES for the contemporary era. Second, how does precarious work influence the likelihood of voting? Here we focus on both individual indicators, as well as a cumulative index, and assess robustness through an instrumental variable (IV) estimation strategy. Finally, we assess generalizability of results across a range of countries and welfare state regimes that are expected to alter aggregate exposure to precarious work and perhaps moderate its consequences. In sum, these analyses provide a comprehensive account of precarious work as a critical aspect of SES and its implications for political participation and political inequality.

2.3 Data and Measures

Data

The data we use comes from the European Social Survey (ESS), a biennial cross-national survey of attitudes and behaviour established in 2001. The ESS uses cross-sectional, probability samples which are representative of all persons aged 15 and over resident within private households in each country. Given the focus of our research, our analytic sample is restricted in two ways. First, we only include those respondents who are eligible to vote in their resident country. Second, we only include respondents who reported some labour market activity over their life course and hence could answer

questions about conditions of employment. The final sample consists of just over 132 thousand respondents from 32 countries spanning the years 2008 to 2018. Countries include Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Iceland, Ireland, Israel, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, and Ukraine. The European context is a particularly promising arena for research given its importance as a sector of the global economy and its diversity with respect to labour market institutions and political systems. To ensure representativeness, we incorporate both design weights and probability weights, as is accepted best practices.

Measures

Our focal outcome is whether the respondent voted in the last national election in their country of residence (coded 0=did not vote; 1= did vote). Our predictor variables fall into one of four categories. First, standard control variables to address unobserved heterogeneity include *age* (in years), *gender* (coded 1=male; 0=female), *marital status* (coded 0=never married; 1=currently married; 2=separated or divorced), *nativity* (coded 0=foreign born; 1= native born), and *religiosity* based on how frequently one attends church (coded 1=never to 7=everyday). Second, we include family SES given its long history in research on electoral participation (*e.g.*, Wolfinger and Rosenstone, 1980; Powell, 1986; Jackman, 1987; Franklin, 2004; Blais, 2006). We capture this through a measure of the *family social class* based on the Erikson-Goldthorpe-Portocarero (1979) class schema (EGP), which differentiates respondents based on whether their father worked in "professional/technical jobs," "high administration," "clerical work," "sales work," "service work," "skilled labour," "semi-skilled labour," "unskilled labour," and "farm labour" when there were 14 years of age. We model effects based on a set of dummy variables indexing group membership (reference = professional/technical jobs). We also include a measure of *parent's educational attainment* that is the highest level of educational attainment of the respondent's mother or father ranging from "less than lower secondary"

(coded 1) to "tertiary education" (coded 5). The combination of parental occupation and education has a long and valuable history in research on SES and its implications (Hauser and Warren, 1997).

We also control for traditional indicators of the respondent's SES. *Social class* of the respondent is measured through the ESEC schema developed by Rose and Harrison (2007), which is a slightly more simplified version of the EGP schema, but also takes into account newer professions categorised under ISCO-08 (Ganzeboom, 2010). As the ESEC schema is not directly available in the ESS, we convert the ISCO-88 (*iscoco*) and ISCO-08 (*isco08*) measures of occupation to ESEC relying on the *iscogen* STATA package developed by Jann (2019).

Educational attainment is measured with the same metric as parent's educational attainment. Labour market position is the respondent's "usual" state of activity during the survey year that includes those "*employed* (coded 1)," "*in school* (coded 2)," "*unemployed* o(coded 3)," "*disability* (coded 4)," "*retired* (coded 5)," and "*other* [not in labour force] (coded 6)." Finally, *poverty status* is measured as a flag capturing those in the bottom decile on household income. The final set of measures capture various dimensions of a precarious work. *Employment contract* differentiates those with contracts of indefinite duration, from those with contracts of limited duration or with no formal contract (coded 1). Two further aspects capture the nature of control within one's job. Job control is indexed by how much they can "decide how your own daily work is/was organized? (ranging from 0 = "I have/had no influence" to 10 = "I have/had complete control)." Accompanying this, organizational influence captures the degree to which respondents can/could "influence policy decisions about the activities of the organization" (ranging from 0 = "I have/had no influence" to 10 = "I have/had complete control)? For both measures, *limited job control* and *limited organizational influence* are indexed as respondents who fall in the bottom terciles on both measures.[6] dimension is the presence of *gaps in employment*. This is captured by an ESS question that asks

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[6] We examined a variety of cut-points ranging from bottom decile to the 60th percentile and results are substantively similar.

respondents whether they had "ever been unemployed and seeking work for a period of more than three months" (yes coded 1; no coded 0). The final aspect measures *financial vulnerability* based on a question asking respondents whether they find it "difficult" or "very difficult" (coded 1; other coded 0) to live on one's income. To capture the overall extent of precarious work, we sum up all indicators to create a cumulative index score (ranging from 0 to 5). Our focus on a continuous or graded measure of precarious work is consistent with arguments that the precariat, at least in its current form, is not a fully developed social class but instead is a "class-in-the-making" that involves multiple dimensions (Standing, 2011, vii).

We further include controls for both general and specific features of country context. In the former respect, our initial models include country fixed effects that effectively control for all time- stable attributes of countries. This should effectively eliminate any bias associated with long-run political culture, system level effects, or cultural proclivities for participation. In subsequent analyses, we explicitly examine differences across countries and welfare state regimes (Esping-Andersen, 1990) given expectations that variation in social welfare should both limit exposure to precarious work and buffer its social and psychological consequences through market and extra- market supports (Barbieri, 2009). At minimum, the latter models assess generalizability of the relationship between precarious work and political participation across a range of political-economic contexts. All models also include panel fixed effects to control for any temporal trends that could bias estimates. Descriptive statistics for all measures are shown in Table 2.1.

Table 2.1 – Descriptive Statistics

Variable	Mean/Percent	St.Dev	Min	Max
Voted (1 = Yes)	0.795	0.404	0	1
Age	49.400	16.302	18	114
Female	0.503	0.500	0	1
Marital status (Reference = Never married)				
Married	0.610	0.488	0	1
Separated/Divorced	0.168	0.374	0	1
Navity (1 = Native born)	0.933	0.249	0	1
Religiosity	2.453	1.476	1	7
Family class (Reference = Professional)				
Higher administration	0.048	0.213	0	1
Clerical	0.056	0.230	0	1
Service	0.052	0.223	0	1
Sales	0.067	0.250	0	1
Skilled labour	0.244	0.429	0	1
Semi-skilled labour	0.197	0.398	0	1
Unskilled labour	0.085	0.279	0	1
Farm labour	0.150	0.357	0	1
Parental educational attainment	2,606	1.458	1	5
Respondent educational attainment	3,575	1.316	1	5
Labour market position (Reference = employed)				
In school	0.024	0.152	0	1
Unemployed	0.050	0.217	0	1
Disability	0.019	0.135	0	1
Retired	0.234	0.423	0	1
Other	0.070	0.255	0	1
Poverty status	0.063	0.243	0	1
ESEC Class indicator (Reference = Higher manager/professionals)				
Lower managers or professionals	0.208	0.406	0	1
Intermediate occupations	0.090	0.286	0	1
Small employers/Self-employed I	0.058	0.233	0	1
Small employers/Self-employed II	0.029	0.168	0	1
Lower supervisors and technicians	0.084	0.277	0	1
Lower sales and service	0.136	0.342	0	1
Lower technical	0.101	0.301	0	1
Routine	0.103	0.304	0	1
Precarious work				
Non-indefinite contract	0.171	0.377	0	1
Low job control	0.246	0.431	0	1
Low organization influence	0.297	0.457	0	1
Employment gaps	0.307	0.461	0	1
Financial vulnerability	0.251	0.433	0	1
Cumulative Precarious Work	1.272	1.251	0	5

2.4 Results

The first stage of our work models extent of precariat status particularly in relation to traditional indicators of SES. Poisson regression coefficients are shown in Tables 2.2 and 2.3 (generated using *poisson* in Stata 14), which are separate for purposes of graphical clarity. We estimate three models with the first model including basic socio-demographics, the second adding SES in family of origin, and the third adding indicators of respondent's SES. To start (see model 1), risk of precarious work declines by 0.3 percent per year ($e^{-0.003} = 0.997$), is 11 percent higher among women, and 18 percent lower for those born in the country of residence. It is also 23 percent lower for those that are married and decreases by 2.2 percent for each additional day per week of attending church. With model 2, there is further evidence of socioeconomic differentiation with respect to family of origin. There is a clear class gradient where risk of precarious work is higher among those from service (3%), skilled labour (9.6%), semi-skilled labour (20.7%), unskilled labour (36.2%), and farm labour (20.4%). Incremental increases in parent's educational attainment further reduce risk of precarious work by 6 percent. Direct indicators of respondents' SES are also associated with risk of precarious work. Greater educational attainment reduces risk by approximately 6 percent. Precarious work is also related to labour market position with increased risk among those in school (30.7%), those currently unemployed (74%), those with disabilities (48.6%), and those otherwise outside the labour force (26.6%). Low income is associated with 34 percent increased risk of precarious work (34%). There is also a clear gradient in the association between social class of the respondent and risk of precarious work. Against the baseline of higher managerial/professional workers, risk is marginally higher among the lower managers (9.3%), higher among those in lower supervision and technician work (25.4%) and intermediate occupations (48.4%), and substantially higher among those in lower sales and service (79.5%), lower technical (94%), and routine workers (108%). At the same time, self-employed workers, both agricultural and non-agricultural, have substantially lower risk. Poverty status is also associated with somewhat higher risk of precarious work (34%).

Table 2.2 – Poisson: Indicators of precarious work regressed on socio-demographics (Part A)

	1	2	3
Age	-0.003***	-0.005***	-0.004***
	(0.001)	(0.001)	(0.001)
Female	0.102***	0.104***	0.093***
	(0.036)	(0.036)	(0.016)
Native-born	-0.193***	-0.200***	-0.130***
	(0.044)	(0.037)	(0.023)
Marital status (Reference = Never married)			
Married	-0.229***	-0.236***	-0.11***
	(0.040)	(0.041)	(0.024)
Separated/Divorced	-0.024	-0.034*	-0.011
	(0.018)	(0.018)	(0.016)
Religiosity	-0.022***	-0.025***	-0.017***
	(0.007)	(0.007)	(0.006)
Family Social Class (Reference = Professional)			
Higher administration	.—	-0.007	-0.007
		(0.030)	(0.026)
Clerical	.—	0.011	-0.000
		(0.020)	(0.015)
Sales	.—	-0.011	-0.008
		(0.044)	(0.034)
Service	.—	0.030*	-0.030
		(0.017)	(0.021)
Skilled labour	.—	0.092***	0.004
		(0.022)	(0.014)
Semi-skilled labour	.—	0.188***	0.043***
		(0.026)	(0.015)
Unskilled labour	.—	0.309***	0.085***
		(0.033)	(0.026)
Farm labour	.—	0.186***	0.019
		(0.034)	(0.028)
Parental educational attainment	.—	-0.058***	-0.009
		(0.010)	(0.011)

Continues in Table 3 on Next Page

Poisson regressions with design and probability weights. Cluster-Robust Standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 2.3 – Poisson: Indicators of precarious work regressed on SES (Part B)

Continues from Table 2 on previous page	1	2	3
Respondent educational attainment	.—	.—	-0.057***
			(0.008)
Labour market position (Reference = Employed)			
In school	.—	.—	0.268***
			(0.033)
Unemployed	.—	.—	0.554***
			(0.038)
Disability	.—	.—	0.396***
			(0.046)
Retired	.—	.—	0.033
			(0.032)
Other	.—	.—	0.236***
			(0.029)
Poverty status	.—	.—	0.293***
			(0.022)
ESEC Class indicator (Reference = Higher manager/professionals)			
Lower managers or professionals	.—	.—	0.089***
			(0.026)
Intermediate occupations	.—	.—	0.395***
			(0.029)
Small employers/Self-employed I	.—	.—	-0.361***
			(0.048)
Small employers/Self-employed II	.—	.—	-0.677***
			(0.048)
Lower supervisors and technicians	.—	.—	0.226***
			(0.042)
Lower sales and service	.—	.—	0.585***
			(0.036)
Lower technical	.—	.—	0.663***
			(0.032)
Routine	.—	.—	0.736***
			(0.037)
Constant	0.556***	0.737***	0.168**
	(0.064)	(0.058)	(0.067)
Country Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
N	132,443	132,443	132,443

Poisson regressions with design and probability weights. Cluster-Robust Standard errors in parentheses.

$^{*}\ p < 0.05,\ ^{**}\ p < 0.01,\ ^{***}\ p < 0.001$

Figure 2.1 provides further insight into the relationship between indicators of precarious work and traditional markers of socioeconomic position by plotting estimated precariat scores (from 0 to 5) by extreme values on the Erickson-Goldthorpe-Portocarero family class measure, respondent's educational attainment, respondent's labour market position, poverty status, and respondent's social class. The most striking finding is the difference in number of precarious work indicators for the most advantaged versus the least advantaged members of the sample. For the latter group, those not poor, from a professional class background and destination, and with high educational attainment, the estimated number of precarious work indicators is slightly under 1 (0.93). In contrast, the most disadvantaged respondents, those scoring low on all five traditional indicators of SES, have estimated precarious work scores of almost five (4.4) which is the maximum on the index. In other words, maximal variation in socioeconomic position increases risk of precarious work five-fold. Again, we do not make causal claims, particularly with respect to the contemporaneous measures of employment, poverty status, and respondent's social class, but emphasize the fact that precarious work expands socioeconomic differences among individuals in ways not captured in prior work.

Figure 2.1 - Precarious Work in relation to traditional indicators of Socioeconomic Status

(Data: European Social Survey 2008 - 2018)
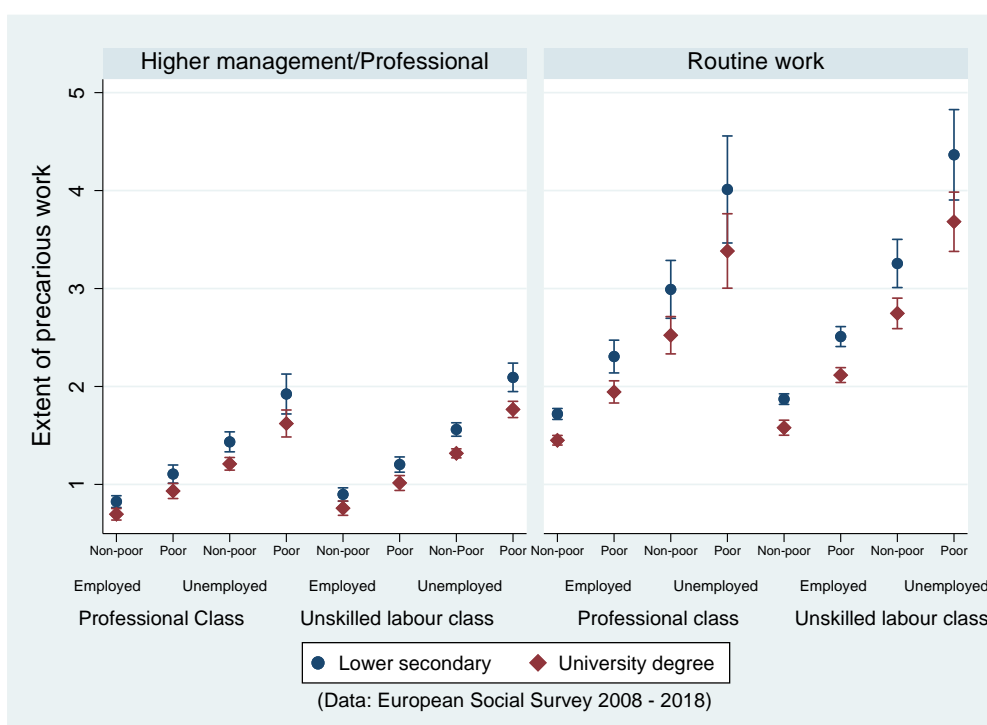
The heart of our analyses is shown in Table 2.4 with further discussion of Figure 2.2. For purposes of graphical clarity, the base model with select controls is shown in Appendix Table B.1. With respect to SES, there is a clear gradient for family social class with reduced likelihood of voting among those from working-class backgrounds. There is also a strong social class gradient based on current occupation, with linear decreases in probability of voting as social class decreases. Similarly, being older, being a native, and being more religious, and more highly educated are associated with greater likelihood of voting. At the same time, likelihood of voting increases with being married, while being separated or divorced is associated with lower likelihood. Although there are some novel findings, the results in the aggregate echo the large body of work showing that various dimensions of SES undermine political participation (*e.g.*, Powell, 1986; Jackman, 1987; Blais, 2000; Franklin, 2004), showing that various dimensions of SES undermine political participation (*e.g.*, Wolfinger and Rosenstone, 1982; Blais, 2000).

Table 2.4 shows effects for the various elements of precarious work, first with each indicator by itself (models 1 through 5) and then for the cumulative score (model 6). To start, those working with non-indefinite contracts have odds of voting that are 8.6% lower than those with indefinite contracts. Having limited control over one's work and having limited influence in one's workplace also undermine the probability of voting with odds around 8% lower ($e^{-0.088} = 0.916$, $e^{-0.084} = 0.919$, respectively). Those with gaps in their employment have a probability of voting 13.7% lower than those without gaps. Similarly, probability of voting is also lower for those who are financially vulnerable (-23.6%), relatively to the baseline. Aggregating the indicators of precarious work into a cumulative index decreases the probability voting by 9% ($e^{-0.095} = 0.909$) for each additional indicator. These effects are substantial given that the shift from no indicators of precarious work to all five indicators reduces the odds of voting by 44 percent ($0.909^{6} = 0.566$).

Table 2.4 – Logit Coefficients: Probability of voting regressed on indicators of precarious work with select controls.

	(1)	(2)	(3)	(4)	(5)	(6)
Indicators of precarious work						
Non-indefinite contract	-0.086**	—	—	—	—	—
	(0.043)					
Low job control	—	-0.088***	—	—	—	—
		(0.025)				
Low organizational influence	—	—	-0.084***	—	—	—
			(0.030)			
Employment gaps	—	—	—	-0.137***	—	—
				(0.050)		
Financial vulnerability	—	—	—	—	-0.236***	—
					(0.052)	
Cumulative precarious work	—	—	—	—	—	-0.095***
						(0.013)
Constant	-0.912**	-0.913**	-0.894**	-0.892**	-0.877**	-0.809**
	(0.368)	(0.359)	(0.372)	(0.356)	(0.355)	(0.362)
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Socio-Demographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
N	132,443	132,443	132,443	132,443	132,443	132,443

Logistic regressions with design and probability weights. Cluster-Robust Standard errors in parentheses.

$^{*} p < 0.05, ^{**} p < 0.01, ^{***} p < 0.001$

The significance of precarious work for SES differences in voting can be shown in two ways. First, Figure 2.2 shows expected probabilities of voting for all of the different SES indicators. In the case of precarious work (panel A), the overall shift in probability of voting is 7.5 (0.848 versus 0.772). This compares with 12% for educational attainment (0.862 for those completing tertiary education, ES-ISCED V-VI, versus 0.741 for those with lower secondary attainment, ES-ISCED II). The education effect is actually more complicated given changes over time in mandated education that has raised the floor for attainment to lower secondary achievement. Taking this into account in determining the range of educational attainment changes the overall effect to 8.7% (0.866 versus 0.779. Panel C shows the effect for attained social class and shows a 7 percent swing across the entire continuum (0.864 for the higher managers/professionals versus 0.793 for those in routine work).

Estimated effects for the other indicators are somewhat smaller. For family class (see panel D), the variation in voting is just over 4% (0.851 for those from clerical work backgrounds versus 0.810 for those whose fathers were unskilled labour). Effects for poverty are just over two percent (0.809 versus .0830), while the largest differences for any income contrast is 4.2%. Finally, the employment – unemployment gap is 2.4 percent (0.833 versus 0.809). In the end, precarious work has large effects on inequalities in voting, dwarfing the effects of many traditional indicators of SES. Only educational attainment has larger effects and, given the attention that educational attainment has garnered in studies of electoral participation (Gallego, 2010; Verba *et al.*, 1995), precarious work seems a vital dimension of socioeconomic differences in voting. Moreover, the detrimental effects of precarious work on probability of voting are independent of both the sociodemographic correlates and the traditional sociodemographic factors that have been the spine of traditional research on the topic. As such, they have both unique significance in expanding the conceptual domain of socioeconomic inequalities in political participation and compounding socioeconomic inequalities with respect to political disengagement is profound.

Figure 2.2 – Marginal Effects for Probability of Voting, by Precarious Work and SES
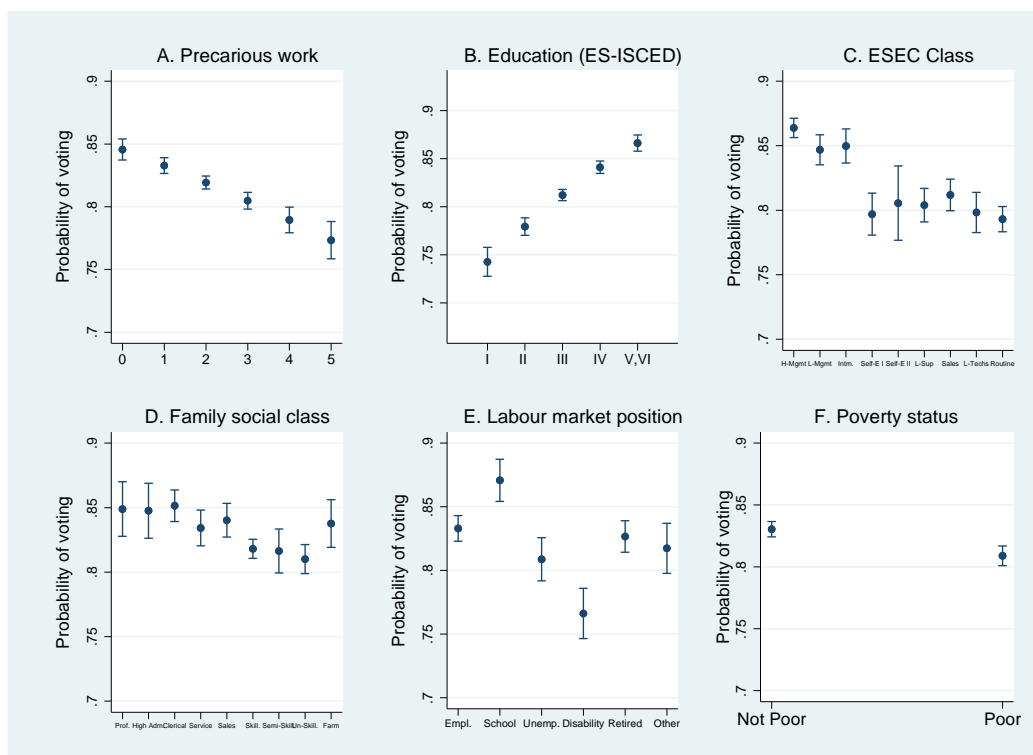
Figure 2.3 provides a second perspective on the compounding nature of precarious work in relation to traditional indicators of SES.

Panel A is the condition of maximal disadvantage based on the traditional indicators of SES. Estimates for the expected number of precarious work indicators are calculated when family class is unskilled labour (8), parental educational attainment is low (1), respondent's educational attainment is low (2), the respondent is contemporaneously unemployed, and the respondent is in routine work and poor. The alternative, Panel B, is maximal advantage with estimates for respondents whose parents were professionals (i.e., family class = 1), where parental and respondent's educational attainment is high (5) and the respondent is employed in higher managerial/professional work (1) and not poor. Without considering the impact of precarious work, socioeconomic inequality in voting based on cumulative advantage/disadvantage is large. The difference in probability at average levels of precarious work is almost 26 percent (0.9095 versus 0.652).

The implications of this in terms of SES are striking: almost 9 in 10 of those advantaged voted in the most recent election compared with 6 in 10 of those disadvantaged. When precarious work is added to the discussion, the non-linear estimation strategy produces a small difference in the magnitude of the differences in voting with increasing precarity. When SES is low, the difference in the probability of voting when precarious work moves from 0 to 5 is 0.135 (0.679 versus 0.545). The same contrast when socioeconomic advantage is high is 5.4 percent (0.919 versus 0.865). Combining the two aspects of SES shows the significance of precarious work for overall socioeconomic inequality. Differences at the extremes of SES when precarious work is incorporated shows a gap of 37 percent (0.919 versus 0.545), just under half the sample mean (0.795) for voting. On average, the contribution of precarious work to cumulative socioeconomic inequality exceeds 30 percent ([0.374-0.26]/0.374 = 0.305).

Figure 2.3 – Probability of Voting, Precarious Work and Maximum vs. Minimum SES
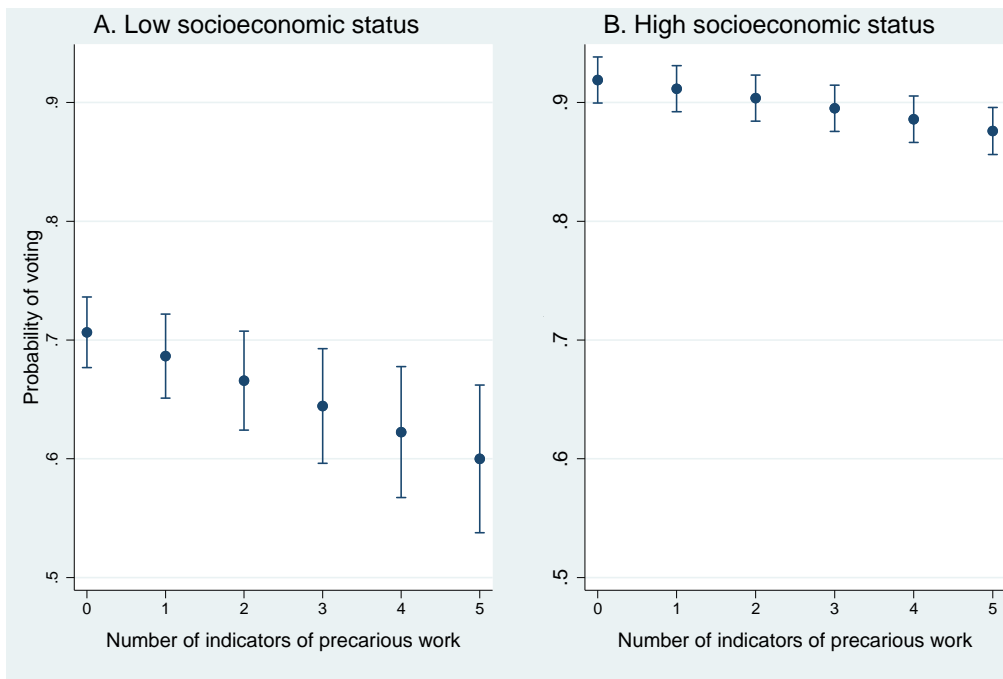
Robustness check – IV estimation

One challenge to our analyses is the likely endogeneity of precarious work in relation to measured and unmeasured variables (Angrist and Pischke, 2008). We address this using instrumental variable (IV) estimation where the focal predictor variable, precarious work, is replaced with an estimated value through a two-stage least squares or full information maximum likelihood approach (Greene, 2004). The key issue is identifying determinants that are strongly associated with the focal predictor – precarious work – and not associated with the outcome of interest – probability of voting. The ideal instrumental variable will have a strong association with the focal predictor and no independent association with the outcome. We have identified two suitable instruments. The first is self-identification as an ethnic "minority" in each country. Labour economics shows unequivocally that ethnic minorities are much more likely to end up in secondary labour markets that are inroads for precarious work (Kogan, 2006; Reyneri and Fullin, 2011). Hence, we would expect that minorities would be more likely to experience precarious work. In contrast, minority status has a complex relationship with political participation with evidence of both high and lower probability of voting

depending upon context (Leighley and Vedlitz, 1999). On average, we expect that minority status in and of itself would have no direct effect on probability of voting. Second, we drew upon information from the Economic Freedom of the World Project to get a country-level, time-varying indicator of whether there is national legislation that establishes financial costs for worker dismissals (Fraser Institute, 2018). We anticipate that this measure should be negatively correlated with risk of precarious work, but should have no association with probability of voting, particularly after controlling for all time stable aspects of countries through the use of fixed effects. Like before, the full model is shown in Appendix Table B.2 with the focal coefficients for both an instrumental variable probit estimator (generated using *ivprobit* in Stata 14) and a linear probability estimator (generated using *ivregress* in Stata 14) shown in Table 2.5.

The IV analyses begin with the first stage model predicting extent of precarious work. Here, both IVs, minority status and mandated costs for worker dismissal, have large, statistically significant effects on risk of precarious work. We use an F-test to evaluate their influence and have a resulting value of 24.98. This easily surpasses the threshold of 10 which is conventional wisdom for adequacy of instrumental variables (Staiger and Stock, 1997). We also conducted a Sargan-Hansen test of overidentifying restrictions and again see support for our specification ($c^2 = 2.885$, p = 0.089). In results not shown, we further added the ethnic minority indicator and the labour protections measure to an equation predicting the probability of voting and neither had statistically significant effects independent of the country and panel fixed effects, the sociodemographic controls, the family class measures, the traditional measures of socioeconomic position, and the cumulative indicator of precarious work. In sum, all tests point to the technical adequacy of our instrumental variables.

Turning to the second stage IV estimation, coefficients for extent of precarious work suggest little evidence of substantial bias in our earlier estimates. With a linear probability approach, the resulting coefficient for extent of precarious work is -0.175 (z = -2.27). With a probit specification, the resulting coefficients is -0.521 (z = -2.72). The IV estimates clearly support the conclusion that precarious

work has a strong negative effect on probability of voting and may even suggest that the logit coefficients underestimate the true causal effect. At the same time, the IV estimates are local average treatment effects (LATE) and apply solely to the unknown segment of the population that is responsive to the treatment. This combined with the fact that IV estimation is highly model dependent and that small variation in models and IVs can radically change the magnitude and statistical significance of the coefficient for the instrumented variable, we return to logit estimation for the heterogeneity analyses as these have fewer assumptions and will produce more stable estimates that can be compared across contexts.[7]

Table 2.5 – IV, LPM and Probit coefficients: Probability of Voting regressed on extent of precarious work with select controls.

	First Stage	LPM	Probit
Cumulative precarious work	.—	-0.175**	-0.521***
	(0.077)	(0.191)	
Ethnic minority	0.202***	.—	.—
	(0.030)		
Mandated costs for worker dismissal	-0.021***	.—	.—
	(0.007)		
Constant	1.460***	0.224	0.660***
	(0.088)	(0.310)	(0.107)
F-test	24.98***	.—	.—
Observations	111,948	111,948	111,948
Country Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Socio-Demographic Controls	Yes	Yes	Yes
N	111,948	111,948	111,948

Linear and Probit IV regressions with design and probability weights. Cluster-Robust Standard errors in parentheses.

$^{*}\,p < 0.05,\,^{**}\,p < 0.01,\,^{***}\,p < 0.001$

[7] Also, the IVs would need to be homogeneous across countries to maintain their values, and they are not.

Assessing generalizability

We conclude by assessing heterogeneity in the relationship between precarious work and political participation. Our interest here is largely in the robustness of associations across different political economic contexts. We assess this variation by including statistical interactions between extent of precarious work and either welfare state regime or individual country and assessing a) BIC values that compare models with interactions verses those with independent effects; and b) statistical significance of the coefficients for the product terms. To simplify interpretation, we simply report the model selection statistics in the text and then calculated the expected probabilities of voting across the full extent of precarious work for the best fitting model. These are shown in Figure 2.4. The full model is shown in Table B.3.

To start, the BIC statistics clearly favor models that allows the effects of precarious work to vary across countries. The comparison of the main effects and welfare state contingency model produces a difference in BIC value of 188 in favor of the model with welfare state interactions (125,140 versus 124,952). Add to this that three of the four coefficients are statistically significant at the 0.001 level. At the same time, the model that estimates coefficients for each country produces an even lower BIC statistic, 123,064, which is 2076 lower than that for the main effects model and 1888 lower than that of the welfare state continency model. In the latter case, this is over 188 times greater than the threshold of 10 that Raftery (1995) deems to be "very strong support" for the model with the smaller value. Moreover, 26 of the 31 product terms are statistically significant. Given this, we have very strong grounds for examining country-level heterogeneity in the political consequences of precarious work. Estimated coefficients for precarious work are shown in Figure 2.4. Although there is a lot of information presented, assessment of cross-national variation is relatively straight forward. Although there is variation in the size of effects, a negative relationship between precarious work and voting is rather robust. Here, estimated effects are negative in 29 of 32 countries of which 21 are statistically significant. No country shows a statistically significant, positive effect. There is also evidence of low

statistical power for some of the null effects given small sample sizes and large confidence intervals (e.g., Lithuania, Israel, Turkey, Slovak Republic, Cyprus, and Serbia). Countries showing non-significant effects are also rather idiosyncratic and do not graft on to any particular welfare state regime. In fact, the latter pool contains countries representative of four of the five regimes and does not include the majority of countries in any specific regime. In the end, the negative effect of precarious work on voting is rather widespread across countries.

Figure 2.4 – Probability of Voting, by Precarious Work across Countries

Estimated effect of precarious work on probability of voting
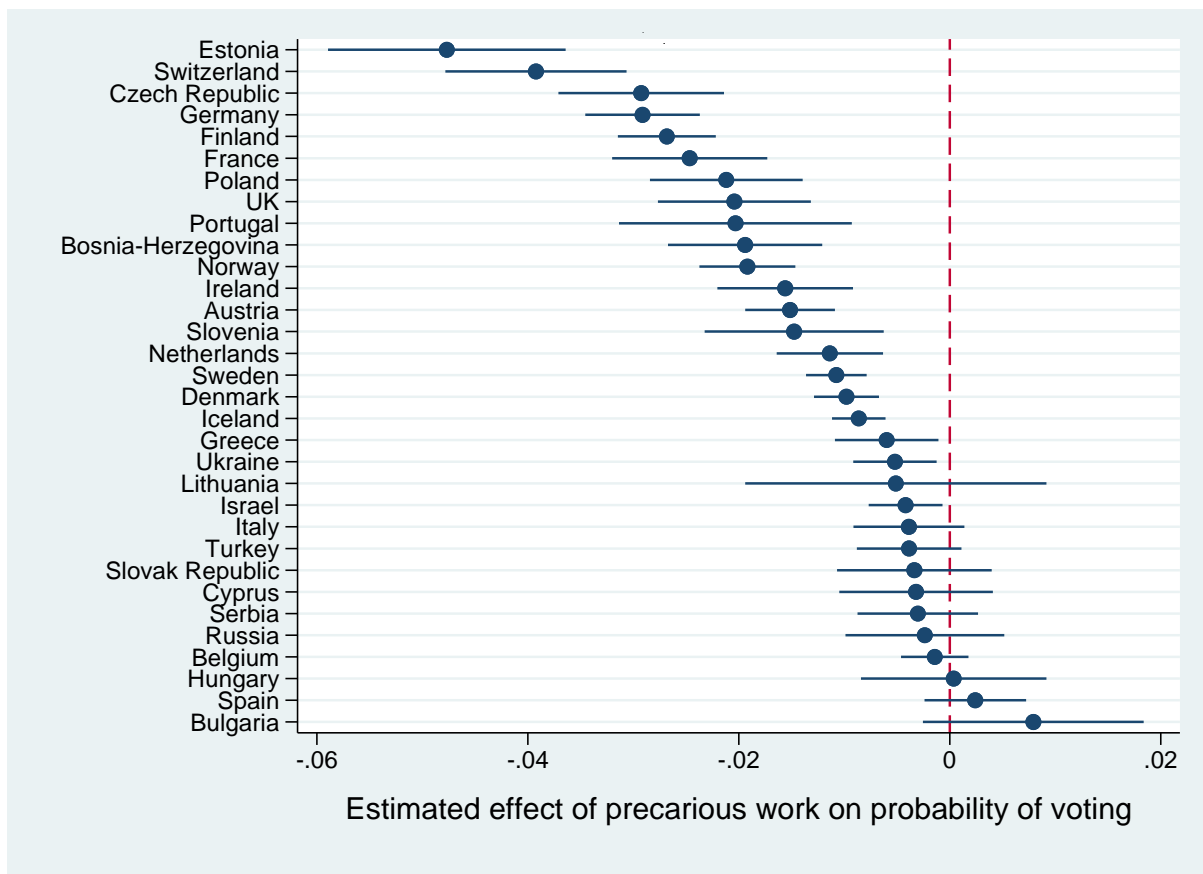
2.5 Discussion and Conclusion

Large-scale transformation of the global economy has radically changed the nature of paid employment for growing numbers of people. A key aspect of this is the expansion of precarious work and by extension "bad jobs" in the latter 20th century, jobs that provide marginal and ephemeral compensation and ultimately fail in providing a foundation for social life (Kalleberg, Reskin, and Hudson, 2000; Kalleberg, 2011; Osterman and Shulman, 2011). While there is some speculation that precarious work has important implications for political activities and engagement (Standing, 2011), ours is the first work to theoretically elaborate how precarious work translates into political apathy and then tests its effects with a large, cross- national sample. In doing so, we contribute to and extend the vast literature on socioeconomic marginality and its negative effect on political engagement (*e.g.*, Wolfinger and Rosenstone, 1980; Powell, 1986; Jackman, 1987; Franklin, 2004; Blais, 2006)

Our research operationalizes precarious work in a multidimensional manner and examines its effects on probability of voting. With rigorous statistical models, results suggest large detrimental effects on electoral participation. An important caveat is that we cannot know causal order for any of the contemporaneous SES variables, with the possible exception of educational attainment, but it is still instructive that lower SES is strongly associated with greater risk of precarious work.

Both independently and cumulatively, precarious work lowers the probability of voting and does so in a powerful way. Independent of traditional predictors of turnout, such as low SES, precarious work reduces probability of voting. These effects generalize broadly and in ways that are not reflective of variation in welfare state regime. On average, high work precarity reduces voting by 8 percent with estimates exceeding 10% for 11 countries and exceeding 5% for another 10 countries. Only educational attainment has comparable effects. This may be highly relevant given that many elections across the United States and Europe are won or lost based on a few percentage point differences: *e.g.*, the U.S. Presidential Elections of 2000 and 2016 (Uggen and Manza, 2002; Norris and Inglehart,

2019), the UK General Elections of 2017 (Mellon *et al.*, 2018; Prosser *et al.,* 2018), the Italian National Elections of 2006 and 2013 (De Sio, 2007; D'Alimonte, 2013). Therefore, variation in precarious work may be crucial in affecting political outcomes, at regional, national and even global scales.

Collectively, the combination of precarious work and other socioeconomic differentials highlight a worrying dimension of political inequality. While those of low socioeconomic standing have lower probabilities of voting, their unique vulnerability to precarious work makes differences in electoral participation much, much larger than traditionally measured. Precarious work both compounds the effects of low family social class, poor educational attainment, and chronic unemployment and exacerbates similar processes among young people and immigrants. Theoretically, this phenomenon may be explained with the contrast between citizens and denizens. As Standing (2012) argues, citizens typically enjoy the full spectrum of social and political rights, while denizens have only a limited range of those rights. Given that those in precarious work are "industrial denizens", due to their lack of security over a plethora of labour-related aspects, industrial denizenship translates into *political* denizenship. Those that suffer from socio-economic marginality refrain from exercising their right to vote, despite being formally enfranchised, and work precarity compounds existing political disengagement. Given this, socio-economic marginality continues to drive political inequality in elections, with the most socially struggling groups refrain in large numbers from formal political participation.

While our research is silent on the issue of who precarious workers might vote for if they were to vote, there are good reasons to anticipate implications for political outcomes. The clear link between socio-economic marginality and political inequality determines not only which political forces win or lose, but also is likely to influence the policy-making process in favor of the socio- economic affluent and electorally engaged. As argued by Verba (1996) and Lijphart (1997), there is a concrete risk of a vicious circle between socio-economic marginality driving down the electoral participation

of those in the lower strata of society, increasing inequalities in the political representation, and responsiveness of elected officials towards the latter. At the same time, Standing (2011) speculates that different categories of the precariat might be particularly susceptible to populist, right-wing propaganda that increasingly present in contemporary political discourse. And while low levels of electoral participation among the socio-economic disadvantaged clearly favour the Republican party over the Democratic party in the United States (Uggen and Manza, 2002), the situation is less clear in Europe. Even if those in precarious work and the traditional working class (i.e., the proletariat) would both benefit from a democratic-socialist platform (Wright, 2016), they are often at odds in a multi-party political arena for policies such as the strictness of Employment Protection Legislation (Biegert, 2017) and present a representation dilemma to center-left parties (Lindvall and Rueda, 2014). Still, the implications of precarious work for party orientations are ultimately empirical and should be the subject of future research. Our research also has implications for theorizing on the relationship between SES and the role of resources for political participation. The pathbreaking work of Brady *et al.,* (1995) juxtaposed SES with civic skills with the ultimate argument that work conditions matter for political participation only to the extent that they determine extent of free time, money, and civic skills (Brady *et al.* 1995). In other words, work conditions have and only have indirect effects on political participation. Yet, work conditions and their consequences do not collapse easily into time, money, and civic skills and instead have important social and psychological consequences in and of themselves. The political consequences of precarious work are certainly not explained by income nor by any of the other traditional indicators of SES. Whether they would be explained by variation in civic skills is an interesting question and should be the subject of future research. That said, our work at minimum suggests that the decentering of socioeconomic inequality as an explanatory frame for political participation may be premature and that the line between socioeconomic and non-socioeconomic resources may be blurrier than previously considered. Influential social science has long argued that conditions of work are fundamentally productive of various aspects of human agency, of which skills are key components (Kohn and Schooler, 1983).

So, it may be useful to further explore how conditions of work and their socioeconomic consequences shape cognitive orientation on issues of politics and society. In the end, the expansion of democracy as a global project was one of the most successful social dynamics of the 20th century. In the early 1900s, less than a dozen countries were democratic. By 2000, almost 100 countries were fully democratic and another 50 were a mix of democratic and autocratic principles and practices that are expected to transition to full democracies in the coming years (Center for Systemic Peace, 2017). And the right to vote is the cornerstone of democratic governance. It is the right that "makes all other political rights significant" (Piven and Cloward 2000, p. 2). Yet the universality of the right to vote is not a sufficient condition when there is large scale and socially structured abstentionism (Lijphart 1997). Our research on the political consequences of precarious work reveals in stark terms how modern incarnations of socioeconomic inequality continue to undermine democratic representation. And the fact that it does so by exacerbating political disengagement among those already marginalized in society, the young, immigrants, and those peripheral to paid labour, suggests that the project of democracy is far from finished. The reconfiguration of work and labour in the 21st century clearly poses new and urgent challenges.

Chapter 3

The More, the Merrier: Cohort Size, Social Stratification, and Political Participation across Societies

Does cohort size influence political participation, and if so through which mechanisms? Focusing on the role of social stratification, we develop the Easterlin Hypothesis linking relative cohort size to political engagement. Our theoretical framework integrates Easterlin's relative income mechanism and Ryder's cohort socialisation with Verba's Civic Voluntarism model. We test this framework by examining competing hypotheses on the differential impact of Relative Cohort Size on voter turnout across different social strata, by fitting linear regressions with Country Fixed Effects to European Social Survey data for 26 countries, spanning the 2002-2016 period. Empirical results suggest that members of large cohorts are more likely to vote overall, and KHB mediation analysis shows how this is primarily driven by education, while relative income has a smaller role. Interacting RCS with the stratification mediators, we find that this effect is amplified among the highly educated and the upper social classes, identifying civic skills as the driving mechanism.

3.1 Introduction

In the XIVth Century, the English poet Coulton versed that "*The More, the Merrier*", generating a proverb in widespread use today. But is more really the merrier, when it comes to regards birth cohorts and politics? In recent decades, two social phenomena have arisen to the forefront of social science: the systematic decrease in fertility, with shrinking birth cohorts (Lesthaeghe, 2010; Esping-Andersen and Billari, 2015; Matysiak, Sobotka, and Vignoli, 2020), and the gradual disengagement of younger generations from politics (Franklin, 2004; Dalton, 2017; Milkman, 2017).

Are these two phenomena linked, and if so, in which direction? Norman Ryder and Richard Easterlin have different positions on this subject. Ryder (1965) envisaged the cohort as the key engine of social change, and articulated that greater cohort size would likely accelerate this change. Easterlin (1978) argued instead that members of larger birth cohorts experience negative consequences in terms of demographic, economic, and socio-political outcomes. Relative income is the crucial mechanism for Easterlin: an abundance of individuals in the workforce of similar age increases their substitutability, thus decreasing their incomes relative to their parents', leading to a plethora of negative outcomes. The debate on the impact of cohort size has sparked a considerable body of research, focused primarily on family, fertility, and labour market outcomes (Pampel and Peters, 1995; Macunovich and Easterlin, 2010). However, research on the political impact of cohort size is more limited.

This gap in the literature is problematic: as the size of new birth cohorts is shrinking in several countries, demographic dynamics in the recent past and today are likely to shape considerably politics in the future decades. This is especially worrying if political alienation shaped by demographic determinants translates to political inequality, as argued by Verba (1996) and Lijphart (1997). The crux of the former's argument is the risk of a vicious circle arising between unequal participation and social stratification: the former possibly entailing unequal representation of social strata in political bodies, and the unequal responsiveness of officials to said social strata, with the risk of widening socio-economic differences. Lijphart (1997), concurring with Verba (1996), further highlights how unequal participation in politics, in terms of voter turnout, constitutes the *"greatest dilemma of democracy"*.

In this paper, we aim to contribute to this gap by exploring how political participation of cohorts is shaped by their size, and by social stratification, with the goal of understanding whether cohort size plays a role in exacerbating the greatest dilemma of democracy. To do so, we adapt the arguments by Easterlin (1978) and Ryder (1965) in a competing hypotheses framework, developing their respective relative income and solidarity mechanisms through the Civic Voluntarism model by Brady, Verba,

and Schlozman (1995). Subsequently, we describe the datasets of the European Social Survey and the International Data Base of the US Census, and outline the analytical strategy developed to test the hypotheses of the theoretical framework. The conclusive sections of the paper articulate and discuss the implications of the empirical findings.

3.2 Theoretical Framework

Relative Cohort Size and Electoral Participation

Our framework that connects research on relative cohort size and political participation builds on the works of Ryder (1965, 1985) and Easterlin (1978, 1987).

The classic Easterlin Hypothesis (1978, 1987) promotes the following position: relatively larger cohort sizes produce higher rates of political alienation. In his seminal contribution, studying the United States between the 1960s and the mid-1970s, Easterlin (1978) measured political alienation as the share of young males (18-24 and 25-34) expressing that political affairs were excessively complex for them, or that common citizens had negligible influence on said affairs. Easterlin articulated the rationale underpinning this relationship in terms of the relative income mechanism. The scarcity of young males in small birth cohorts ensures them better employment and economic opportunities, as empirically observed during the 1940's-1960's in the United States. In contrast, members of relatively larger cohorts faced greater competition for scarce jobs and economic opportunities, and that this translated into inferior opportunities with negative effects in terms of demographic, economic, social, and political outcomes. *Inter alia*, Easterlin drew attention to the negative impact of larger RCS on fertility, unemployment, crime and suicide rates, and lastly on political alienation.

The Easterlin Hypothesis, linking RCS to fertility and labour market outcomes, has sparked a considerable body of research, as reviewed by Pampel and Peters (1995), Macunovich (1998), Jeon

and Shields (2005), Waldorf and Byun (2005), Firebaugh and Schroeder (2009), Macunovich and Easterlin (2010), Macunovich (2011), and Aassve, Mencarini, and Sironi (2015). However, the literature focusing on the relationship between RCS and political alienation is not conclusive. Kahn and Mason (1987) challenge Easterlin (1978, 1987), arguing that political alienation among U.S. young males in the 1960s was the consequence of a period effect rather than of a cohort effect. With reference to the perennial scholarly debate concerning the relationship between age, period, and cohort effects, for Kahn and Mason (1987) the political alienation of young males in the 1960s was a distinct symptom of a wider political malaise encompassing the entire U.S. population. Their findings were countered by O'Brien and Gwartney-Gibbs (1989), who fit an age-period-RCS model to the same U.S. dataset employed by Kahn and Mason (1987), and find a substantially significant effect of RCS on political alienation. Therefore, the findings of O'Brien and Gwartney-Gibbs (1989) lend moderately strong support to the Easterlin Hypothesis as regards political alienation. Also focusing on the relationship between RCS and political alienation, the review by Pampel and Peters (1995) conflates political alienation with social anomie, such as with homicide and suicide rates. Subsequently, academic work on the Easterlin Hypothesis linked to political alienation dwindled. Notably, Macunovich and Easterlin (2010) did not directly address political alienation in their systematic review of the *corpus* of research on the Easterlin Hypothesis.

In light of this stream of research, we adapt the Easterlin Hypothesis and its relative income mechanism to political participation:

Hypothesis 1 (Easterlin): *Larger Relative Cohort Size (RCS) decreases political participation.*

Norman Ryder promotes the opposite position: while not linking cohort size to political participation directly, he articulated how the succession of birth cohorts is the driver of societal transformation. The underlying rationale is that, in a given historical moment, younger cohorts are more flexible than older cohorts, and are thus more able to adapt to social change and, more importantly, to contribute

to enact it. Ryder further argued how cohorts constitute a "*structural category with the same kind of analytic utility as a variable like social class*" (Ryder, 1965, p. 847). By likening cohorts to social classes, Ryder entrenches the centrality of cohorts for politics, with their size as a key characteristic: any considerable deviation in cohort size is likely to have a great impact on society (p. 845). He did not consider this phenomenon as automatic, but rather as a potential for change whose realisation is up to the cohort. More specifically, Ryder (1965) articulated how cohorts can develop common behaviours and attitudes by experiencing traumatic events in a shared fashion. This collective socialisation may promote intra-cohort solidarity as a reaction to specific social conditions and phenomena: "*Solidarity is encouraged by idealized self-definitions in reaction to ill-specified rights and responsibilities of the status, by sharing anxieties concerning imminent and hazardous transitions, and by explicit associations that encourage the development of attitudes unsanctioned by family or community.*" (Ryder, 1965, p. 855).

Subsequent research on political socialisation has built on the work of Ryder (1965), focusing on the formation of shared socio-political attitudes during the impressionable years timeframe (Braungart and Braungart, 1986; Alwin and Krosnick, 1991; Jennings and Niemi, 2014; Neundorf and Niemi, 2016; Milkman, 2017). In the US, this stream of research has found how memories of the New Deal shaped the political behaviour of American citizens during the 1980s (Bartels and Jackman, 2014). In the UK, cohorts that underwent political socialisation under Thatcher exhibit more Conservative values (Tilley and Evans, 2014; Grasso *et al.*, 2019). Following this stream of literature, we can posit the following:

Hypothesis 2 (Ryder): *Larger Relative Cohort Size (RCS) increases political participation.*

Social Mechanism: The Civic Voluntarism Model

In the previous subsection, we have outlined the two competing hypotheses on the relationship between RCS and electoral participation, developing the arguments by Easterlin (1978, 1987) and

Ryder (1965). In this subsection, we further develop the social mechanisms underpinning both hypotheses. To do so, we rely on the Civic Voluntarism model developed by Brady, Verba, and Schlozman (1995) in political science, which constitutes an influential theory linking social stratification to political participation.

This model starts from a crucial question "*Why do citizens **not** participate in politics?*" (Brady *et al.*, 1995, p. 271), and provides three explanations: because citizens do not have the *time* do so, do not have the *money* to do so, or because they simply do *not want* to do so. The three explanations revolve around the concept of *resources* which predict the political participation of citizens, which are indeed identified as "*time, money, and civic skills*" (Brady, Verba, and Schlozman, 1995). While time and money are self-explanatory, civic skills constitute a more complicated concept: they are identified as the set of communication and organizational skills that facilitate socio-political engagement (Brady *et al.*, 1995, p. 273), and are developed in educational, occupational, and organisational venues. The crucial innovation by Brady *et al.* (1995) is that they recognise how these different characteristics are distributed across the three components of the classic *socioeconomic model*: level of education, social class, and income (Verba and Nie, 1972; Verba, Nie, and Kim, 1978; Wolfinger and Rosenstone, 1980; Rosenstone and Hansen, 1993).

While the linkage between money and income is tautological, the mapping of resources against the stratification components of education and social class is more nuanced. According to the Civic Voluntarism model, social class is associated to the civic skills that are necessary to perform a job: these range from specific job skills to organisational skills. However, social class is also related to time: citizens' occupations are among the primary determinants of how much time they may have to devote to politics. On the other hand, education is associated mainly with civic skills: ranging from the cognitive abilities to maintain an interest in politics (*e.g.*, proficiency in the country language), to understanding why an active engagement in politics is necessary (Brady *et al.*, 1995). Beyond the original Civic Voluntarism model, education is single-handedly seen as the best predictor of electoral

participation (Gallego, 2007; Smets and Van Ham, 2013) precisely due to civic skills: citizens that have higher levels of education are able to navigate more easily in systems where voting is more difficult, due to either registration rules (Burden, 2009) or multi-party systems (Gallego, 2010). Beyond being a traditional participatory cleavage (Lipset and Rokkan, 1967), education is also increasingly a party-choice cleavage, due to the heightened conflict between the values of social liberalism and authoritarianism (Stubager, 2008, 2013; Kriesi *et al.*, 2006, 2008; Hooghe and Marks, 2009, 2018; De Vries, 2018; Ford and Jennings, 2020). This literature suggests another channel through which education may leads to the accumulation of civic skills: university socialisation. Entering the context of higher tertiary education entails being exposed to more socially liberal values (Van de Werfhorst and De Graaf, 2004; Stubager, 2008), and to an environment characterised by strong socio-political interest, resulting in both higher engagement in social movements (Kriesi, 1989; Hensby, 2014; Diani and Della Porta, 2020), and in more frequent political discussions (Marien, Hooghe, Quintelier, 2010; Persson, 2015).

Then, how can the three stratification components and Civic Voluntarism resources help us understand the relationship between RCS and electoral participation? The key to understanding this is to link the mechanisms of relative income (Easterlin, 1978) and intra-cohort solidarity (Ryder, 1965) to specific stratification components and resources.

The mechanism of relative income set forth by Easterlin (1978) can be straightforwardly connected to income and social class as stratification components, and to the resource of money: if a higher Relative Cohort Size decreases job opportunities and compresses wages through higher substitutability in the labour market, and higher social class and income are well-established predictors of electoral participation (Smets and Van Ham, 2013), the impact of RCS on turnout will be directly mediated by income. It follows that education and social class, once disentangled from the impact of income, should not directly mediate the effect of RCS on electoral participation.

Mechanism for H1: *Larger RCS decreases political participation, through the relative income mechanism.*

On the other hand, the mechanism of solidarity set forth by Ryder (1965) requires more development. Whereas the relative income mechanism by Easterlin (1978) begins at the entry into the labour market, the accumulation of civic skills starts much earlier, in the venues of the family and schools (Brady *et al.*, 1995). While growing up in more crowded houses and classrooms may have adverse effects on educational attainment (Easterlin, 1978), growing up in a larger cohort may lead to the development of stronger civic skills, by the simple virtue of carrying day-to-day activities with a larger amount of people with a similar age.

Therefore, a larger cohort size entails a direct trade-off between different forms of capital (Bourdieu, 1986). On one hand, it may widen inequalities in educational attainment, especially for those with low social origins (Morgan, Alwin, and Griffin, 1979; De Graaf, 1986; Ishida, Muller, and Ridge, 1995; van de Werfhorst, 2007, with Hofstede, 2010; Jæger and Breen, 2016). On the other hand, it may increase social capital through increased frequency of social exchanges, facilitating cooperation (Coleman, 1988; Portes, 1998; Woolcock, 1998), and shaping socio-political engagement and values (Huckfeldt, Beck, Dalton, and Levine, 1995; La Due Lake and Huckfeldt, 1998). In terms of Ryder (1965), economic hardships caused by larger RCS can further improve social capital: adversity may strengthen familial for a larger number of cohort peers. Given that the Ryderian family is the primary agent of the socialization of children, this experience may generate solidarity and facilitate the coordination for political participation.

Therefore, we specify Ryder's (1965) mechanism of solidarity in terms of civic skills (Brady *et al.,* 1995) and social capital (Bourdieu, 1986; Coleman, 1988):

Mechanism of H2: *Larger Relative Cohort Size (RCS) increases political participation, through greater civic skills/social capital.*

In terms of the components of stratification, we should therefore expect that income-money does not mediate the relationship between RCS and electoral participation. In contrast, the key mediators should be the stratification components that directly involve civic skills, which are education and social class.

The Role of Social Stratification

In the previous subsections, we have outlined how larger RCS may lead to either lower or higher electoral participation, identifying the mediators in the stratification components of education, social class, and income, through their different resources from the Civic Voluntarism model by Brady *et al.* (1995).

However, these hypotheses have so far only linked RCS and turnout, neglecting the possibility of a differential effect of RCS on turnout through the three components of social stratification. More specifically, how does a larger RCS affect the electoral participation of different social strata in the hierarchy, *e.g.*, those in low social classes vs high social classes? To the best of our knowledge, no research yet has directly addressed this question.

This gap is problematic, insofar RCS may exacerbate the well-established link between social stratification and political inequality (Verba, 1996; Lijphart, 1997). In works focusing on the mainstream Easterlin outcomes, such as fertility and socio-economic attainment, social origins go so far as to shaping diverging destinies for children (McLanahan, 2004; McLanahan and Percheski, 2008; McLanahan and Jacobsen, 2015). If higher RCS exacerbates these inequalities also in political terms, this may constitute a direct example of the vicious circle between socio-economic and political inequality described by Acemoglu and Robinson (2012). In order to address this gap, we start from a pioneer of research on cohort socialisation: Karl Mannheim. In his "*Problem of Generations*", Mannheim (1952) described formulated the theory underpinning generational formation. As remarked by Elder and George (2016): "*a key historical event must occur; the cohorts at-risk of*

becoming a generation in actuality are young; the historical event is sufficiently disruptive as to shape the lives of adolescents and young adults. However, this socialization process does not necessarily create a perfectly homogeneous group: likening the cohort to class position, Mannheim (1952) recognises how the latter may segment the former into constituent units. Thus, while the socio-historical process poses the same problems to the entire cohort, groups become "*generation units*" due to the differences in which they deal with said problems.

To explore the relationship between RCS, social stratification, and electoral participation, we start precisely from the analytical category of generation unit by Mannheim (1952). We adapt it to encompass the intersections of larger cohorts with the three stratification components of education, social class, and income.Then, we rely on these concepts to develop the competing Easterlin and Ryder-Verba hypotheses on the participatory impact of RCS.

On one hand, if the relative income mechanism dominates, a larger RCS should decrease the probability of voting overall. When considering social stratification, this should be strongly concentrated amongst those that suffer the most from the reduction in opportunities for jobs and educational attainment, and that in turn have lower wages.

Hypothesis 3 (Stratified Easterlin): *Larger Relative Cohort Size (RCS) decreases political participation, and particularly for those in lower socioeconomic strata (low income, low social class)*

Again, we envisage the directly affected social strata as those with lower income and social class, while on the other hand we should expect no effect on the low-educated, once that the impact on the resources of money and time have been accounted for.

On the other hand, if the mechanism of greater civic skills/higher social capital holds, a larger cohort size should not only increase electoral participation overall, but strongly increase the electoral participation of those social groups which have the largest endowments of civic skills: those in higher

social classes, and those with tertiary education. In a setting where all individuals have had more chances to develop civic skills due to a larger RCS, the increase in civic skills will be stronger among those that already have stronger civic skills on their own. But beyond this mechanical aggregation, there is the possibility of an echo-chamber effect: as argued by Marien, Hooghe, and Quintelier (2010), those citizens that have tertiary education are disproportionately more likely to be members of social networks with similar levels of education. As opposed to smaller cohorts, the presence of more individuals with more developed civic skills may act as a multiplier in terms of political discussions, thus ultimately increasing electoral participation. If we think of the Baby-Boomer generation crowding the streets of the US during the American Civil Rights and Vietnam Peace Movements, or the student movements in Europe in the 1960s (Diani and Della Porta, 2020), this latter pattern becomes a concrete possibility. Therefore, we posit the following:

Hypothesis 4 (Stratified Ryder-Verba): *Larger Relative Cohort Size (RCS) increases political participation, and particularly for those groups with higher civic skills (tertiary education, high social class).*

Symmetrically to Hypothesis 3, if greater civic skills constitute the social mechanism underpinning the relationship between RCS and electoral participation, we should not see any effect driven by income, which is only tied to money once the effects of social class and education have been controlled for.

Summary of Mechanisms and Hypotheses

We summarise graphically the Hypotheses and associated Mechanisms in Figure 3.1, showing the path from RCS to Electoral Participation, and the role played by mediators in the four Hypotheses.

Figure 3.1 – Theoretical Framework

Relative Cohort Size

H1 – Easterlin: *Decrease*

H2 – Ryder: *Increase*

Electoral Participation

H1 Mechanism: Relative Income Greater cohort size entails more competition in the labour market
➔
Lower job opportunities and wages lead to *political alienation*

H4 – Stratified Ryder/Verba Greater cohort size amplifies civic skills of *upper social strata* (high education, high social class)

H2 Mechanism: Civic Voluntarism Greater cohort size entails development of more civic skills and more social capital
➔
Easier cooperation leads to *political engagement*

Mediators Social Stratification (Education, Income, Social Class) Resources (Time, Money, Civic Skills)

H3 – Stratified Easterlin Greater competition in the labour market decreases the participation of *lower social strata* (low income, low social class)

3.3 Data and Methods

Data Sources

We rely on two main data sources: the European Social Survey, and the International Data Base of the United States Census. The European Social Survey is a bi-annual pan-European survey, sampling about 50,000 individuals per round. We rely on data gathered in Rounds 1-8, addressing questions concerning voter turnout, year of birth, highest education level attained by the respondent, highest level education attained by the highest educated parent of the respondent, social class, household income, gender, migrant status[8], and religiosity. We shall provide the descriptive statistics for the focal dependent and independent variables. Complementing the ESS data, we rely on the International Data Base of the US Census for the single yearly birth cohorts for the 26 countries: birth cohort size, expressed in percent relatively to the total population in the country in a specific year, and in absolute terms. The former variable (*RCS*) constitutes the focal covariate for the present paper.

Descriptive Statistics

We rely on a set of 11 variables, constituted by the dependent variable, the focal covariate Relative Cohort Size, three social stratification mediators, and six socio-demographic controls.

While the entire European Social Survey has a cumulative sample size of approximately 352,000 observations *circa* and spans 32 countries, we rely on a subset of 26 countries, which reduces the sample size to 237209 observations after the inclusion of the full set of covariates.

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[8] The sample only includes citizens that were eligible to vote. Therefore, migrant status refers to only to those respondents that are citizens of the country where elections have been held.

Table 3.1 – Descriptive Statistics

Variable	N	Mean/Percent	St.Dev	Min	Max
Turnout (Electoral Participation)	237,209	78.7%	0.410	0	1
Relative Cohort Size (in %)	237,209	1.267	0.299	0	2.1
Age	237,209	49.993	16.828	14	93
Education of Respondent (ES-ISCED)	237,209	3.236	2.208	0	1
ES-ISCED V2, Higher Tertiary	22,726	9.58%			
ES-ISCED V1, Higher Tertiary	21,339	9.00%			
ES-ISCED IV, Higher Tertiary	23,600	9.95%			
ES-ISCED IIIa, Higher Tertiary	40,300	16.99%			
ES-ISCED IIIb, Higher Tertiary	41,140	17.34%			
ES-ISCED II, Higher Tertiary	28,835	12.16%			
ES-ISCED I, Higher Tertiary	16,320	6.88%			
Not possible to harmonise into ES-ISCED	42,949	18.11%			
Social Class (ESEC)	237,209	4.723	0.841	1	9
Large employers, higher mgrs/profession	37,192	15.68%			
Lower mgrs/professionals, higher supervisors	45,862	19.33%			
Intermediate occupations	21,685	9.14%			
Small employers and self-employed	13,982	5.89%			
Small employers and self-employed (Agri.)	8,936	3.77%			
Lower supervisors and technicians	19,477	8.21 %			
Lower sales and service	37,421	15.78%			
Lower technical	24,988	10.53%			
Routine	27,666	11.66%			
Income Quintile	237,209	2.310	1.798	0	5
Top Quintile	33,296	14.04%			
Fourth Quintile	36,062	15.20%			
Third Quintile	39,883	16.81%			
Second Quintile	38,417	16.20%			
Bottom Quintile	29,058	12.25%			
Income Missing	60,493	25.50%			
Relative Education of Respondent's Parent	237,209	1.116	0.716	0	2
Labour Market Position	237,209	2.959	2.557	0	1
Religious	237,209	0.626	0.483	0	1
Gender	237,209	0.491	0.499	0	1
Native	237,209	0.927	0.260	0	1

Descriptive Statistics with design weights. Data: European Social Survey, Rounds 1-8 (2002-2016)

Dependent Variable

Voting is a variable with binary responses, and it refers to the last national elections. The variable Vote is coded as 1 if the respondent has voted in the last national elections, and 0 if the responded has not voted.[9] The choice of a binary variable as the dependent entails that all coefficients will take the form of probability of voting, expressed relatively to a baseline.

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[9] The variable voting has been recoded from *vote* in the ESS, which featured an additional response: that of not being eligible to vote in national elections. The rationale underpinning this recoding is to account for potential confounding factors, thus excluding from the analysis those that were not eligible to vote.

Explanatory Variables

Let us proceed to examine the ten explanatory variables.

As mentioned above, we gathered data on RCS from the International Data Base of the United States Census for each of the 26 countries for the years 2002-2016 after the full set of covariates and controls is included. The IDB provides cohort size by age group, for each country and year. We obtained the year of birth relying on the *yrbrn* variable in the ESS, and proceeded to match RCS with their cohort members in the ESS through the year of birth variable in the latter dataset. [10] RCS ranges from a minimum of 0.1% to a maximum of 2.1% (see Figure 3.2). In order to remove outliers for the analyses, we select the values of 0.6% (the 5th percentile) and 1.8% (the 99th percentile) as minimum and maximum values for relative cohort size, which we will rely upon in the main analysis.

Figure 3.2 - Density Distribution of Relative Cohort Size

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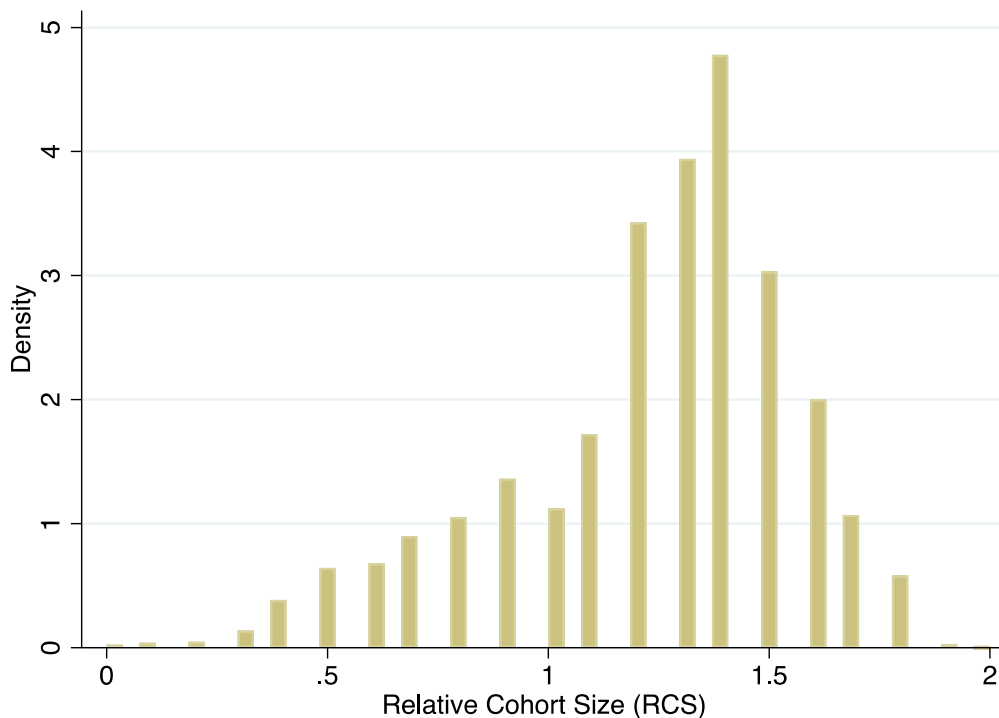
[10] The cohort size is measured in terms of the overall population of the country for each of the ESS round years (2002-2016), in order to account for changes in the overall population, and in the age structure.

Secondly, we systematically include in the entire analysis age as a covariate, which is considerably correlated, but not overtly so, with Relative Cohort Size: the correlation coefficient is -0.6254. We will address issues of multicollinearity and the broader Age-Period-Cohort problem in the Analytical Strategy subsection.

As regards the social origins of the respondent, we rely on the dominance model developed by Erikson (1984): we choose the highest level of education achieved by the highest educated parent of the individual as a proxy of social origins for the individual[11]. Given the considerable heterogeneity in this variable, across different cohorts and countries, we rely on a standardised measure of education. More specifically, a variable capturing whether the education of the highest-educated parent of the respondent is at the median relatively to the parents of the same cohort in the same country (value 1), under the median (value 0), or over the median (value 2).

Turning to the social stratification mediators, there are three: education, income, and social class, which we will systematically enter as factor variables in the analysis.

The highest level of education attained by the respondent takes values from 0 to 7, each relating to specific levels in the ES-ISCED framework More specifically, value 0 refers to those levels of education not harmonizable into ES-ISCED, value 1 of our variables refers to individuals with less than lower secondary education (ES-ISCED I); value 2 of our variables refers to individuals with lower secondary education (ES-ISCED II); value 3 of our variables refers to individuals with lower tier higher secondary education (ES-ISCED IIIb); value 4 refers to individuals with upper tier higher secondary education (ES-ISCED IIIa), value 6 refers to individuals with post-secondary but non-tertiary education (ES-ISCED IV); and finally values 6 and 7 of our variables refers to individuals with lower and higher tertiary education, respectively (ES-ISCED V1, V2).

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[11] An alternative measure for parental education is the modified dominance model by Korupp, Ganzeboom, and Van Der Lippe (2002), which takes into account also the level of education of the least-educated parent. However, using this model decreases our sample size to 211043 observations, and the results are equivalent to the baseline specification.

The variable measuring household income quintile is a further measure of social stratification, with value 1 as the bottom (poorest) quintile, and value 5 as the top (richest quintile). However, we add a further value 0 capturing whether income is missing, given that the variable features 60,493 missing values in our sample (25.50% of the total). By adding this value, we will consider those answers in the main analysis.

As regards social class, we rely on the European Socio-Economic Classification by Rose and Harrison (2007), computed starting from the ISCO88 and ISCO08 values available in the ESS (*iscoco* and *isco08)*, through the STATA package developed by Jann (2019), already documented in previous Chapters of this thesis. The individual social classes of this classification are available in the Descriptive Statistics Table 3.1.

Turning to the socio-demographic controls, we have four variables: labour market position, religiosity, gender, and native/migrant profile.

Starting from labour market position, we have very extensively documented how it may affect electoral participation in previous Chapters of this thesis (1, 2), so we will not elaborate further on their relevance for turnout.

As regards religiosity, Durkheim (1912) considered it as a source of both solidarity and social control, leading the former to be considered as a form of social capital (Fukuyama, 2001; King and Furrow, 2004). Furthermore, religiosity is a well-established predictor of individual voter turnout (Macaluso and Wanat, 1979; Smets and Van Ham, 2013). The work by Smidt *et al.* (2003) constitutes a bridge between these bodies of work, as they link the social capital generated by religiosity to greater political participation. Therefore, we include a control for Religiosity, which is a recode of *rlgblg* in the European Social Survey. It captures whether the respondent self-identifies as belonging to any religious denomination, or not being religious at all. Therefore, this variable is a binary dummy variable.

Lastly, Gender and Native respectively capture if the individual self-identifies a woman (Gender=1) and a native (Native=1), as opposed to a man and a migrant.

Analytical Strategy

Our analytical strategy features four main components: the choice of OLS over logistic regressions, the choice of Country Fixed Effects, the mediation analysis, and our approach to the Age-Period-Cohort problem.

First, we rely on OLS over a logistic regression, unlike what done in the previous Chapters, on the grounds of the distribution of the dependent variable. As stated by Von Hippel (2015), linear regression is statistically equivalent to logistic regression if the binary dependent variable has a distribution of at least 20%-80%. In the context of this paper, the distribution is 21.3% for those that did not vote, and 78.3% for those that voted in national elections. We are fully aware of the limitations posed by linear models when used for statistical inquiry on a binary dependent variable, due to homoskedasticity and serial independence (Aldrich, Nelson, and Adler, 1984). Therefore, we address the limitations of linear models by employing two modifications. On one hand, we mitigate the heteroskedasticity and serial correlation issues for standard errors by computing standard errors according to country clusters, which should decrease the bias of standard errors. Secondly, we rely on marginal effects with factor variables and their graphical representation in order to facilitate the interpretation of probability estimates and interaction terms, as recommended by Liao (1994), Brambor, Clark, Golder (2006), and Williams (2012). Furthermore, we systematically include design weights (*dweight* in ESS) in the analysis to account for the different probabilities of individuals being sampled, on the the basis of their socio-demographic characteristics.

Secondly, we rely on a specification capturing Country and Survey-Year Fixed Effects to capture the unobserved heterogeneity associated with different countries and years, as extensively documented in the previous Chapters.

Third, we address the mediation analysis. As our theoretical framework links RCS to electoral participation through the mediators of education, income quintile, and social class, we assess the extent of the mediation with a two-fold approach. First, we will regress electoral participation on RCS and the socio-demographic controls without any social stratification variable, and subsequently include them in a separate regression. By examining the impact on the magnitude and statistical significance of the coefficient of RCS, we may have a first intuition of the mediating role of the variables. To formally determine the degree of mediation, we rely on the Karlson-Holm-Breen (Karlson, Breen, Holm, 2012; Breen, Karlson, Holm, 2013, 2018) decomposition method. While developed for nested non-linear models, this method can be used as well for linear models in order to better capture the extent of mediation. This method will be used through the *khb* package in STATA (Kohler, Karlson, Holm, 2011). This will be performed immediately after the regressions excluding and including the mediators. After having analysed the extent of mediation, we will interact the mediators with the focal covariate RCS to assess the differential impact of RCS across the different components of social stratification, and associated time, money, and civic skills resources.

Finally, we turn to the well-known Age-Period-Cohort problem. As any of the three terms can be obtained through the other two mathematically (*e.g.*, Age=Period-Cohort), a persistent issue for any research on involving age, cohort, and period irremediably falls into a problem of perfect multicollinearity (Glenn, 1976). Disentangling the three has often been defined as a "*futile quest*" (Glenn, 1976; Bell and Jones, 2014), with a considerable number of works proposing and confuting solutions to this issue (Yang and Land, 2008, 2013; Luo, 2013; Yang *et al.*, 2015; Bell and Jones, 2015). In this paper, we circumvent the problem of perfect multicollinearity in the following way: we include cohorts across 26 countries and 14 years (2002-2016), disentangling Age and Cohort effects as much as possible. While the correlation coefficient for the two is still considerable (-0.6254), it is far from perfect collinearity: further Variance Inflation Factor analysis show how VIF values for RCS and Age are 1.95 and 2.59, well below the threshold of 10 that is typically considered problematic

for multicollinearity (the mean VIF for the specification including mediators is similarly 2.11). Therefore, while RCS is directly tied to birth cohort, it varies considerably across different countries, which provides the necessary variation to include Age, Period, and a Cohort-related variable in the analysis. Therefore, we circumvent the APC problem by adding Relative Cohort Size to the specification, a variable intimately tied to birth Cohort, but with considerable variation between countries. In doing so, we are following the approach by Blossfeld (1986), who relied on surrogates for both Period and Cohort effects, albeit in the same country (Germany). While our approach clearly does not address the mathematical APC problem, it can provide simultaneously information on how Age, Period, and RCS affect electoral participation in 26 countries and across 14 years.

3.4 Results

Relative Cohort Size and Electoral Participation

Table 3.2 – Electoral Participation and RCS, Baseline and Mediators

	Turnout Baseline	Turnout Interactions
Relative Cohort Size (in %)	0.060***	0.045**
	(0.015)	(0.015)
Age of Respondent	0.006***	0.006***
	(0.001)	(0.001)
Relative Education of Respondent's Parent (Baseline: Under Median)		
Parental Education At Median	0.029***	
	(0.008)	
Parental Education Over Median	0.068***	
	(0.010)	
Level of Education (ES-ISCED) - Baseline: Higher Tertiary (ES-ISCED V2)		
Lower Tertiary (ES-ISCED V1)		-0.014
		(0.008)
Vocational Training (ES-ISCED IV)		-0.035***
		(0.009)
Upper Secondary, Upper (ES-ISCED IIIa)		-0.044***
		(0.008)
Upper Secondary, Lower (ES-ISCED IIIb)		-0.090***
		(0.011)
Lower Secondary (ES-ISCED II)		-0.123***
		(0.016)
Primary (ES-ISCED I)		-0.137***
		(0.017)
Not possible to harmonise into ES-ISCED		-0.067***
		(0.012)
Social Class (ESEC) - Baseline: Large Emps., Higher Mgrs/Professionals		
Higher Supervisors, Lower Mgrs/Professionals		-0.010**
		(0.003)
Intermediate Occupations		-0.017**
		(0.005)
Small Employers and Self-Employed		-0.045***
		(0.008)
Small Employers and Self-Employed (Agri)		-0.030***
		(0.007)
Lower Supervisors, and Technicians		-0.047***
		(0.006)
Lower Sales and Service		-0.069***
		(0.006)
Lower Technical		-0.084***
		(0.008)
Routine		-0.095***
		(0.007)
Income Quintile - Baseline: Top Quintile		0
Fourth Quintile		-0.011***
		(0.002)
Third Quintile		-0.031***
		(0.005)
Second Quintile		-0.045***
		(0.007)
Bottom Quintile		-0.074***
		(0.009)
Income Missing		-0.046***
		(0.006)
Constant	0.321***	0.491***
	(0.0445)	(0.0433)
Country and Survey-Year Fixed Effects	Yes	Yes
Socio-Demographic Controls	Yes	Yes
N	237209	237209
Adj. R^2	9.5%	11.9%
BIC	226375.3	220060.6

Linear Regressions, with Cluster-Robust Standard errors in parentheses, and design weights.
Data: European Social Survey, 2002-2016
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3.2 reports the findings of regressing individual electoral participation on RCS and socio-demographic controls in the first column (*Baseline*), and which is expanded to include the social stratification mediators of education (ES-ISCED), income quintile (including the missing category), and social class (ESEC) in the second column (*Mediators*). Country and Survey-Year FE, cluster-robust standard errors for countries, and design weights are systematically included in all analyses.

Starting from Relative Cohort Size (in %), we can see how an increase in 1 unit (so, 1%) in RCS is associated with an increase of 6% in probability of voting in the *Baseline* specification, which is significant at the 0.001 threshold. When the mediators are included, the coefficient of RCS shrinks to 4.5%, significant at the 0.01 threshold. At a first glance, we can see how including the mediators does decrease the impact of RCS on electoral participation (also consider the massive difference in BICs), but it stays statistically significant, and more importantly, *positive.* These results suggest how the Ryder Hypothesis (2) dominates the Easterlin Hypothesis (1): larger RCS does *increase* electoral participation, even when controlling for the social stratification mediators.

We assess the magnitude of this effect in Figure 3.3, where we depict the Marginals Effects at the Means with 95% CI for the impact of RCS on Probability of Voting.

As mentioned in the Data and Methods section, we report the results for RCS values between 0.6% and 1.8%, which are respectively the fifth and ninety-ninth percentiles of the RCS distribution. As RCS moves between these two values, it increases from 75.66% to 81.04%, resulting in a 5.38 pp. increase which corresponds to 1.92% of a SD of the dependent variable. Therefore, the MEMs corroborate the results in Table 3.2: RCS increases electoral participation, albeit with a very small effect size once we have controlled for the mediators.

Figure 3.3 – Marginal Effects at the Means of RCS on Probability of Voting, controlling for Mediators
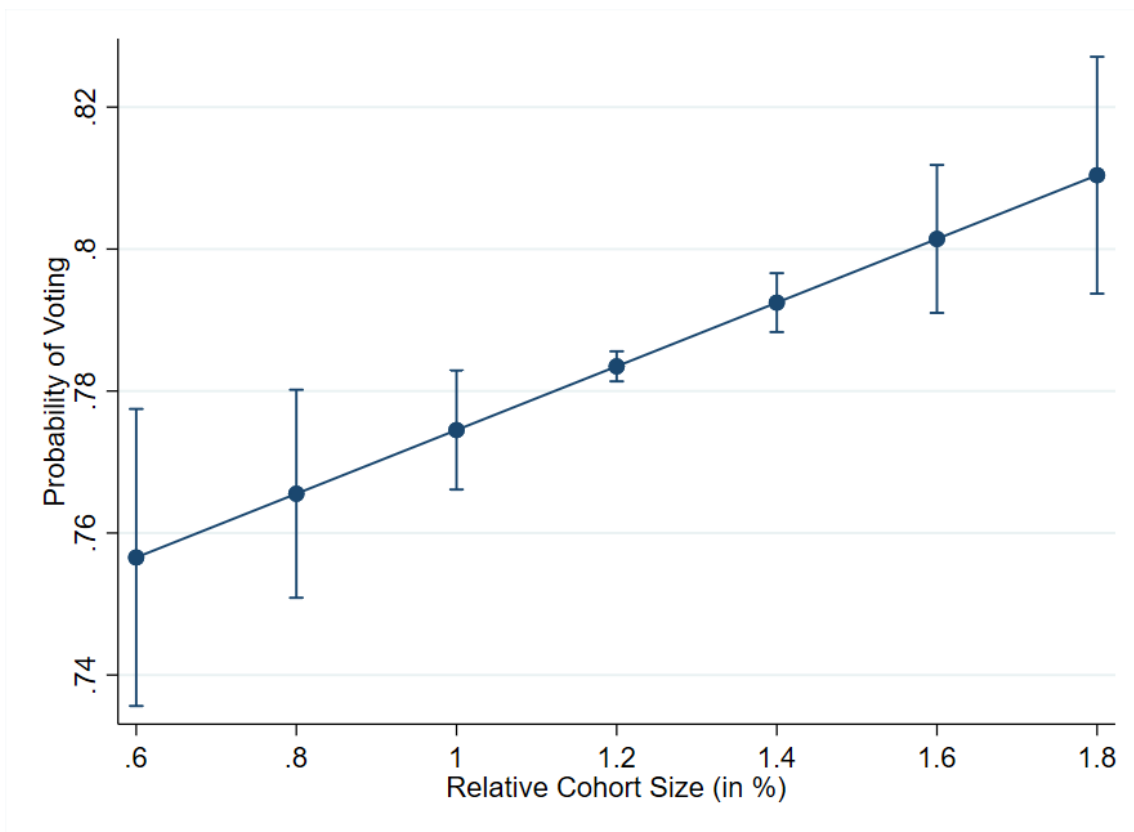
Mediation Analysis: Relative Income vs Civic Skills

The results in Table 3.2 suggest that the social stratification variables do mediate the impact of RCS on electoral participation. However, we do not yet know the total amount of mediation, nor the individual contribution of each variable, which is crucial to understand whether the Relative Income mechanism dominates the Civic Skills mechanism, or *vice versa*. Table 3.3 reports the results of the Karlson-Holm-Breen (Breen, Karlson, Holm, 2018) decomposition method through the *khb* package in STATA 16.2. The entire specification of Table 3.2 has been entered as concomitant variables (including Country and Year FE), together with the country cluster-robust standard errors and the design weights. The social stratification variables have been entered as factors, but we display their overall mediation for purposes of clarity.

Table 3.3 – Mediation Analysis with KHB Decomposition Technique

	Turnout
Mediated Variable: Relative Cohort Size (in %)	
Reduced	0.060***
	(0.016)
Full	0.045**
	(0.015)
Difference	0.014***
	(0.003)
N	237209
R^2	12%
Total Mediation	**23.56%**
Education (ES-ISCED)	11.55%
Social Class (ESEC)	6.06%
Income Quintile (incl. Missing)	5.95%

Mediation Analysis using the KHB (Breen, Karlson, Holm (2018).
Mediators entered as factor variables.
Based on Linear Regressions, with Cluster-Robust Standard Errors and design weights.
Country and Year FE, Socio-Demographic controls as Concomitant variables
Data: European Social Survey, 2002-2016.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

As the regression method is linear, the coefficients of RCS in the Reduced (*Baseline)* and Full *(Mediators)* specifications are identical to those in Table 3.2. The effect driven by the stratification variables amounts to 23.56% of the total effect of RCS, which is considerable, but still leaves a considerable role for RCS itself.

Turning to the individual mediating effects of the stratification variables, we can see the following: education mediates 11.55 pp. of the total effect of RCS, while social class and income respectively mediate 6.06 and 5.95 pp. of the effect. Therefore, education is the largest mediator, accounting for slightly less than half of the total mediation. In terms of our Hypotheses, the mediation analysis provides clear support for the Civic Skills (H2) mechanism as opposed to the Relative Income Mechanism (H1): education, which is the primary stratification variable associated with civic skills has the largest amount of mediation, followed by social class, whereas the income effect is the smallest.

Table 3.4 – Electoral Participation by RCS, Interacted with Mediators

	Turnout *Education*	Turnout *Class*	Turnout *Income*
Relative Cohort Size (in %)	0.101***	0.074***	0.061**
	(0.021)	(0.017)	(0.019)
RCS x Education - Baseline: Higher Tertiary (ES-ISCED V2)			
RCS x Lower Tertiary (ES-ISCED V1)	-0.016		
	(0.014)		
RCS x Vocational Training (ES-ISCED IV)	-0.052***		
	(0.012)		
RCS x Upper Secondary, Upper (ES-ISCED IIIa)	-0.074***		
	(0.015)		
RCS x Upper Secondary, Lower (ES-ISCED IIIb)	-0.084***		
	(0.022)		
RCS x Lower Secondary (ES-ISCED II)	-0.051**		
	(0.018)		
RCS x Primary (ES-ISCED I)	-0.061*		
	(0.025)		
RCS x Not possible to harmonise into ES-ISCED	-0.058*		
	(0.028)		
RCS x Social Class (ESEC) - Baseline: Large Emps., Higher Mgrs/Professionals			
RCS x Higher Supervisors, Lower Mgrs/Professionals		-0.013	
		(0.009)	
RCS x Intermediate Occupations		-0.008	
		(0.013)	
RCS x Small Employers and Self-Employed		-0.03	
		(0.019)	
RCS x Small Employers and Self-Employed (Agri)		0.04	
		(0.029)	
RCS x Lower Supervisors, and Technicians		-0.057***	
		(0.013)	
RCS x Lower Sales and Service		-0.070***	
		(0.018)	
RCS x Lower Technical		-0.043*	
		(0.018)	
RCS x Routine		-0.043	
		(0.026)	
RCS x Income Quintile - Baseline: Top Quintile			
RCS x Fourth Quintile			-0.007
			(0.013)
RCS x Third Quintile			-0.026
			(0.018)
RCS x Second Quintile			-0.022
			(0.022)
RCS x Bottom Quintile			-0.034
			(0.023)
RCS x Income Missing			-0.009
			(0.019)
Constant	0.405***	0.442***	0.457***
	(0.046)	(0.042)	(0.039)
Country and Survey-Year Fixed Effects	Yes	Yes	Yes
Socio-Demographic Controls	Yes	Yes	Yes
N	237209	237209	237209
Adj. R^2	12%	12%	12%
BIC	219932.7	219895.1	219991.9

Linear Regressions, with Cluster-Robust Standard Errors and design weights.
Data: European Social Survey (2002-2016)
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

After having assessed how the social stratification variables mediate the focal relationship, we turn to the last set of Hypotheses, involving the differential impact of RCS across different social strata. Statistically, testing these hypotheses involves interacting RCS with the social stratification mediators: we do so separately for each mediator in Table 3.4.

Starting from the largest mediator, education according to the ES-ISCED classification, results in the first column of Table 3.4 show the interactions between RCS and education are consistently negative and statistically significant, with the exception of the Lower Tertiary education coefficient, against

the baseline of the interaction between RCS and Higher Tertiary education. These coefficients can be interpreted in two ways: either probability of voting decreases for the lower-educated as RCS increases, or it increases for the higher-educated as RCS increases. To better understand this, we depict in Figure 3.4 the MEMs for RCS and Education. We display the individual levels of education on the horizontal axis, and report in different colours and shapes the chosen low and high levels of RCS, to facilitate the comparison for all levels of education.

Figure 3.4 – MEMs on Electoral Participation, by RCS and Level of Education
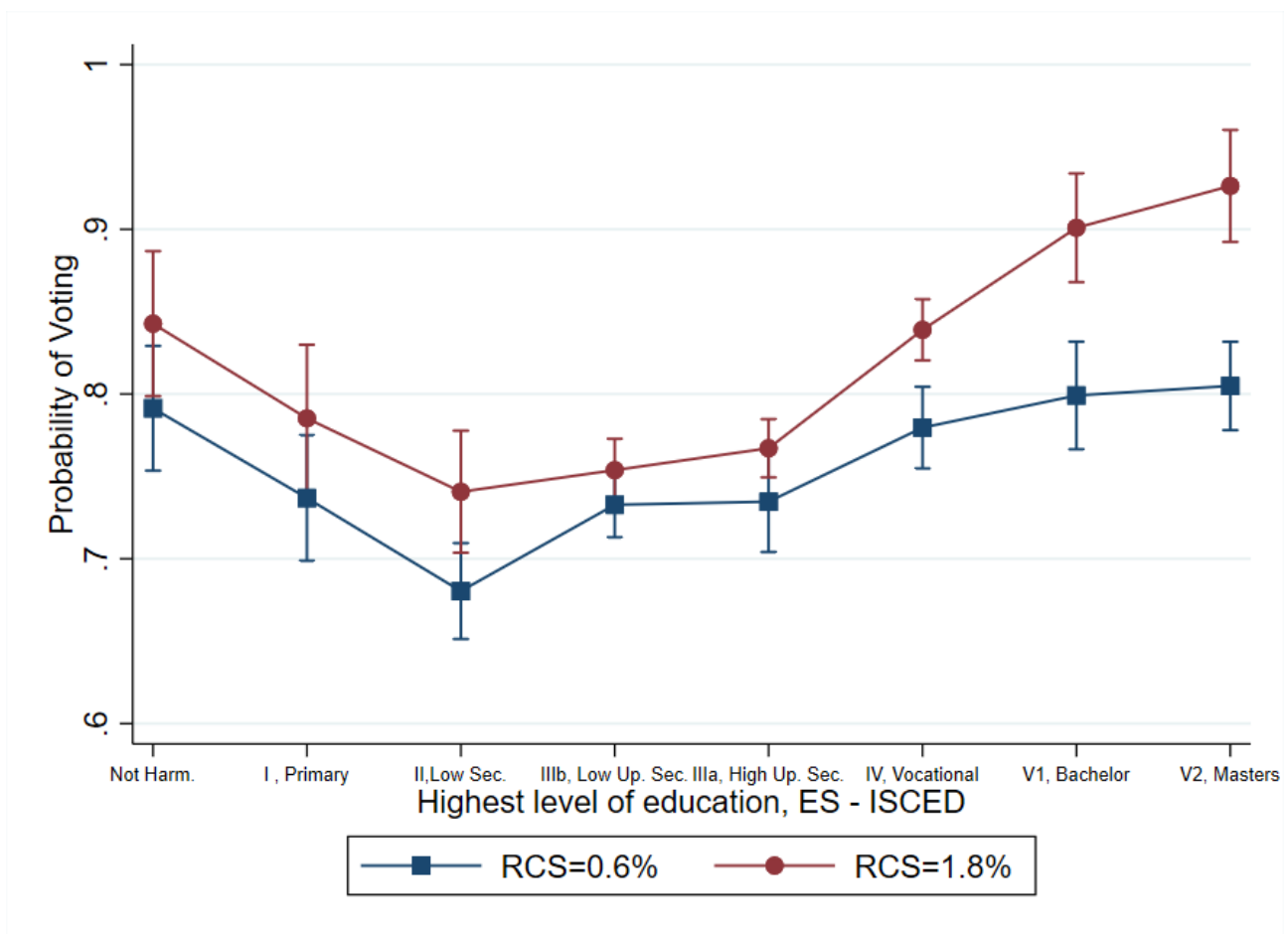
The first element to note is that Probability of Voting is systematically higher when RCS is at 1.8% relatively to 0.6%, across all levels of education. While this difference is not always statistically significant, it reinforces the overall finding that RCS increases electoral participation, overall. More specifically, the MEMs show how the increase in electoral participation is mainly driven by the higher levels of education, where it is statistically significant: the increase is modest (around 6 pp.) for those with post-secondary vocational training, larger (around 10 pp.) for those with lower tertiary

education, and largest (around 12%) for those with higher tertiary education. These results show how the increase is more strongly concentrated amongst those with higher civic skills, providing support for Hypothesis 4.

To understand whether this pattern applies also to social class, we turn to the second column of Table 3.4. Here, the pattern is less clear-cut, we see negative and statistically significant coefficients for the social classes below Lower Supervisors, and Technicians, except for the Routine class. Again, we turn to the MEMs to interpret these results.

Figure 3.5 – MEMs on Electoral Participation, by RCS and Social Class
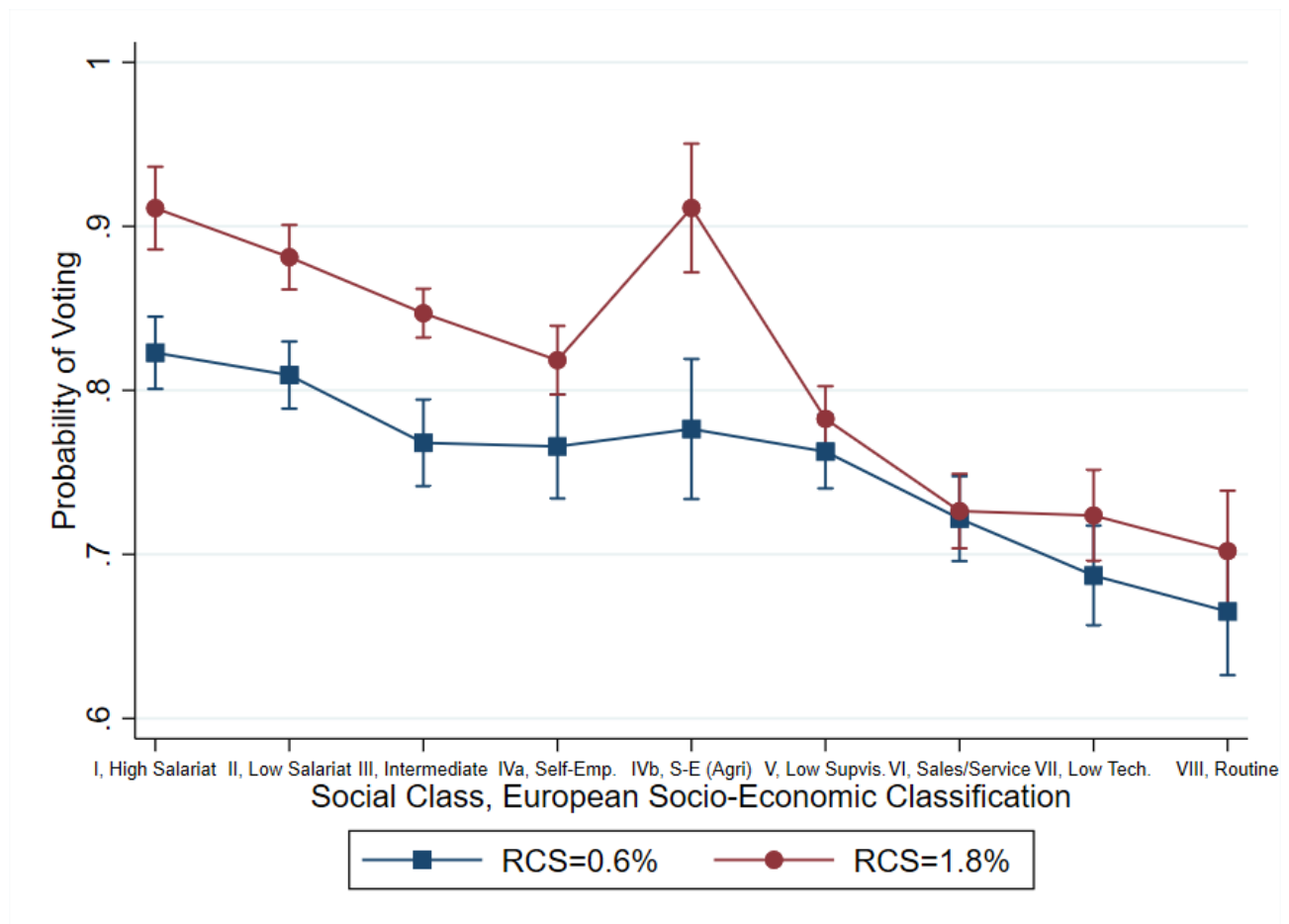
The MEMs depicted in Figure 3.5 follow the same structure of Figure 3.4: the stratification variable on the horizontal axis, and RCS with different shapes and colours. Again, the first element of note is that Probability of Voting is systematically higher when RCS is high, with varying levels of statistical significance.

The increases that are statistically significant are again concentrated in the upper classes, with the smallest being in Intermediate Occupation, and the highest in the High Salariat (Large Employers, High Managers, High Professionals). There is an outlier related to Small and Medium Employers, and Self-Employed in Agriculture, which has the largest increase (around 14 pp.). However, this effect relates to a group representing 3.77% of the sample, as opposed for instance to the 15.68% of the High Salariat class. Again, we can see how the increase in probability of voting is concentrated among the groups with the highest amount of civic skills, while there is no competition effect driving down the probability of voting of those in the lower social classes as RCS increases. Hypothesis 4 is supported by the social class effects, as well as by the education effects.

Lastly, we turn to the third column of Table 3.4, related to income. Here, there is no statistically significant interaction relatively to the top income quintile. Against the backdrop of the significant increases in probability of voting for those with high education and high social class, and the smallest mediating effect of income among the mediators in Table 3.3 (5.95 pp.), these results further reinforce the finding that the Relative Income Mechanism is *not* driving a decrease in electoral participation. This applies both overall, and to those groups with least amounts of money. Overall, the results of the three interactions show how the increase in probability of voting accrues to those with the highest civic skills, and not to those with least amounts of money, supporting Hypothesis 4 (Stratified Ryder-Verba) over Hypothesis 3 (Stratified Easterlin). We discuss the implications of these results in the conclusive section of this paper.

3.5 Discussion and Conclusion

Is the more really the merrier, at least as regards birth cohorts and politics? By examining the impact of Relative Cohort Size on electoral participation in 26 countries across 14 years, it seems to be so, at least for those in upper social strata: by fitting linear regressions with Country and Survey-Year Fixed effects to data from the European Social Survey, together with country cluster-robust standard

errors and design weights, we find that larger RCS does increase electoral participation, albeit with a small effect size.

These findings provide clear support for the Hypothesis 2 based on Ryder (1965) on the centrality of cohorts for social change, and does not provide support for the classic Easterlin Hypothesis (1978, 1987), which posited a decrease in electoral participation through the relative income mechanism. The first contribution of this paper is precisely the theoretical development of the solidarity (Ryder, 1965) and relative income mechanisms (Easterlin, 1978) to study electoral participation. To do so, we have connected said mechanism to the socio-economic model of electoral participation (Verba, Nie, and Kim, 1978), and the subsequent innovation of the Civic Voluntarism model, based on the resources of time, money, and civic skills (Brady, Verba, and Schlozman, 1995). The second contribution of the paper is the empirical test of the mediating role of social stratification variables in the relationship between RCS and electoral participation: relying on the Karlson-Holm-Breen decomposition method for mediation analysis (Breen, Karlson, Holm, 2018), we found how the mechanism of income posited by Easterlin (1978) plays the smallest role in mediating the focal relationship. In contrast, the variables of education and social class, which are respectively the primary and secondary loci of the civic skills in the Civic Voluntarism model by Brady *et al.* (1995), are the strongest mediators, with education in particular accounting for at least half of the total mediation driven by social stratification.

The third and most important contribution of this paper is development of the competing Easterlin and Ryder/Verba Hypotheses to include the role of social stratification: if the relative income mechanism were to dominate, political alienation would have strongly affected the members of the least social strata. On the other hand, if the civic skills mechanism were to hold, the strongest increases in terms of electoral participation would have been concentrated among those groups with the highest endowments of civic skills: the high educated and those in high social classes, but not those with higher levels of money (upper income quintiles).

The findings in Table 3.4 and Figures 3.4 and 3.5 provide clear evidence in favour of Hypothesis 4 – Stratified Ryder/Verba. While the interactions between RCS and its mediators education and social class tend to be negative and statistically significant, there is no statistically significant coefficient for the interactions between income quintile and RCS. This corroborates the results from the mediation analysis, showing how relative income and the resource of money are not driving the relationship between RCS and electoral participation. In contrast, we can see the strongest effects for those with tertiary levels of education including and above the lower tertiary: they are over 10 pp. more likely to vote when members of a large cohort as opposed to a small cohort. A similar pattern takes place for the classes from Intermediate Occupation to the High Salariat, and including a strong effect for the smallest social class, the Agricultural Small Employers and Self-Employed.

Turning to the gap that we have identified in the introduction, how do these findings speak to the related phenomena of dwindling cohort sizes (Lesthaeghe, 2010) and decreasing socio-political engagement (Putnam, 1995, 2000; Verba, 1996; Lijphart, 1997)?

Our findings show how the relationship between RCS and electoral participation constitutes another facet of the vicious circle between social stratification and political inequality described by Acemoglu and Robinson (2012). More specifically, our findings point to two dimensions of political inequality that are shaped by demographic and socio-economic determinants: within cohorts and between cohorts.

While larger RCS does not decrease the electoral participation of citizens in the least social strata, it also does not increase it significantly: therefore, the gaps in electoral participation shaped by social stratification within the same cohorts are exacerbated by larger RCS. As regards education, the gap between the highest educated and those with low secondary education is slightly more than 10 pp. when RCS is small, and widens to more than 20% when electoral participation is high. Similarly, the gap between the High Salariat (Large Employers, High Managers, High Professionals) and the Routine workers in the ESEC classification is slightly more than 10 pp. with a small RCS, and widens

to more than 20 pp. when RCS is high. Therefore, while there is no decrease in probability of voting in absolute levels, larger Relative Cohort Size shapes a larger socio-economic gradient within large cohorts.

When expanding our focus beyond the specific large cohorts, the scenario becomes more worrisome: members of large cohorts with higher civic skills (high education, high social class) tend to vote much more than members of small cohorts. As regards education, the gap in probability of voting is over 24 pp., while the one for social class crosses 25 pp. . Remarkably, these results are obtained while controlling for the effect of age: if we consider that younger cohorts tend also to be smaller, the combined effects of smaller RCS, socio-economic gradients, and the pattern that younger individuals tend to vote less (Plutzer, 2002; Franklin, 2004; Dalton, 2017; Emmenegger, Marx, and Schraff, 2018), may shape even larger differences in terms of political inequality.

If we consider that the Great Recession and the Sovereign Debt Crises have further driven down fertility in several, albeit not all, European countries (Matysiak, Sobotka, and Vignoli, 2020), and that the ongoing Covid-19 pandemic is likely to determine a Baby Bust in Europe (Luppi, Arpino, Rosina, 2020; Lappegard, Kristensen, Mamelund, 2020), we may witness particularly small birth cohorts in the near future.

In light of these social phenomena, additional research on how membership in smaller cohorts affects political participation becomes even more important. For this reason, future research may focus on identifying in a more causal setting the effects of RCS on electoral participation, relying for instance on panel data with individual fixed effects. Beyond electoral participation, future works may also focus on the impact of RCS on other socio-political outcomes, ranging from interpersonal and political trust, to civic participation, and to attitudes along the economic and social liberal-authoritarianism values. In sum, this paper highlights how past demographic patterns play a considerable role in shaping contemporary politics, and that understanding current demographic trends may be crucial to understand political developments in the near future.

Chapter 4

How Party Ideological Convergence accentuates Class differences in Voter Turnout: the Role of Age and Values

Integrating perspectives from class voting, political socialisation and political values, we argue that party ideological convergence reduces participation in younger cohorts in certain social classes via its impact on the representation of differing value positions. Analysing British Social Attitudes and British Election Study data from 1983-2017 combined with Comparative Manifesto Project data on party positions, we show that party ideological convergence reduces voter turnout disproportionately among the self-employed, and particularly so amongst the working class. This occurs primarily in younger, less politically integrated, cohorts. The impact of ideological convergence is shown to be mediated by respondents' economic left-right and liberal-authoritarian values: consensus between the major parties is associated with declining turnout among citizens with economically left-wing and, particularly, authoritarian values. Turnout is thus depressed among younger cohorts for the authoritarian self-employed, and even more so amongst the economically left-wing and authoritarian working class.

4.1 Introduction

As in most industrialised democracies, voter turnout in Great Britain has declined in recent decades (Franklin, 1994, 2004; Gray and Caul, 2000). Numerous studies have addressed the issues raised by this trend. One strand of research has mainly focused on macro-contextual drivers, such as institutions, socio-economic conditions, and features of the political system (Powell, 1986; Jackman, 1987; Blais, 2006; Geys, 2006; Cancela and Geys, 2013; Stockemer 2017). Another has focused on drivers at the micro-level: the socio-demographic characteristics of citizens (Smets and Van Ham, 2013). In addition to level of education (Teixeira, 1987; Gallego, 2009), attention has largely focused

on age as a key driver of this phenomenon, with a body of literature documenting how younger individuals are considerably less likely to vote than older ones (Rubenson et al., 2004; Clarke *et al.*, 2006; Heath, 2007, 2018; Smets, 2012, 2016; Blais and Rubenson, 2013). While this 'age gap' in turnout is well-established in Britain, it has become particularly salient in academic and public debates in recent years because of growing party polarisation between age groups, with the young and old overwhelmingly favouring the Labour and Conservative parties, respectively, in the 2017 elections. Similar gaps have been detected in attitudes towards European integration and voting in the 2016 EU Referendum (Mellon *et al.*, 2018; Prosser *et al.,* 2018). Additionally, however, Britain has also witnessed the emergence of another socio-demographic participatory cleavage: social class. Although after World War II class was historically the dominant cleavage of left-right politics (Butler and Stokes, 1974; Heath *et al.*, 1999; Evans, 1999), a large body of research has since documented its decline as a predictor of party choice (Evans and Tilley, 2012). In trying to understand this trend, recent research has shown that convergence in party policy positions towards a liberal consensus has led to two related phenomena: a decline of class voting, due mainly to middle class voters increasingly supporting Labour; and a rise in class non-voting, due mainly to members of the working class becoming far less likely to vote than members of the professional and managerial class - a gap that was negligible as recently as the late 1980s. Interpretations of this emerging division have focused on 'New Labour' shedding its working class-oriented heritage and moving towards the centre of the left-right ideological spectrum and towards social liberalism, to attract the support of the growing group of highly educated socio-cultural professionals (Van de Werfhorst and De Graaf, 2004; Oesch, 2008; Stubager, 2008).

As a result of these changes, British politics now features two important participatory cleavages: class and age. On the one hand, research has documented how policy convergence between the Labour and the Conservative parties has been associated with a differential impact on turnout across the social classes, disproportionately depressing turnout among the working class. On the other hand, the

literature on political socialisation shows that non-voting is formed as a habit during the 'impressionable years' after which, these habits tend to crystallise and persist. (Milbrath, 1965; Plutzer, 2002; Gerber, Green Shacher, 2003; Aldrich, Montgomery and Wood, 2010; Niemi and Neundorf, 2014; Coppock and Green, 2016; Ojeda and Pacheco, 2017). In this paper we build a bridge between these bodies of research, by showing how the 'class gap' and the 'age gap' interact.

Combining perspectives from class voting (Pacek and Radcliff, 1995) and political socialisation (Langsæther, 2018), we argue that lower levels of ideological distance between the main political parties disproportionately depress the turnout of younger members of both the working class, and the class of self-employed and small business owners (or 'petty bourgeoisie').[12] We further propose that the driving mechanism of the class participation gap is the correspondence between party positions and citizens' values: ideological convergence towards an economic and social liberal consensus by the main parties results in a disparity between their positions and the values of citizens. In this respect we identify two main areas of value discrepancy, economic left-right and social liberal-authoritarianism. One consequence of convergence is that working class electoral participation should be adversely affected by growing distance between both the redistributive and authoritarian values characteristic of working class voters and the positions of the main parties. On liberalism-authoritarianism, however, it is not only the working class that has stood outside of the liberal mainstream: so has the relatively authoritarian class of the self-employed. Though research has examined working class participation, to the best of our knowledge no study has examined the impact of party ideological convergence on the turnout of the self-employed, whose social authoritarianism should also result in a decline in voter turnout when the main parties converge to more socially liberal positions. As the self-employed are economically liberal this decline in turnout should not, however,

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[12] From now on we refer to this class as the 'self-employed', though this also includes those self-employed people who employ a small number of others.

occur to the same extent as among the working class: the latter are outside of the liberal consensus both economically and socially, whereas the self-employed are only distanced on the latter.

In sum, ideological convergence implies declining turnout in the two classes that traditionally hold opposing positions on economic redistribution, but are similar in terms of social values. We proceed by reviewing research on social class and age as predictors of voter turnout and integrate perspectives from class voting, political socialisation and values into our theoretical framework. Hypotheses from this framework are then tested by modelling combined British Social Attitudes and British Election Study, and MARPOR data from 1983-2017. We then show how the impact of ideological convergence on turnout by class and age is mediated by respondents' values on (economic) left-right and (social) liberal-authoritarian dimensions.

4.2 Ideological Distance, Socio-Demographic Characteristics, and Turnout

Ideological Distance and Turnout

While voting hardly appears as non-rational act given the marginality of a single vote, the Downsian (Downs, 1957) perspective on rational abstention has been adapted to explain voter turnout under conditions of ideological distance or convergence (Lewis-Beck and Paldam, 2000). The earliest studies were by US scholars who examined the relationship between ideological distance and turnout and found that lower policy distances between candidates decreased the probability of voting (Brody and Page, 1973; Zipp, 1985). From those early contributions to more recent studies (Heath and Taylor, 1999; Heath, 2007; Leighley and Nagler, 2014), lower turnout has been driven by constraints in the choice set and the lack of a clear preference for one of the candidates.[13] Our first hypothesis draws from these contributions:

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[13] This explanation relies heavily on the institutional setting: in countries with a First-Past-The-Post system such as the US or the UK. These concerns should be less pressing in Proportional Representation systems (Blais and Carty, 1990).

Hypothesis 1 - Reduced ideological distance between the Conservative and Labour Parties decreases voter turnout.

Ideological Distance and Class Non-Voting

To grasp the impact of constrained political choice on the turnout of the working class, it may be useful to start again with the United States, where authors such as Burnham (1967) and Reiter (1979) remarked how the lack of a socialist party prevented the mobilisation of workers with low socio-economic status, as the Democratic Party moved to the centre of the left-right axis (Przeworski and Sprague, 1986; Weakliem and Heath, 1999).

In Great Britain, class differences in voter turnout were historically rather negligible (Swaddle and Heath, 1989; Nieuwbeerta and Ultee, 1999; Pattie and Johnston, 2001), only increasing markedly following the 1997 election (Heath and Taylor, 1999; Evans and Tilley 2017). The association between ideological convergence and this relative decline in working class turnout has been established in recent research (Evans and Tilley, 2017; Heath, 2018). According to Evans and Tilley, a move to post-industrial occupational structure led to a change in the relative sizes of classes: a growing middle class was balanced by a smaller working class. At the same time, there was a rapid expansion of higher education, with a far larger proportion of individuals holding higher degrees. These socio-structural changes were accompanied by changes in party strategy: 'New Labour' won the 1997 elections by shedding socialist influences and its links with the working class and pursuing the votes of the new middle classes. This was achieved not only by converging on the economic centre, but also by emphasising more socially liberal issues. In this way, the party appealed to educated middle class voters on both types of issues. This strategy was not limited to manifestos and speeches. As noted by Heath (2018), there was also a shift in political representation, with the proportion of Labour MPs with a working class background decreasing from 35% in 1985 to 15% in 1997. As a result of this dual shift in positions and representation, the working class rates of abstention

reached 40%, with a probability of voting 10% lower than members of the middle class (Evans and Tilley, 2017). Therefore, the New Labour was successful in attracting the support of the new middle. However, this came at the expense of its own traditional constituency, in coherence with a wider strategic pattern of issue changes exhibited by socialist parties in Europe (Przeworski and Sprague, 1986; Kitschelt, 1994; De Sio and Weber, 2014). In light of this work, we would expect that:

Hypothesis 2a - Reduced Ideological Distance disproportionately decreases turnout in the Working Class, relative to the Middle class.

These studies support a clear narrative: while convergence between parties decreases clarity of choice between political parties and decreases turnout, its effect is more powerfully felt among those not closely represented by either party. For Evans and Tilley (2017) this mainly concerned the working class, but the Labour Party was not the only one adjusting its ideological an appeal during this period. Movement towards the centre by Labour in 1997 was matched by mirroring convergence from the Conservatives in 2001 (Bara and Budge, 2001) - the election with the smallest amount of ideological distance - and after: David Cameron famously wanted to detoxify the image of the party and promoted socially liberal positions on, for example, gay marriage. This movement of the Conservatives to a similar socially liberal position to Labour is in turn likely to have estranged a traditional class heartland of its own support: the self-employed. A typically right-wing group economically in Britain and beyond (Barisione and De Luca, 2018), this group also displays relatively traditional, authoritarian attitudes on social issues. While the support of the self-employed and small employers is contested between the centre-right and the radical right in Europe (Oesch and Rennwald, 2018), the FPTP structure of British party competition largely restricts their electoral choices during General Elections to the Conservative Party, or abstention. Therefore, given that the self-employed lie outside of the liberal consensus we posit:

Hypothesis 2b - Reduced Ideological Distance between the Conservative and Labour parties disproportionately decreases the turnout of the Self-Employed, relative to the Middle class.

In sum, convergence between the Labour and the Conservative Parties towards the centre is likely to estrange both of the more extreme blocs of the traditional class cleavage, with the contest for the growing middle class marginalizing the members of both the working and self-employed classes.

Ideological Distance and Turnout, by Class and Age

Young people tend to vote less than older ones (Rubenson *et al.*, 2004), and while this pattern has been documented as early as the 1930s (Tingsten, 1937; Niemi and Hepburn, 1995), recent decades have seen further decreases in voter turnout during young adulthood. As established in the scholarship (Levine and Lopez, 2002; Phelps, 2004; Blais *et al.*, 2013; Smets, 2016), young individuals tend to vote less than their parents and grandparents did during their own youth. Various explanations for this phenomenon have been proposed including declining social capital, declining group mobilisation, and the adoption of new values (Putnam, 1995; Blais and Rubenson, 2004; Franklin, 2004). Here however our focus is not to explain the lower turnout of young people *per se*, but to demonstrate the multiplicative effect of ideological convergence, membership in a specific social class, and being young. We therefore address two separate questions: First, how does ideological convergence affect the turnout of younger voters, as opposed to older voters within the same class? Second, how does ideological convergence affect differences in voter turnout between younger individuals in different social classes?

Age and Turnout: The 'Impressionable Years' in Political Socialisation

To understand why young individuals may be more affected by ideological convergence, we adapt the *'impressionable/formative years'* hypothesis developed in the political socialisation literature. This refers to a critical period when young people are deeply influenced by events and develop patterns of political attitudes and behaviour which crystallise in the longer-term (Mannheim, 1952;

Ryder, 1965; Jennings and Niemi, 1975, 1978; Beck and Jennings, 1979; Jennings and Markus, 1984; Alwin and Krosnick, 1991; Highton and Wolfinger, 2001; Smets, 2016). The span of this window of flexibility is not strictly identified in the literature, but is roughly defined as taking place from mid-tens (14-16) to mid-twenties (25) (Jennings and Niemi, 1981; Niemi and Hepburn, 1995). A considerable body of work provides empirical evidence for this mechanism. For political partisanship, studies find that the attitudes of individuals are shaped by the party in power when coming of age (Neundorf and Niemi, 2014; Grasso *et al.*, 2019). Since the 1960s, researchers have established that voter turnout is driven by path-dependence (Milbrath, 2005), with turnout in the first election strongly affecting the probability of voting in subsequent elections. For Plutzer (2002), turnout is developmental: its starting level is deeply influenced by the socio-demographic characteristics of the individual and the context of the first election. Afterwards it only inertially grows over time for non-voters, while it is reinforced by path-dependence for voters. The habitual nature of voting is corroborated by studies drawing from social psychology, which show how turning out is driven by automaticity, where repeated voting is persistent even under different contextual conditions (Marcus *et al.*, 2000; Marcus, 2002; Aldrich, Montgomery, and Wood, 2011). This is the key mechanism explaining the differential impact of convergence on the voter turnout across age groups. When the Labour and Conservative parties converge towards the centre, older voters are exposed to the same ideological match or mismatch faced by their younger voters. However, this convergence is unlikely to weaken the more deeply rooted turnout habits of older voters. Younger individuals in their formative years are disproportionately responsive to ideological convergence. From this we can posit:

Hypothesis 3 - Reduced Ideological Distance decreases turnout disproportionately for younger citizens.

Turnout by Age and Class

The impact of ideological convergence should therefore be felt amongst younger citizens, but it follows from Hypotheses 2a and 2b that the extent of this impact is likely to be conditioned by class position: when the main parties converge this will disproportionately affect the turnout of those young individuals in classes with more extreme economic Left-Right and social Liberal-Authoritarian positions. From this we can posit:

Hypothesis 4a: Lower Ideological Distance decreases voter turnout more among younger members of the Working class, as opposed to those in the Middle class.

Hypothesis 4b: Lower Ideological Distance decreases voter turnout more among younger Self-Employed workers, as opposed to those in the Middle class.

Ideological Values as Mediators

Recent research has established how value differences can explain the association between social class and party preference (Weakliem and Heath, 1994; Evans and Tilley, 2012; Langsæther, 2019). Given that values tend to be more stable than party choices (Evans and Neundorf, 2018), citizens are more likely to change their political choices than to change their values. To the degree that abstention is a political choice, voters' values may also constitute the driving mechanism between social class and voter turnout.

As the Working class and Self-Employed are traditionally the most economically left-wing and right-wing classes, the degree that the effect of ideological convergence on turnout is driven by ideological mismatch between the values of the respondents and the positions of the political parties. The former should mediate the link between ideological convergence, class, age, and turnout. Formally:

Hypothesis 5a - Respondents' economic Left-Right values should mediate the impact of Ideological Distance on class and age differences in turnout.

The same argument applies to social liberalism versus authoritarianism. This is a well-established axis of political differentiation (Van De Werfhorst and De Graaf, 2004; Stubager, 2008, 2010), and has become central to the body of work analysing the rise of the Radical Right (Rydgren, 2007; Langsæther and Stubager, 2018; Hillen and Steiner, 2019). As with the Left-Right ideological spectrum, social classes have traditionally held distinctive positions on the Liberal-Authoritarian axis. Since the work of Lipset, membership in the Working class and petty bourgeoisie has been associated with authoritarianism, with positions in favour of traditional morality, obedience to authority, and punitive approaches to the maintenance of law and order. In contrast, the educated middle class is associated with more liberal positions on these issues (Lipset, 1959; Houtman, 2003; Van der Waal et al., 2007; Napier and Jost, 2008). In consequence, class differences in Liberal-Authoritarian values should also mediate the relationship between class, age and turnout. Therefore:

Hypothesis 5b - Respondents' Liberal-Authoritarian values should mediate the impact of Ideological Distance on class and age differences in turnout.

When both Left-Right and Liberal-Authoritarian values are included in models as mediating variables we should see the full impact of values in explaining class and age differences in responses to party ideological convergence.

Hypothesis 5c - Respondents' Left-Right and Liberal-Authoritarian values should mediate the impact of Ideological Distance on class and age differences in turnout.

4.3 Data and Analysis

Data

Individual-level data is provided by combining the British Social Attitudes (BSA) surveys and the British Election Study (BES). The BSA is an annual national randomly-sampled, face-to-face survey

of political preferences and social orientations involving roughly 3000 individuals per wave. The BSA has been conducted since 1983, except in 1987 and 1992, when we use BES data. The BES is again, a national randomly-sampled face-to-face survey involving 3000 or more respondents.

The dependent variable, voter turnout, is only asked in the BSA during election years. Hence, we restrict our sample to surveys conducted in election years: 1983, 1987 (BES), 1992 (BES), 1997, 2001, 2005, 2010, 2015, 2017. In addition to voter turnout, the BSA and BES data provide data on socio-demographic characteristics (social class, age, level of education, sex, religiosity), and left-right and liberal-authoritarian values. This individual-level data is combined with data on the political positions of the Labour and Conservative parties during election years obtained from the Manifesto Research on Political Representation (MARPOR) project, formerly the Comparative Manifesto Project. MARPOR provides expert-coded data on party manifestos starting from 1945.

Variables

The analysis includes ten variables: a dependent variable, seven independent variables, and two mediating variables, for which we report descriptive statistics in Table 4.1.

Measuring Voter Turnout. Our dependent variable is the self-reported turnout of eligible respondents in the last General Election during each election year (1 = respondent voted in the last general election; 0 = not voted).

Measuring Ideological Distance between Parties. Our measure of ideological distance between the Conservative and Labour parties, encompasses both economic and social dimensions. To construct this variable, we use data on the positions of each party's manifestos, for each of the nine election years. This variable is listed as '*Right-Left Index*' in the MARPOR dataset. The Right-Left Index was developed by Laver and Budge (1992) for the Manifesto Research Group data, originally combining 56 statements into a set of sub-categories including among others: 'State Intervention', 'Capitalist Economics', and 'Quality of Life', 'Traditional Morality', 'Law and Order', 'Military', and 'Freedom and Human Rights'. Collapsing this set of sub-categories provides a measure of the parties'

ideological positions. To obtain the distance between their positions, we subtract the ideological position of the Labour party from that of the Conservative party.

Measuring Socio-Demographic Variables. Our primary individual-level independent variables are social class and age. To measure social class, we rely on a modified version of the Erikson-Goldthorpe class schema that has been operationalized consistently across the BES and BSA surveys (Erikson and Goldthorpe, 1992). We aggregate these into four main classes. The 'Middle class' comprises higher managers, professionals, and large employers (EG class I) and lower professionals and managers (EG class II). The Routine Non-Manual Class is composed of EG IIIa and IIIb. The Self-Employed includes those with a small number of employees (IVa), those without employees (IVb), and self-employed farmers (IVc). Finally, the Working Class includes foremen/manual supervisors/lower grade technicians (class V), skilled workers (class VI), unskilled workers (VIIa), and farm labourers (VIIb). This classification provides a consistent set of class categories that is consistent across the slightly different measurements of social class in the BSA and BES across the 1983-2017 timeframe.

Age is measured as a continuous variable, from a minimum of 18 to a maximum of 98. Socio-demographic controls are sex, religiosity, and level of education. Sex is measured as a binary variable, coded 0 for men and 1 for women. Religiosity is a binary variable which captures whether the respondents classify themselves as belonging to a specific religious denomination (value 1), as opposed to being non-religious (value 0). The highest level of education attained is classified into four main groups: having completed any tertiary education, having obtained A-levels, having obtained GCSE/O-Levels, and having received only compulsory years of education. Including education is important for differentiating the effect of social class from that of education, as individuals with lower education tend to be more authoritarian than liberal, while the opposite holds

for the higher educated (Van de Werfhorst and De Graaf, 2004; Stubager, 2008, 2010). We also include a survey year variable.[14]

Table 4.1 – Descriptive Statistics

Variable	N	Mean/Percent	St.dev	Min	Max
Turnout	26,410	0.77	0.42	0	1
Ideological Distance	26,410	31.7	18.86	13	68
Age	26,410	48.99	17.71	18	98
Sex	26,410	0.47	0.50	0	1
Religiosity	26,410	0.60	0.49	0	1
Social Class	26,410	2.59	1.28	1	4
Middle Class (EGP I,II)	7,867	(29.79%)			
Routine Non-Manual Class (EGP IIIa,IIIb)	5,715	(21.64%)			
Self-Employed Class (EGP IVa, IVb, IVc)	2,210	(8.37%)			
Working Class (EGP V, VI, VIIa, VIIb)	10,618	(40.20%)			
Highest Level of Education	26,410	2.75	1.12	1	4
Tertiary	4,923	(18.64%)			
GCE/A-Levels	5,799	(21.96%)			
GCSE/O-Levels	6,673	(25.27%)			
Minimum Education	9,015	(34.13%)			
Year	26,410	2001	11.45	1983	2017
1983	2,512	(9.51%)			
1987	3,530	(13.37%)			
1992	3,272	(12.39%)			
1997	1,911	(7.24%)			
2001	3,173	(12.01%)			
2005	4,116	(15.59%)			
2010	1,026	(3.88%)			
2015	4,054	(15.35%)			
2017	2,816	(10.66%)			
Left-Right Values	19,172	2.50	1.02	1	5
Liberal-Authoritarian Values	20,232	3.71	0.74	1	5

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[14] We also tested for the role of geography by including Region Fixed Effects. However, as their contribution to explained variance does not exceed 1% in terms of Pseudo-R^2 and they do not meaningfully affect the magnitude, the sign, or the statistical significance of the main associations, we do not include them in the main analysis.

Measuring Respondents' Left-Right and Liberal-Authoritarian Values

Our mediating variables operationalise the positions of respondents on the Left-Right and Liberal-Authoritarian axes[15], using scales developed and validated by Evans, Heath and Lalljee (1996) that are that are included in the annual BSA surveys and have been used extensively in a wide range of social science research. When using the BES we use similar scales developed and validated by Heath, Evans and Martin (1994). In the BSA surveys, Left-Right position is measured with a summated scale composed of agree-disagree responses to five statements[16]: '*Government should redistribute income from the better off to those who are less well off'*. '*Big business benefits owners at the expense of workers'*. '*Ordinary working people do not get their fair share of the nation's wealth'*. '*There is one law for the rich and one for the poor'*. '*Management will always try to get the better of employees if it gets the chance'*. This results in a range from one (left) to five (right). The BES includes almost identical statements implemented to operationalize the scale of left-right values developed by Heath, Evans and Martin (1994), which we merge with the five-point BSA scale.

Liberal-Authoritarian values are measured with responses to six statements in the BSA: '*Young people today don't have enough respect for traditional British values.*' '*People who break the law should be given stiffer sentences.*' '*For some crimes, the death penalty is the most appropriate sentence.*' '*Schools should teach children to obey authority.*' '*The law should always be obeyed, even if a particular law is wrong.*' '*Censorship of films and magazines is necessary to uphold moral standards.*' From these statements we create a summated scale ranging from 1 to 5.[17]

The BES waves include items developed by Heath, Evans and Martin (1994). These include the following statements/questions: *Young people today don't have enough respect for traditional British*

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[15] The values for the Left-Right and Liberal-Authoritarian axes are available throughout the BSA and BES from 1987 onwards, but not for the 1983 wave. Therefore, the latter is excluded from the mediation analysis.

[16] BSA User Guide (2016): http://doc.ukdataservice.ac.uk/doc/8252/mrdoc/pdf/8252_bsa_2016_user_guide.pdf

[17] To do so we recode scores of 6 to 5 (there were very few cases with a score of 6), to provide an equivalent range to the Left-Right values scale.

values.' 'For some crimes, the death penalty is the most appropriate sentence.' 'Censorship of films and magazines is necessary to uphold moral standards. ' 'How about attempts to give equal opportunities to women in Britain?'. Again, we create a summated scale from these statements, ranging from 1 (liberalism) to 5 (authoritarianism)[18].

Analytical Strategy and Equations

As the dependent variable is binary, we fit logistic regressions to the data with Huber-White robust standard errors. We report coefficients as odds ratios, in order to ease their interpretation in terms of the probability of voting.

To test Hypotheses 1-4, we fit three different models.

$$y_{ij} = \beta_0 + \beta_1 Distance_{10} + \beta_2 Class_{01} + \beta_3 Age_{02} + \beta_4 Year_{20} + \beta^{\sim}\mathbf{Z}_{03} + \varepsilon_{ij} \qquad (1)$$

$$y_{ij} = \beta_0 + \beta_1 Distance_{10} + \beta_2 Class_{01} + \beta_3 Age_{02} + \beta_4 Year_{20} + \beta^{\sim}\mathbf{Z}_{03} + \varepsilon_{ij} + \\ \beta_5(\mathbf{Distance*Class})_{04} \qquad (2)$$

$$y_{ij} = \beta_0 + \beta_1 Distance_{10} + \beta_2 Class_{01} + \beta_3 Age_{02} + \beta_4 Year_{20} + \beta^{\sim}\mathbf{Z}_{03} + \varepsilon_{ij} \\ +\beta_5(\mathbf{Distance*Class})_{04}+\beta_6(\mathbf{Distance*Age})_{05}+\beta_7(\mathbf{Class*Age})_{06}+\beta_8(\mathbf{Distance*Class*Age})_{07} \qquad (3)$$

In all of these models we include election year as a continuous variable. Doing otherwise would result in the exclusion of Ideological Distance due to multicollinearity, as it has specific values for each election year. This solution avoids multicollinearity, as each variable has a Variance Inflation Factor under 10. Entering both year and Ideological Distance as continuous variables allows us to produce

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[18] In the BES surveys we sum the values of the 'respect', 'censorship', and 'equality' variables, obtaining a variable ranging from 3 to 15. We divide this by 3, to obtain a five-point summated scale. We add favorability to the death penalty to this, which is responded to as a binary variable, and recode value 6 to value 5.

counterfactuals through the use of Marginal Effects at the Means: *e.g.,* what would the probability of voting in 2017 been among the working class, had levels of ideological distance been at the empirical minimum (found in 2001), as opposed to the empirical maximum (found in 1983)?

To examine the mediating role of respondents' values we fit three additional models. To the specification in model III, we add, alternatively, the respondent's Left-Right values (Model IV), Liberal-Authoritarian values (Model V), and both Left-Right and Liberal-Authoritarian values (Model VI). We use the KHB decomposition method (Breen, Karlson, and Holm, 2013) for mediation analysis in order to determine the magnitude and direction of the mediated effects.

$$y_{ij} = \beta^{\sim}\mathbf{Model3} + \beta_9(LeftRightValues)_{08} \tag{4}$$

$$y_{ij} = \beta^{\sim}\mathbf{Model3} + \beta_10(LiberalAuthoritarian)_{09} \tag{5}$$

$$y_{ij} = \beta^{\sim}\mathbf{Model3} + \beta_9(LeftRight)_{08} + \beta_10(LiberalAuthoritarian)_{09} \tag{6}$$

4.4 Results

Table 4.2 – Ideological Distance and Turnout, Baseline and Interactions with Class and Age

	I	II	III
Ideological Distance	1.02***	1.014***	1.009
	(0.002)	(0.003)	(0.007)
Social Class (Baseline: Middle Class - EGP I,II)			
Routine Non-Manual (EGP IIIa, IIIb)	0.931	0.829	0.469*
	(0.048)	(0.086)	(0.147)
Self-Employed (EGP IVa,IVb,IVc)	0.653***	0.548***	0.467+
	(0.040)	(0.066)	(0.189)
Working Class (EGP V,VI,VIIa,VIIb)	0.581***	0.447***	0.259***
	(0.026)	(0.036)	(0.061)
Age	1.034***	1.034***	1.035***
	(0.001)	(0.001)	(0.001)
Highest Level of Education (Baseline: Any Tertiary)			
GCE/A-Levels	0.838***	0.850***	0.848**
	(0.043)	(0.044)	(0.044)
GCSE/O-Levels	0.710***	0.667***	0.646***
	(0.035)	(0.039)	(0.035)
Compulsory Education	0.501***	0.503***	0.479***
	(0.029)	(0.039)	(0.028)
Religiosity	1.24***	1.24***	1.24***
	(0.039)	(0.039)	(0.040)
Sex (Baseline - Male)	1.06**	1.06***	1.05***
	(0.022)	(0.022)	(0.022)
Year	0.985***	0.985***	0.985***
	(0.002)	(0.002)	(0.002)
Ideological Distance and Class (Baseline: Middle Class - EGP I,II)			
Ideological Distance and Routine Non-Manual (EGP IIIa, IIIb)		1.006+	1.032***
		(0.003)	(0.010)
Ideological Distance and Self-Employed (EGP IVa,IVb,IVc)		1.007+	1.014
		(0.004)	(0.013)
Ideological Distance and Working Class (EGP V,VI,VIIa,VIIb)		1.011***	1.038***
		(0.003)	(0.008)
Ideological Distance and Age			1.000*
			(0.0002)
Age and Class (Baseline: Middle Class - EGP I,II)			
Age and Routine Non-Manual (EGP IIIa, IIIb)			1.015*
			(0.007)
Age and Self-Employed (EGP IVa,IVb,IVc)			1.004
			(0.009)
Age and Working Class (EGP V,VI,VIIa,VIIb)			1.013*
			(0.005)
Ideological Distance, Age, and Class			
Ideological Distance, Age, and Routine Non-Manual (EGP IIIa, IIIb)			0.9993**
			(0.0002)
Ideological Distance, Age, and Self-Employed (EGP IVa,IVb,IVc)			0.9998
			(0.0003)
Ideological Distance, Age, and Working Class (EGP V,VI,VIIa,VIIb)			0.9994***
			(0.0002)
Observations	26410	26410	26410
Pseudo-R^2	8.75%	8.81%	9.03%

Robust Standard errors in parentheses
$^+ p < 0.10$ $^* p < 0.05$, $^{**} p < 0.01$, $^{***} p < 0.001$

Table 4.2 reports three specifications, in which we test Hypotheses 1-4.

Hypothesis 1 – Distance and Turnout

First, we examine the initial hypothesis on the impact of ideological distance between the Conservative and Labour Party on voter turnout. Examining Model I in Table 4.2, greater levels of ideological distance increase the probability of voting: an increase in the independent variable by 1 increases voter turnout by 2% ($p<0.001$), in line with Hypothesis 1. To better gauge this effect, Figure 4.1 shows the adjusted predicted probabilities of voting, relying on Marginal Effects at the Means with 95% Confidence Intervals. As ideological distance varies from the empirical minimum (13) to the empirical maximum (68), the probability of voting increases from 74% to 90%. Even if we restrict the variation to the median (18) and the 75th percentile (45), the increase in probability of voting is more than 10%, suggesting that this relationship is not driven by outliers. In terms of effect size, an increase of a single Standard Deviation in Ideological Distance entails an increase in probability of voting of 14.7% Therefore, Hypothesis 1 is supported by the data, with a moderate effect size. With respect to social class and age we see that the Routine Non-Manual class are 6.9% less likely to vote than the Middle class, but this difference is not statistically significant. The Self-Employed and Working classes are, respectively, 34.7% and 41.9% less likely to vote than members of the Middle class ($p<0.001$). Each additional year of age is also associated with a 3.4% higher probability of voting ($p<0.001$).

Women tend to vote slightly more than men (6%), individuals with tertiary education are almost 50% more likely to vote than those with only compulsory education, and members of religious denominations are 24% more likely to vote than the non-religious. Lastly, the odds ratio for year as a continuous variable is negative and statistically significant: this reflects the trend of an overall decrease in voter turnout over the 1983-2017 period.

Figure 4.1 – Ideological Distance and Turnout
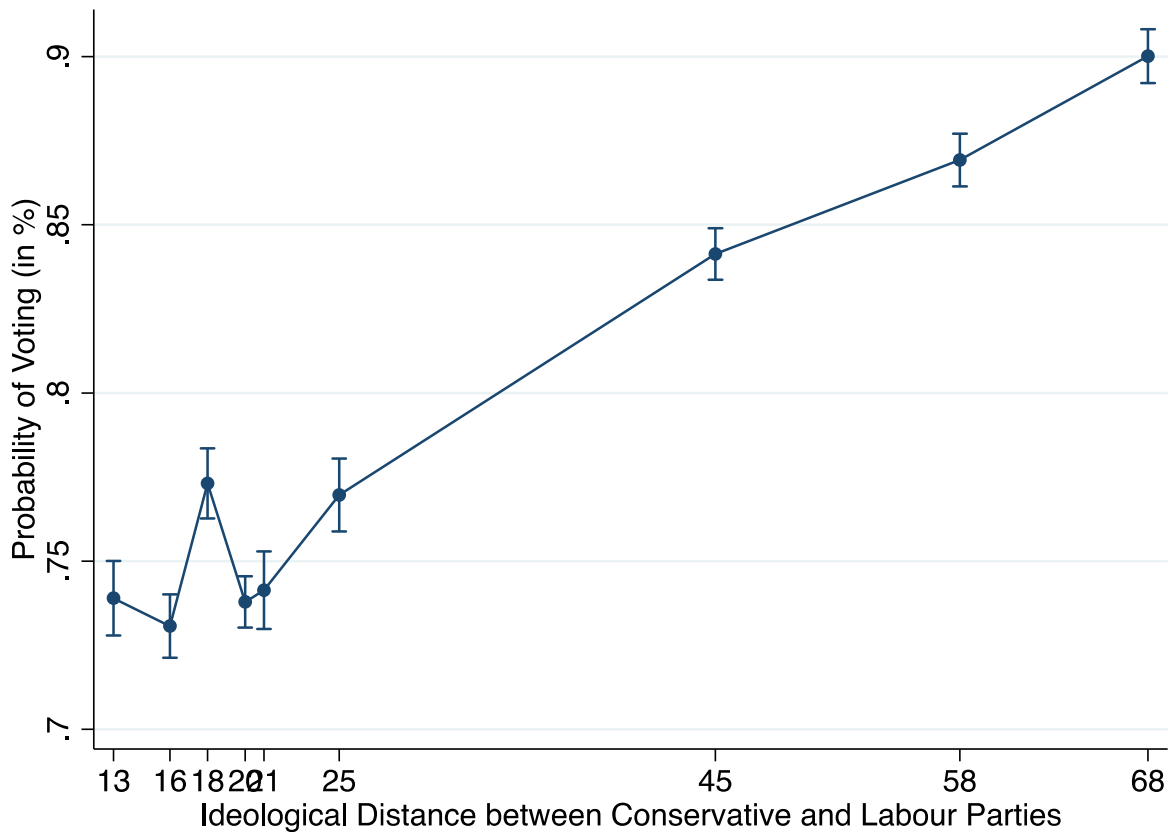
Hypothesis 2 – Distance and Turnout by Class

We have established how higher Ideological Distance is associated with higher voter turnout, overall.

Now, we turn to the macro-micro relationship: how does the former affect differences in voter turnout

between social classes? Model II in Table 4.2 presents the odds ratios for the two-way interactions

between Ideological Distance and social class. Compared with the baseline of the interaction between

Distance and the Middle class, the differences in probability of voting for the interactions with the

Routine Non-Manual and Self-Employed classes are not quite statistically significant at the 0.05

threshold, though their p-values are less than 0.10. The interaction between Distance and the Working

class is highly statistically significant, at the 0.001 threshold: the Working class is the most sensitive

to variations in the Ideological Distance, with its turnout being particularly affected by ideological

convergence.

Figure 4.2 presents the MEMs with 95% Confidence Intervals for the interactions between Distance and Social Class. The adjusted probabilities of voting suggest a clear pattern: when Ideological Distance is at the maximum level, there is no statistically significant difference between the different social classes in terms of probability of voting. However, when ideological distance decreases below the 75th percentile threshold (45), there is considerable divergence: on one hand, the probability of voting for the Middle and Routine Non-Manual classes decreases from around 90% to 80%, whereas The Self-Employed and Working classes exhibit a decrease from 90% to 71% and 67%, respectively.

Figure 4.2 – Ideological Distance and Turnout by Social Class
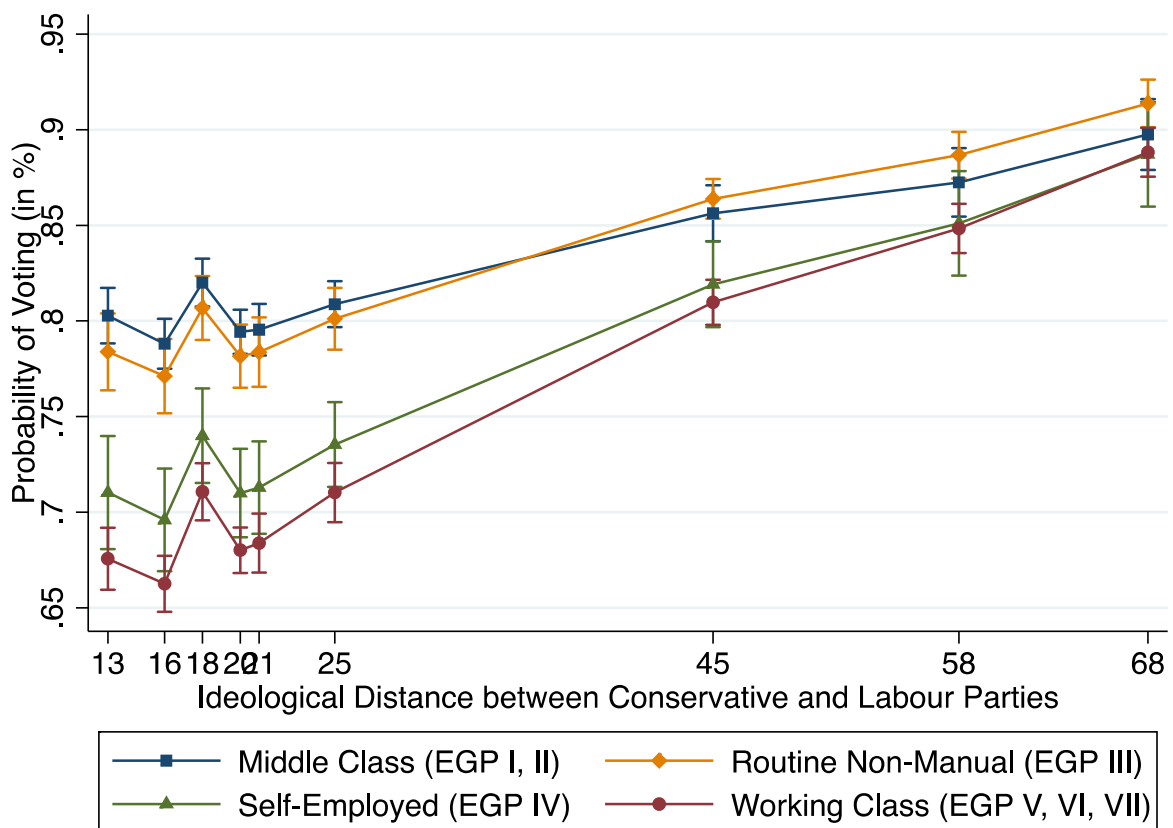
Therefore, ideological convergence between the Conservative and Labour parties depresses the probability of voting across all social classes, but its negative effect is twice as strong in the Working class (18.40% SD) as in the Middle class (9.29% SD). In light of these findings, Hypothesis 2a is supported. The Marginal Effects at the Means indicate that the gap in probability of voting between

the Middle class and the Self-Employed increases from non-significance to a statistically significant 9%, while the gap between the Middle and Working classes increases to 13%. These suggest that the impact of Ideological Distance on the probability of the Self-Employed voting is similar to, but smaller in magnitude, than for the Working Class.

Hypothesis 3 – Distance and Turnout by Class and Age

We now extend the effect of Ideological Distance on social class turnout to include age, by examining the differences in youth turnout between classes, and the differences in voter turnout between young individuals and older individuals within the same classes. The coefficients for these three-way interactions are reported in Model III of Table 4.2. As before, the odds ratios refer to a three-way interaction with two continuous variables in a non-linear regression. With the Middle class as the baseline, the coefficients of the interaction with the Routine Non-Manual and Working classes are both statistically significant ($p<0.01$ and $p<0.001$, respectively), whereas the coefficient of the interaction with the Self-Employed is not. To better gauge these effects, Figure 4.3 presents the Marginal Effects at the Means with 95% Confidence Intervals.[19] Age is on the horizontal axis, and the probability of voting on the vertical axis.

First, we examine Hypotheses 3a and 3b: which posit that the impact of ideological distance on the probability of voting of young individuals is higher in the Working and Self-Employed classes, relative to the Middle class. Examining the top-left and bottom-right graphs in Figure 3, we can see that under conditions of minimum ideological distance there is a 20% gap in the probability of voting between members of the Middle class and members of the Working class at age 20. However, increasing ideological distance to the empirical maximum reverses the situation: the probability of

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[19] The results reported in Figure 4.3 and Table 4.3 are calculated using the Marginal Effect at the Means, with 2001 as the average year. We examine counterfactuals with different years in the Appendix.

voting of 20-year olds in the Working class is around 80%, whereas it is around 70% for their peers in the Middle class. Variation from the empirical minimum to the empirical maximum in ideological distance results in a 15% increase among younger members of the Middle class, compared with 45% for the Working class. In other words, younger members of the Working class are *three times more sensitive* to variations in Ideological Distance than are younger members of the Middle class. These findings support Hypothesis 3a. For the young Self-Employed, the pattern is similar: there is a 10% gap in probability of voting between 20-year olds in the Middle and the Self-Employed under conditions of ideological convergence, whereas it is not statistically significant with maximum distance. The MEMs therefore indicate support for Hypothesis 3b, although the coefficient for its three-way interaction in Table 4.3 is not significant.

Having established the differential impact of ideological distance across age by class, we turn to consider the differences between the young and old within the same classes. Hypotheses 4a and 4b state that the difference in probability of voting resulting from changes in ideological distance should be higher between younger and older members of the Working class and the Self-Employed, compared with the Middle class.

Figure 4.3 - Distance and Turnout, by Class and Age
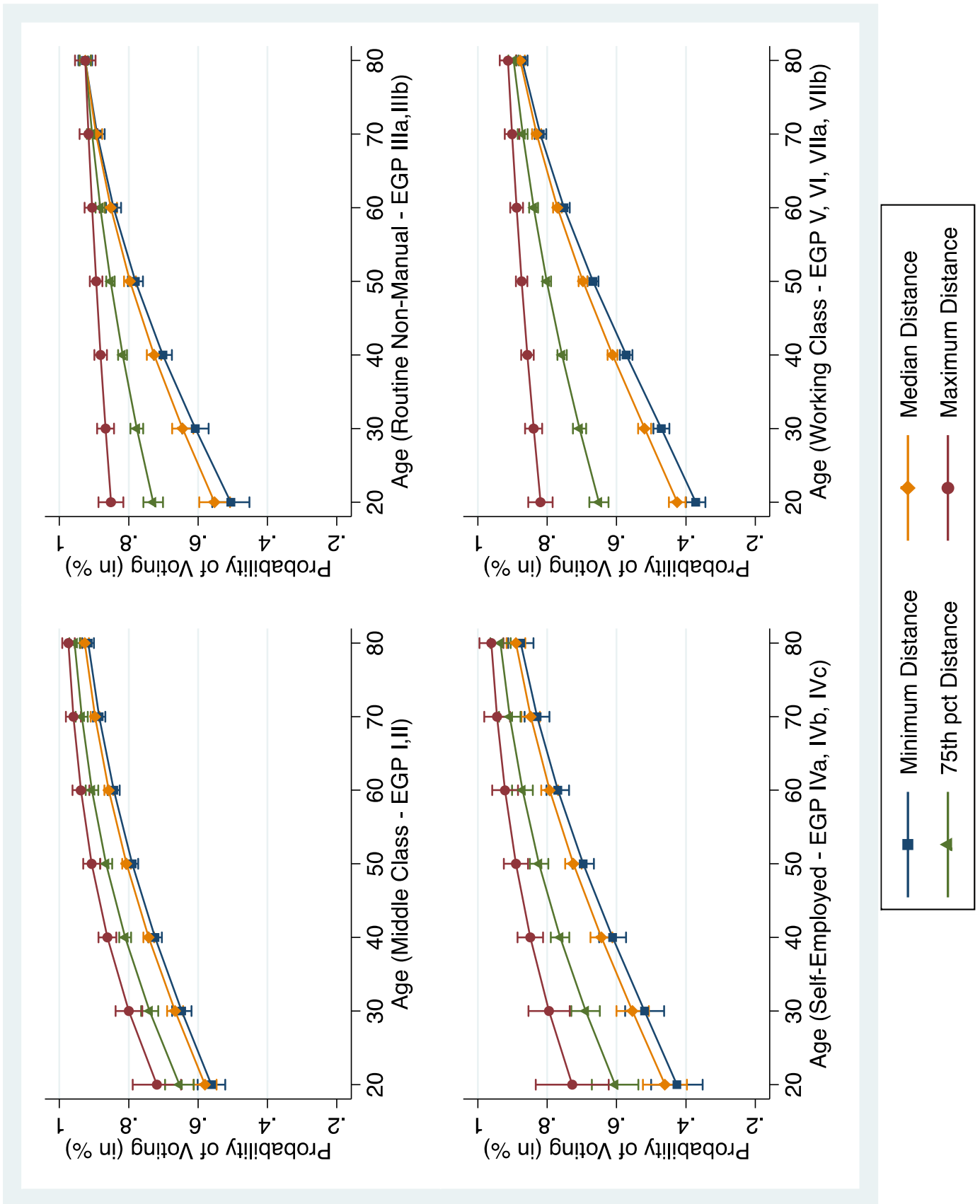
Table 4.3 – Gaps in Probability of Voting between individuals aged 80 and 20

Social Class	Age Gap in Turnout *Min* Distance	Age Gap in Turnout *Max* Distance	Delta between Age Gaps within Class
Middle Class	35%	25%	**10**%
Routine Non-Manual	42%	8%	**34**%
Self-Employed	45%	23%	**22**%
Working Class	50%	9%	**41**%

In Table 4.3 we report the differences in the probability of voting between individuals aged 80 and 20, computing the Marginal Effects at the Means depicted in Figure 3. All the age gaps are statistically significant, as the 95% Confidence Intervals do not overlap.

Starting with the Middle class, we can see how the gap in the probability of voting between old and young is 35% under conditions of minimum empirical distance. With maximum empirical distance, this gap decreases to 25%, resulting in a delta of 10%. The Routine Non-Manual class has unexpected findings: the age gap in probability of voting is 42% under ideological convergence, and only 8% with maximum distance: a 34% delta. The age gap for the Self-Employed class is 45% under convergence and 23% under divergence: a 22% delta. Finally, the Working class has a stark 50% age gap in probability of voting between its younger and older members under convergence, reducing to 9% under divergence. The delta for the Working class is therefore a particularly pronounced 41%.

With respect to Hypothesis 4a, the findings are clear: ideological convergence is extremely damaging to the probability of voting for younger people in the working class, as indicated by the 41% delta between the age gaps at the extreme points of distance. This is four times as large as the one for the middle class. For Hypothesis 4b the findings are less clear-cut, as the Self-Employed intermediate fall between the Middle and Working classes, though they are still substantially different from the Middle class. The Routine Non-Manual finding is unexpected: while it exhibited limited sensitivity to convergence in Figure 2 and behaved similarly to the Middle class, when we include age in the

interaction it actually behaves more like the Working and Self-Employed classes, showing a delta in age gaps within its class that is actually higher than the Self-Employed. We consider this further in the conclusions.

Values as Mediators

Finally, we examine the role of values as mediators of the relationship between ideological distance, social class, and age. To assess this role, we first test the impact on turnout of Left-Right values (Model IV), Liberal-Authoritarian values (Model VI), and both types of values in Model VI. In the first column we report the odds ratios for the three-way interactions in Model III as a baseline, which are therefore identical to those in the last column of Table 4.2. We include tests for joint statistical significance in order to test the mediating role of values. These tests are consistently above 10 for Models IV to VI, corroborating the role of ideological values as mediators. Having assessed the impact that respondent's values have on voter turnout, we conduct a formal mediation analysis.

Table 4.4 – Ideological Values as Mediators

	III	IV	V	VI
Ideological Distance, Age, and Class				
Ideological Distance, Age, and Routine Non-Manual (EGP IIIa, IIIb)	0.9993**	0.9990*	0.9994$^+$	0.9993
	(0.0003)	(0.0004)	(0.0003)	(0.0004)
Ideological Distance, Age, and Self-Employed (EGP IVa,IVb,IVc)	0.9997	0.9998	0.9999	0.9997
	(0.0005)	(0.0005)	(0.0005)	(0.0006)
Ideological Distance, Age, and Working Class (EGP V,VI,VIIa,VIIb)	0.9994***	0.9993$^+$	0.9993*	0.9995
	(0.0002)	(0.0004)	(0.0003)	(0.0004)
Economic Left-Right values (Baseline: Left)		1.046*		1.042*
		(0.021)		(0.022)
Social Liberal-Authoritarian values (Baseline: Libertarian)			0.870***	0.872***
			(0.022)	(0.023)
Observations	26,410	19,172	20,232	18,595
Pseudo-R^2	9.03%	9.72%	10.17%	10.19%
χ^2 for Value Coefficients		11.57	31.61	40.98
Prob>χ^2		0.001	0.000	0.000

Robust Standard Errors in parentheses
$^+ p < 0.10$ * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

We start with Left-Right values (Model IV). Examining the odds ratios, we find that each additional increase in Left-Right values is associated with a 4.6% higher turnout, significant at the p<0.05 threshold. Therefore, respondents with anti-redistributive preferences are more likely to vote than

those with pro-redistributive preferences. Turning to Model V, we can see how additional increases in the Liberal-Authoritarian scale decrease turnout by 13% (p<0.001), showing that respondents with socially authoritarian values are considerably less likely to vote than those with more liberal positions. In Model VI, we include the positions of respondents on both the Left-Right and Liberal-Authoritarian dimensions. Here, the probabilities of voting associated with each value scale do not change meaningfully from Models IV and V, suggesting that their effects on electoral participation are independent.

Having established that both economic and social values affect electoral participation, we next examine how each type of value affects the probability of voting of the different age-class groups. To do so, we present a formal mediation analysis using the KHB decomposition method (Breen, Karlson, Holm, 2013). We report the indirect effects in Table 4.5, expressed as a percentage of the total effect exerted by the three-way interactions on voter turnout.

Table 4.5 – Karlson, Holm, Breen Mediation Analysis

Social Class	Left-Right IV	Liberal-Authoritarian V	Both VI
Middle Class	0.74**	0.4+	1.20***
Routine Non-Manual	-0.17	-0.15	-0.34
Self-Employed	0.84*	-1.04**	-0.13
Working Class	-1.87**	-1.71***	-3.35***

Results from mediation analysis using Karlson, Holm, Breen de-composition method.
Mediating Effects expressed in pp., relatively to the coefficients of the three-way interactions.
$^{+}p < 0.10$ * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Again, we present the mediation effects for the Left-Right and Liberal-Authoritarian values first separately (Models IV, V) and then jointly (Model VI).[20] The value scales mediate the effects for the

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[20] Note that the values of Models IV and V do not add up to that of Model VI, as they have been estimated on the sample sizes of 19,172, 20,232, and 18,595 to match the models presented in Table 4.4.

three-way interactions between ideological distance, social class, and age consistently throughout Models IV, V, VI, the findings are thus consistent with Hypotheses 5a, 5b, and 5c.[21]

In more detail, we can see that for the Middle class both Left-Right and Liberal-Authoritarian values have a positive mediating effect on turnout, resulting in an overall positive and significant (p<0.01) effect. There is an opposite and symmetric pattern for the Working class: for whom values on both dimensions have a *negative* mediating effect on turnout, resulting in a negative and statistically significant effect (p<0.001) when they considered together (Model VI). We can infer that convergence between the Labour and Conservative parties leaves the Working class deprived of choice on both value dimensions, decreasing their probability of voting.

The picture for the Self-Employed is more complex: as reported in Table 4.4, right-wing economic values are associated with higher turnout, while authoritarianism is associated with lower turnout. The KHB analysis shows that the mediating effect of the Self-Employed's Left-Right values boosts turnout, while their position on the Liberal-Authoritarian scale decreases it. When the two value dimensions are entered simultaneously (*Model VI*) the effect of being Self-employed is no longer statistically significant. In other words, the probability of the Self-Employed voting is affected by two opposing forces: it is boosted by their right-wing economic values, and simultaneously depressed by their social authoritarianism.

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[21] Note that no mediator has an effect larger that 3.35% in absolute value. While this magnitude is limited, it should not be a cause of concern: these effects represent differences relative to the coefficients for the three-way interactions with two continuous variables. As we have seen above, even a 0.006% statistically significant difference can ultimately result in a 60% difference when examining extreme cases. For this reason, we do not focus on the magnitude of the effects, but rather on their sign and statistical significance.

4.5 Discussion and Conclusion

This study advances our knowledge of cleavages in voter turnout. Integrating theories from class non-voting and political socialisation, we have provided a theoretical framework to explain how ideological convergence affects the probability of voting through the interactive effect of social class and age. We have argued that impressionable years and ideological mismatch combine in depressing voter turnout. As a result, when levels of ideological distance between the main parties decrease it disproportionately affects the probability of younger individuals voting within the Working and the Self-Employed classes, as they do not have established participation habits to mitigate the impact of the ideological mismatch.

We have provided support for our argument using combined data from BSA, BES, and MARPOR. Our hypotheses are supported by the empirical analysis, except for Hypothesis 4b, regarding the coefficient of the three-way interaction between Distance, Age, and being Self-Employed, which is not significantly different from the Middle class. However, the Marginal Effects at the Means show how the differences in probability of voting between the young and the old within the Self-Employed classes under convergence are large (45%) and statistically significant. Therefore, the lack of statistical significance for the coefficient of the three-way interaction is likely to be due to the variables of age and ideological distance being continuous, thus hiding large differences which become evident once we examine it more in depth with predicted probabilities. Also, of course, the lack of statistical significance for the three-way interaction may be due to the limited size of the Self-Employed class.[22]

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[22] There were only 2,210 observations for the Self-employed, 8.37% of the sample, compared with the 40.2% for the Working class.

Unexpectedly, also, party ideological distance impacts on younger members of the Routine Non-Manual class, whereas the class as a whole exhibited a limited sensitivity to ideological convergence. This results from older members of the Routine Non-Manual class not reacting at all to ideological convergence, while young members show strong sensitivity. This may be driven by stronger ideological differences between age groups within the Routine Non-Manual class. To further explain this unexpected result, we regress both economic Left-Right and social Liberal-Authoritarian values on the interaction between age and class, plus the other socio-demographic controls. For purposes of brevity, we report these findings and the associated Marginal Effects at the Means in Table D.1 and Figure D.2 in the Appendix. Both regression results and the MEM show how there is a large ideological divide within the Routine Non-Manual class: younger members of the RNM are considerably more economically left-wing than the older members of the same class. This explains the strong difference in sensitivity to ideological convergence displayed by younger and older members of the Routine Non-Manual class.

To understand why ideological convergence has these effects, we have also identified the mechanisms through which it can affect voter turnout. Our thesis is that convergence towards consensus by the Labour and Conservative parties results in a lack of representation for respondents holding redistributive and authoritarian values. It follows that the Working class, which has been traditionally associated with support for redistribution and social authoritarianism, is the group that votes least under conditions of ideological convergence. In contrast, the Middle class votes the most under such conditions as it is closest to the so-called 'liberal consensus' on both economic and social dimensions and is the least affected by ideological mismatch. The intermediate case is that of the right-authoritarian position, held most clearly by the Self-Employed: representation on the economic right boosts their turnout, while the lack of representation on the liberal-authoritarian dimension decreases it. The clash between these two means they fall between the Working and Middle classes in their responsiveness to ideological convergence.

Our findings highlight how ideological convergence can act as a powerful vehicle of political inequality: on one hand, it drives gaps in turnout between young individuals across social classes by up to 20%. In this case, social stratification extends to political participation, depressing the participation of one of the most disadvantaged sections of British society. On the other hand, it drives gaps in turnout between young and old individuals, with this gap reaching up to 50% within the Working class. Considering age-class groups separately, under ideological convergence young members of the Working class are a staggering 55% less likely to vote than older members of the Middle class. This pattern suggests that occupational stratification combines with demographic stratification in creating cumulative disadvantage in terms of voter turnout. And while political inequalities in participation of these magnitudes are likely to be unhelpful for the health of democracy *per se*, their ramifications may extend to more specific electoral outcomes: when elections are won or lost on a few percentage points, differences in turnout driven by social class and age may be crucial to determine the occupant of 10 Downing Street and resulting policy-making for the duration of the legislature.

Thesis Conclusion

In the introduction, I have set the goal of this thesis: contribute to explore the vicious circle between socio-economic and political inequalities (Acemoglu and Robinson, 2012; Manza, 2015), in order to identify possible public policy solutions to this "*unresolved dilemma of democracy*" (Lijphart, 1997). In this conclusive section, I summarise how each of the Chapters contributes to this goal, assessing their relevance for the theoretical and public policy domains. I conclude by highlighting the limitations of this thesis, and how they orient future work on the relationship between inequalities.

Chapter 1 shows how past unemployment experiences depress electoral participation by 10% overall, in addition to the well-established effects of social class, current unemployment, level of education, and age. This shows how the *scar effects* of unemployment extend also to the realm of electoral participation, on top of the adverse effects on labour market outcomes, family, and health. However, these scar effects vary across contexts. Fittingly with the sociological perspective, social structure plays a key role: the scarring effects are most powerful (up to 17%) when the unemployment rate at the contextual levels is *low*, while they are negligible or non-significant when the unemployment rate at the contextual levels is *high*. The explanation for this counter-intuitive pattern comes from the linked lives perspective: when contextual unemployment is higher, stigma towards the currently or formerly unemployed decreases in society through habituation (Clark, 2003; Oesch and Lipps, 2013; Danckert, 2017; Heggebø and Elstad, 2018), thus weakening the main mechanism driving the adverse effects of unemployment. These findings highlight how the macro-context at the national and sub-national levels (NUTS1, NUTS2) interacts with the characteristics of individuals in shaping their political actions, reflecting the tension in sociology between the micro and the macro levels (Coleman, 1986; Hedström and Swedberg, 1998; Hedström and Bearman, 2009), or between agency and structure (Sewell, 1992; Emirbayer and Mische, 1998; Gecas, 2003; Macmillan, 2006). Therefore, this Chapter contributes to research on the relationship between unemployment and electoral participation through the combination of the social stratification and life course approaches:

it highlights the role of individual development and past experiences, and how their stigmatising impact on electoral participation is moderated by the geo-historical context and the social structure. Furthermore, it shows how different features of unemployment can lead to *both* electoral mobilisation and withdrawal, providing a possible synthesis point to the scholarly debate since Lipset (1959, 1960) and Rosenstone (1982).

However, unemployment is not the only form of labour market disadvantage driving political alienation. Chapter 2 shows how having a limited contract, subjective financial vulnerability, lack of control over job tasks, and lack of influence over organisational policy also depress electoral participation.

The first finding, obtained through Poisson regressions, is that low Socio-Economic Status (SES) is deeply intertwined with precarious work: individuals with lower origin and destination social class, lower education, current unemployment, and members of the bottom decile of the income distribution have on average 4.4 dimensions of precarious work out of 5. In contrast, those with the maximal advantage have on average less than 1 dimension of precarious work. Therefore, precarious work is clearly socially stratified, but it also depresses electoral participation independently from the social class, education, and current labour market position, a pattern present in 21 out of the 32 European countries in the sample. Through logistic regressions with country and year fixed effects, I find that precarious work is the second most powerful determinant of electoral abstention, after education and before social class. Furthermore, precarious work contributes over 30% to the cumulative socioeconomic gradient in electoral participation.

Therefore, Chapter 2 highlights how precarious work provides unique insights into electoral participation: while SES has a well-established and powerful role, the large-scale addition of uncertainty in the labour market (Kalleberg, 2009) compounds the impact of SES on turnout, by blurring industrial and political identities. The difference between SES and precarious work arises clearly when contrasting members of the traditional working class and those of modern precarious

working classes: the former had well-defined industrial identities and typically long tenures, with their labour interests being industrially organised by labour unions and politically represented by social-democratic parties (Lipset and Rokkan, 1967; Korpi, 1983). On the other hand, modern precarious workers are characterised by rapidly shifting jobs and a dire internal competition for permanent contracts (Wright, 2016), which hampers both industrial and political forms of organisation. Therefore, while lower SES has clearly defined drawbacks in turnout terms, precarious work heightens them by impeding industrial agency (Kohn and Schooler, 1983), which translates into a weaker political agency. Coming back to the insight by Standing (2014), industrial denizenship translates into *political* denizenship.

Chapter 3 turns to a precursor of labour market disadvantage: cohort size. By building a framework encompassing Relative Cohort Size and Social Stratification, this chapter shows how a larger group size in the population is not a guarantee of political power, as participatory advantages accrue to those at the top of the social hierarchy. Summarising the findings, we can see how the Ryder (1965) effect dominates the Easterlin (1978) effect: relying on linear regressions with country and year fixed effects, I find that a larger cohort size increases electoral participation from an overall perspective, albeit with a limited effect size (2% of SD in the outcome variable). Beyond the direction of the effect, support for Ryder's (1965) cohort socialisation/solidarity comes from the mediation analysis using the Karlson-Holm-Breen decomposition method (Breen, Karlson, Holm, 2018): income is the least important mediator among the social stratification components, while education is the leading one, suggesting that the key mechanism is the accumulation of civic skills for those with high education. Interacting RCS and social stratification lends further support to this finding: as RCS increases, the increase in electoral participation is concentrated amongst the group with most civic skills, the high-educated (12%) and those in high social classes (14%) (Brady *et al.*, 1995). In contrast, there is no effect driven by income, further disproving the role of the relative income mechanism in shaping the relationship between cohort size and electoral participation. Beyond the empirical

contribution to the study of turnout, the central contribution of Chapter 3 is the development of the Ryder (1965) and Easterlin (1978) hypotheses first through the Civic Voluntarism model (Brady *et al.*, 1995), and secondly by accounting for the differential impact of RCS on social stratification. By taking the perspective of the life course, Ryder's (1965) cohort socialisation is fleshed out with the accumulation of civic skills, which start at birth and take place in the family and education venues. In this way, the mechanism integrates both life course and social stratification perspectives, providing potentially new insights not only for the study of electoral participation, but also for the more "classic" Easterlin outcomes, such as labour market disadvantage, family, and health.

Let us turn to the last empirical Chapter. In this case-study of electoral participation in Great Britain, I show how the increasingly salient age and class cleavages in electoral participation are deeply intertwined. First, logistic regressions confirm the widely-established insight that lower ideological distance between main parties decreases electoral participation (14.7% SD). As posited, this impact is moderated by social class: the decrease in turnout driven by ideological convergence is almost twice as powerful among members of the Working Class (18.40% SD) as opposed to those of the highest class (9.29% SD). The key empirical finding of this paper lies however in the interaction between age and class: while younger members of all classes consistently vote less than their older class peers under ideological convergence, this pattern is inverted while counterfactually simulating higher levels of convergence. The group that is most affected is that of Working Class youth, who are 50% less likely to vote than their older class peers under ideological convergence. As ideological distance is counterfactually brought to the maximum, this gap reduces to 9%, suggesting how ideological convergence is the key driver of political inequality across the class and age cleavages in Great Britain. In Chapter 4, I formally test this mechanism of ideological mismatch through the Karlson, Holm, Breen (Breen, Karlson, Holm, 2013) de-composition method for mediation analysis: the findings highlight how economically left-wing and socially authoritarian values decrease electoral participation, while economic conservatism and social liberalism (the "liberal consensus") both boost

electoral participation. Respectively, those combinations apply to the Working Class (Lipset, 1959) and to the highest class, showing why the former is the one that participates the least, while the latter is the most engaged.

From a theoretical perspective, the central contribution of this Chapter is the development of the ideological mismatch mechanism, which combines the role of values and of turnout habits. Here, joining the perspectives of stratification and life course improves our understanding of the class non-voting phenomenon, and the effects of abstention among youth, showing how not all youth vote less at the same rate, nor all members of the same class do so. Instead, is precisely the notions of ideological mismatch and age-class units that show the detrimental effects of ideological convergence for British democracy, highlighting that political inequality in British elections has a dual character.

Weaving these contributions together, how has this thesis improved the knowledge of the relationship between socio-economic and political inequalities?

First, while socio-economic status is a powerful driver of electoral participation, a broader Weberian concept of class (position in the labour market) allows to identify further drivers of electoral participation: unemployment scarring (Gangl, 2006) and precarious work (Kalleberg, 2009). Therefore, looking only at the quantity of jobs is not a good predictor of political inequality. To prevent the large-scale transformations in the labour market (Polanyi, 1944) from hollowing out democracy, we need also to consider how features of labour arrangements affect political agency. For instance, public policy solutions targeted at cushioning the ill effects of unemployment and at decreasing anxiety in the workplace ensuring greater stability in contracts may be a first step in fostering both industrial and political citizenship.

Secondly, the life course perspective can be used to shed light on existing debates by joining different themes, or to innovate the understanding of electoral participation through longitudinal,

intergenerational, and comparative perspectives. This Life Course approach shows how demographic characteristics (Ch. 3) or political drivers (Ch. 4) can affect the development of individuals on the basis of their education (Ch. 3) and destination social class (Ch. 4). From here, it emerges that electoral participation is developmental (Plutzer, 2002), suggesting potential policies to mitigate political inequality among age-classes: invest in education not only to directly foster social mobility, but also to raise political citizens, able to pursue their interests from a formal electoral standpoint. This, potentially coupled with compulsory voting for individuals under 30, would constitute an integrated "demand and supply" approach to boost turnout, until it is solidly formed as a habit.

So, joining the social stratification and life course approaches does not only shed new light on electoral participation, but suggests directions for public policy to address this link, which are here reported *in nuce*. After having examined the contributions, what are, however, the limitations of this thesis?

A first is that I have focused primarily on the discovery of correlations between social stratification/life course, without delving explicitly on causality. By relying on repeated cross-sections such as the European Social Survey, it is not possible to observe in a temporally well-defined way the impact of, *e.g.*, job loss or an increase in precarity on electoral participation for the very same respondents. The measures I have relied upon reflect the presence of past experiences of unemployment on electoral participation, without being able to compare turnout before and after the experience for the same respondents. While this limit prevents me from making claims of gold-standard causal identification, relying on a cross-national repeated cross-section was a purposeful choice: my primary goal was to integrate theoretical perspectives across different fields of research on how electoral participation varies across countries, regions, and social groups. Overall, this thesis has analysed electoral participation for over 30 countries and 170 regions in Europe and in its vicinity, something that could have not been achieved with panel data. Therefore, the choice of a repeated

cross-section reflects greater interest in a multi-level and interdisciplinary study of electoral participation, as opposed to approaching causality using single-country panel data studies. However, after this process of discovery (Goldthorpe, 2015), I envisage future research to enquire deeper on the causal processes linking social stratification and the life course to electoral participation. More specifically, this could be done by analysing the impact of unemployment spells on electoral participation using longitudinal panel data studies, and using individual fixed effects to remove unobserved heterogeneity at the individual level. In terms of datasets, these analyses would rely on the Socio-Economic Panel for Germany, the Swiss Household Panel Survey, the Longitudinal Internet Study for Social Sciences in the Netherlands, and the British Household Panel Survey/Understanding Society for the United Kingdom. Therefore, the first direction for future research arising from this thesis is to examine the mechanisms linking social stratification to electoral participation, with the goal of approaching causality as much as possible in a non-experimental research design.

A second limitation, which applies mainly to Chapter 4, is the long-standing Age-Period-Cohort problem (Glenn, 1976): as the three are perfectly multicollinear in a temporally limited dataset, it is very difficult, if not impossible (Luo, 2013), to estimate them simultaneously. In Chapter 4, we rely on British Social Attitudes and British Election Studies for the 1983-2017 period, which could be in principle long enough to disentangle Age and Cohort, while keeping Period fixed. The issue associated with this is that Cohort data is unbalanced: for obvious reasons, those born in the 1980s and 1990s will not be eligible to vote in the 1980s, while individuals born in the 1910s will be a considerably smaller proportion of the population in the 2010s relatively to the 1980s. Therefore, I relied on Age as it is more well-balanced (individuals aged 20 are present in both 1983 and 2017, as for those aged 80). Yet, I cannot claim that the turnout effects are exclusively driven by Age: they are most likely a combination of Age and Cohort. To address this issue more carefully, future research may focus on datasets with a long tenure, such as the German Election Study (1949 – ongoing),

British Election Study (1967 – ongoing), and the Italian National Election Study (1968 – ongoing). Thanks to these datasets, it may be possible to observe a considerable number of cohorts ageing from under 30 to over 50, and thus being able to disentangle at least partially the effects of Age and Cohort, while keeping Period effects fixed. While the previous directions of future research both focus on turnout, the third and broadest direction is instead horizontal. This thesis has highlighted how social stratification and life course dynamics have a powerful impact on electoral participation. However, electoral abstention may be only a symptom of a broader malaise. As found by Giustozzi and Gangl (2018), unemployment scarring leads to lower trust in political institutions: together with the scar effects on turnout shown in Chapter 1, this suggests that labour market disadvantage may be driving a wide-ranging disengagement. Therefore, this horizontal direction of future research will focus on understanding the relationship between labour market disadvantage and three mainstays of the research in Political Sociology (Amenta *et al.*, 2016): trust in the nation-state, civic participation, and socio-political orientations. I will briefly outline how the combined approaches of social stratification and life course can shed new light on these outcomes, and subsequently conclude this thesis.

A first research project may focus on the relationship between unemployment scarring and trust in different national institutions. Again, theoretical guidance comes from Weber (2009 [1922]): the key components of the liberal-democratic state are first, its parliamentary arenas, where politicians nested within parties compete for rational-legal authority, sanctioned by the mass suffrage of citizens (Breiner, 2012). The second key component of the Weberian state is on the other hand the monopoly over the use of force, represented by the judiciary and police institutions. In this setting, a similar set of mechanisms linking past unemployment experiences to electoral participation may drive the scar effects of unemployment not only on trust in political institutions as found by Giustozzi and Gangl (2018), but to the broader set of legislative, executive, and judiciary branches of the nation-state, suggesting a comprehensive detachment from national institutions. Preliminary results from the European Social Survey (logistic regressions with country and year fixed effects with specification

almost identical to the baseline in Chapter 1) show how the presence of a long unemployment experience (>12 months) consistently decreases trust in the national parliament, trust in political parties, trust in politicians, trust in the police, and trust in the legal system. These preliminary results suggest that unemployment scarring powerfully drives a generalised distrust in the nation-state in a Weberian (2009 [1922]) sense, with potentially dire consequences for the health of democracy.

A second future research project many focus on precarious work and non-electoral forms of socio-political participation. Kalleberg's (2009) account on the resurgence of precarious work in the United States is explicitly rooted the double movement by Polanyi (1944): the shifting tension between flexibility and security in the labour market. Therefore, if a socio-economic *Great Transformation* was met by counter-movements aimed at regulating capitalism (Polanyi, 1944), a broad interest in the relationship between precarious work and democracy should focus on how the former affects participation in civil society. From the theoretical standpoint, examining how precarity in the labour market affects participation in civil society fits with the first of the four main types of research question in social movements research: the relationship between structural change and transformations in social conflict (Della Porta and Diani, 2020). However, the theory does not provide an immediate answer to the question, as there are two competing possibilities. On one hand, precarious work may decrease engagement in civil society, similarly to the documented effects on electoral participation, generalised trust, and trust in the political and legal systems, suggesting a broader pattern of social disengagement. On the other hand, the dissatisfaction of precarious workers with the political system may push them to greater engagement in civil society. Here, preliminary results from the European Social Survey suggest that the effects are mixed: issue-based forms of participation such as membership in an association (Sloam, 2016) are decreased by precarious work, while protest-based forms of participation such as demonstrations (Dalton, 2008) are not affected. This suggests that there is not a dominant effect of precarity on civic participation, and that the issue merits further examination, particularly through an analytical sociology lens (Baldassarri, 2009).

A last direction of future research may focus on the value orientations of these potentially disengaged individuals. At a first glance, it is tempting to link unemployment scarring and precarious work to the rise of ethnonationalist forces across Europe and the Americas (Rydgren, 2017; Norris and Inglehart, 2019). Scholars as Betz (1993, 1994) have identified those left behind by processes of "*social, economic, and cultural modernisation*" (Betz, 1994) as the key constituency of the Radical Right, pressuring for a return a traditional society through cultural protectionism (Oesch, 2008), together with curtailing the roles of supranational entities (Betz and Johnson, 2004), migrants (Betz, 2002), and women (Duncan, Peterson, and Winter, 1997; Altemeyer, 1998). These political forces have seen a further surge across Europe and the Americas in the last decade, with key instances in the Trump Presidency and the 2016 Brexit Referendum (Norris and Inglehart, 2019). Scholars explain this surge in terms of rising socio-economic hardships and status anxiety (Gidron and Hall, 2017). It is therefore plausible that scarring and precarious work follow a similar pattern to labour market disadvantage and economic insecurity broadly conceived (Emmenegger, Marx, and Schraff, 2015; Gidron and Hall, 2017).

Analysing these different outcomes from an overall perspective is highly relevant for contemporary democracies: if unemployment scarring and precarious work do not only depress electoral participation but also drive distrust in the nation-state, wider social disengagement, and support for ethnonationalist forces, this creates a worrying scenario in which labour market disadvantages disrupt the social moorings of individuals, with potentially dire consequences for societies.

In this thesis, I have relied on a framework combining the approaches of social stratification and life course to further explore electoral participation, finding how the former affect the latter powerfully. By expanding this framework to panel data and other socio-political outcomes, this thesis can contribute to a research programme on the "Political Sociology of Inequalities", set to investigate the relationship between socio-economic and political inequalities, pursuing the ultimate goal of fostering socio-political equality to promote societal peace, in the spirit of Aristotle of Stagira.

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APPENDIX A – Chapter 1

Table A.1 – Unemployment Rate Averages, by Country

Country	Unemp. Rate Avg. 2009-2014	Unemp. Rate Avg. 2011-2016
Austria	5.08%	5.35%
Czech Republic	5.97%	6.8%
Germany	5.02%	6.02%
Denmark	7.03%	
Estonia	11.41%	8.55%
Finland	8.17%	8.43%
France	9.67%	10.02%
Great Britain	7.47%	6.6%
Hungary	10.18%	8.63%
Iceland		5.05%
Ireland	13.25%	12.47%
Israel	6.58%	
Italy		11.25%
Lithuania	5.55%	6.38%
Netherlands	13.27%	
Norway	3.3%	3.7%
Poland	9.47%	8.78%
Portugal	13.08%	13.63%
Slovenia	8.32%	8.97%
Spain	22.42%	23.07%
Sweden	7.72%	8.15%
Switzerland	4.28%	4.68%

Table A.2 – Unemployment Rate Averages, by NUTS1

NUTS1	Unemp. Rate Avg. 2009-2014	Unemp. Rate Avg. 2011-2016
Austria		
AT1 - Eastern Austria	6.33%	7.2%
AT2 - Southern Austria	4.58%	4.75%
AT3 - Western Austria	3.6%	3.57%
Germany		
DE1 - Baden-Württemberg	3.85%	3.25%
DE2 - Bavaria	3.62%	2.95%
DE3 - Berlin	11.45%	9.9%
DE4 - Brandenburg	8.68%	6.88%
DE5 - Bremen	7.48%	6.46%
DE6 - Hamburg	5.75%	4.78%
DE7 - Hesse	5.07%	4.3%
DE8 - Mecklenburg-Vorpommern	11.12%	9.1%
DE9 - Lower Saxony	5.53%	4.7%
DEA - North Rhine-Westphalia	6.47%	5.5%
DEB - Rhineland-Palatinate	4.7%	4.0%
DEC - Saarland	6.5%	5.68%
DED - Saxony	9.37%	7.3%
DEE - Saxony-Anhalt	10.48%	8.87%
DEF - Schleswig-Holstein	5.7%	4.75%
DEG - Thuringia	7.68%	6.28%
France		
FR1 - Ile de France	8.6%	8.96%
FR2 - Bassin Parisienne	9.63%	
FR3 - North	13.25%	
FR4 - East	9.73%	
FR5 - West	8.02%	
FR6 - South-West	8.5%	
FR7 - Centre-East	8.23%	
FR8 - Mediterranean	10.87%	
FRB - Centre-Val de Loire		9.97%
FRC - Bourgogne-Franche-Comte		9.27%
FRD - Normandy		9.92%
FRE - Nord-Pas-de-Calais-Picardie		12.65%
FRF - Alsace-Champagne-Ardenne-Lorraine		10.7%
FRG - Pays de la Loire		8.7%
FRH - Brittany		7.82%
FRI - Aquitaine-Limousin-Poitou-Charentes		9.16%
FRJ - Languedoc-Roussillon-Midi-Pyrenees		10.47%
FRK - Auvergne-Rhone-Alpes		8.37%
FRL - Provence-Alpes-Cote d'Azur		10.3%
Great Britain and Northern Ireland		
UKC - North East	9.72%	9.13%
UKD - North West	8.00%	7.03%
UKE - Yorkshire and the Humber	8.63%	7.67%
UKF - East Midlands	7.2%	6.27%
UKG - West Midlands	8.75%	7.55%
UKH - East of England	6.2%	5.42%
UKI - London	8.75%	7.68%
UKJ - South East	5.77%	5.03%
UKK - South West	5.82%	5.08%
UKL - Wales	8%	6.95%
UKM - Scotland	7.34%	6.65%
UKN - Northern Ireland	7%	6.72%
Hungary		
HU1 - Central Hungary	8.13%	7.08%
HU2 - Transdanubia	8.98%	7.15%
HU3 - Great Plain and North	12.87%	11.12%
Italy		
ITC - North-West		8.2%
ITF - South		18.03%
ITG - Islands		18.25%
ITH - North-East		6.85%
ITI - Centre		10%
Netherlands		
NL1 - North	6.23%	7.27%
NL2 - East	5.42%	6.3%
NL3 - West	5.57%	6.43%
NL4 - South	5.35%	5.97%
Poland		
PL1 - Region Centralny	8.12%	
PL2 - Makroregion Poludniowy	9.07%	8.43%
PL3 - Region Wschodni	11.12%	
PL4 - Makroregion Polnocno-Zachodni	9.1%	7.93%
PL5 - Makroregion Poludniowo-Zachodni	10.25%	8.8%
PL6 - Makroregion Polnocny	9.32%	9.32%
Spain		
ES1 - North-West	18.15%	19.5%
ES2 - North-East	15.25%	15.93%
ES3 - Madrid	17.17%	17.68%
ES4 - Centre	22.52%	23.88%
ES5 - East	21.67%	21.6%
ES6 - South	30.43%	31.53%
ES7 - Canary Islands	30.43%	30.53%
Sweden		
SE1 - East Sweden	7.7%	7.43%
SE2 - South Sweden	8.35%	7.92%
SE3 - North Sweden	8.55%	7.87%

Table A.3 – Unemployment Rate Averages, by NUTS2 (Part 1)

NUTS2	Unemp. Rate Avg. 2009-2014	Unemp. Rate Avg. 2011-2016
Austria		
AT11 - Burgenland	4.42%	4.73%
AT12 - Lower Austria	4.63%	4.93%
AT13 - Vienna	8.88%	9.7%
AT21 - Carinthia	4.95%	5.38%
AT22 - Styria	4.45%	4.5%
AT31 - Upper Austria	3.85%	3.92%
AT32 - Salzburg	3.22%	3.23%
AT33 - Tyrol	3.05%	3.05%
AT34 - Vorarlberg	4.22%	3.67%
Czech Republic		
CZ01 - Prague	3.18%	2.88%
CZ02 - Central Bohemia	4.93%	4.43%
CZ03 - Southwest	5.35%	4.71%
CZ04 - Northwest	9.98%	8.5%
CZ05 - Northeast	7.25%	6.4%
CZ06 - Southeast	6.92%	6.02%
CZ07 - Central Moravia	7.72%	6.53%
CZ08 - Moravian-Silesian	9.53%	8.72%
Denmark		
DK01 - Hovedstaden	7.48%	2.88%
DK02 - Sjælland	6.47%	4.43%
DK03 - Southern Denmark	7.18%	4.71%
DK04 - Midtjylland	6.52%	8.5%
DK05 - Nordjylland	7.17%	6.4%
Finland		
FI19 - Central Finland	8.62%	8.82%
FI1B - Helsinki-Uusimaa	6.45%	6.92%
FI1C - South Finland	8.5%	8.82%
FI1D - Northeast Finland	9.9%	9.9%
France		
FR10 - Ile de France	8.6%	
FR21 - Champagne-Ardenne	10.22%	
FR22 - Picardie	10.73%	
FR23 - Haute-Normandie	10.48%	
FR24 - Centre	8.8%	
FR25 - Basse-Normandie	8.5%	
FR26 - Bourgogne	9.28%	
FR30 - Nord-Pas-de-Calais	13.25%	
FR41 - Lorraine	11.05%	
FR42 - Alsace	8.7%	
FR43 - Franche-Comte	8.88%	
FR51 - Pays de la Loire	8.4%	
FR52 - Bretagne	7.15%	
FR53 - Poitou-Charentes	8.88%	
FR61 - Aquitaine	8.78%	
FR62 - Midi-Pyrenees	8.43%	
FR63 - Limousin	7.27%	
FR71 - Rhone-Alpes	8.23%	
FR72 - Auvergne	8.18%	
FR81 - Languedoc-Roussillon	13.18%	
FR82 - Provence-Alpes-Cote d'Azur	9.85%	
FRB0 - Centre-Val de Loire		8.97%
FRC1 - Bourgogne		9.52%
FRC2 - Franche-Comte		8.95%
FRD1 - Lower Normandy		8.68%
FRD2 - Upper Normandy		10.9%
FRE1 - Nord-Pas-de-Calais		13.53%
FRE2 - Picardy		10.85%
FRF1 - Alsace		9.32%
FRF2 - Champagne-Ardenne		11.2%
FRF3 - Lorraine		11.62%
FRG0 - Pays de la Loire		8.7%
FRH0 - Brittany		7.82%
FRI1 - Aquitaine		9.38%
FRI2 - Limousin		7.73%
FRI3 - Poitou-Charentes		9.32%
FRJ1 - Languedoc-Roussillon		12.83%
FRJ2 - Midi-Pyrenees		8.54%
FRK1 - Auvergne		8.4%
FRK2 - Rhone-Alpes		8.3%
FRL0 - Rhone-Alpes-Cote d'Azur		10.3%

Table A.4 – Unemployment Rate Averages, by NUTS2 (Part 2)

NUTS2	Unemp. Rate Avg. 2009-2014	Unemp. Rate Avg. 2011-2016
Hungary		
HU10 - Budapest	8.13%	
HU21 - Central Transdanubia	8.82%	6.85%
HU22 - Western Transdanubia	7.52%	5.6%
HU23 - Southern Transdanubia	10.95%	9.4%
HU31 - Northern Hungary	14.5%	11.75%
HU32 - Northern Great Plain	13.83%	12.45%
HU33 - Souther Great Plain	10.3%	9.05%
Ireland		
IE01 - Border, Midland, Western	14.47%	
IE02 - Southern and Eastern	12.82%	
Italy		
ITC1 - Piedmont		9.68%
ITC2 - Aosta Valley		7.87%
ITC3 - Liguria		9%
ITC4 - Lombardy		7.43%
ITF1 - Abruzzo		11.33%
ITF3 - Campania		19.67%
ITF4 - Apulia		18.2%
ITF5 - Basilicata		13.88%
ITF6 - Calabria		20.65%
ITG1 - Sicily		19.9%
ITG2 - Sardinia		16.62%
ITH1 - Bolzano-Bozen		3.95%
ITH2 - Trent		6.25%
ITH3 - Veneto		6.72%
ITH4 - Friuli-Venezia Giulia		7.18%
ITH5 - Emilia-Romagna		7.25%
ITI1 - Tuscany		8.6%
ITI2 - Umbria		9.58%
ITI3 - Marche		9.57%
ITI4 - Latium		11.12%
Netherlands		
NL11 - Groningen	6.78%	7.98%
NL12 - Friesland	6%	7.05%
NL13 - Drenthe	5.8%	6.68%
NL21 - Overijssel	5.5%	6.35%
NL22 - Gelderland	5.07%	5.9%
NL23 - Flevoland	7.07%	8.23%
NL31 - Utrecht	4.8%	5.6%
NL32 - North Holland	5.32%	6.03%
NL33 - South Holland	6.23%	7.28%
NL34 - Zeeland	3.65%	4.38%
NL41 - North Brabant	5.17%	5.9%
NL42 - Limburg	5.75%	6.17%
Norway		
NO01 - Oslo og Akershus		3.93%
NO02 - Hedmark og Oppland		3.45%
NO03 - Sør-Østlandet		4.12%
NO04 - Agder og Rogaland		3.55%
NO05 - Vestlandet		3.47%
NO06 - Trøndelag		3.48%
NO07 - Nord-Norge		3.32%

Table A.5 – Unemployment Rate Averages, by NUTS2 (Part 3)

NUTS2	Unemp. Rate Avg. 2009-2014	Unemp. Rate Avg. 2011-2016
Poland		
PL11 - Łódzkie	9.55%	8.93%
PL12 - Mazowieckie	7.42%	
PL21 - Małopolskie	9.45%	8.7%
PL22 - Slaskie	8.8%	8.25%
PL31 - Lubelskie	10.08%	9.71%
PL32 - Podkarpackie	12.62%	12.53%
PL33 - Swietokrzyskie	12.2%	11.57%
PL34 - Podlaskie	9.13%	8.53%
PL41 - Wielkopolskie	8.32%	7.37%
PL42 - Zachodniopomorskie	10.67%	9.23%
PL43 - Lubuskie	9.43%	7.92%
PL51 - Dolnośląskie	10.58%	9.1%
PL52 - Opolskie	9.25%	7.92%
PL61 - Kujawkso-Pomorskie	11.67%	10.22%
PL62 - Warminsko-Mazurskie	10%	10.02%
PL63 - Pomorskie	8.72%	8.15%
Portugal		
PT11 - North	14.07%	10.22%
PT15 - Algarve	14.7%	14.35%
PT16 - Centro	9.68%	10.22%
PT17 - Lisbon Metropolitan Area	14.37%	15.02%
PT18 - Aientejo	13.58%	14.17%
Spain		
ES11 - Galicia	18.2%	19.67%
ES12 - Pr. of. Asturias	19.02%	20.25%
ES13- Cantabria	16.43%	17.57%
ES21 - Basque Community	13.82%	14.72%
ES22 - Navarre	14.25%	14.85%
ES23 - La Rioja	17.12%	17.48%
ES24 - Aragon	17.58%	18.07%
ES30 - Madrid	17.17%	17.68%
ES41 - Castile-Leon	18.17%	18.88%
ES42 - Castile-La Mancha	25.13%	26.75%
ES43 - Extremadura	27.58%	29.75%
ES51 - Catalonia	19.83%	19.9%
ES52 - Valencian Community	24.78%	24.7%
ES53 - Balearic Islands	20.9%	19.77%
ES61 - Andalucia	31.42%	32.65%
ES62 - Region of Murcia	25.23%	25.43%
ES63 - Ceuta	28.97%	30.65%
ES70 - Canary Islands	30.4%	30.53%
Sweden		
SE11 - Stockholm	6.9%	6.82%
SE12 - East Middle	8.85%	8.28%
SE21 - Smaland and Islands	7.38%	6.75%
SE22 - South	9.33%	9.4%
SE23 - West	8%	7.3%
SE32 - Middle Norrland	8.5%	7.61%
SE33 - Upper Norrland	8.12%	7.22%

Table A.6 – Unemployment Scarring and Rates, at the Country, NUTS1 and 2 levels (Full)

	Country Baseline	Country Interactions	NUTS1 Baseline	NUTS1 Interactions	NUTS2 Baseline	NUTS2 Interactions
Unemployment Scarring - Baseline: No Scar						
Short Scar (>3 Months)	0.861***	0.685***	0.889**	0.697***	0.848***	0.674***
	(0.028)	(0.030)	(0.037)	(0.045)	(0.030)	(0.040)
Long Scar (>12 Months)	0.825***	0.585***	0.813**	0.594***	0.821**	0.604***
	(0.044)	(0.062)	(0.060)	(0.066)	(0.052)	(0.072)
Unemp. Rate, 5-Years Average	1.041	1.032	1.031**	1.013	1.022*	1.006
	(0.033)	(0.033)	(0.011)	(0.012)	(0.009)	(0.010)
Unemployment Scarring x Unemp. Rate						
Short Scar x Unemp. Rate		1.026***		1.028***		1.025***
		(0.005)		(0.004)		(0.005)
Long Scar x Unemp. Rate		1.037***		1.033***		1.030**
		(0.009)		(0.008)		(0.010)
NUTS Population Size (thousands)			1.000**	1.000**	1.000	1.000
			(0.000)	(0.000)	(0.000)	(0.000)
NUTS Population Density			1.000	1.000	1.000	1.000
			(0.000)	(0.000)	(0.000)	(0.000)
NUTS GDP per capita - PPP			1.003	1.002	0.999	0.999
			(0.002)	(0.002)	(0.002)	(0.002)
Social Class (ESEC) - Baseline: Large Emps. and Higher Mgrs/Professionals						
Higher Supervisors and Lower Mgrs/Professionals	0.887**	0.887**	0.878*	0.878*	0.860*	0.859*
	(0.040)	(0.040)	(0.045)	(0.045)	(0.057)	(0.056)
Intermediate Occupations	0.873*	0.876*	0.867	0.870	0.802**	0.803**
	(0.048)	(0.048)	(0.074)	(0.076)	(0.062)	(0.063)
Small Employers and Self-Employed	0.669***	0.673***	0.650***	0.658***	0.696**	0.701**
	(0.052)	(0.052)	(0.073)	(0.075)	(0.077)	(0.077)
Small Employers and Self-Employed (Agri.)	0.700***	0.704***	0.613***	0.617***	0.656***	0.659***
	(0.064)	(0.065)	(0.062)	(0.063)	(0.054)	(0.056)
Lower Supervisors and Technicians	0.666***	0.667***	0.681***	0.684***	0.643***	0.644***
	(0.025)	(0.026)	(0.031)	(0.031)	(0.037)	(0.037)
Lower Sales and Service	0.609***	0.610***	0.587***	0.588***	0.575***	0.575***
	(0.032)	(0.032)	(0.053)	(0.053)	(0.039)	(0.039)
Lower Technical	0.554***	0.554***	0.541***	0.542***	0.535***	0.535***
	(0.037)	(0.037)	(0.043)	(0.043)	(0.045)	(0.045)
Routine	0.517***	0.518***	0.497***	0.499***	0.511***	0.512***
	(0.032)	(0.031)	(0.044)	(0.044)	(0.038)	(0.038)
Level of Education - Baseline: Less than Lower Secondary (ES-ISCED I)						
Lower Secondary (ES-ISCED II)	1.297***	1.293***	1.430***	1.428***	1.458***	1.457***
	(0.080)	(0.079)	(0.146)	(0.145)	(0.079)	(0.079)
Upper Secondary, Lower (ES-ISCED IIIb)	1.602***	1.597***	1.919***	1.918***	1.886***	1.887***
	(0.145)	(0.143)	(0.217)	(0.215)	(0.151)	(0.149)
Upper Secondary, Higher (ES-ISCED IIIa)	2.144***	2.138***	2.289***	2.299***	2.363***	2.372***
	(0.184)	(0.181)	(0.346)	(0.346)	(0.225)	(0.223)
Advanced Vocational (ES-ISCED IV)	2.449***	2.441***	2.773***	2.772***	2.806***	2.812***
	(0.246)	(0.244)	(0.409)	(0.406)	(0.251)	(0.252)
Lower Tertiary Education (ES-ISCED V1)	2.981***	2.977***	3.321***	3.332***	3.041***	3.050***
	(0.331)	(0.329)	(0.276)	(0.275)	(0.341)	(0.344)
Higher Tertiary Education (ES-ISCED V2)	3.765***	3.759***	4.060***	4.081***	4.239***	4.249***
	(0.498)	(0.495)	(0.857)	(0.859)	(0.564)	(0.566)
Labour Market Position - Baseline: Paid Work						
In Education	1.229*	1.231*	1.283	1.292	1.277	1.285
	(0.118)	(0.118)	(0.234)	(0.235)	(0.189)	(0.190)
Unemployed or Inactive	0.746***	0.739***	0.755***	0.745***	0.784***	0.777***
	(0.038)	(0.038)	(0.063)	(0.062)	(0.043)	(0.043)
Retired	0.781***	0.781***	0.811***	0.811***	0.785***	0.784***
	(0.050)	(0.050)	(0.037)	(0.037)	(0.049)	(0.049)
Sick or Disabled	0.675***	0.681***	0.605***	0.614***	0.682***	0.690***
	(0.038)	(0.038)	(0.041)	(0.042)	(0.042)	(0.042)
Housework or Community Service	0.951	0.949	0.905	0.907	0.891	0.891
	(0.068)	(0.067)	(0.059)	(0.060)	(0.070)	(0.071)
Age	1.034***	1.034***	1.033***	1.034***	1.032***	1.032***
	(0.003)	(0.003)	(0.005)	(0.005)	(0.004)	(0.004)
Religious	1.477***	1.475***	1.439***	1.435***	1.521***	1.521***
	(0.079)	(0.078)	(0.092)	(0.090)	(0.093)	(0.093)
Gender - Baseline: Woman	1.143***	1.144***	1.159***	1.160***	1.173***	1.174***
	(0.045)	(0.045)	(0.050)	(0.049)	(0.056)	(0.056)
Native	2.883***	2.883***	2.681***	2.668***	3.090***	3.081***
	(0.386)	(0.386)	(0.279)	(0.277)	(0.489)	(0.488)
Minority	0.801	0.805	0.747*	0.752*	0.677***	0.683***
	(0.095)	(0.095)	(0.092)	(0.091)	(0.055)	(0.056)
Country and Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo-R^2	13.24%	13.29%	12.36%	12.45%	13.18%	13.24%
BIC	56505	56473	26481	26456	31917	31895
N	62123	62123	30569	30569	35793	35793

Logistic regressions with design weights. Cluster-Robust Standard errors in parentheses. Data: ESS Multilevel, Rounds 7-8 (2014-2016)
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A.7 – Unemployment Scarring and *Yearly* Rates, at the Country, NUTS1 and 2 levels

	Country Baseline	Country Interactions	NUTS1 Baseline	NUTS1 Interactions	NUTS2 Baseline	NUTS2 Interactions
Unemployment Scarring - Baseline: No Scar						
Short Scar (>3 Months)	0.861***	0.719***	0.889**	0.724***	0.848***	0.695***
	(0.0274)	(0.0367)	(0.0370)	(0.0379)	(0.0302)	(0.0357)
Long Scar (>12 Months)	0.825***	0.635***	0.811**	0.620***	0.821**	0.643***
	(0.0439)	(0.0632)	(0.0598)	(0.0679)	(0.0518)	(0.0750)
Yearly Unemployment Rate	1.023	1.012	1.032**	1.015	1.017*	1.003
	(0.036)	(0.036)	(0.012)	(0.013)	(0.008)	(0.010)
Unemployment Scarring x Unemp. Rate						
Short Scar x Yearly Unemp. Rate		1.023***		1.025***		1.023***
		(0.006)		(0.003)		(0.005)
Long Scar x Yearly Unemp. Rate		1.031**		1.030***		1.025**
		(0.010)		(0.008)		(0.008)
NUTS Population Size (thousands)			1.000***	1.000***	1.000*	1.000*
			(0.000)	(0.000)	(0.000)	(0.000)
NUTS Population Density			1.000	1.000	1.000	1.000*
			(0.000)	(0.000)	(0.000)	(0.000)
NUTS GDP per capita - PPP			1.003	1.002	0.999	0.999
			(0.002)	(0.002)	(0.001)	(0.002)
Socio-Demographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Country and Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo-R^2	13.23%	13.27%	12.38%	12.45%	13.17%	13.22%
BIC	56518	56495	26477	26455	31920	31902
N	62123	62123	30569	30569	35793	35793

Logistic regressions with design weights. Cluster-Robust Standard errors in parentheses. Data: ESS Multilevel, Rounds 7-8 (2014-2016)
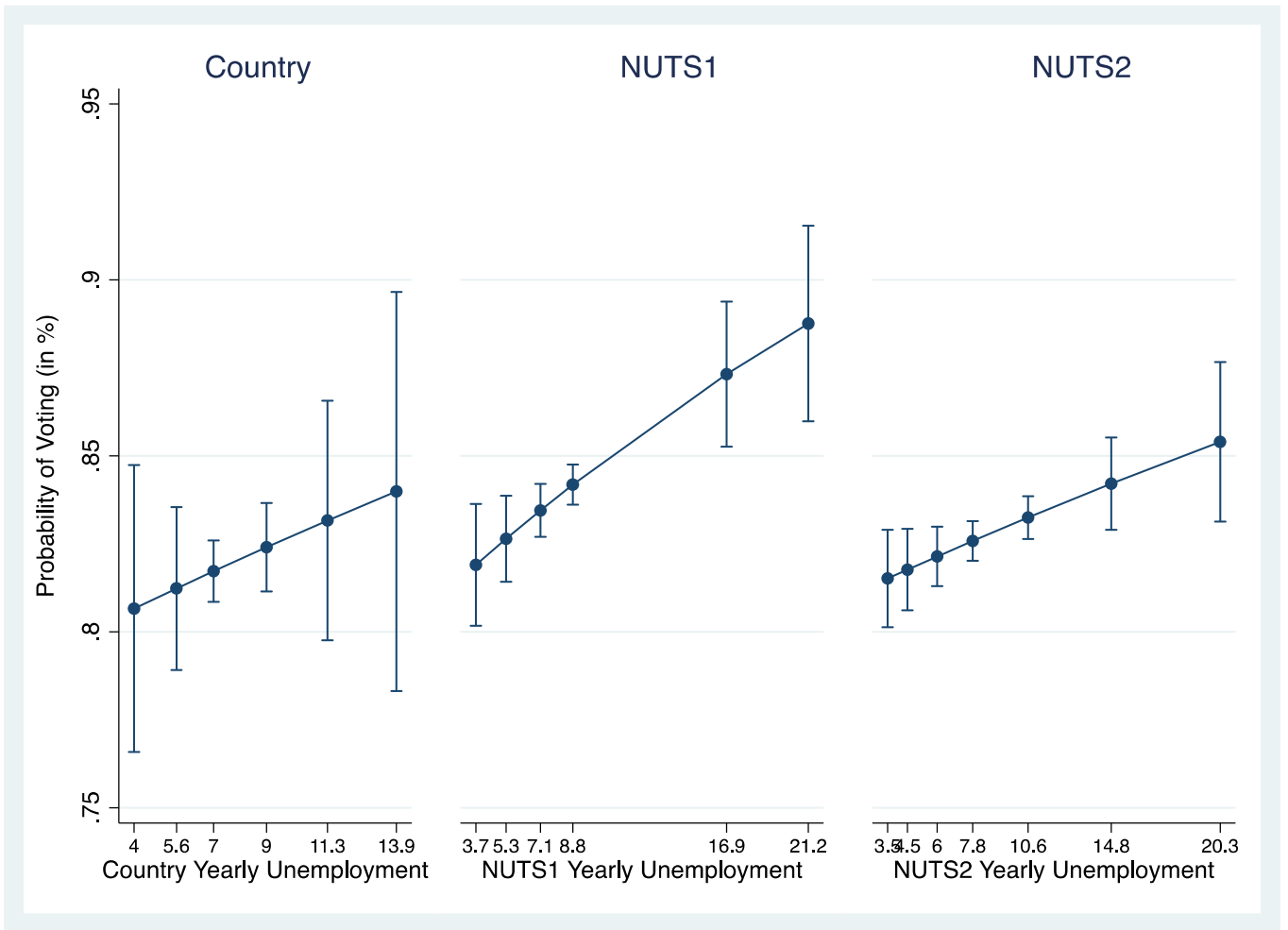* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure A.1 – Probability of Voting, by Yearly Unemployment Rates

Note: Graph depicting Marginal Effects at the Means with 95% Confidence Intervals, computed with STATA 14.2, after the logistic regression in Table A.7 – Columns 1,3,5 with cluster-robust standard errors and design weights. Source: European Social Survey, Rounds 7 and 8. Multilevel datasets, with data on Yearly Unemp. Rates from Eurostat.

Figure A.2 – Probability of Voting, by Yearly Unemployment Rates and Unemployment Scarring
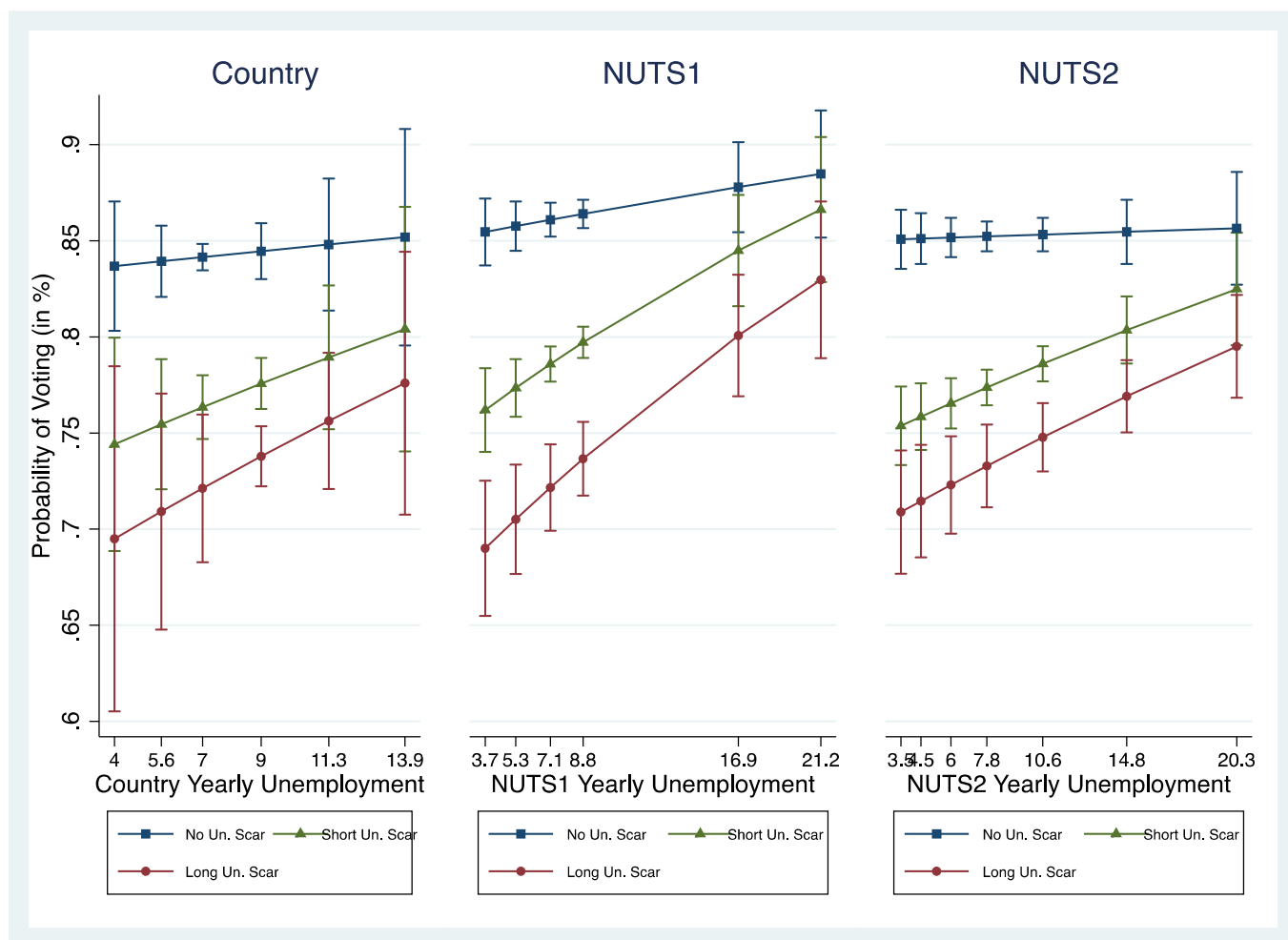
Note: Graph depicting Marginal Effects at the Means with 95% Confidence Intervals, computed with STATA 14.2, after the logistic regression in Table A.7 – Columns 2,4,6 with cluster-robust standard errors and design weights. Source: European Social Survey, Rounds 7 and 8. Multilevel datasets, with data on Yearly Unemp. Rates from Eurostat.

APPENDIX B – Chapter 2

Table B.1 – Logit: Probability of voting regressed on indicators of precarious work, full model

	1	2
Age	0.026***	0.030***
	(0.003)	(0.004)
Female	0.032	-0.041
	(0.076)	(0.073)
Nativity	0.994***	0.973***
	(0.168)	(0.168)
Marital status (Reference = Never married)		
Married	0.396***	0.339***
	(0.051)	(0.037)
Separated/Divorced	-0.125***	-0.110***
	(0.039)	(0.039)
Religiosity	0.124***	0.121***
	(0.023)	(0.022)
Family class (Reference = Professional)		
Higher administration	-0.013	-0.014
	(0.050)	(0.046)
Clerical	0.012	0.019
	(0.103)	(0.099)
Sales	-0.154**	-0.112**
	(0.060)	(0.056)
Service	-0.169	-0.062
	(0.116)	(0.113)
Skilled labour	-0.356***	-0.222***
	(0.095)	(0.084)
Semi-skilled labour	-0.442***	-0.240***
	(0.098)	(0.084)
Unskilled labour	-0.569***	-0.287***
	(0.098)	(0.078)
Farm labour	-0.372**	-0.090
	(0.148)	(0.126)
Parental educational attainment	0.063***	-0.002
	(0.023)	(0.019)
Respondent's educational attainment	.—	0.208***
		(0.018)
Labour market position (Reference = Employed)		
In school	.—	0.270***
		(0.061)
Unemployed	.—	-0.271***
		(0.094)
Disability	.—	-0.475***
		(0.098)
Retired	.—	-0.047
		(0.073)
Other	.—	-0.144***
		(0.041)
Poverty status	.—	-0.196***
		(0.043)
ESEC Class indicator (Reference = Higher manager/professionals)		
Lower managers or professionals	.—	-0.142***
		(0.052)
Intermediate occupations	.—	-0.150***
		(0.051)
Small employers/Self-employed I	.—	-0.447***
		(0.053)
Small employers/Self-employed II	.—	-0.369***
		(0.085)
Lower supervisors and technicians	.—	-0.452***
		(0.038)
Lower sales and service	.—	-0.453***
		(0.062)
Lower technical	.—	-0.551***
		(0.074)
Routine	.—	-0.603***
		(0.059)
Constant	-0.677**	-0.928**
	(0.306)	(0.361)
Country Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
N	132,443	132,443

Logistic regressions with design and probability weights. Cluster-Robust Standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.2 – IV, LPM and Probit: Probability of Voting regressed on extent of precarious work, full model

	First Stage	LPM	Probit
Cumulative precarious work	.—	-0.175**	-0.521***
		(0.077)	(0.191)
Age	-0.006***	0.003***	0.011***
	(0.001)	(0.001)	(0.003)
Female	0.094***	0.010	0.015
	(0.014)	(0.010)	(0.032)
Nativity	-0.128***	0.148***	0.491***
	(0.019)	(0.031)	(0.130)
Marital status (Reference = Never married)			
Married	-0.124***	0.033***	0.128**
	(0.016)	(0.013)	(0.053)
Separated/Divorced	0.020	0.003	-0.012
	(0.016)	(0.007)	(0.023)
Religiosity	-0.022***	0.014***	0.054***
	(0.005)	(0.003)	(0.016)
Family class (Reference = Professional)			
Higher administration	-0.034**	-0.007	-0.009
	(0.015)	(0.008)	(0.035)
Clerical	-0.010	-0.014	-0.051
	(0.016)	(0.010)	(0.038)
Sales	-0.027	-0.029***	-0.095**
	(0.022)	(0.010)	(0.038)
Service	-0.013	-0.032***	-0.117***
	(0.018)	(0.008)	(0.032)
Skilled labour	-0.005	-0.038***	-0.138***
	(0.024)	(0.008)	(0.035)
Semi-skilled labour	0.044*	-0.034***	-0.122***
	(0.025)	(0.011)	(0.042)
Unskilled labour	0.106***	-0.027**	-0.114**
	(0.030)	(0.011)	(0.049)
Farm labour	0.011	-0.021***	-0.077**
	(0.028)	(0.008)	(0.034)
Parental educational attainment	-0.008	-0.002	-0.007
	(0.008)	(0.003)	(0.010)
Respondent's educational attainment	-0.064***	0.013**	0.063**
	(0.007)	(0.006)	(0.026)
Labour market position (Reference = employed)			
In school	0.397***	0.109***	0.309***
	(0.049)	(0.029)	(0.066)
Unemployed	1.246***	0.168*	0.523**
	(0.030)	(0.095)	(0.249)
Disability	0.584***	0.049	0.115
	(0.034)	(0.046)	(0.136)
Retired	0.113***	-0.001	-0.004
	(0.018)	(0.009)	(0.030)
Other	0.378***	0.049	0.150*
	(0.033)	(0.031)	(0.083)
Poverty status	0.477***	0.050	0.146
	(0.030)	(0.036)	(0.099)
ESEC Class indicator (Reference = Higher manager/professionals)			
Lower managers or professionals	0.069***	-0.001	-0.038
	(0.016)	(0.006)	(0.024)
Intermediate occupations	0.408***	0.058*	0.128
	(0.028)	(0.031)	(0.085)
Small employers/Self-employed I	-0.334***	-0.105***	-0.381***
	(0.029)	(0.028)	(0.050)
Small employers/Self-employed II	-0.477***	-0.119***	-0.423***
	(0.057)	(0.040)	(0.089)
Lower supervisors and technicians	0.159***	-0.021	-0.134**
	(0.024)	(0.013)	(0.054)
Lower sales and service	0.729***	0.067	0.144
	(0.048)	(0.056)	(0.162)
Lower technical	0.833***	0.065	0.131
	(0.046)	(0.063)	(0.186)
Routine	1.082***	0.105	0.263
	(0.040)	(0.081)	(0.231)
Ethnic minority	0.202***	.—	.—
	(0.030)		
Mandated costs for worker dismissal	-0.021***	.—	.—
	(0.007)		
Constant	1.460***	0.224	0.660***
	(0.088)	(0.310)	(0.107)
Country Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
N	111,948	111,948	111,948

Logistic regressions with design and probability weights. Cluster Robust Standard errors in parentheses.

$^* p < 0.05$, $^{**} p < 0.01$, $^{***} p < 0.001$

Table B.3 – Logit : Probability of voting regressed on indicators of precarious work conditional on welfare state regime with select controls

Control Variables	
Extent of precarious work	-0.144***
	(0.023)
Age	0.029***
	(0.004)
Female	-0.029
	(0.074)
Native	0.955***
	(0.169)
Marital status (Reference = Never married)	
Married	0.321***
	(0.036)
Separated/Divorced	-0.113***
	(0.038)
Religiosity	0.119***
	(0.022)
Family class (Reference = Professional)	
Higher administration	-0.013
	(0.047)
Clerical	0.020
	(0.100)
Sales	-0.111*
	(0.060)
Service	-0.063
	(0.113)
Skilled labour	-0.217***
	(0.084)
Semi-skilled labour	-0.231***
	(0.084)
Unskilled labour	-0.274***
	(0.082)
Farm labour	-0.092
	(0.128)
Parental educational attainment	-0.001
	-0.000
	(0.020)
Respondent's educational attainment	0.202***
	(0.017)
Labour force position (Reference = Employed)	
In school	0.327***
	(0.064)
Unemployed	-0.174**
	(0.084)
Disability	-0.389***
	(0.095)
Retired	-0.043
	(0.070)
Other	-0.111***
	(0.038)
Poverty status	-0.129***
	(0.045)
ESEC Class indicator (Reference = Higher manager/professionals)	
Lower managers or professionals	-0.137***
	(0.052)
Intermediate occupations	-0.105**
	(0.052)
Small employers/Self-employed I	-0.471***
	(0.052)
Small employers/Self-employed II	-0.425***
	(0.094)
Lower supervisors and technicians	-0.429***
	(0.040)
Lower sales and service	-0.382***
	(0.057)
Lower technical	-0.468***
	(0.065)
Routine	-0.507***
	(0.053)
Constant	-0.753*
	(0.389)
N	132,443

Country	Dummy Coefficient	Product Term Coefficient
Belgium	0.541*** (0.055)	0.120*** (0.009)
Bulgaria	-0.916*** (0.068)	0.192*** (0.010)
Switzerland	-1.126*** (0.055)	-0.041*** (0.009)
Cyprus	-0.725*** (0.046)	0.124*** (0.006)
Czech Republic	-1.112*** (0.047)	0.002 (0.007)
Germany	0.138*** (0.041)	-0.128*** (0.006)
Denmark	1.055*** (0.104)	-0.067*** (0.016)
Estonia	-0.539*** (0.019)	-0.137*** (0.016)
Spain	-0.227** (0.090)	0.167*** (0.012)
Finland	0.005 (0.062)	-0.091*** (0.015)
France	-0.803*** (0.071)	0.005 (0.012)
United Kingdom	-0.597*** (0.054)	0.014*** (0.005)
Greece	-0.059 (0.132)	0.085*** (0.017)
Bosnia-Herzegovina	-0.703*** (0.117)	0.027* (0.015)
Hungary	-0.738*** (0.058)	0.147*** (0.009)
Ireland	-0.383*** (0.056)	0.028*** (0.007)
Israel	-0.016 (0.099)	0.101*** (0.012)
Iceland	0.685*** (0.061)	(0.013)
Italy	-0.277*** (0.038)	0.111*** (0.011)
Lithuania	-1.681*** (0.065)	0.123*** (0.016)
Netherlands	-0.066 (0.053)	0.037*** (0.009)
Norway	0.288*** (0.051)	-0.070*** (0.016)
Poland	-0.987*** (0.055)	0.034*** (0.008)
Portugal	-0.662*** (0.074)	0.019 (0.016)
Russia	-1.232*** (0.082)	0.133*** (0.009)
Sweden	1.036*** (0.090)	-0.080*** (0.020)
Slovenia	-0.896*** (0.039)	0.062*** (0.006)
Slovak Republic	-0.886*** (0.098)	0.125*** (0.010)
Turkey	-0.092 (0.153)	0.106*** (0.015)
Ukraine	-0.672*** (0.132)	0.110*** (0.014)
Serbia	-0.668*** (0.076)	0.124*** (0.024)

Logistic regressions with design and probability weights. Cluster-Robust Standard errors in parentheses.

$* p < 0.05, ** p < 0.01, *** p < 0.001$

APPENDIX D – Chapter 4

Counterfactuals

The results we have reported in Figure 4.3 and Table 4.3 in the manuscript are all calculated using the Marginal Effect at the Means, using 2001 as the average year. We now examine counterfactuals: what would have happened to probability of voting in 2017, if Ideological Distance in that year were as high as 1983, or as low as 2001?

Figure D.1 depicts the MEMs for probability of voting in the Working class in 1983 and 2017. The lines with black circles represent the actual ideological Distance present during that election year: this coincides with 68 in 1983 and 25 in 2017. Focusing first on 1983, we can see how the probability of voting for individuals aged 20 was around 85% at the actual level of distance. Under ideological convergence, as in 2001, the probability of voting for the same group would have been around 45%, resulting in a considerable gap of 40%. Turning instead to 2017, the probability of voting for individuals aged 20 in the working class was slightly above 40%, with a level of ideological distance of 25. Increasing this level to the distance registered in 1983 increases turnout to almost 80%, while decreasing the level of distance to that found in 2001 reduces it to close to 30%. While these counterfactuals focus on the more extreme cases, they are useful to illustrate how younger voters are most responsive to the effects of ideological convergence on turnout.

Figure D.1 – Counterfactuals for Years 1983 and 2017
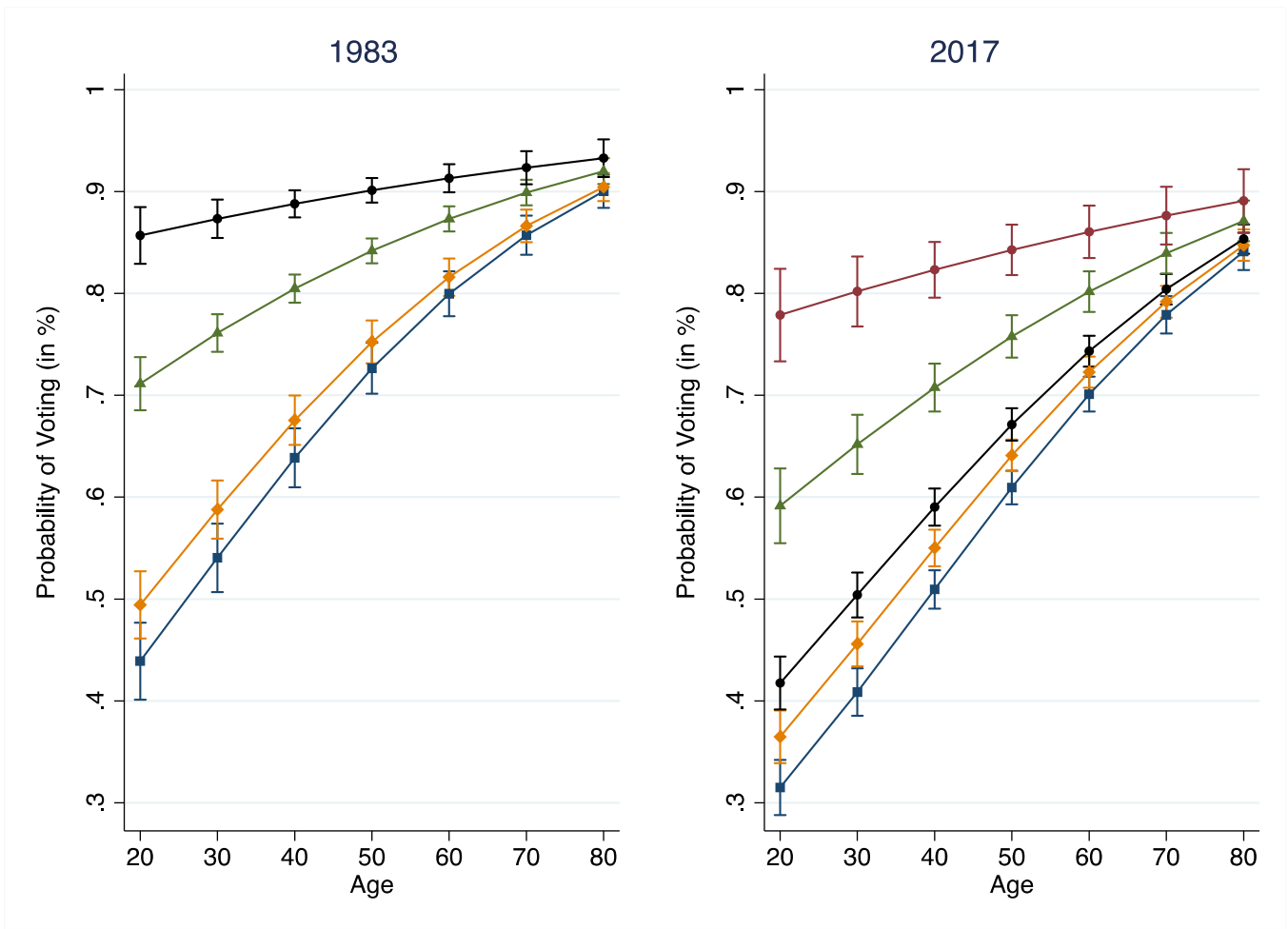
Joint Impact of Age and Class on Citizens' Values

Table D.1 – Values regressed on Age and Class

	Economic Left-Right	Social Liberal-Authoritarian
Social Class (Baseline: Middle Class - EGP I,II)		
Routine Non-Manual (EGP IIIa, IIIb)	-0.380***	-0.169***
	(0.060)	(0.041)
Self-Employed (EGP IVa,IVb,IVc)	0.038	-0.066
	(0.089)	(0.064)
Working Class (EGP V,VI,VIIa,VIIb)	-0.369***	-0.038
	(0.046)	(0.036)
Age	0.000	0.003***
	(0.001)	(0.001)
Age and Class (Baseline: Middle Class - EGP I,II)		
Age and Routine Non-Manual (EGP IIIa, IIIb)	0.004***	0.005***
	(0.001)	(0.001)
Age and Self-Employed (EGP IVa,IVb,IVc)	-0.001	0.004**
	(0.002)	(0.001)
Age and Working Class (EGP V,VI,VIIa,VIIb)	-0.0001	0.004***
	(0.001)	(0.001)
Highest Level of Education (Baseline: Any Tertiary)		
GCE/A-Levels	0.0821***	0.294***
	(0.0186)	(0.0151)
GCSE/O-Levels	0.0344	0.337***
	(0.0209)	(0.0154)
Compulsory Education	-0.239***	0.322***
	(0.0226)	(0.0163)
Religiosity	0.0976***	0.132***
	(0.0135)	(0.00979)
Sex (Baseline - Male)	0.005	-0.063***
	(0.008)	(0.006)
Highest Level of Education (Baseline: Any Tertiary)		
GCE/A-Levels	0.0821***	0.294***
	(0.0186)	(0.0151)
GCSE/O-Levels	0.0344	0.337***
	(0.0209)	(0.0154)
Compulsory Education	-0.239***	0.322***
	(0.0226)	(0.0163)
Constant	2.252	-4.465***
	(1.580)	(0.997)
Observations	22722	23808
Pseudo-R^2	06.09%	10.10%

Robust Standard Errors in parentheses

$^+ p < 0.10$ * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure D.2 – Joint Impact of Age and Class on Citizen's Values