

Generational change in gender gaps in political behaviour and
attitudes: the roles of modernisation, secularisation, and
socialisation



Rosalind Shorrocks

Trinity College, University of Oxford

April 2017

Thesis submitted for DPhil in Sociology

Word count: 46,269

This thesis examines to what extent there are generational differences in gender gaps in political behaviour and attitudes, and what explains this generational variation. Generations differ considerably on factors such as women's role in the family and the workplace, gender inequality, and formative experiences, and I argue this leads to different gender gaps for different generations. I examine such generational variation in gender gaps in vote choice, left-right self-placement, attitudes towards spending and redistribution, and attitudes towards gender-egalitarianism. Broad cross-national trends in Europe and Canada are identified, as well as country-specific patterns using Britain and the US as case studies. This thesis finds that generally, in the countries studied, men are more left-wing than women in older birth cohorts, whilst women are more left-wing than men in younger birth cohorts. This 'gender-generation gap' is produced through processes of modernisation, especially secularisation. In addition to this broad trend, the political context or zeitgeist during a generation's formative years produces gender gaps in both vote choice and attitudes that differ between generations according to this socialisation experience. The influences of modernisation and such political socialisation interact to create complex patterns of generational variation in political gender gaps that differ across political contexts. For example, in the British case, women of younger cohorts are not more left-wing in their vote choice than men. These results suggest that we should focus on gender gaps at the level of generational subgroups in order to fully understand political differences between men and women. Furthermore, they predict that gradually, the gender gap where women are more left-wing than men will grow over time through generational replacement. However, they also indicate that this will not occur in all contexts, and that more work needs to be done to understand how the political context shapes gender gaps.

Contents

Acknowledgements	3
Introduction	5
Chapter 1: Cohort change in political gender gaps in Europe and Canada: the role of modernisation	23
Chapter 2: Modernisation and government socialisation: Considering explanations for gender differences in cohort trends in British voting behaviour	56
Chapter 3: Modernisation versus political generations: gender gaps in support for redistribution and spending in the US and Britain	89
Chapter 4: A feminist generation? Cohort change in gender-role attitudes and the second-wave feminist movement	132
Discussion and Conclusion	159
Appendices	174
Bibliography	211

Acknowledgements

First and foremost, I would like to thank my supervisor, Steve Fisher. It is safe to say that without his encouragement and support this project would never have begun, let alone been completed. He pushed me to aim high and often believed in me more than I believed in myself, and I am very grateful for the many hours he has spent reading drafts and offering advice.

Secondly, I would like to thank all those in the academic community who have offered support, inspiration, and help during this project. This includes particularly Anja Neundorf and Maria Grasso, from whom I have learnt a lot. I would also like to thank Liran Harsgor, an ally in the quest for understanding the gender-generation gap. Thank you also to Roosmarijn de Geus, who's calm belief that we will both one day submit a thesis has kept me going. I also want to extend my thanks for all the conversations I have had at conferences, workshops, and courses which have inspired me to explore new avenues and contributed to the development of the ideas in this thesis.

Thirdly, I would like to thank my parents: Julie, for always listening to my often half-formed ideas, and for being willing to proof-read this (quantitative!) thesis; and Tony, for keeping me well-supplied with cider and pies during my extended period as a student. Thanks also to Eileen and Denis for their love and support, and to Tim for putting up with me.

Fourthly, I would like to thank my friends, especially Laura Pickering and Kate Smith, for always being on hand to listen to all thesis ups and downs, Isabel Raabe, for making the past three years incredibly fun and for never doubting me, and Lotti Trigle, Rob

Acknowledgements

Morton, Charles Whalley, and Chris Hutton for always being interested in this project even when on mountain slopes and wading rivers. Thanks also to everyone else who has made my time in Oxford so enjoyable, especially Anna Barbuscia, Cecilia Potente, Jenny Crane, and Tom Lowenthal. I would also like to thank Charles Evans for his enthusiastic encouragement during the final few months.

Finally, I would like to thank the Economic and Social Research Council for providing the funding for this project.

Introduction

1. Motivation and background

Gender clearly matters for political outcomes. Much has been made of the gender gap in the recent US election: if solely women had voted, Clinton would have won; if it were only men who voted, Trump's victory would have been more resounding. Political gender gaps thus impact election outcomes: if American men were more similar in their political preferences to American women, the US would currently be looking at a very different future. Such gender gaps in vote choice exist across Western countries, albeit in different sizes and directions. The extent to which men and women differ from each other in their political preferences has implications for the types of governments that are in power and the policies that are enacted. Men and women both make up approximately 50% of the population, which means that even small differences between them in their vote choice and political attitudes can have an impact at the ballot box.

The existence of political gender gaps – where women and men differ in their political behaviour, preferences, and attitudes – has implications for representation. In order to assess gender inequality in representation, we need to know how men and women differ on their attitudes and policy preferences. Without this empirical assessment of how men and women differ politically, claims about women's under-representation are based on essentialist assumptions about what 'women's interests' are by assuming that women have homogenous and predictable preferences on certain issues such as abortion and childcare (Allen, Campbell, & Espirito-Santo, 2014). It is thus useful to establish empirically how men and women differ in their preferences and then assess the extent to which these preferences

get represented in male-dominated institutions. Unless we know if and how men and women's preferences differ, the extent to which the under-representation of women in legislatures and governments leads to an under-representation of women's interests cannot be fully known.

Political gender gaps are of interest to political actors. The observation that there is a gender gap in vote choice has led political parties to both attempt to integrate 'women's concerns' into party platforms and to construct aspects of election campaigns specifically aimed at women (Campbell, 2016). Usually this is in response to a gender gap that has been identified amongst the electorate by survey research and quantitative analysis; politicians and parties realise that men and women's preferences differ in certain ways and see this as a reason to target female voters. Political gender gaps are also useful to feminist activists both outside and within party organisations to get serious recognition of women's interests and issues. Female politicians within Britain's Labour party, for example, used the fact that women in Britain tended to vote Conservative at greater rates than Labour to argue for the introduction of measures to increase women's representation within the party (Short, 1996). The recognition of gender differences on certain issues thus leads to a politicisation of gender and influences political actors.

The majority of research on political gender gaps focuses on what I term here the 'aggregate-level gender gap': the on-average difference between all men and all women in political behaviour. In general, this approach to studying political gender gaps finds differences which are both small in magnitude (Allen et al., 2014; Baldez, 2011; Huddy, Cassese, & Lizotte, 2008) and resistant to attempts to explain them through average differences between men and women in socioeconomic position and attitudes. In Western

countries, women tend to be more left-wing than men in political position and vote choice at the aggregate level (e.g. Abendschon & Steinmetz, 2014; Giger, 2009). Although this is a fairly consistent finding, the size of this aggregate-level gap in many countries is fairly small and most analysis at the individual level fails to account for this gender gap through the inclusion of socioeconomic indicators such as labour force participation, income, and religiosity (e.g. Giger, 2009; Inglehart & Norris, 2003). Political gender gaps are therefore important to study but also not well-understand by political scientists.

If, however, there are large differences at the subgroup level, a focus on the aggregate-level gender gap is likely leading to an underestimation of the extent to which there are differences between men and women in their political preferences. Importantly, there are good theoretical and empirical reasons to expect different political gender gaps in different birth cohorts or generations. This thesis explores how gender differences in vote choice and attitudes differ according to cohort and/or generation. I set out two competing theoretical perspectives on why gender gaps differ by cohort and/or generation, and then empirically test hypotheses derived from these two theories using international social surveys and national election studies. Exploring political gender gaps through this lens offers more insights into men and women's political differences, and this has implications for election outcomes, representation, and political actors.

2. Inglehart and Norris: the role of modernisation

The first theoretical perspective was put forward by Ronald Inglehart and Pippa Norris (Inglehart & Norris, 2000, 2003). They take as their starting point the observation that during the immediate post-war era, men were more left-wing than women at the aggregate level. In more recent times, however, women have more often been found to be more left-

wing than men. Inglehart and Norris argue that this is due to developments associated with societal modernisation, especially the transformation of traditional sex roles through secularisation, the increased entry of women into the paid workforce, and declining marriage and increasing divorce rates. They argue that “as women’s lives change in postindustrial societies, we expect that this process will influence broader social values, political attitudes, ideological orientations, and ultimately partisan preferences.” (Inglehart & Norris, 2003:79). As such, the reversal of the aggregate-level gender gap is meant to occur in all ‘postindustrial’ societies – including Western Europe, North America, New Zealand, Australia, and Japan.

A key prediction emerging from this theory is that the gender gap would reverse across “generational cohorts” (Inglehart & Norris, 2003:80). Cohorts born earlier are expected to retain the ‘traditional’ gender gap where men are more left-wing than women, whilst cohorts born later are expected to exhibit the ‘modern’ gender gap, where women are more left-wing than men. This development is thought to be because it is chiefly in these younger cohorts that the rise of female labour force participation, declining marriage rates, and increasing divorce rates occur. These changes are thought to make women economically worse off relative to men in younger cohorts, leading them to be more left-wing. The gender gap thus reverses at the aggregate level because of cohort replacement: older cohorts where men are more left-wing than women are replaced with younger cohorts where women are more left-wing than men. Studying specifically the British context, Norris has termed this phenomenon where we see the traditional gender gap in older cohorts and the modern gender gap in younger cohorts as the “gender-generation gap” (Norris, 1999). I shall refer to this observation as the gender-generation gap for the remainder of this thesis.

The existence of the gender-generation gap, and its causes, are under-researched in the literature on political gender gaps. Only Inglehart and Norris have explored the phenomenon in a cross-national context, and prior to the work presented in this thesis it had only been explored in two other studies both focused on Britain (Campbell, 2006; Norris, 1999) and one unpublished study on the US (Harsgor, 2015). Inglehart and Norris present graphical evidence for the gender-generation gap, showing that for cohorts born before the 1930s men are more left-wing than women, whilst for cohorts born after the 1960s women are more left-wing than men. However, they do not test for an interaction between cohort and gender in a model controlling for country, period, and age, which are all potential confounders for the pattern observed in graphical form. Since they do not include such an interaction in their regression models, they also do not test any explanations for the existence of the gender-generation gap. At the same time, there is inconsistent evidence for the gender-generation gap in Britain and the US.

However, whether there is a gender-generation gap, and why it occurs, is important. Firstly, if there are different gender gaps within different birth cohorts, focusing on the aggregate-level gender gap – as most of the literature, including Inglehart and Norris, does – risks underestimating gender differences. In particular, the traditional gender gap in older cohorts, and the modern gender gap in younger cohorts, could balance each other out leading us to erroneously conclude gender differences are negligible. Secondly, much research examining explanations for the modern gender gap – including by Inglehart and Norris – focuses on it at the aggregate level and then tries to reduce it to statistical insignificance. However, this approach is likely flawed if in fact the greatest gender differences are found within particular cohorts, and if gender differences in older and younger cohorts are related

to different factors and have different explanations. Thirdly, ignoring the generational argument may miss a key part of the explanation for the emergence of the modern gender gap at the aggregate level: generational replacement. As older cohorts with the traditional gender gap are replaced by younger cohorts with the modern gender gap, we can expect to see a growth in the size of the modern gender gap at the aggregate level.

3. Political socialisation: a gendered perspective

The modernisation theory suggests that there is a process occurring across all ‘postindustrial’ – or Western – nations which leads to a gradual reversal of the gender gap across birth cohorts or generations. This thesis also considers an alternative perspective: that gender gaps in political behaviour and attitudes differ across birth cohorts/generations but in a way that is related to political socialisation. This second theoretical perspective draws on Mannheim’s theory of generations, which argues that youth is a formative period, and attitudes and behaviour are shaped by the context within which a generation – or group of individuals born at the same time – spent their youth (Mannheim, 1968). As a result, generations are differentiated from each other in their behaviour and attitudes depending on the political context or national zeitgeist of their formative period.

This theory has been studied from two different perspectives. One strand of the literature has aimed to show that attitudes do indeed crystallise during youth, and then remain more stable for the remainder of the life course (Alwin and Krosnick 1991; Jennings 1989; Jennings and Niemi 1981; Krosnick and Alwin 1989; Sears and Funk 1999). Such studies generally find that attitudes are more variable during youth and become less subject to change after the mid- to late- thirties, although most also argue that attitudes still do change throughout adulthood, especially in response to external ‘shocks.’ A second strand

has aimed to show the existence of ‘political generations’, or generations differentiated from each other on political behaviours and attitudes, depending on the political context within which they grew up. This research has often focused on the impact of the elections and dominant parties during a generation’s youth on subsequent attitudes and behaviour (Ghitza & Gelman, 2014; Goerres, 2008; Smets & Neundorf, 2012; Tilley, 2002; Tilley & Evans, 2014), whilst other studies have found that the generation which spent their formative years during the 1960s and 1970s are particularly likely to engage in unconventional or informal types of political participation (Grasso, 2014, 2016) and that growing up during communist regimes lowers support for democracy and capitalism (Neundorf, 2010; Pop-Eleches & Tucker, 2014). Importantly, this thesis focuses on the socialisation experience of a particular national, political context; I do not focus on familial or parental socialisation, although they are also important in transmitting attitudes to new generations.

This thesis argues that there are certain socialisation contexts that are likely to have different effects on men and women, for two reasons. Firstly, there are differences in political knowledge and interest between men and women, with women generally being found to have lower levels of political interest and knowledge than men (Coffé & Bolzendahl, 2010; Dolan, 2011; Frazer & Macdonald, 2003; Lizotte & Sidman, 2009; Mondak & Anderson, 2004; Schlozman, Burns, & Verba, 1999). It can be argued that for individuals’ attitudes and behaviour to be shaped by political events, they have to be aware of them, and so the gender difference in knowledge and interest could alter the degree to which men and women are influenced by a particular political context. Secondly, some political contexts are likely to be more relevant for women than for men, and vice versa. Within political contexts where gender is particularly salient, women might in fact be more

susceptible to influence than men are. Taking an example from this thesis, the socialisation experience of the second-wave feminist movement of the 1970s in Europe may have been more relevant for women spending their formative years during this period than men, and so have a greater effect on their support for gender-egalitarianism. Different gender gaps in political behaviour and attitudes may thus be produced in different generations, depending on that generation's socialisation context and how it differed in significance for men and women. So far no research has investigated the extent to which socialisation via the political context occurs differently for men and women, and how political gender gaps vary across political generations as a result.

The expectations derived from such a gendered perspective of political socialisation differ from those of the modernisation theory in two ways. Firstly, the modernisation perspective expects a unidirectional change in the gender gap in ideology and vote choice across cohorts, with the gender gap reversing from men being more left-wing than women in older cohorts, to women being more left-wing than men in younger cohorts. However, the political socialisation perspective would suggest that gender gaps differ in different generations but that the gender gap need not necessarily change in such a unidirectional way: women could become more left-wing than men in one cohort, and then reverse to being more right-wing in the next, depending on socialisation context. This has implications for the aggregate-level gender gap: Inglehart and Norris expect the growth of an aggregate-level gender gap where women are more left-wing than men through generational replacement. However, this is not a necessary expectation of the political socialisation perspective because the direction of change in the gender gap across cohorts need not always be the same. Secondly, modernisation would suggest a similar change in the gender gap across cohorts for

all Western countries. Meanwhile, the political socialisation perspective expects that, to the extent that political contexts differ across countries, there will be country-specific shifts in the gender gap across cohorts or generations. The universal predictions made from the modernisation theory thus may not hold.

4. Research questions

This thesis aims to explore how political gender gaps vary with birth cohort and/or generation using the broad theoretical approaches as described above. I will focus on the following two research questions:

- 1) Are there cohort and/or generational differences in political gender gaps?
- 2) Can theories of modernisation and political generations offer explanations for these differences?

My interest in these questions began with a focus on vote choice in Britain – the country where the gender-generation gap has been studied in the most detail but where there is also inconsistent evidence for the phenomenon (Campbell 2006). This research raised further questions for me: firstly, whether there was a gender-generation gap in other countries, and secondly, whether there was generational change in gender gaps in attitudes, and not just in vote choice. The rest of the papers in this thesis emerged from these questions.

5. Outline of the thesis

The thesis has four chapters, written as individual, stand-alone papers. They utilise survey data from the European Values Study, World Values Survey, British Election Study, and American National Election Study, to assess whether there are cohort and/or

generational differences in political gender gaps, and what explains them. The chapters utilise different dependent variables, including vote choice, left-right self-placement, attitudes towards spending and redistribution, and egalitarian gender-role attitudes. I examine vote choice and left-right self-placement because they test the key predictions of Inglehart and Norris' theory, whilst economic attitudes and gender-role attitudes are usually thought to be particularly related to gender gaps in vote choice. For Inglehart and Norris, these attitudes are an important part of the explanation of the gender-generation gap and so merit a more detailed examination.

All four chapters address both research questions, using different dependent variables and different country contexts. The first chapter focuses exclusively on the modernisation perspective in Europe and Canada, directly testing whether the gender-generation gap exists in the countries where, according to Inglehart and Norris, it should be found. The remaining three chapters assess both the modernisation and political socialisation perspectives. Chapters 2 and 3 focus specifically on the British and US cases, taking advantage of two data series very appropriate to studying generational trends in the form of the British Election Study and American National Election Study. These chapters allow for a more detailed consideration of how specific country contexts affect political gender gaps. Chapter 4 broadens the focus to a comparison between Western and Eastern Europe, which had very different trajectories with respect to the second-wave feminist movement resulting in useful variation between these two regions in socialisation context that maybe have influenced attitudes.

5.1. Chapter 1: Cohort change in political gender gaps in Europe and Canada: the role of modernisation

This chapter assesses whether there is a gender-generation gap in left-right self-placement and vote choice in Europe and Canada, and tests predictions generated from Inglehart and Norris' modernisation theory. The chapter finds that there is a gender-generation gap in left-right self-placement and vote choice in almost all European nations and Canada. There is support for Inglehart and Norris' theory that modernisation has led to the gender-generation gap, but it is a specific component of modernisation – secularisation – that is really key. In older cohorts, religiosity is higher, women are more religious than men, and religiosity is especially salient for left-right self-placement and vote choice. This leads women to be more right-wing than men for these cohorts. In younger cohorts, religiosity declines, the gender gap in religiosity declines, and religiosity becomes less salient for left-right self-placement and vote choice. In such secularised younger cohorts, differences between men and women in economic preferences become more salient and this leads women of these cohorts to be more left-wing than men.

5.2. Chapter 2: Modernisation and government socialisation: Considering explanations for gender differences in cohort trends in British voting behaviour.

This chapter has been published as a single-authored research article in *Electoral Studies* (2016): 42: 237-248. doi: 10.1016/j.elecstud.2016.03.004

Chapter 2 focuses just on the gender-generation gap in Britain. Britain is not included in chapter 1 due to data availability issues, but this separate paper also affords the opportunity to use the British Election Study, providing high quality data very appropriate

for the research questions in this thesis. This chapter shows that there is, in fact, no gender-generation gap in the British context. Men in older cohorts are more supportive of Labour than the Conservatives compared to women, but there is no gradual realignment of the gender gap so that women in younger cohorts are more supportive of Labour than men. Instead, government socialisation is important for the changing gender gap in vote choice over generations. Men tend to be more supportive than average of the party that was in power when they were young, but this is not universally the case for women, and this produces different gender gaps in different generations. Thatcher appears to have been particularly polarising for men and women socialised during her premiership: women of this generation are more supportive of Labour than men. However, this gender gap closes for the youngest generation.

5.3. Chapter 3: Modernisation versus political generations: gender gaps in support for redistribution and spending in the US and Britain.

This chapter is part of a larger piece of work co-authored with Dr. Maria Grasso at the University of Sheffield. In this co-authored work, I developed the theoretical arguments and hypotheses and conducted the empirical analysis on the British Election Study and American National Election Study. These are the parts of the joint project that are presented in this thesis.

This chapter examines how the gender gap in attitudes towards redistribution and spending in Britain and the US changes with generations. The modernisation perspective suggests that women should become gradually more left-wing in their economic preferences in younger cohorts. However, this chapter shows that the actual trends in the US and British contexts are more complex. In the US, women of all cohorts born c.1950 are more left-wing

in their preferences for spending and redistribution than men, but the size of this gender gap is fairly stable. In Britain, the gender gap in such attitudes gradually reduces in size, so it is smaller for those socialised during the Thatcher period than in the post-war period (1945-79), and almost non-existent for those socialised during the New Labour period (1997-2010). This shows that the predictions of the modernisation theory do not necessarily hold, once again especially in Britain.

5.4. Chapter 4: A feminist generation? Cohort change in gender-role attitudes and the second-wave feminist movement.

This chapter has been published as a single-authored research article in the *International Journal of Public Opinion Research* (2016): doi: 10.1093/ijpor/edw028

Modernisation theory expects each new cohort to be more egalitarian in their gender-role attitudes and for the gender gap to widen in younger cohorts as younger women become more gender-egalitarian. This is expected to partially contribute to the gender-generation gap in vote choice. As expected, each new cohort is more gender-egalitarian than the previous one, and there is evidence that the gender gap widens for younger cohorts, although only for some indicators of gender-egalitarianism. However, the generation socialised during the second-wave feminist movement in Western Europe are unusually egalitarian once their lower rates of education and higher rates of religiosity (relative to younger cohorts) are accounted for. There is some inconsistent evidence that the experience of growing up during the second-wave feminist movement had a stronger impact on women's attitudes compared to men's.

6. Methodology

All the chapters presented in this thesis focus on cohort and/or generational change in political gender gaps. As a result, they all use methods from the age-period-cohort (APC) literature. Here, I briefly summarise and justify the methodology of the thesis.

6.1. Terminology

A birth cohort is generally seen as a group of individuals who are born at the same time and thus have a certain set of characteristics in common. The term ‘generation’ is more specific, and is usually used to refer to a birth cohort that shared a particular socialisation experience during their impressionable years and as a result have a distinct set of attitudes and behaviours (Neundorff & Niemi, 2014). Strictly speaking, then, Inglehart and Norris are making a prediction about how the gender gap changes across *birth cohorts*, since the modernisation argument is not based on socialisation. However, Inglehart and Norris refer to a *generational* prediction, and the literature in Britain uses the term ‘gender-generation gap’ (Norris, 1999). This thesis thus uses birth cohort and generation broadly interchangeably in order to remain consistent with the existing literature on how the gender gap differs between generations or cohorts.

6.2. Methods in APC research

This thesis is concerned with cohort or generational changes in political gender gaps, but age and period are potential confounders for the hypothesised cohort effects: political behaviour and attitudes change with age and in response to current events. This leads to the age-period-cohort (APC) ‘identification problem’: once you know the value of any two of age, period, or cohort, you automatically know the value of the third, since $A = P - C$. This

perfect collinearity between the three variables creates a challenge when it comes to specifying models which examine cohort effects, controlling for age and period.

Numerous solutions have been suggested to overcome this problem, and there is a rich scholarly debate about the best way to approach research into cohort or generational effects. In this thesis I rely exclusively on repeated cross-sectional surveys and election studies, which provide data on a cohort's political behaviour and attitudes at multiple ages and in multiple years, allowing for the use of certain methods to identify cohort changes in gender gaps. I focus on two of these methods. The first, employed in chapter 1, uses a variant on Yang and Land's (2006, 2008) hierarchical APC model. They argue that individuals should be treated as nested within both birth cohort and survey period, and so these should be specified in the model as cross-classified random effects. With only age left in the fixed part of the model there is no longer an identification problem. In my analysis here, I include birth cohort also in the fixed part in order to interact it with gender, since this is central to my research questions.

There is some debate as to whether hierarchical APC models can really recover 'true' cohort effects, focusing on the assumptions the model makes and the results of simulation studies (Bell & Jones, 2014a, 2014b; Reither, Land, et al., 2015; Reither, Masters, et al., 2015). In the analyses in this thesis that employ hierarchical APC models, the main quantity of interest is an interaction between gender and birth cohort, and not birth cohort itself. Even if the estimate for birth cohort is biased, this is not problematic for the examination of the gender-generation gap as long as it is biased in the same way for both men and women. I use robustness checks altering the model specification and the coding of birth cohort and age in order to check the conclusions drawn about the changing gender gap across cohorts.

The second approach, employed in chapters 2-4, involves a combination of constrained generalised linear models and generalised additive models, an approach which has been used by others to examine political socialisation (Grasso, 2014; Neundorf, 2010; Tilley, 2002). In a constrained generalised linear model, cohort and/or age are included in a standard regression model as categorical, rather than linear, variables. This ‘breaks’ the perfect collinearity of age, period, and cohort because it is then no longer possible to know the value of one once you know the value of the other two. In this thesis, birth cohort is categorised into generational variables based on the shared socialisation experience of those born at a certain time. As a result, the generational variable is based on theoretical expectations drawn from knowledge about relevant features of the changing political context.

There are some disadvantages to such an approach: it loses information about the data and makes assumptions about where to draw the boundary between one generation and the next, which might affect the results. In order to check that the generational variable is coded in a valid way, this thesis also employs generalised additive models (GAMs). Instead of a standard coefficient for birth cohort, GAMs allow for the estimation of a non-parametric, smoothed birth year term which is then displayed graphically in order to visually assess whether the categorisation of generations is valid. In order to identify the GAMs, age is included as a categorical variable.

Using both constrained generalised linear models and generalised additive models together has many advantages. Firstly, specifying the models in two different ways, with two sets of identifying assumptions, lends more robustness to the results. Secondly, the results of the constrained generalised linear models are easy to interpret and allow for the inclusion of an interaction between cohort and gender, which is central to the research questions here.

Thirdly, the generational variable is constructed on a theoretical, rather than arbitrary, basis. It could be argued that it would be preferable to include measures capturing the relevant socialisation experience directly, rather than hypothesising about trends in generation and then seeing if they are actually observed. However, it is not clear that appropriate measures of socialisation experience are available for all the socialisation contexts discussed in this thesis, especially since they would be required for birth cohorts born early in the Twentieth Century. Instead, this analysis uses a more qualitative, historicised discussion of the political context and then observes the generational trends in the data to assess the probable impact of that context.

7. Summary of the findings

In general, this thesis finds some support for Inglehart and Norris' modernisation theory: there is a gender-generation gap where men are more left-wing than women in older cohorts, and women are more left-wing than men in younger cohorts. This phenomenon is related to certain aspects of modernisation, especially secularisation. However, there is also cohort variation in attitudinal and electoral gender gaps based on socialisation experience, leading to more complex patterns of change in political gender gaps than the modernisation theory predicts. The thesis explores variation in political context across countries, and within countries over time, to assess its impact on how gender gaps in vote choice and attitudes vary by generation. Both of these perspectives suggest that political context is important.

Britain is used as a case study to investigate both modernisation and socialisation in more depth, and neither the attitudinal nor the electoral predictions of the modernisation theory hold in Britain. In Britain, the gender gap varies with generation but in a way that is more associated with political socialisation related to the changing national context than with

the phenomenon of the gender-generation gap. The results of this British case study suggest that the modernisation account may also be less helpful in other countries in explaining country-specific change in gender gaps across generations which exists in addition to the general trend described by the gender-generation gap. The results in this thesis present puzzles about how political context shapes gender gaps, indicating that more work needs to be done to understand the relationship between politics and gender differences in vote choice and attitudes.

Cohort change in political gender gaps in Europe and Canada: the role of modernisation

1. Introduction

Political gender gaps are where men and women differ in their political orientations and behaviour. Studying how societal differences between men and women contribute to political gender gaps furthers our understanding of political outcomes in general, and shows how gender roles and gender inequality influence political attitudes and behaviour. Such gender gaps are also of interest to politicians and political parties, who often see the existence of gender gaps as an incentive to mobilise the ‘women’s vote’ and campaign on women’s issues. Moreover, the existence of gender gaps in preferences and attitudes has implications for representation. Unless we understand if and how men and women differ from each other, the extent to which male-dominated political institutions fail to represent women cannot be fully known.

The political ‘gender gap’ is dynamic over time. Until the 1980s and 1990s, men tended to be more supportive of the left than women – the ‘traditional’ gender gap. More recently this has been reversed, with women more supportive of the left than men – the ‘modern’ gender gap (Emmenegger & Manow, 2014; Giger, 2009; Inglehart & Norris, 2003). Inglehart and Norris (2000, 2003) suggest that this realignment of the gender gap is linked to societal modernisation, especially “increased female participation in the paid workforce, the break-up of the traditional family, and the transformation of sex roles in the home” (Inglehart & Norris, 2003:75). A key hypothesis stemming from this argument is that amongst younger birth cohorts there should be the modern gender gap, since these are the

cohorts that have particularly experienced modernisation. However, amongst older cohorts, there should remain a traditional gender gap. Inglehart and Norris refer to this as a generational prediction, and elsewhere Norris has termed this the ‘gender-generation gap’ (Norris 1999).

This generational prediction is under-researched. It has only been examined in a cross-national context by Inglehart and Norris, who show graphical evidence for the generational pattern, indicating that the traditional gender gap exists for cohorts born pre-1930 and the modern gender gap for those born post-1960. Furthermore, they present evidence from regression models that the modern gender gap is particularly related to support for gender equality, postmaterialism, and attitudes towards the role of government, arguing that women hold particularly left-leaning attitudes as a result of societal modernisation and so are to the left of men. However, this analysis is flawed in three ways. Firstly, the graphical evidence, which is the only test provided of the existence of a gender-generation gap, pools together all ‘postindustrial’ countries, not all of which are available for all years in the dataset used (the World Values Survey), and so the observed cohort differences could be an artefact. Secondly, only the coefficient for gender, and not its interaction with age and/or birth year, is included in the regression analysis, despite the fact that they argue the gender gap should be different for older and younger cohorts. This means neither the existence of, nor the explanations for, a gender-generation gap are tested for in these models. Thirdly, their approach adds multiple possible explanatory factors to the model at once, making it impossible to distinguish which features of modernisation are the most important.

It is surprising that the generational argument put forward by Inglehart and Norris has

not been further researched, as whether and how gender gaps differ between birth cohorts is important. Firstly, if there are different gender gaps within different generations, focusing on the aggregate-level gender gap, as most of the literature does, risks underestimating gender differences. In particular, the traditional gender gap in older cohorts, and modern gender gap in younger cohorts, could balance each other out leading us to erroneously conclude gender differences are negligible. Secondly, research focusing on the aggregate-level gender gap makes the assumption that a reasonable comparison can be made between all men and all women, which is unjustified given considerable differences between cohorts of men and women in factors that are relevant for political attitudes and behaviour. Focusing on the gender gap at the aggregate level and then attempting to reduce it to statistical insignificance is a flawed approach if in fact the greatest gender differences are found within particular generations, and if gender differences in older generations are created by different factors to gender differences in younger generations. Thirdly, ignoring the generational argument may miss a key part of the explanation for the emergence of the modern gender gap at the aggregate level: cohort replacement. As older cohorts with the traditional gender gap are replaced by younger cohorts with the modern gender gap, we can expect to see a growth in the size of the modern gender gap at the aggregate level.

This paper sets out to answer two questions: 1) is there a gender-generation gap in left-right self-placement and vote choice (hereafter jointly referred to as political position)? and 2) what explains the gender-generation gap? I find that there is a gender-generation gap in Western countries – specifically Europe and Canada – where men of older cohorts tend to be more left-wing than women, whilst women of younger cohorts are more left-wing than men. This suggests that it makes more sense to talk of gender *gaps*, rather than the gender

gap, since different birth cohorts vary greatly in both the size and direction of political gender differences. Furthermore, future analysis should focus on such gender *gaps*, rather than the gender *gap*, in order to be more informative about gender differences.

This paper decomposes Inglehart and Norris' theory of modernisation to determine which of the various processes associated with modernisation are most important for the gender-generation gap. The gender-generation gap is particularly related to secularisation: older cohorts of women are more religious than men, leading them to be more right-wing. In younger cohorts, religiosity declines, the gender gap in religiosity decreases in size, and the salience of religiosity for political position declines. These developments account for the disappearance of the traditional gender gap across cohorts. The emergence of the modern gender gap in younger cohorts is related to women's greater support for economic equality, redistribution, and state intervention than men, as well as to a lesser extent their greater liberalism when it comes to values associated with sexual liberation (e.g. support for abortion, divorce, and homosexuality). There is also some evidence that economic attitudes have become more important for political position in secular, younger cohorts, enhancing the growth of the modern gender gap in these cohorts. Factors such as increasing female labour force participation, rising education rates, and declining marriage rates have very little or no impact on the gender-generation gap.

2. Previous literature on gender gaps and theoretical expectations

2.1 Modernisation and cohort change

The aggregate-level gender gap in political position has changed over time. The orthodox position of the 1950s and 1960s was that women were more right-wing than men (Duverger, 1955), now termed the traditional gender gap. By the 1980s there appeared to be

very little difference in the vote choice of men and women in most Western countries. In the 1990s and 2000s women moved to the left of men, and most European countries now show either no gender gap or the modern gender gap at the aggregate level (Abendschon & Steinmetz, 2014; Giger, 2009).

Inglehart and Norris (2000, 2003) argue that the move from the traditional gender gap to the modern gender gap is due to societal modernisation and the changes it brings to gender roles. They emphasise increased female labour force participation, rising education levels, and changes to the traditional family through lower marriage rates, higher divorce rates, and declining fertility. They suggest such changes have made women more left-leaning in their values, attitudes, and vote choice. Inglehart and Norris generate three hypotheses from this argument: an *over-time* hypothesis, that since modernisation increases over time, women will move further to the left over time; a *cross-national* hypothesis, that in countries where modernisation is more advanced the gender gap will be larger; and a *generational* hypothesis, that because the changes to individual's lives caused by modernisation particularly apply to younger cohorts, they should have the modern gender gap whilst older cohorts retain the traditional gender gap.

In support of the generational hypothesis, Inglehart and Norris show that men born pre-1930 are indeed more left-wing in left-right self-placement than women of these older cohorts, whilst women born post-1960 are more left-wing than men born at the same time. However, this analysis has limitations. The only evidence for the gender-generation gap is a graph which pools together postindustrial countries and so the observed generational differences could be an artefact of this. No other cross-national research has tested the generational hypothesis, and there is limited evidence for it in Britain, the one country where

it has been further tested (Campbell 2006; Shorrocks 2016). This leads to the first hypothesis:

Gender-generation gap hypothesis: In older cohorts, men are more likely to be left-wing than women. In younger cohorts, women are more likely to be left-wing than men.

2.2 Socio-economic change and economic attitudes

The modernisation argument emphasises that changes to women's economic position lead them to become more supportive of the left. Although Inglehart and Norris find little evidence that factors such as education, employment status, or marital status have any impact on the gender gap in their analysis, other research has consistently found that employed or single women are especially left-wing (De Vaus & McAllister, 1989; Iversen & Rosenbluth, 2006). Moreover, differences in the gender gap between countries and between US states have been linked to female labour force participation rates and divorce/marriage rates (Abendschon and Steinmetz 2014; Box-Steffensmeier, De Boef, and Lin 2004; Edlund and Pande 2002; Giger 2009).

There are numerous arguments for this. Firstly, women's entry into the workforce has exposed them to discrimination, segregation, and gender inequality which makes them more supportive of parties of the left (Manza & Brooks, 1999). Secondly, working and single women are thought to benefit from the economic policies of left-wing parties. Working women still take on disproportionate caring responsibilities compared to working men, which are alleviated through welfare provision such as care for children or the elderly (Andersen 1999; Campbell 2006; Iversen and Rosenbluth 2006), whilst single women are thought to be more economically vulnerable than married women (Box-Steffensmeier et al., 2004).

Thirdly, entering the labour force, education, and remaining single are theorised to lead women to have more ‘psychological autonomy’ from men (Carroll, 1988) and as such develop distinct political preferences more in line with their economic status.

The latter two arguments suggest attitudes towards government spending, welfare, and redistribution are mediators between women’s economic position and their left-wing political position, because they are more economically vulnerable and have greater pressures to balance work and family life. Inglehart and Norris conclude that gender differences in attitudes towards the role of government – measured through support for nationalisation and government ‘providing for’ people – are important for the modern gender gap, although they include these measures in the same model as other attitudes such as support for gender equality and postmaterialism and so it is unclear which set of attitudes are really key. The existence of a mediating role for economic attitudes between economic position and gender differences in left-wing position has rarely been tested, but in Canada women’s support for a larger role for government and lower support for capitalist values were found to partly account for the modern gender gap (Erickson & O’Neill, 2002).

The literature’s focus on what has changed in women’s lives to lead to the modern gender gap has been criticised by some as ignoring the possibility of change amongst men (Gidengil 2007). In the US, the gender gap has been linked to rising Republican identification amongst men because they are more conservative in their opinions towards social welfare than women (Kaufmann and Petrocik 1999). It has also been noted that if men get ‘free’ childcare via their wives, they may be more interested in paying lower taxes than in funding public services (Iversen & Rosenbluth, 2006). Others have argued that due to social change men have shifted from being net beneficiaries of welfare programs to net

contributors, leading them to be ‘antistatist’ and support parties of the radical right at greater rates than women (Gidengil, Hennigar, Blais, & Nevitte, 2005). This suggests modernisation has also changed men’s attitudes in such a way that there is a decline in their support for the left in younger cohorts, contributing to the modern gender gap.

This discussion leads to the following hypotheses:

Economic position hypothesis: In older cohorts, women are more right-wing than men because they are less likely to be employed and less educated. In younger cohorts, women are more left-wing than men because of increases in their education rates, their participation in the labour force, and their likelihood of being single.

Economic attitudes hypothesis: In younger cohorts, women are more left-wing than men because they are more supportive of redistribution and the role of government than men.

2.3 The gender gap in religiosity and secularisation

Secularisation is seen as an important component of modernisation, and women’s greater religiosity relative to men’s was consistently pointed to as a reason for the traditional gender gap (e.g. Duverger 1955; Mayer and Smith 1985; De Vaus and McAllister 1989). However, with secularisation religiosity is declining and gender differences in religiosity are narrowing as women’s roles also moved outside of the home and economic life became more important (Trzebiatowska & Bruce, 2012). The decline in religiosity is especially expected for younger cohorts (Inglehart, 1990; Inglehart & Norris, 2003), and gender differences in religiosity are smallest in younger cohorts (Voas, McAndrew, & Storm, 2013).

This suggests that in older cohorts, the traditional gender gap is related to women’s greater religiosity. In younger cohorts, the smaller gender difference in religiosity should

contribute to the lack of a traditional gender gap but cannot account for the emergence of the modern gender gap. It is therefore unsurprising that Inglehart and Norris find little evidence that religiosity is important for the modern gender gap, examined at the aggregate level, but the arguments presented here do suggest that secularisation is important for the gender-*generation* gap. This leads to the following hypothesis:

Religiosity hypothesis: In older cohorts, women are more right-wing than men because they are more religious.

2.4 Value change and the gender gap

Inglehart's modernisation theory (Inglehart 1997, 1990) argues that greater economic security experienced by younger cohorts leads them to hold 'postmaterialist' values.

Inglehart and Norris suggest that the growth of such values has been stronger amongst younger cohorts of women than men, and since these values are associated with support for the left, this contributes to the emergence of the modern gender gap. They conclude such values, measured using postmaterialism and support for gender equality, are the main reason why there is a modern gender gap (along with support for the role of government). However, the argument with respect to value change is less theoretically and empirically strong than that with respect to economic attitudes.

Theoretically, it is unclear why women would be more postmaterialist than men if it is linked to economic security, since women on average enjoy lower economic security than men. Women have been found to be slightly less postmaterialist than men (Hayes, McAllister, & Studlar, 2000), and in Canada, postmaterialism was found to only influence the vote choice of men, not women (Erickson & O'Neill, 2002). Furthermore, younger

cohorts may not even be getting systematically more postmaterialist. Inglehart's own work seems to show that cohorts born from the 1960s onwards are in fact very similar to each other in their levels of postmaterialism (Inglehart, 2008). Moreover, some younger cohorts may have grown up with lower levels of economic security than some older cohorts, for example those who spent their youth during the recession of the 1970s or the late 2000s.

There is, however, more support for the argument that feminism might be related to the development of the modern gender gap in younger cohorts. Early explanations for the modern gender gap in the US emphasised the role of feminism (Conover, 1988), women have been found to be more feminist than men in many countries (Hayes et al., 2000), and feminist consciousness is related to the modern gender gaps in both the US and Norway (Bergh, 2007). Feminism is also expected to be greatest amongst younger birth cohorts (Banaszak & Plutzer, 1993b; Hayes et al., 2000).

Value change should be related to secularisation. Religiosity suppresses feminist attitudes and support for abortion (Banaszak & Plutzer, 1993a, 1993b; Hayes, 1995), leading to a rise in feminism with secularisation across cohorts. Similarly, Inglehart and Norris point out that values related to abortion, homosexuality, prostitution and divorce have liberalised for younger cohorts in a process associated with secularisation and the rise of postmaterialism, although it is not clear that this is greater for women than it is for men (Inglehart & Norris, 2003).

This discussion leads to the following hypothesis:

Value change hypothesis: in younger cohorts, women are more left-wing than men because they are more supportive of the values of postmaterialism, feminism, and sexual liberation.

2.5 The decline of traditional cleavages and the rising importance of values

Theories of dealignment suggest that social-structural position has declined in relevance for vote choice. Inglehart (1990) argues that post-war security, as well as contributing to the rise of new left-wing, egalitarian, and postmaterialist values for younger cohorts, also decreases the salience of older, social-structural cleavages for electoral behaviour because rising affluence during one's formative years reduces conflict along such 'materialist' lines. Similarly, others have argued that new social conflicts which arise in advanced industrial societies – public versus private employment, materialist versus postmaterialist, 'new' versus 'old' politics – cross-cut traditional social cleavages based on socio-economic position and religiosity, thus undermining their relevance for political behaviour (Dalton, Beck, & Flanagan, 1984; Mackie & Franklin, 1992). Additionally, cognitive mobilisation is seen as reducing the link between social position and party choice as voters can make informed choices rather than rely on group heuristics (Dalton et al., 1984).

Importantly for the gender-generation gap, the declining importance of social position for political position has been found to occur across cohorts. Religion and social class have been found to influence the vote choice of older cohorts to a greater extent than younger ones (Franklin, 1992; van der Brug, 2010). At the same time, social position (Freire, 2006) and religiosity (Knutsen, 1995; Rekker, 2016) have been found to be less important for the left-right self-placement of younger cohorts than older cohorts. As these factors decline in salience across cohorts, arguments emphasising cognitive mobilisation suggest that attitudes and values should increase in salience since voters refer more to their own preferences rather than group position when making political decisions.

These arguments suggest that the changing relationship between social position and political position could contribute to the emergence of the modern gender gap in younger birth cohorts. The literature suggests that the traditional gender gap in older cohorts is likely to be primarily located in differences between men and women in education level, labour force participation, and religiosity. Dealignment would suggest that at the same time such factors, especially religiosity, are becoming less salient for political position in younger cohorts. This means that even if gender differences in labour force participation or religiosity remain in younger cohorts, their lack of relevance for political position in these cohorts means they will not lead to a traditional gender gap. Similarly, the decline in the importance of social position might lead to an increase in the importance of attitudes and values as a new basis for political position. As a result, if there are gender differences in attitudes and values, these will become more important for the gender gap in political position. For example, women were consistently found to be both more supportive of left-wing economic positions and more feminist than men even before the emergence of the modern gender gap. Dealignment theories would suggest that it is the growing importance of such attitudes for political position that contributes to the modern gender gap, rather than any change in the attitudinal gender gaps themselves.

Along similar lines, Inglehart and Norris argue that the “old cleavages of class and religion have declined in importance, opening the way for the politics of gender, region, and ethnicity to become increasingly salient” (Inglehart and Norris 2003:89). However, it is unclear what is meant here by the politics of gender and Inglehart and Norris’ analysis of the gender gap does not allow for the possibility that there is a changing relationship between either social cleavages, or values, and political position. Emmenegger and Manow (2014)

also suggest that the declining salience of the religious cleavage means that female voters can become ‘socioeconomic swing voters’ and switch to supporting left-wing parties in accordance with their economic preferences, but they do not test this proposition. The impact of dealignment on the changing gender gap has thus yet to be tested.

This leads to the following hypothesis:

Dealignment hypothesis: In older cohorts, social position and religiosity are more important for political position than in younger cohorts, increasing the traditional gender gap in older cohorts. In younger cohorts, values and/or attitudes are more important for political position than in older cohorts, increasing the modern gender gap in younger cohorts.

3. Data & Methods

3.1 Data

This analysis combines waves 2-4 of the European Values Study (EVS)¹ (1989-93; 1999-2001; 2008-10) and waves 3-6 of the World Values Survey (WVS)² (1995-96; 1999-2004; 2005-08; 2010-14), producing a dataset spanning 1989-2014. These data are used because they provide a long time-span of the same variables for multiple countries. The earlier waves of the EVS and WVS do not have the necessary variables, and so are excluded. The following countries have all the required variables for at least three waves and so are

¹ EVS (2011): European Values Study 1981-2008, Longitudinal Data File, GESIS Data Archive, Cologne, Germany. ZA4804 Data File Version 2.0.0 (2011-12-30), doi:10.4232/1.1005

² WORLD VALUES SURVEY Wave 3 1995-1998 OFFICIAL AGGREGATE v.20140921. World Values Survey Association (www.worldvaluessurvey.org). Aggregate File Producer. Asep/JDS, Madrid SPAIN; WORLD VALUES SURVEY Wave 4 1999-2004 OFFICIAL AGGREGATE v.20140429. World Values Survey Association (www.worldvaluessurvey.org). Aggregate File Producer. Asep/JDS, Madrid SPAIN; WORLD VALUES SURVEY Wave 5 2005-2008 OFFICIAL AGGREGATE v.20140429. World Values Survey Association (www.worldvaluessurvey.org). Aggregate File Producer. Asep/JDS, Madrid SPAIN; WORLD VALUES SURVEY Wave 6 2010-2014 OFFICIAL AGGREGATE v.20150418. World Values Survey Association (www.worldvaluessurvey.org) Aggregate File Producer. Asep/JDS, Madrid SPAIN.

used here: Austria, Belgium, Canada, France, Finland, West Germany, Iceland, Ireland, Italy, the Netherlands, Norway, Spain, and Sweden. Tables of the distribution of respondents by country and wave, and cohort and wave, are in appendix 1.

3.2 Variables

3.2.1 Dependent variables

This analysis uses two dependent variables. The first is left-right self-placement, a continuous measure where respondents place themselves on a 10-point scale from left to right: in this analysis 10 indicates the most left-wing and 1 the most right-wing. This measure is useful in a cross-national context as it avoids problems of classifying parties, is more widely held than partisan identification, and is well-recognised by European publics (Inglehart & Klingemann, 1976; Mair, 2007). The second dependent variable is left-wing vote intention, based on who respondents said they would vote for in a general election. A vote for social democratic, green, or communist parties was coded as a left-wing vote intention.³

3.2.2 Independent variables

The gender-generation gap hypothesis is tested using *birth year*, a continuous measure of year of birth from 1925-1985.⁴ An interaction between *birth year* and *female*, a dichotomous variable for being a woman, tests whether the gender gap changes with birth cohort.

³ Party classifications are taken from the ParlGov database (Doring & Manow, 2010). Non-voters (3.5%) are included as having a non-left-wing vote intention.

⁴ This omits the very oldest and youngest cohorts who are observed in very few survey waves. Birth year is adjusted to the range 0-65 in order to aid interpretation of the interaction terms and is divided by 10 in order to avoid coefficients of 0 to three decimal places.

Economic position is measured using four variables that capture how men's and women's relative economic positions have changed. *Homemaker* is a dummy for whether the respondent looks after the home and/or children full-time. Level of education is measured using the *age completed education* of the respondent. *Marital status* has the following categories: married (reference); cohabiting; single; divorced/separated; and widowed. *Children* is a dichotomous variable for whether the respondent has ever had children and is under the age of 55. This is designed to capture whether there are children currently living with the respondent, since whether the respondent is caring for a child is expected to be particularly relevant for their economic attitudes.^{5 6}

There are three measures of religiosity. *Religious identification* has three categories: no religion (reference); Christian; and non-Christian. *Church attendance* is a dichotomous variable for whether a respondent attends Church once a week or more. *Religious person* is a dichotomous variable for whether the respondent considers themselves to be a religious person. These variables capture different aspects of religiosity and are asked consistently over the EVS and WVS waves.

Economic attitudes are measured using four variables with 10-point scales, giving attitudes towards the role of government and economic issues more generally.⁷ *Equalise incomes* goes from 'we need larger income differences as incentives' to 'incomes should be made more equal.' *Responsibility* goes from 'people/individuals should take more responsibility for providing for themselves' to 'the government/state should take more

⁵ The EVS/WVS does not provide a consistent measure of age of children or children in the household.

⁶ The dealignment hypothesis would perhaps be best tested using a measure of social class, but this is not available for all waves of the EVS/WVS. However, gender differences in political position are not usually linked to social class and so this should not be problematic for the examination of the gender-generation gap.

⁷ Other variables relating to economic attitudes are available in some waves of the EVS/WVS; these five are the ones which are available for all waves required here.

responsibility to ensure that everyone is provided for.’ *Competition* goes from ‘competition is good, it stimulates people to work hard and develop new ideas’ to ‘competition is harmful, it brings out the worst in people.’ *Benefits* goes from it is ‘never justifiable’ to claim state benefits to it is ‘always justifiable’ to do so.

Value change is captured through measures for postmaterialism, feminist attitudes, and attitudes towards sexual liberation. *Postmaterialism* classifies individuals as materialist (reference), mixed, or postmaterialist based on their answers to four questions about their aims for the country.⁸ *Housewife* has five categories: strongly agree that ‘a job is alright, but what most women really want is a home and children’ (reference); agree; don’t know/neither; disagree; and strongly disagree. *Homosexuality* is a dichotomous variable for disliking having homosexuals as neighbours. *Abortion* and *divorce* are continuous 10-point scales from the action being seen as ‘never justifiable’ to ‘always justifiable.’

3.3 Methods

The focus of this paper is on cohort effects, but age and survey year are possible confounders for this. Some research finds that individuals get more conservative in their voting behaviour (Tilley & Evans, 2014) and more supportive of right-wing issues such as free enterprise and government legislation against homosexuality as they age (Feather, 1977; Lupfer & Rosenberg, 1983; Truett, 1993). Period effects could also produce changes in left-right self-placement, as evidence shows that it responds to the current political environment (de Vries, Hakhverdian, & Lancee, 2013; Freire, 2006), and vote intention will be dependent

⁸ Respondents were asked which of these was most important, and which was the next most important: 1) maintaining order in the nation; 2) giving people more say in important government decisions; 3) fighting rising prices; and 4) protecting freedom of speech. They were classified as materialist if they selected both 1 and 3, postmaterialist for both 2 and 4, and mixed if they selected either 1 and 2 or 3 and 4.

on the current electoral context. Age and survey year/period are therefore included in the analysis in order to isolate cohort effects.

Including measures of age, period, and cohort in the same model causes problems for model identification due to the perfect collinearity of age, year of birth, and year of survey. In this analysis, country-specific survey years⁹ are included in the models as random effects, which both takes into account the hierarchically-structured nature of the data and deals with the identification problem since this only arises when all three of age, cohort, and survey period are included in the fixed part of the model. This model specification is a variant on Yang and Land's (2008, 2006) hierarchical age-period-cohort (HAPC) model.

A series of nested models are set up to test each of the hypotheses. All models include *age*, *age*², and random effects for country-year. Model 1 tests the gender-generation gap hypothesis using a model with *birth year*, *female*, and their interaction. In order to test the remaining hypotheses, the relevant variables are added into the model and change in the coefficients of *female* and the interaction of *birth year*female* is examined.

Models 2a and 3a add the economic position variables and religiosity variables respectively to model 1; models 2b and 3b include interactions between economic position and *birth year* and religiosity and *birth year* respectively. Model 4 includes the indicators of socio-economic position and religiosity, and their interactions with *birth year*. Models 5a and 6a add the economic attitudes variables and values indicators to model 4 respectively; models 5b and 6b add interactions between economic attitudes and *birth year* and values and *birth year*. Models 2a, 3a, 5a, and 6a thus directly test the economic position, religiosity, economic attitudes, and value change hypotheses. Models 2b, 3b, 5b, and 6b thus test the

⁹ Essentially an interaction between survey wave and country. There are 52 country-years in the models for left-right self-placement; 49 in the models for vote intention.

dealignment hypothesis. Finally, model 7 includes all variables and their interactions with *birth year*.

This model specification is used because the theory discussed above expects the relationship between economic position and political position to be mediated by economic attitudes, and between religiosity and political position to be mediated by values. Economic position and religiosity are thus included as controls in the models testing the economic attitudes and value change hypotheses. Fig. 1 shows the relationships between the variables underpinning this model specification in the form of a diagram, as expected from the theory. The gender-generation gap (denoted by *gender*cohort*) is mediated by economic position, religiosity, economic attitudes, and values. Once these factors are accounted for, modernisation theory suggests we should no longer see a gender-generation gap.

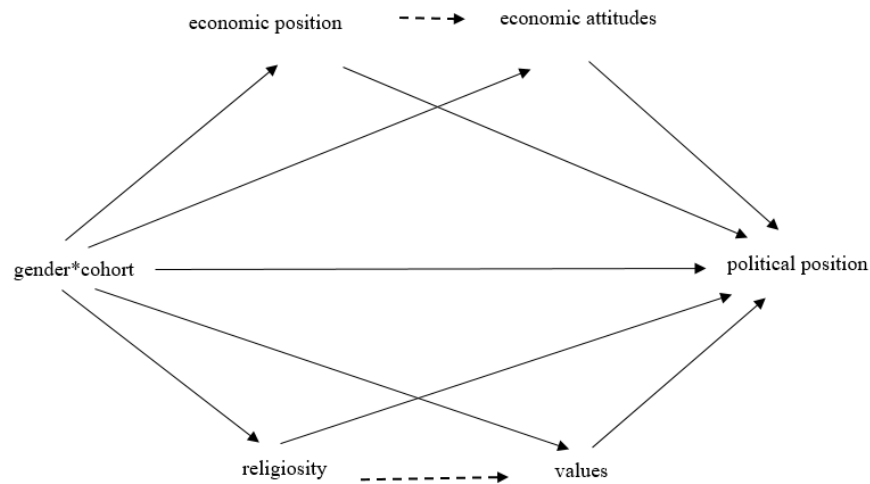


Fig. 1. The relationship between gender and cohort, and political position, and its mediators. NB: * indicates an interaction. Solid arrows indicate the relationships of interest in this paper. Dotted arrows indicate mediating relationships indicated by the theoretical discussion.

4 Results

4.1 Descriptive statistics

Figs. 2-4 show how the characteristics of men and women change between older and younger cohorts. Fig. 2 shows that the percentage of female homemakers gradually declines across cohorts and education levels increase across cohorts. The gender difference in education level also narrows for younger cohorts. Furthermore, younger cohorts are less religious than older cohorts and the gender gap in religiosity narrows for younger cohorts, especially for Church attendance. These patterns are exactly what the modernisation theory expects to be important for the gender-generation gap, although it is interesting that even in younger cohorts women are generally more religious than men.

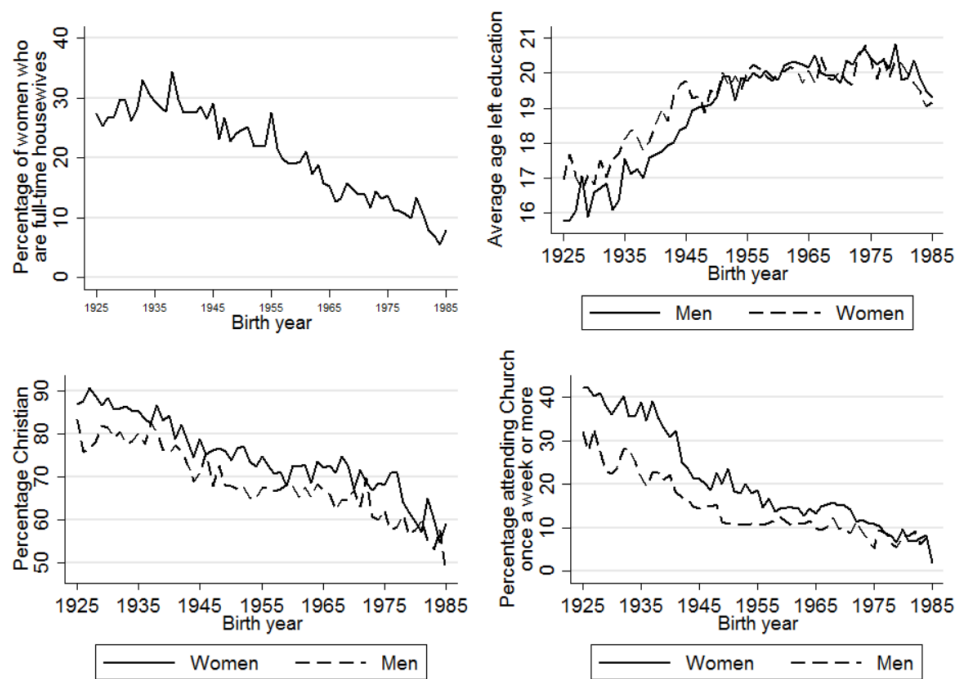


Fig. 2. The proportion of women who are housewives, the average age of leaving education, the percentage Christian and the percentage who attend Church once a week or more for cohorts born 1925-1985.

From the combined EVS (1989-2010) and WVS (1995-2012). N=47,435

Fig. 3 shows cohort trends in economic attitudes for men and women. Younger cohorts are more economically left-wing than older cohorts, especially for the *benefits* indicator. However, women tend to be more left-wing than men on these indicators in all cohorts, and there is little evidence that they become more so in younger cohorts. This is inconsistent with the predictions of the modernisation theory, which suggests that the gender gap in economic attitudes should widen for younger cohorts as women become more economically left-wing.

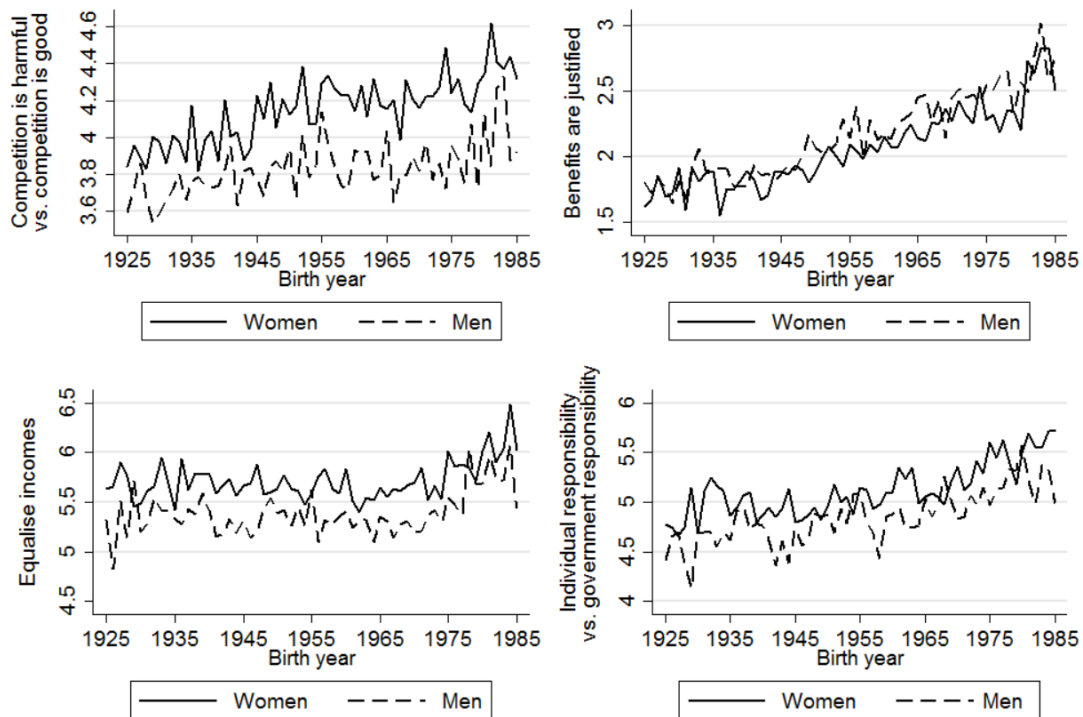


Fig. 3. Average positions for *competition*, *benefits*, *equalise incomes* and *responsibility* for cohorts born 1925-1985.

NB: From the combined EVS (1989-2010) and WVS (1995-2012). N=47,435. Higher values indicate more economically left-wing positions.

Fig. 4 shows cohort trends in values for men and women. Younger cohorts are more tolerant in their attitudes. However, again contrary to the modernisation perspective, the

gender gap remains fairly stable for all cohorts and in fact women are only noticeably more liberal than men for the *homosexuality* and *housewife* indicators. *Postmaterialism* behaves completely differently to what is expected: younger cohorts are actually less postmaterialist than those born in the middle of the century, and men are more postmaterialist than women. This adds empirical support to the theoretical problems with the argument that postmaterialism is important for the changing gender gap across cohorts.

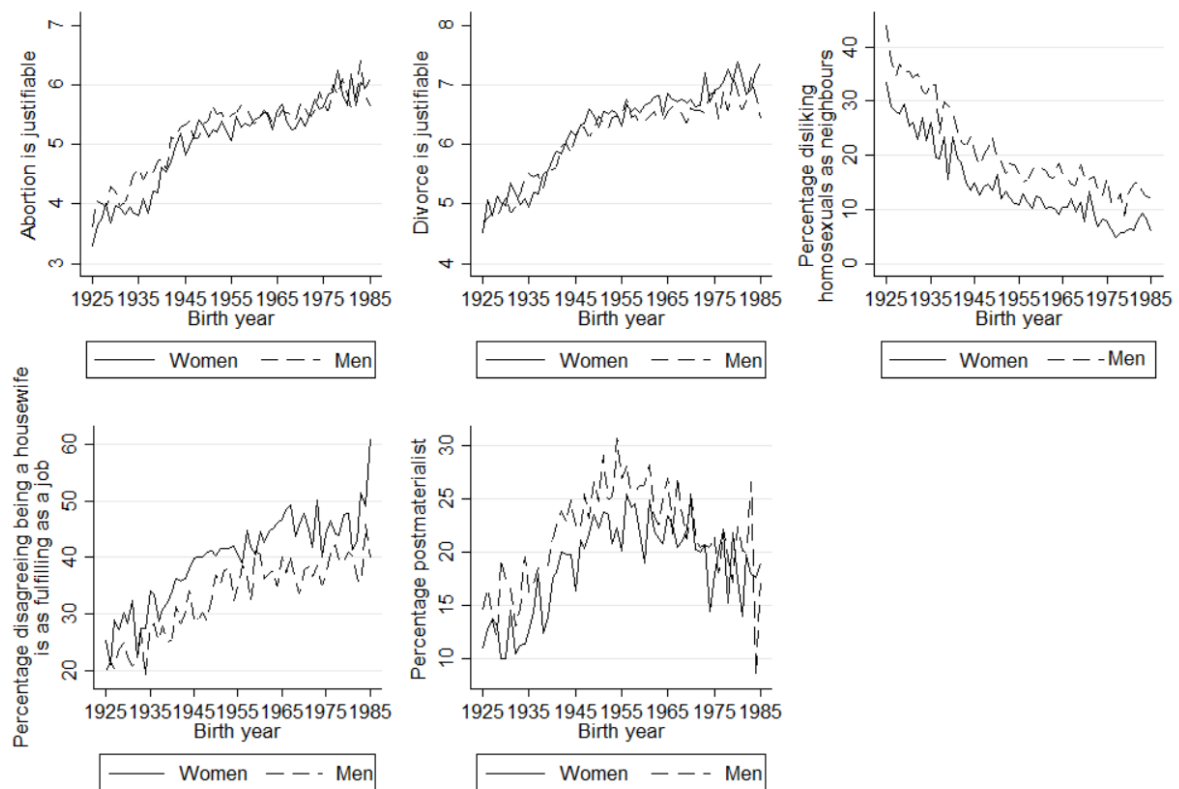


Fig. 4. Average position for *abortion*, *divorce*, *homosexuality*, *housewife*, and *postmaterialism* for cohorts born 1925-1985.

NB: From the combined EVS (1989-2010) and WVS (1995-2012). N=47,435. Higher values on the *abortion*, *divorce* and *housewife* scales indicate more liberal values.

4.2 The gender-generation gap in cross-national comparison

Fig. 5 shows gender gaps in left-right self-placement and left-party vote intention for all respondents, cohorts born before 1955, and cohorts born after 1955, by country. All countries except Ireland and West Germany show a gender-generation gap in left-right self-placement, and all countries except Ireland, Belgium, the Netherlands and France show a gender-generation gap in vote intention. Amongst the older cohort there is either a traditional gender gap or a smaller modern gender gap than the younger cohort, for whom there is almost invariably a modern gender gap. Even this crude measure of birth cohort shows that there are considerable cohort differences in the size and direction of the gender gap.

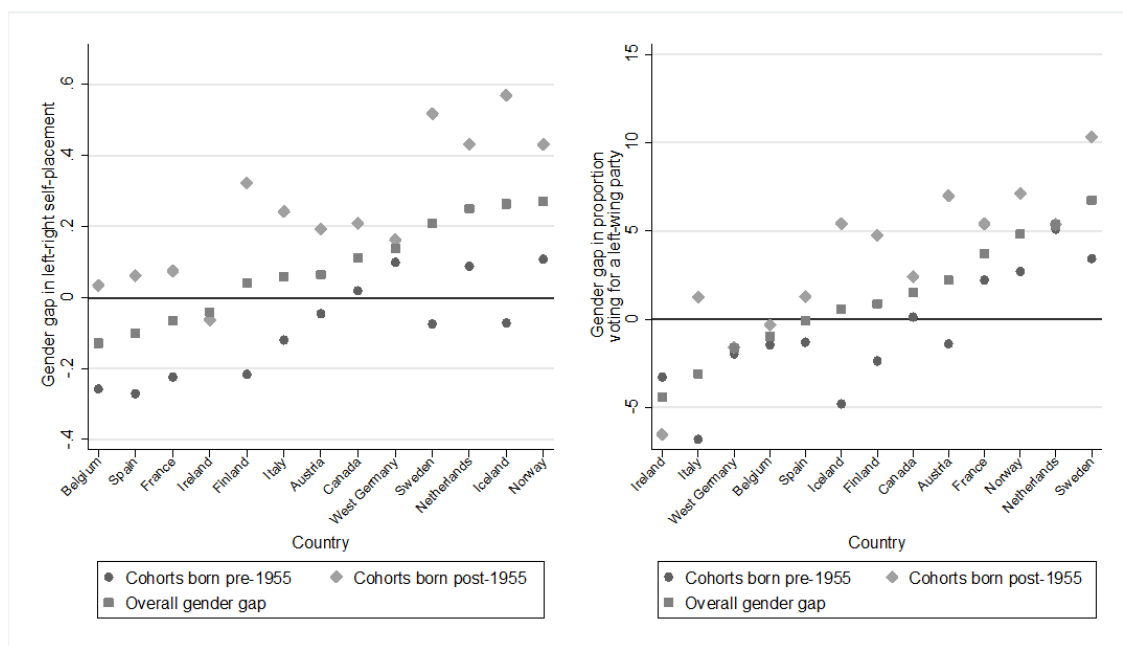


Fig. 5. The gender-generation gap in left-right self-placement (left) and vote intention (right) cross-nationally.

NB: From the merged EVS (1989-2010) and WVS (1995-2012). The gender gap in self-placement is calculated as the mean left-right self-placement amongst women minus the mean left-right self-placement amongst men; the gender gap in party choice is calculated as the proportion of women who support left-wing parties minus the proportion of men who support left-wing parties. Negative numbers indicate a traditional gender gap, and positive numbers a modern gender gap. N=42,023 (self-placement; left); 41,164 (vote intention; right)

4.3 Testing the hypotheses

Tables 1a-2b show the results of models 1-7 for gender and birth year for left-right self-placement and vote intention; full results with all variables can be found in appendix 1. The coefficient for *female* gives the gender gap at the oldest cohort, born 1925. A negative coefficient for *female* indicates the presence of the traditional gender gap for this cohort where women are less left-wing than men. The interaction between *female* and *birth year* gives the change in the effect of gender as birth year increases. A positive interaction therefore indicates a trend towards the modern gender gap across cohorts. Model 1 thus shows that there is a gender-generation gap, as the interaction between *female* and *birth year* is positive and statistically significant for both dependent variables. This provides strong support for the gender-generation gap hypothesis.

Model 2a adds economic position. The coefficient for *female* in the model for vote intention, but not for left-right self-placement, becomes statistically insignificant, indicating women's more right-wing political position in older birth cohorts is somewhat related to their different economic positions relative to men. However, the interaction coefficient does not decrease in size or statistical significance. Model 2b includes interactions between each of the measures of economic position and *birth year*, and the *female*birth year* coefficient shows no change in this model from model 1. For younger cohorts, *children* and *age left education* are more associated with being left-wing on both dependent variables, but this does not appear to be a contributing factor towards the gender-generation gap.

Table 1a. Models 1-4 for left-right self-placement

	Model 1	2a: + Economic position	2b: + Economic position* Birth year	3a: + Religiosity	3b: + Religiosity * Birth year	Model 4
Birth year	-0.066* (0.030)	-0.113* (0.030)	-0.184* (0.040)	-0.161* (0.029)	-0.261* (0.032)	-0.377* (0.041)
Female	-0.184* (0.043)	-0.172* (0.045)	-0.153* (0.047)	-0.051 (0.042)	-0.010 (0.042)	0.004 (0.047)
Female* Birth year	0.090* (0.013)	0.097* (0.013)	0.090* (0.014)	0.080* (0.013)	0.067* (0.013)	0.069* (0.014)
Age and age ²	Y	Y	Y	Y	Y	Y
Socio-economic position		Y	Y			Y
Socio-economic position*Birth year			Y			Y
Religiosity				Y	Y	Y
Religiosity*Birth year					Y	Y
Log-likelihood	-99019.736	-87915.059	-87905.81	-87238.302	-87191.749	-87131.346

*p<0.05. N=42,023. Standard errors are in parentheses. Positive numbers indicate more support for the left. Random effects for country-year are included in all models.

NB: Birth year is adjusted so that the coefficient for female can be interpreted as the gender gap at the oldest birth year, 1925.

Table 1b. Models 5a-7 for left-right self-placement

	5a: + Economic attitudes	5b: + Economic attitudes* Birth year	6a: + Values	6b: + Values* Birth year	Model 7
Birth year	-0.569* (0.040)	-0.685* (0.045)	-0.344* (0.041)	-0.345* (0.047)	-0.645* (0.050)
Female	-0.065 (0.044)	-0.055 (0.045)	-0.040 (0.046)	-0.033 (0.047)	-0.097* (0.045)
Female* Birth year	0.059* (0.013)	0.055* (0.013)	0.070* (0.014)	0.068* (0.014)	0.056* (0.013)
Age and age ²	Y	Y	Y	Y	Y
Socio-economic position	Y	Y	Y	Y	Y
Socio-economic position*Birth year	Y	Y	Y	Y	Y
Religiosity	Y	Y	Y	Y	Y
Religiosity*Birth year	Y	Y	Y	Y	Y
Economic attitudes	Y	Y			Y
Economic attitudes*Birth year		Y			Y
Values			Y	Y	Y
Values*Birth year				Y	Y
Log-likelihood	-85136.251	-85117.657	-86595.307	-86586.626	-84596.465

*p<0.05. N=42,023. Standard errors are in parentheses. Positive numbers indicate more support for the left. Random effects for country-year are included in all models.

NB: Birth year is adjusted so that the coefficient for female can be interpreted as the gender gap at the oldest birth year, 1925.

Table 2a. Models 1-4 for left-wing vote intention

	Model 1	2a: + Economic position	2b: + Economic position* Birth year	3a: + Religiosity	3b: + Religiosity * Birth year	Model 4
Birth year	0.145* (0.033)	0.104* (0.033)	-0.020 (0.045)	0.056 (0.033)	-0.023 (0.035)	-0.203* (0.048)
Female	-0.106* (0.048)	-0.089 (0.050)	-0.079 (0.053)	0.051 (0.049)	0.105* (0.050)	0.109* (0.054)
Female* Birth year	0.057* (0.014)	0.061* (0.015)	0.057* (0.016)	0.041* (0.015)	0.023 (0.015)	0.025 (0.016)
Age and age ²	Y	Y	Y	Y	Y	Y
Socio-economic position		Y	Y			Y
Socio-economic position*Birth year			Y			Y
Religiosity				Y	Y	Y
Religiosity*Birth year					Y	Y
Log-likelihood	-25823.322	-25753.476	-25737.586	-25229.368	-25194.135	-25148.11

*p<0.05. N=41,164. Standard errors are in parentheses; coefficients are log odds. Positive numbers indicate more support for the left.

Random effects for country-year are included in all models.

NB: Birth year is adjusted so that the coefficient for female can be interpreted as the gender gap at the oldest birth year, 1925.

Table 2b. Models 5a-7 for left-wing vote intention

	5a: + Economic attitudes	5b: + Economic attitudes* Birth year	6a: + Values	6b: + Values* Birth year	Model 7
Birth year	-0.336* (0.049)	-0.343* (0.055)	-0.192* (0.048)	-0.195* (0.055)	-0.327* (0.063)
Female	0.060 (0.055)	0.058 (0.056)	0.067 (0.055)	0.057 (0.056)	0.001 (0.057)
Female* Birth year	0.019 (0.016)	0.020 (0.016)	0.025 (0.016)	0.029 (0.017)	0.023 (0.017)
Age and age ²	Y	Y	Y	Y	Y
Socio-economic position	Y	Y	Y	Y	Y
Socio-economic position*Birth year	Y	Y	Y	Y	Y
Religiosity	Y	Y	Y	Y	Y
Religiosity*Birth year	Y	Y	Y	Y	Y
Economic attitudes	Y	Y			Y
Economic attitudes*Birth year		Y			Y
Values			Y	Y	Y
Values*Birth year				Y	Y
Log-likelihood	-24428.503	-24427.718	-24869.798	-24864.986	-24152.872

*p<0.05. N=42,023. Standard errors are in parentheses. Positive numbers indicate more support for the left. Random effects for country-year are included in all models.

NB: Birth year is adjusted so that the coefficient for female can be interpreted as the gender gap at the oldest birth year, 1925.

Model 3a tests the religiosity hypothesis by adding the religiosity indicators to model

1. This provides strong support for the religiosity hypothesis. The gender gap for the oldest cohort given by the coefficient for *female* becomes much smaller and statistically

insignificant compared to model 1, indicating that the greater religiosity of women in older

cohorts is largely responsible for the traditional gender gap in these cohorts. The size of the coefficient for *female*birth year* reduces in size, showing that some of the change in the gender gap across cohorts is due to changing levels of religiosity across cohorts. If women were as religious as men in older cohorts, there would have been little or no gender difference in political position in older cohorts, and thus the change in the gender gap across cohorts would have been less pronounced.

Model 3b adds interactions between religiosity and *birth year* to model 3a. This provides evidence for the dealignment hypothesis. Religiosity is less associated with political position for younger cohorts than for older cohorts¹⁰, and the coefficient for *female*birth year* decreases in size. This indicates that even though in younger cohorts women remain more religious than men, religiosity is no longer salient for political position and so the gender gap in religiosity is no longer salient for the gender gap in political position. In model 3b for vote intention, there is now a statistically significant *positive* gender gap for the oldest cohort, shown by the *female* coefficient, and a statistically insignificant interaction coefficient. This indicates that if religiosity and the salience of religiosity were constant across cohorts, women in older cohorts would in fact be more left-wing than men in their vote choice. The absence of a statistically significant change in the gender gap across cohorts indicates that there is a positive gender gap in vote intention for all cohorts once religiosity especially is controlled for. Model 4 includes both measures of economic position and religiosity. For both dependent variables the *female* and *female*birth year* coefficients are very similar to the model which just includes religiosity.

Model 5a adds measures of economic attitudes to model 4 to test the economic

¹⁰ See full results in appendix 1

attitudes hypothesis. There is support for this hypothesis. The *female*birth year* coefficient reduces in size compared to model 4, suggesting that gender differences in economic attitudes are partly responsible for the emergence of the modern gender gap in younger birth cohorts. Furthermore, the *female* coefficient becomes statistically insignificant in the vote intention model once economic attitudes are included. This indicates that, controlling for religiosity, women in all cohorts are more likely to vote for left-wing parties because they are more economically left-wing. Model 5b includes an interaction between the economic attitudes measures and birth cohort. For left-right self-placement only, the association between left-wing economic attitudes and left-wing placement is larger in younger cohorts than in older cohorts.¹¹ At the same time, the *female*birth year* interaction reduces in size. This suggests that the gender gap in support for economically left-wing policies which is present for all cohorts becomes more salient for the gender gap in left-right self-placement in younger cohorts, because such attitudes in general become more salient for political position. However, this does not hold for vote intention.

Model 6a tests the value change hypothesis by adding the value measures to model 4. There is some evidence for this hypothesis in the vote choice model, since, like with economic attitudes, the coefficient for *female* becomes statistically insignificant once values are included. This indicates that, controlling for their greater religiosity, women are more likely to vote for left-wing parties than men and this is partially due to their greater liberalism. Contrary to the expectations of the dealignment hypothesis, values have not become more salient for political position in younger cohorts, with the exception of attitudes towards abortion which have become *less* associated with political position in younger

¹¹ See full results in appendix 1

cohorts. Including the interactions between values and cohort makes little difference to the coefficients of interest.

Model 7 includes all explanatory variables and their interactions with birth cohort. This shows that overall, these processes are able to largely account for the gender-generation gap. For left-right self-placement, the coefficients for *female* and *female*birth year* remain statistically significant but much reduced compared to model 1. For vote intention, both coefficients are statistically insignificant in model 7. Furthermore, in the model for vote intention, including *both* the economic attitudes and values measures not only reduces the *female* coefficient compared to model 4, as adding the two sets of variables separately does, but makes this coefficient virtually zero, showing that gender differences in both economic attitudes and values are important for the gender gap in vote intention.

Following Brambor, Clark and Golder (2006), fig. 6 plots the marginal effects of gender at 5-year birth year intervals calculated from models 1 and 7 to aid the interpretation of the interaction terms.¹² In these figures, the effect of gender in a given cohort is statistically insignificant when the confidence intervals overlap with the zero line. The plots for model 1 for both dependent variables show the gender-generation gap. In older cohorts, the marginal effect of gender is negative, indicating men are more left-wing than women. After cohorts born in the 1950s, the marginal effect of gender is positive, indicating the gender gap has reversed and women are more left-wing than men. In model 7, including all explanatory variables and their interactions with birth cohort, the slope is much less steep,

¹² Calculated with other variables held at their means or medians: age 46; married; left education at 19; not a housewife; not under 55 with children; Christian; does not attend Church; is a religious person; 4 on *competition*; 2 on *benefits*; 5 on *responsibility*; 6 on *equalise incomes*; 6 on *divorce*; 5 on *abortion*, don't dislike homosexuals as neighbours; agree that being a housewife is as fulfilling as working for pay; mixed on the postmaterialist scale.

indicating that the processes described above play a significant role in explaining the gender-generation gap. The plots show that for younger cohorts, there is still a statistically significant modern gender gap even in model 7. Although the various aspects modernisation can go a long way to explaining the gender-generation gap, there is still an unexplained gender gap in younger cohorts.

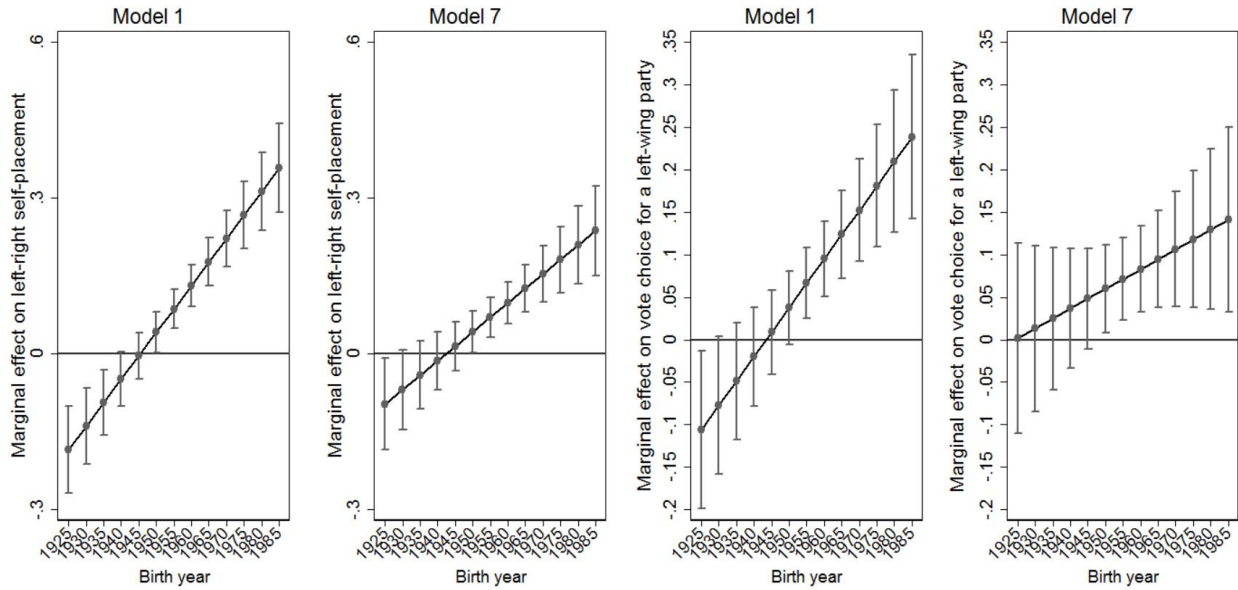


Fig. 6. Marginal effect of gender on left-right self-placement (left panels) and vote intention (right panels).

5. Robustness checks

A series of robustness checks were run to ensure the results are not dependent on the countries included: (1) Model 1, with only *birth year*, *female*, and *age*, was run for a larger number of countries including additional ones originally excluded because they lacked necessary variables (Denmark, Malta, Portugal, Switzerland, Great Britain, and Northern Ireland), and the results were similar to those presented here; (2) Models 1-7 were run dropping out each country in turn. The results are robust to this specification although in the models for vote intention the traditional gender gap in older cohorts becomes statistically

insignificant when Austria, Belgium, Finland, Iceland or Italy are omitted from the models, but the coefficients remain a similar size to the models with all countries and in a negative direction; and (3) Model 1 was run for all countries individually. Although for some countries the gender-generation gap is statistically insignificant, due to lower statistical power, the trends are the same. The exceptions are West Germany and Ireland for left-right self-placement, and France, Ireland and the Netherlands for vote intention. This is broadly consistent with fig. 5. The results of these robustness checks are in appendix 1.

The results are robust to the following alternative model specifications: (1) fixed effects for country and survey wave and a categorical age variable (18-24; 25-34; 35-44; 45-54; 55-64; 65-74; 75+); and (2) a categorical birth cohort variable (1925-34; 1935-44; 1945-54; 1955-64; 1965-74; 1975-85).

6. Conclusions

This paper confirms that there is a gender-generation gap in Europe and Canada. In older cohorts, men are more to the left of women, but this reverses for younger cohorts. The presence of the gender-generation gap shows that studies which focus on the aggregate-level gender gap, comparing all men and all women, underestimate the magnitude of political gender differences since the largest gender gaps are to be found within particular birth cohorts. This traditional approach to studying the gender gap misses key explanations for the gradual emergence of the modern gender gap over time, especially since it focuses on reducing the size of the gender coefficient in a model by adding sets of explanatory variable. This approach is problematic since the aggregate-level gender gap is produced by averaging over different gender gaps, from different birth cohorts, with different causes. It thus makes more sense to talk of gender gaps in political position and behaviour, rather than a single

gender gap. Furthermore, if scholars of vote choice and political preferences wish to control for gender they should perhaps include an interaction between gender and birth cohort in order to properly specify this control variable.

The gender-generation gap is not related to changing relative economic positions between men and women, as might be expected. Instead, it is especially related to secularisation. In older cohorts, women are much more religious than men, overall levels of religiosity are higher, and religiosity is important for political position. This leads to women being more right-wing than men in these cohorts. In younger cohorts, religiosity declines, the gender gap in religiosity declines, and religiosity declines in salience. As a result, the ‘traditional’ gender gap disappears. The decline of religiosity and its political salience appears to allow differences between men and women in their support for equality, redistribution, and state intervention to become more important for the gender gap in overall political position. Since women are more left-wing on such attitudes, they become more left-wing in self-placement and vote intention in younger, more secular cohorts. This process is depicted in fig. 7 below.

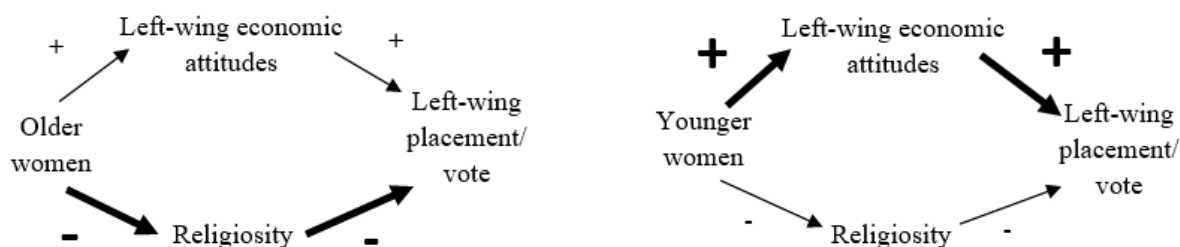


Fig. 7. The relationship between gender and left-wing self-placement/vote choice, and its mediators.

NB: Thicker arrows denote a stronger causal relationship; - signs indicate a negative relationship; + signs indicate a positive relationship

There is evidence for this process for both left-right self-placement and vote intention. For both, the relationship between religiosity and political position weakens for younger cohorts, and this affects the gender-generation gap. For left-right self-placement, economic attitudes also become more associated with political position for younger cohorts, and this helps account for the gender-generation gap. For vote intention, there would be no gender-generation gap if religiosity were constant for men and women and equally salient across cohorts, and women would be more left-wing than men in all cohorts because of their greater support for economically left-wing positions and their greater support for the values of sexual liberation.

This analysis raises further questions which should be addressed in future research. Firstly, why has religiosity declined in salience, and economic attitudes increased in salience, for younger cohorts? Emmenegger and Manow (2014) argue that declining religiosity has encouraged political parties to compete along more economic lines, and in particular for parties of the left to foreground their economically left-wing policies in an attempt to attract female voters who have become less attached to Christian Democratic parties due to declining religiosity. This would raise the salience of economic attitudes for political position, although the present analysis suggests it only does so for younger cohorts. More investigation is needed to assess the impact of parties' positions on the salience of economic attitudes for political position. Secondly, why does the gender-generation gap vary in magnitude across countries? For example, it is particularly large in Scandinavia. In addition, this analysis does not examine the US because of a lack of necessary variables in the EVS/WVS, and further analysis is required to establish whether there is a gender-generation gap in the US as well as in other Western countries. It is striking that even though there is a

rich literature on the aggregate-level gender gap in the US, this phenomenon has not been explored there. Finally, the analysis here explores general trends that apply across Western countries, but there are likely country-specific factors that shape particularly the vote choice of men and women. For example, generational differences in the gender gap in Britain have been found to be related to the historical context with respect to political parties in addition to socio-economic factors (Shorrocks, 2016). Thus, more detailed analysis of specific countries should be conducted in order to examine how gender-generation gaps are mediated by features of the political context.

This paper shows that there is a gender-generation gap in left-right self-placement and vote choice. This shows that research into differences between men and women in political orientations and behaviour should start focusing on gender gaps, rather than the aggregate-level gender gap, in order to avoid underestimating gender differences and to better understand what leads men and women to differ from each other in political orientations and behaviour. The analysis also highlights the importance of secularisation for changing gender gaps between men and women, and shows that differences in economic position between men and women are perhaps less important than previously thought.

Modernisation and government socialisation: Considering explanations for gender differences in cohort trends in British voting behaviour

A version of this paper is published as: Shorrocks, Rosalind (2016) Modernisation and government socialisation: Considering explanations for gender differences in cohort trends in British voting behaviour. *Electoral Studies*, 42: 237-248. doi: 10.1016/j.elecstud.2016.03.004

1. Introduction

Gender gaps in voting behaviour emerge when men and women vote for parties at unequal rates, producing differences in the level of support for a party between men and women. Studying such gender gaps furthers our understanding of voting behaviour in general, since explanations for vote choice are unlikely to apply to both men and women in the same way given their different social characteristics and experiences. Moreover, the gender gap has implications for political parties in terms of where they draw their support from, and whether they can maximise their electoral success by appealing to a specific gender. In election after election, Labour and the Conservatives have tried to gain the support of women voters, with Labour's 'Woman to Woman' battle bus in the 2015 election the latest incarnation of this trend. This is despite the fact that there has been little or no aggregate-level gender gap in vote choice in Britain since the 1970s (Campbell 2012; Campbell and Childs 2015; Norris 1996; Norris 1999).

However, it has been argued that there are large gender differences within birth cohorts in Britain. Pippa Norris finds that whilst in older birth cohorts men are more

supportive of Labour than women, this gender gap is reversed in younger birth cohorts (Norris, 1996, 1999), a phenomenon she has termed the ‘gender-generation gap.’ Rosie Campbell notes that although this pattern applies to some cohorts, not all younger cohorts show this reversal of the gender gap (Campbell 2006). Examining the gender gap within birth cohorts is important for a number of reasons. Firstly, if there are different gender gaps in different birth cohorts, and especially if they are in opposite directions, studying the aggregate-level gender gap likely underestimates the magnitude of gender differences in vote choice. Secondly, as Rosie Campbell argues, examining differences between ‘men’ and ‘women’ as homogeneous groups essentialises gender differences by implicitly making the unjustified assumption that all men and all women are similar to each other (Campbell 2006). Studying gender gaps within birth cohorts acknowledges that men and women born at different times face very different social and political contexts which might influence the gender gap in vote choice. Thirdly, studying how the gender gap changes across cohorts provides insight into the dynamics of change in gender gaps in political behaviour, and consequently whether we can expect to see any emergence of an aggregate-level gender gap in vote choice.

Thus the following research question will be answered here: how does the gender gap in voting behaviour vary across cohorts in Britain?¹ I provide tests of two key theories of cohort change in order to answer this question. The first is based on modernisation and is put forward by Inglehart and Norris (2003, 2000), who argue that changes in younger cohorts such as greater female labour force participation and education rates, and new sets of values including postmaterialism and egalitarian gender-role attitudes, have led women in younger

¹ Throughout the paper, I take ‘cohort’ and ‘generation’ to mean birth-year groupings, and use the terms interchangeably.

cohorts to become more left-wing in party choice relative to their male peers. The second is based on government socialisation or ‘political generations’, which argues that a birth cohort is particularly supportive of the party that was in power when they were young (Smets & Neundorf, 2012; Tilley, 2002). I suggest that this is unlikely to work in the same way for women as for men, as women are less interested and knowledgeable about national politics than men which might lead them to be less influenced by the party in government. Moreover, there is some evidence that women are less satisfied with the work of male-dominated political institutions than men and that neither Labour nor Conservative governments have traditionally been perceived as sympathetic to women. This indicates that the positive generational impression that parties in power are thought to leave is less likely to apply to women, and this could produce gender gaps within political generations.

The British context is focused on for multiple reasons. Firstly, the idea of the gender-generation gap originated and developed in Britain with the work of Pippa Norris, and so it provides a natural place to study these questions. Secondly, it provides a useful setting to study gender differences in government socialisation as in most cases research into the impact of governments on birth cohorts’ vote choice finds that there are such ‘political generations’ in Britain. This is likely because Britain generally has single-party governments who command a majority in the House of Commons. These are the types of government that are especially able to leave a generational impression since they will generally be more coherent and unified in their presentation to the public than a coalition government, or governments that are formed of a different party to the majority of the legislative branch. Thirdly, focusing on one country in this way enables a detailed and in-depth consideration of how the behaviour and activities of the political parties, in this case predominantly Labour

and the Conservatives, affect the socialisation experiences of young men and women. Finally, the British Election Studies enable the use of high-quality data on voting behaviour for a long time span (1964-2015) covering 14 elections.

This paper finds that younger cohorts are less supportive of the Conservatives, and more supportive of Labour and the Liberals, than older cohorts, but that contrary to the modernisation perspective this trend is not greater for women than for men. The results also suggest that government socialisation leads to fluctuation in the cohort effect around these overall trends, with men in particular being especially supportive of the party that was in power during their young adulthood, especially if that party was in power for a prolonged period of time. However, this process does, as expected, work differently for women. For cohorts who came of age prior to 1979, women appear to be either less susceptible to government socialisation than men or to not be affected by the party in power during their youth at all. For cohorts socialised after 1979, women are particularly unsupportive of the party in power during their formative years. Women coming of age during the Conservative government 1979-97 are less supportive of the Conservatives than other cohorts, and women socialised during the Labour government 1997-2010 are less supportive of Labour than other cohorts.

These findings substantially contribute to our knowledge on generational change and gender gaps in vote choice. Firstly, the modernisation perspective which argues that women are gradually becoming more left-wing than men in younger cohorts (Inglehart & Norris, 2000, 2003), does not apply to vote choice in Britain. This indicates that generational replacement will not produce an aggregate-level gender gap where women are more supportive of Labour than the Conservatives. Secondly, although government socialisation,

where cohorts are positively biased towards the party in power when they were young, is confirmed as an important process in producing generational differences in voting behaviour, it only consistently applies to men. Women, on the other hand, either gain little or no bias towards the party in power when they were young, or, for the youngest cohorts in this analysis socialised by the Conservative 1979-97 and Labour 1997-2010 governments, are less supportive of this party than other cohorts. The final section of the paper offers a discussion of why it is for these youngest cohorts that women are particularly unsupportive of the party in power when they were young.

The paper is structured as follows. I first discuss previous theory and research on gender and generational change in voting behaviour, propose theoretical developments to the two key theories in this area and generate the hypotheses to be tested. I then discuss the data and methods, and the results of the analysis are presented. The final section summarises the overall conclusions and discusses the implications of the findings.

2. Previous Literature and Theoretical Expectations

2.1. Modernisation and the gender-generation gap thesis

The gender-generation gap thesis argues that modernisation has led to an increase in left-wing orientations and support for parties of the left in the youngest generations, especially of women (Inglehart & Norris, 2000, 2003; Norris, 1999). Inglehart and Norris, studying the gender-generation gap in a cross-national context, argue that although everyone's lives have been changed by modernisation, women's have been most affected through higher labour force participation, expanding educational opportunities and a strengthened social safety net including care for children and the elderly. This has created a new set of values including postmaterialism, libertarianism, and secularism, which have led

younger generations, especially of women, to support left-wing parties at higher rates than older generations. As a result, older generations display the ‘traditional’ gender gap, with women more supportive of right-wing parties than men, but younger, post-war generations display the ‘modern’ gender gap, with women more supportive of parties of the left than men.

This is expected to produce a realignment of gendered patterns of voting behaviour through generational replacement, with women moving from the traditional position of voting for right-wing parties at a higher rate than men to being more supportive of parties of the left than men are. Both the analysis of the gender-generation gap cross-nationally (Inglehart & Norris, 2003), and in Britain (Norris, 1999) argue that while the ‘structural’ changes to education and labour force participation do play a role in the transition from the traditional gender gap to the modern gender gap, the associated ‘cultural’ changes to values are more important in explaining why women in more recent cohorts appear more left-wing than either older women or their male counterparts.

Literature on the emergence of the overall modern gender gap in the US since the 1980s, and more recently in some European countries, does not tend to focus on differences in the gender gap between cohorts, but the explanations provided are nevertheless consistent with Inglehart and Norris’ arguments. Social changes such as growing female labour force participation and higher levels of education amongst women have been found to account for their higher support for the left (Box-Steffensmeier et al., 2004; Howell & Day, 2000; Iversen & Rosenbluth, 2006), as have growing numbers of unmarried women (Box-Steffensmeier, De Boef, and Lin 2004; Edlund and Pande 2002; Iversen and Rosenbluth 2006). These developments are seen as increasing both women’s autonomy from men and

their economic vulnerability, leading them to favour left-wing policies. In addition, women's greater religiosity has been a key explanation for women being more right-wing than men in the past (Duverger 1955; Hayes, McAllister, and Studlar 2000; Mayer and Smith 1985), and some have argued that declining religiosity has allowed left-wing parties to credibly compete for women's votes, producing the modern gender gap (Emmenegger & Manow, 2014). Others have also found a role for values as would be expected by Inglehart and Norris' theory: the prevalence of postmaterialist values in a society has been found to contribute towards cross-national variation in the size of the modern gender gap (Giger, 2009), and gender differences in attitudes towards equality and redistribution explain some of the gender gap in the US (Howell and Day 2000; Kaufmann 2002).

However, it is far from clear that the gender-generation gap does exist in Britain. Norris' own descriptive analysis of cohort trends shows that it is not always the case that new cohorts of women are less supportive of the Conservative Party than the previous one. Moreover, most of her analysis only focuses on the 1997 general election, which makes it impossible to distinguish between age and generational effects. Campbell's more recent analysis of gender gaps in voting behaviour in Britain suggests that women in the post-war generation are more likely to place themselves on the left than their male peers, whilst there is little or no gender difference for pre-war generations, and finds that the relationship between age and Conservative vote choice is stronger for women than for men (Campbell, 2006). However, she also found that women were only more supportive of the Conservatives than men for those born 1935-44, and only more supportive of Labour for those born 1965-74, with a small or non-existent gender gap for the very youngest cohort, 1975-84. These findings throw some doubt on Norris' gender-generation gap theory in Britain, although are

again conducted using a short time span of data and so age and cohort effects cannot be separated from each other.

The discussion of the gender-generation gap in Britain generally assumes that generational changes in vote choice amongst women will benefit the Labour Party at the expense of the Conservatives. However, many of the changes Inglehart and Norris argue should lead to the emergence of the modern gender gap for younger generations may also be expected to increase support for the Liberals. In particular, education is expected to lead to increases in Liberal voting in Britain (Campbell, 2006; Heath, Jowell, & Curtice, 1985; Rose & McAllister, 1986), arguably because it has been found to increase liberal values (Campbell, Converse, Miller, & Stokes, 1960; Heath et al., 1985; Phelan, Link, Stueve, & Moore, 1995). Moreover, cultural explanations given for growing support for the Labour Party for younger women, such as postmaterialism and support for equality, might also lead them to vote for the Liberals at higher rates.

The above discussion suggests the following hypothesis:

Gender-generation gap hypothesis: Men of older cohorts are more likely to support Labour and/or the Liberals than women of these cohorts; women of younger cohorts are more likely to support Labour and/or the Liberals than men of these cohorts.

2.2. Gender and government socialisation theory

Theories of government socialisation offer an alternative account of gendered cohort trends in voting behaviour to the gender-generation gap thesis. Mannheim's theory of political generations holds that each birth cohort has the potential to hold a distinctive set of values, developed through socialisation during the formative years of the individuals who

comprise that cohort (Mannheim, 1968). Individuals are particularly impressionable and susceptible to influence during these years but become less so, meaning they retain to some extent the values they acquired earlier in life, a process that has been confirmed for political preferences (Alwin and Krosnick 1991; Krosnick and Alwin 1989). The general political context in which an individual comes of age is therefore seen as important to their life-long political behaviour and attitudes, leaving generational differences depending on these formative experiences. In support of this idea, those socialised during the rise of non-traditional forms of political participation in the 1960s and 1970s have been found to be more likely to participate in social movements and protests than other generations (Grasso, 2014), and significant political events in adolescence and young adulthood have been found to influence life-long attitudes (Schuman & Corning, 2011).

In a similar way, government socialisation theory, first articulated in the US by Campbell et al. in *The American Voter* (Campbell et al., 1960) and in Britain by Butler and Stokes in *Political Change in Britain* (Butler & Stokes, 1974), suggests that those who spend their young, impressionable years with a certain party in power will be positively biased towards that party through subsequent elections. This produces political generations who are differentiated from each other by which party was in power when they came of age. In the US it was noted that those who came of age during the New Deal era were more supportive of the Democrats than other birth cohorts, and similarly that those who were young during the Eisenhower era appeared to be more supportive of the Republicans (Campbell et al., 1960; Converse, 1974). In Britain, those who entered adulthood during the immediate post-war years were found to be more supportive of Labour than other cohorts, whilst those who entered during the Conservative-dominated 1950s were more supportive of the Conservatives

(Butler & Stokes, 1974; Thorburn, 1977).

More recently this theory has been developed further (Smets & Neundorf, 2012; Tilley, 2002), with the argument that cohorts which come of age under a certain party form a positive bias towards it because it was the most visible party during the crucial formative years and had more influence over the political agenda. It has been found in Britain that those who came of age during the 1920s, 1950s and 1980s are the most Conservative cohorts, and this has been attributed to the fact that these were all periods where the Conservatives and their beliefs were most dominant (Tilley, 2002; Tilley & Evans, 2014). Those who were first-time voters in the 1980s have been described as ‘Thatcher’s children’ because they form a particularly right-wing cohort in their attitudes towards law and order, and tax and public spending (Russell, Johnston, & Pattie, 1992). The evidence is, nevertheless, somewhat inconsistent, with some finding little evidence of government socialisation leaving a generational impression in Britain, especially amongst younger cohorts (Goerres, 2008; Smets & Neundorf, 2012).

However, so far no analysis has examined gender differences in political generations in Britain. A gendered reconsideration of government socialisation theory suggests that we cannot necessarily expect such a process to act in the same way for women as for men, and a failure to recognise this might be why some find less evidence for government socialisation than others. Firstly, the theory suggests that individuals are influenced by political events and trends, but in order for this to be case individuals must be aware of them. However, women have consistently been found to have lower levels of political interest (Coffé & Bolzendahl, 2010; Verba, Burns, & Schlozman, 1997), to pay less attention to political news, and to be less likely to engage in political discussions than men (Wolak & McDevitt, 2011). In

addition, women have been found to lag behind men in terms of their political knowledge (Dolan, 2011; Frazer & Macdonald, 2003), a gap that persists even when accounting for the greater likelihood of men to guess when asked knowledge-based questions (Lizotte & Sidman, 2009; Mondak & Anderson, 2004).

This is especially true of knowledge about national and male-dominated institutions: when asked about local issues (Verba et al., 1997) or female politicians (Dolan, 2011) women are more knowledgeable than men. Women's relative lack of interest in and knowledge of male-dominated national governments is likely to make them less susceptible to government socialisation since they are less likely to be aware of the actions of the government. The idea that women may be less influenced by the party in power also draws strength from findings in the US which show that women change their policy preferences in response to government action to a lesser extent than men (Kellstedt, Peterson, & Ramirez, 2010).

Secondly, even when women are knowledgeable about events at the level of the national government, they are likely to view them in a less favourable light than men. Throughout the Twentieth Century, neither Conservative nor Labour governments have seriously attempted to address gender inequalities or women's needs. Most policies enacted by both parties whilst in government, including the development of the NHS and other aspects of welfare policy, were based on a view of women as wives and mothers, rather than individuals (Lewis, 1992; Maguire, 1998). The Conservative Party, although making use of large numbers of female activists, only viewed women in domestic or family roles, a stance which was reflected in policy (Lovenduski, Norris, & Burness, 1994). Labour was primarily concerned with class inequality and was unconcerned with gender inequality except where it

related to class (Black & Brooke, 1997; Francis, 2000). To some extent New Labour did successfully address these issues with policies on childcare and tax credits, although this government has been subject to the criticism that the adoption of the ‘Third Way’, and hence acceptance of a greater role for markets than previous Labour governments, took priority over tackling gender inequality (Annesley, Gains, & Rummary, 2007; Perrigo, 1999). Joni Lovenduski has argued that when government policy is conducted in such a way that it ignores gender, it tends to favour men’s interests at the expense of women’s (Lovenduski, 1996). This suggests that women, and particularly young (impressionable) women who were least likely to fit into the categories of wife and/or mother, may be likely to view successive governments of both parties and their policies less favourably than men. Internal research for both the Labour and Conservative parties at different points during the century has found that neither was perceived as sympathetic towards or supportive of women’s issues, and Labour had a particularly masculine image related to its dominance by trade unions (Maguire, 1998; Perrigo, 1999), lending support to the suggestion that women likely view governments more negatively than men.

Moreover, the male-dominated nature of British governments, with considerably more male MPs and Ministers than women, in and of itself may lead young women to be less supportive of the party in power during their formative years. Research in the US has found that when women have a female representative in Congress they tend to give a more positive evaluation of their Congress-member than women who don’t (Lawless, 2004), and in the UK women are more likely to feel that ‘government benefits people like me’ when they have a female MP (Norris, Lovenduski, & Campbell, 2004), suggesting that the male-dominated nature of governments in Britain might lead women to be unenthusiastic about the party in

government even when they are fully knowledgeable about its actions.

The above discussion suggests that whilst we might expect men to be particularly supportive of the party that was in power when they were young, as per the usual formulation of government socialisation theory, we cannot necessarily expect this to hold for women. Women may be less influenced by the government in power when they were young, or even negatively biased towards it. Such a gender difference in socialisation may lead to gender gaps in vote choice within cohorts. This leads to the following hypothesis:

Gendered government socialisation hypothesis: Birth cohorts are more likely to support the party that was in power during their formative years than other cohorts, but this is stronger for men than for women.

3. Data and Methods

3.1. Data

The data are the British Election Studies (BES) from 1964 to 2015: high quality post-election data from a nationally representative probability sample, collected in face to face interviews.² All fourteen surveys are merged for this analysis to create a pooled dataset covering 51 years and 14 elections. This allows for the investigation of cohort effects, as the behaviour of many generations can be observed at different ages and time periods.

² The BES can be found at the UK Data Service (www.ukdataservice.ac.uk) and the British Election Study website (www.britishelectionstudy.com). All analyses are weighted using weights provided by the respective British Election Studies, which predominantly account for regional non-response but in some surveys include adjustments for unequal selection probabilities and/or demographic weights.

3.2. Methods and Variables

The analysis of generational trends is complicated by the Age-Period-Cohort (APC) identification problem. Age and period are confounders for cohort, but as the effects of age, period and cohort are perfectly collinear with each other (often expressed as $A = P - C$) it is impossible to simultaneously estimate their linear effects in a standard regression because you cannot hold the effects of one of the three constant while varying the others (Mason et al. 1973). One commonly-used solution to this is to include constraints in a generalised linear model, for example by assuming that at least two cohorts, periods or ages do not differ in their effect on the dependent variable of interest. The advantages of such models are that they are easily interpreted and provide statistical tests of the hypotheses.

Here this method is employed using a multinomial logit, where the dependent variable has three categories: voting for the Conservatives, for Labour, or for the Liberals.^{3 4} This analysis only considers those who actually cast a vote in each election, and not the more stable attribute of party identification. Therefore this measure might be particularly susceptible to election- specific period effects, but it captures those individuals who identify with a party but in practice do not actually vote for them.

In order to test the two hypotheses, birth cohort is operationalised in two different ways. To test the gender-generation gap hypothesis, mean-centred *birth year* is included as a continuous independent variable from 1908 to 1987.⁵ This variable is a recode of the responses to the question on age in the BES. The range of birth years omits cohorts where

³ Liberal Party pre-1992, the Alliance 1983 and 1987, and the Liberal Democrats 1992-2015. This includes multiple different incarnations of the Liberals into one variable, but this is necessary since the gender-generation gap hypothesis makes predictions about Liberal support and without constructing such a dependent variable the long time-span afforded by the BES cannot be utilised.

⁴ The results are the same if extra categories for other parties and non-voters are included.

⁵ The mean of birth year is 1943.

men and women did not have equal suffrage for all the elections they experienced (those born before 1908) and the very youngest born 1988-1997 who only had the chance to vote in one or two elections. An interaction between this variable and *female* is also included, with *female* a dichotomous variable indicating whether the respondent is female or not.

To test the gendered government socialisation hypothesis birth year is grouped into birth cohorts by those who spent the majority of their formative years under a particular government. There is some debate about when the formative years occur: although some have argued for a wide span of ages from early adolescence to the late twenties (Bartels & Jackman, 2014; Jennings, 1989), most analysis of political socialisation focuses on the ages 18-25, because these are the first seven years in which someone is eligible to vote, and will usually contain their first election (Alwin & Krosnick, 1991; Becker, 1990; Jennings & Niemi, 1981; Krosnick & Alwin, 1989; Markus, 1979; Tilley, 2002). This analysis thus codes an individual as socialised by a particular party in power if they spent at least half (4+) of these years under that government.

This produces the following birth cohorts and the (single-party) governments their formative years coincided with: born 1924-29 (Labour government 1945-51); born 1930-42 (Conservative government 1951-64); born 1943-48 (Labour government 1964-70); born 1949-52 (Conservative government 1970-74); born 1953-57 (Labour government 1974-79); born 1958-75 (Conservative government 1979-97); born 1976-87 (Labour government 1997-2010). Two variables are constructed using these birth cohorts: one comparing those socialised during each Conservative government to a reference category of all other cohorts, and one comparing those socialised during each Labour government to a reference category

of all other cohorts.⁶ An interaction between *female* and these government socialisation birth cohorts is also included.

A number of controls are included in the multinomial logits. Election is controlled for by using fixed effects for each *election year*, because birth cohorts living through the same years experience the same elections. This will also control for the sensitivity of the dependent variable to election-specific period effects. February 1974 and 1992 are omitted from the final multinomial logit as they lack some of the control variables.⁷

As people get older they have been found to get more likely to vote Conservative (Rose & McAllister, 1986; Tilley & Evans, 2014; Tilley, 2002), so any finding that more recent generations are less likely to support the Conservatives could be because these generations have not yet experienced the more Conservative ages. *Age* is therefore controlled for with a categorical variable: 18-24 (reference); 25-34; 35-44; 45-54; 55-64; 65-74; 75-84; 84-94. For 1964 and 1966 the youngest age is 21 since these elections took place before the extension of the franchise to those 18 and over. Including age as a categorical variable is the key identifying assumption of the multinomial logits, and is what ‘breaks’ the perfect collinearity between age, period and cohort.

A number of other control variables are also included in order to isolate the gender and generational patterns related to government socialisation. Since not all the controls that would ideally be included are available, in a comparable format, in every BES wave, including further control variables becomes a trade-off between taking advantage of the long

⁶ Those socialised by the two coalition governments pre-1945 (the National governments of the 1930s and the War Ministry) are included in the reference category for both variables. This is because since these governments were coalitions and it is not clear to what extent voters would have separated the parties in government from each other.

⁷ The multinomial logits without the controls show the same pattern of results with February 1974 and 1992 included as are presented here, with coefficients of a similar magnitude although with smaller standard errors because of the larger sample size.

time span offered by the BES, which is especially useful for age-period-cohort analysis, and including a full list of controls. In order to keep the long time span, this analysis controls for the key variables of education, religiosity, social class, and having children in the household. These are controls that might be especially related to changes across birth cohorts, and having children has been found to influence particularly women's vote choice in favour of the Labour Party (Campbell, 2006). This strategy omits some controls that have been found to be associated with vote choice (marital status, labour force participation, postmaterialism), which should be remembered when considering the analysis.

Education is a dichotomous variable for having received a qualification from a university. *Religiosity* is included using a three-category variable: not religious (reference); belonging to a Christian denomination; and belonging to a non-Christian religion. *Social class* uses a question in the BES which asks the respondent whether they think of themselves as belonging to a particular class, with three categories: no class (reference); working class; and middle class. *Children* is a dichotomous variable for the presence of children in the respondent's household.^{8 9}

⁸ In some years this question refers to children under the age of 16, in other years under the age of 18. Although this measure is in some ways problematic as it does not refer to whether the respondent has ever had children, or to whether the children in the household are the respondent's, it is the only measure of this kind available across the BES.

⁹ The use of these control variables results in reduced sample sizes particularly for 2001 and 2005, which only asked some respondents about education and religiosity, and the multinomial logits presented here are using a restricted sample of those observations which are not missing any data on the variables described. The models without the controls and thus using an expanded sample show the same pattern of results as those presented here, but with smaller standard errors.

4. Results

4.1. Trends in the Gender Gap

Fig. 1 shows trends in the gender gaps in Conservative, Labour and Liberal support by election year. The gender gaps in figs. 1a-1c are generally negative, indicating that women have tended to be more likely than men to support the Conservatives over Labour or the Liberals, and more likely than men to support the Liberals over Labour. However, fig. 1 shows little change over time, indicating a lack of any sort of realignment in gender voting. Additionally, few gender gaps reach statistical significance in any given year. This lack of an aggregate-level gender gap could, however, be masking substantial gender gaps amongst particular birth cohorts, and the results in fig. 2 indicate that this is the case.

Fig. 2 shows trends in the gender gap by decade of birth. Fig. 2a shows that most cohorts of women born before the 1950s are more supportive of the Conservatives than Labour, but, contrary to the expectations of the gender-generation gap hypothesis, it is not clear that there is a systematic decline in support for the Conservatives for newer cohorts of women compared to the other two parties, as figs. 2a and 2b do not trend unambiguously upwards, which would indicate growing support for Labour or the Liberals over the Conservatives for women. Instead, whilst in figs. 2a and 2b those born in the 1970s and to some extent the 1980s show similar gender gaps to those born in the 1930s, those born in the 1960s are much more likely than men to vote for Labour or the Liberals rather than the Conservatives. Fig. 2c does show an upward trend in the gender gap in support for the Liberals versus Labour, with women in earlier cohorts more supportive of the Liberals than men, but women in later cohorts instead more supportive of Labour. This is an unexpected

finding, as the gender-generation gap hypothesis expects the Liberals to gain at the expense of the Conservatives in younger cohorts of women, not at the expense of Labour.

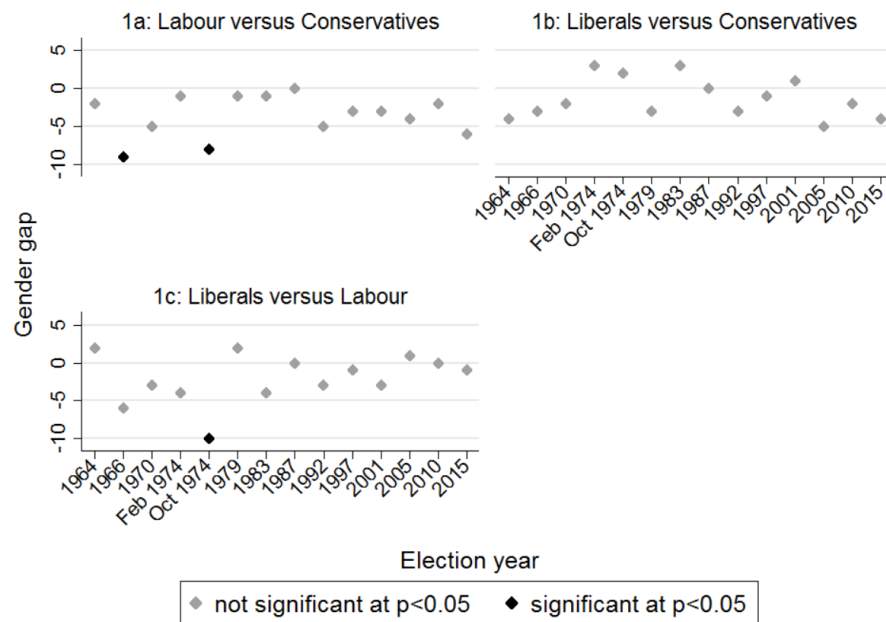


Fig. 1. The gender gap by election year

The gender gap is calculated by subtracting the lead party 1 has over party 2 for women from the lead party 1 has over 2 for men. Negative numbers therefore indicate women are more supportive of party 2 than party 1, i.e. the Conservatives in the top two graphs, and Labour in the bottom one. Source: BES 1964-2015, N: fig. 2a = 22,030; fig. 2b = 15,914; fig. 2c = 16,554.



Fig. 2. The gender gap by decade of birth

The gender gaps are calculated in the same way as fig. 1. Source: BES 1964-2015, N: fig. 2a = 22,030; fig. 2b = 15,914; fig. 2c = 16,554

4.2. Multinomial Logit Models

Four multinomial logit models are presented below. Model 1 includes *birth year* and *female*, and an interaction between the two, as well as the controls for *age* and *election year*. Model 2 adds the controls of *religiosity*, *social class*, *education*, and *children*. Model 3 adds a government socialisation variable which compares the cohorts socialised by each Conservative government (1951-64, 1970-74, and 1979-97) to a reference category of all other cohorts. Model 4 adds to model 2 a government socialisation variable that compares the cohorts socialised by each Labour government (1945-51, 1964-70, 1974-79, and 1997-2010) to a reference category of all other cohorts. Tables 1-3 show the results of these models in terms of the three possible pairwise comparisons: Labour versus Conservative; Liberal versus Conservative; Liberal versus Labour. The full results of the multinomial logits

with all controls are in appendix 2.¹⁰

Model 1 shows no support for the gender-generation gap hypothesis. Younger cohorts are in general more supportive of Labour and the Liberals than the Conservatives, with no change across cohorts in the relative support given to Labour versus the Liberals. However, the very small, statistically insignificant, interactions between *female* and *birth year* indicate that there is no difference in these cohort trends for men and women, as the gender-generation gap hypothesis would expect.

The main effect of *female* gives the gender gap at the mean birth year, 1943, although it is almost identical to the gender gap for all birth years considered together in a model without the interaction between gender and birth year. It suggests that women are less supportive of Labour than the Conservatives, but more supportive of the Liberals than either Labour or the Conservatives, than men. The gender difference between Labour and Conservative support becomes statistically insignificant once the controls for religiosity, social class, education and the presence of children are added to the model, which suggests that this gender gap is due to differences in the social characteristics of men and women. By contrast, women's greater support for the Liberals grows larger in model 2 once the controls are added.

¹⁰ Age is almost always statistically insignificant, and the results for election year are what would be expected from the electoral fortunes of the parties. Likelihood-ratio tests and multi-collinearity diagnostics are also included in appendix 1.

Table 1. Multinomial logits on vote choice: Labour versus Conservatives

	Model 1	Model 2 + controls	Model 3 + Conservative governments	Model 4 + Labour governments
Birth year (mean centred)	0.018*** (0.006)	0.019*** (0.007)	0.020*** (0.007)	0.017** (0.007)
Female	-0.090** (0.035)	-0.003 (0.037)	-0.107** (0.054)	0.042 (0.046)
Female*Birth year	0.002 (0.002)	0.001 (0.002)	-0.001 (0.002)	0.004 (0.002)
<i>Government socialisation cohorts. Reference: socialised by a non-Conservative government</i>				
Conservative 1951-63			-0.131** (0.066)	
Conservative 1970-74			-0.335*** (0.115)	
Conservative 1979-97			-0.026 (0.090)	
Female* Conservative 1951-63			0.190** (0.093)	
Female* Conservative 1970-74			0.300* (0.155)	
Female* Conservative 1979-97			0.218* (0.124)	
<i>Government socialisation. Reference: socialised by a non-Labour government</i>				
Labour 1945-51				0.219** (0.092)
Labour 1964-70				-0.221** (0.087)
Labour 1974-79				0.132 (0.108)
Labour 1997-2010				0.308** (0.146)
Female* Labour 1945-51				-0.095 (0.128)
Female* Labour 1964-70				0.029 (0.121)
Female* Labour 1974-79				-0.239 (0.149)
Female* Labour 1997-2010				-0.415** (0.202)
<i>Controls</i>				
Age and election year	Y	Y	Y	Y
Religiosity, social class, education, children	N	Y	Y	Y
Intercept	0.463*** (0.088)	0.490*** (0.099)	0.515*** (0.104)	0.432** (0.102)

N=17,126. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses. Positive coefficients indicate greater support for Labour than the Conservatives.

Table 2. Multinomial logits on vote choice: Liberals versus Conservatives

	Model 1	Model 2 + controls	Model 3 + Conservative governments	Model 4 + Labour governments
Birth year (mean centred)	0.022*** (0.008)	0.019** (0.008)	0.020** (0.008)	0.019** (0.008)
Female	0.017 (0.043)	0.093** (0.044)	0.028 (0.063)	0.116** (0.055)
Female*Birth year	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.003)	-0.001 (0.003)
<i>Government socialisation cohorts. Reference: socialised by a non-Conservative government</i>				
Conservative 1951-63			-0.271*** (0.084)	
Conservative 1970-74			0.070 (0.121)	
Conservative 1979-97			-0.185* (0.104)	
Female* Conservative 1951-63			0.260** (0.114)	
Female* Conservative 1970-74			-0.211 (0.170)	
Female* Conservative 1979-97			0.143 (0.142)	
<i>Government socialisation. Reference: socialised by a non-Labour government</i>				
Labour 1945-51				0.242** (0.115)
Labour 1964-70				-0.062 (0.101)
Labour 1974-79				0.315*** (0.119)
Labour 1997-2010				0.140 (0.174)
Female* Labour 1945-51				-0.084 (0.156)
Female* Labour 1964-70				0.075 (0.137)
Female* Labour 1974-79				-0.230 (0.163)
Female* Labour 1997-2010				-0.078 (0.237)
<i>Controls</i>				
Age and election year	Y	Y	Y	Y
Religiosity, social class, education, children	N	Y	Y	Y
Intercept	-1.063*** (0.123)	-0.917*** (0.132)	-0.826*** (0.137)	-0.951*** (0.134)

N=17,126. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses. Positive numbers indicate greater support for the Liberals than the Conservatives.

Table 3. Multinomial logits on vote choice: Liberals versus Labour

	Model 1	Model 2 + controls	Model 3 + Conservative governments	Model 4 + Labour governments
Birth year (mean centred)	0.003 (0.008)	-0.000 (0.008)	0.000 (0.008)	0.002 (0.008)
Female	0.107** (0.044)	0.096** (0.045)	0.135** (0.064)	0.074 (0.056)
Female*Birth year	-0.004 (0.002)	-0.003 (0.002)	-0.001 (0.003)	-0.005* (0.003)
<i>Government socialisation cohorts. Reference: socialised by a non-Conservative government</i>				
Conservative 1951-63			-0.140 (0.086)	
Conservative 1970-74			0.404*** (0.127)	
Conservative 1979-97			-0.158 (0.103)	
Female* Conservative 1951-63			0.070 (0.117)	
Female* Conservative 1970-74			-0.511*** (0.177)	
Female* Conservative 1979-97			-0.074 (0.141)	
<i>Government socialisation. Reference: socialised by a non-Labour government</i>				
Labour 1945-51				0.023 (0.116)
Labour 1964-70				0.159 (0.106)
Labour 1974-79				0.183 (0.118)
Labour 1997-2010				-0.168 (0.168)
Female* Labour 1945-51				0.011 (0.159)
Female* Labour 1964-70				0.046 (0.144)
Female* Labour 1974-79				0.009 (0.165)
Female* Labour 1997-2010				0.337 (0.231)
<i>Controls</i>				
Age and election year	Y	Y	Y	Y
Religiosity, social class, education, children	N	Y	Y	Y
Intercept	-1.526*** (0.121)	-1.408*** (0.130)	-1.341*** (0.135)	-1.383*** (0.133)

N=17,126. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses. Positive numbers indicate greater support for the Liberals than Labour.

Those who are Christian are less supportive of Labour and the Liberals than the Conservatives in comparison to the non-religious, whilst those who identify as a non-Christian religion are more supportive of Labour than the Liberals or Conservatives, which may also reflect an ethnicity factor. Compared to those with no class identification, working class voters are more supportive of Labour and the Liberals than the Conservatives and more supportive of Labour than the Liberals, whilst middle class voters are less supportive of Labour and the Liberals than the Conservatives and less supportive of Labour than the Liberals. Individuals with a degree were more supportive of Labour than the Conservatives, and more supportive of the Liberals than either of the other parties. Those with children in the household were more supportive of Labour than the Conservatives.¹¹

There is more evidence for the gendered government socialisation hypothesis. Figs. 3 and 4 show the change in the predicted probability of voting Conservative, Labour or Liberal in each cohort compared to the reference category, for cohorts socialised by Conservative governments in fig. 3 and cohorts socialised by Labour governments in fig. 4. The change for men is given relative to men in the reference cohorts, and the change for women is given relative to women in the reference cohorts. In accordance with previous research and the gendered government socialisation hypothesis, men of cohorts which came of age during the Conservative 1951-64, 1970-74, and 1979-97 governments are, to varying degrees and once the linear trend towards lower Conservative support is taken into account, more supportive of the Conservatives than other cohorts, and men of cohorts which came of age during the Labour 1945-51 and 1997-2010 governments are more supportive of Labour, over and above

¹¹ Models were also run with interactions between gender and these controls. The difference between those of non-Christian religion and the reference of no religion is smaller for women than for men and the effect of having a degree is larger for women than for men, for all pairwise party comparisons. These were the only statistically significantly and substantively large interactions and did not affect the other results.

what might be expected from the linear increase in Labour support across birth cohorts.

However, the process of government socialisation is less clear for women. For the five governments for which government socialisation can be seen for men, the interaction between gender and these cohorts is in the opposite direction to the main effect. This produces either a smaller increase in the probability of voting for the party that was in power when a cohort came of age for women than for men (Labour government 1945-51 and Conservative government 1970-74), or almost no change in the predicted probability for women (Conservative government 1951-63), or a statistically significant *decrease* in support among women for the relevant party (Conservative government 1979-97 and Labour government 1997-2010). This lends support to the hypothesis that government socialisation has less of an impact on women than men.

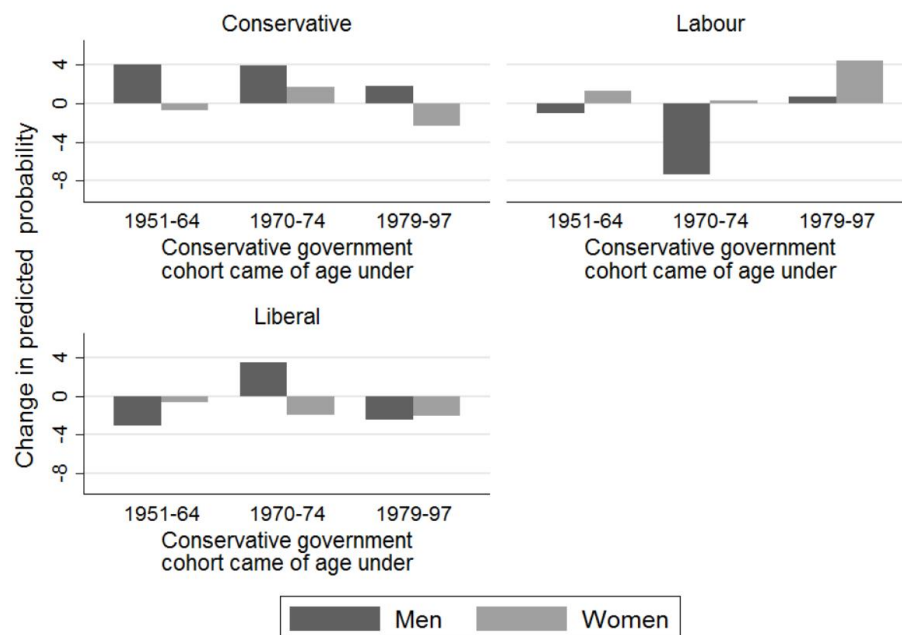


Fig. 3. Change in predicted probability for men and women of voting Conservative, Labour and Liberal for cohorts socialised by Conservative governments compared to the reference category of socialised during non-Conservative governments. Calculated from model 3.

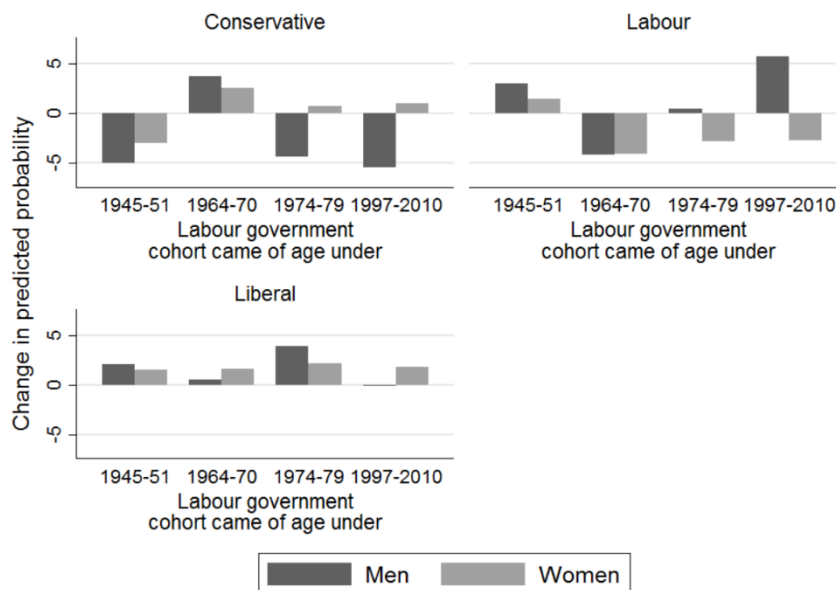


Fig.4 Change in predicted probability for men and women in voting Conservative, Labour and Liberal for cohorts socialised by Labour governments compared to the reference category of socialised during non-Labour governments. Calculated from model 4.

There is also evidence that the differential process of government socialisation by gender leads to changes in the gender gap within particular cohorts. Fig. 2 shows that the gender gap disappears for the cohort born in the 1930s, and so came of age under the Conservative government 1951-64, and this can be explained by a larger movement of men in this cohort towards the Conservative Party which is not matched by women of this cohort, who were already more likely to support the Conservatives, reducing gender differences in vote choice. The reduction in support for the Conservatives (and corresponding increase in support for Labour) amongst women who came of age during the Conservative government 1979-97 coincides with the large modern gender gap seen in fig. 2 for cohorts born in the 1960s. The lower support for Labour for women of the cohort socialised during the Labour

government 1997-2010 corresponds to the reduction of the modern gender gap for those born in the 1970s and 1980s, shown in fig. 2.

Two Labour governments (1964-70 and 1974-79) show no evidence of having socialised either men or women into high support for the Labour Party, and the 1964-70 government appears to be less popular among both men and women who came of age during it than those socialised by non-Labour governments. These two Labour governments were short-lived, especially in comparison to the Conservative governments 1951-64 and 1979-97, and the Labour government 1997-2010. Moreover, they won elections by slim majorities and needed two elections in quick succession to achieve workable majorities in the House of Commons. At the same time, after a period of pronounced two-party politics, the Liberals in the 1970s began to win a larger share of the vote, which model 4 in table 4 and fig. 4 suggest might have particularly led the party to gain votes amongst those who were young in the late 1970s, under the Labour government 1974-79.

4.3. Robustness checks

Two sets of robustness checks showed that the results achieved using the method described in section 3.2 are not just a product of this particular model specification. The first relates to the cohort effects. Problematically, using a grouped categorical variable to examine cohort trends that are the result of government socialisation involves losing a great deal of information about the data and making assumptions about where to draw the boundaries of the groups, yielding results that are only as valid as the assumptions made. The creation of the government socialisation variable as described in section 3.2 makes assumptions about which birth cohorts are most affected by each government, and in particular at what ages the ‘formative years’ lie.

Some previous studies of cohort trends have made use of generalised additive models (GAMs), which show the effect of birth year by estimating an arbitrary smoothed function instead of the standard coefficient, to explore the non-linear trends in cohort and hence assess whether the cohort groupings used in constrained generalised linear models are valid (Grasso, 2014; Neundorf, 2010). As a robustness check this method was used here to visually inspect the validity of using the cohort groupings in the multinomial logits. These GAMs show that using these groupings is justified: there are non-linear patterns in the relationship between vote choice and birth year that correspond to those expected by government socialisation. Moreover, these non-linear patterns are less pronounced for women than they are for men. The full results of the GAMs are in appendix 2.

The second set of robustness checks relates to the proper specification of age. To ensure that the results are not due to the particular coding of age described in section 3.2, the models were firstly specified with alternative age variables, including grouping age into 5-year categories and 2-year categories and a continuous age and age squared variable (omitting the continuous birth year variable). Secondly, Yang and Land have argued that year and/or birth year should be included as random effects, both to take into account what they see as the hierarchical structure of the data, with individuals nested within birth cohorts and years, and to deal with the APC identification problem (Yang & Land, 2006, 2008). The analysis was conducted including year in the random part of the model, which allows for the specification of age and age squared as continuous variables whilst keeping the continuous birth year variable in the model since the grouping of age is no longer required to make the model identifiable. The results are robust to this specification. Thirdly, interactions between age and gender were included, and the results for the cohort effects and their interactions

with gender are robust to this specification. The interactions between age and gender are always statistically insignificant.

A final robustness check was added to assess the impact of coding the dependent variable in the three categories of Conservative, Labour, and Liberals. This is different to that used in the first chapter of this paper, which uses instead a dichotomous variable comparing voting for a party of the left versus not doing so. I ran logit models equivalent to models 1-4 above using two different dichotomous dependent variables: (1) Labour/Green/Communist vote versus Conservative/UKIP/other right-wing e.g. BNP vote, and (2) Labour/Green/Communist/Liberal vote versus Conservative/UKIP/other right-wing vote. The results are the same as using the multinomial logit and original dependent variable, and can be found in appendix 2. The patterns seen in figures 1 and 2 are also similar when calculating the gender gap using these dichotomous variables.

5. Discussion and Conclusions

This paper has shown that the lack of an aggregate-level gender gap in most British elections hides considerable gender gaps within certain birth cohorts. For the oldest cohorts, women are more supportive of the Conservatives than Labour, as shown by fig. 2. This seems to be due to differences between men and women in socio-economic position, as the gender gap in Conservative versus Labour support disappears in model 2 once such variables are added. However, younger cohorts of women do not steadily become more supportive of Labour or the Liberals compared to their male peers as Inglehart and Norris' modernisation theory expects, indicating that we cannot assume that modernisation will straightforwardly lead to a 'modern' gender gap in vote choice. Instead, changes to the gender gap appear to be related to gender differences in the response of cohorts in their formative years to the party in

power.

Men retain a positive bias for the party that was in power during their young adulthood, for five of the seven governments in power from 1945-2010. These governments, with the exception of the Conservative 1970-74 government, tended to be in power for extended periods of time which indicates that the government socialisation effect is reinforced by longer exposure to the same government during youth. Several of these governments also had strong reform agendas, and evidence from Britain has suggested that parties that adopt radical stances can substantially influence public opinion and ideology (Curtice & Fisher, 2003). This might particularly be the case for younger birth cohorts who are at the most impressionable age, leading them to favour that party throughout their life-span. The Labour governments of the late 1960s and 1970s have left little or no generational impression, likely due to them being short-lived and often mired in economic crisis, and the increase in Liberal vote share in the 1970s after a period of two-party politics.

However, this positive government socialisation is not found for women. For governments prior to 1979, the positive bias incurred for women is either less strong than it is for their male peers or non-existent, indicating that government socialisation is a process that better explains male behaviour than female, possibly because of their differing levels of engagement with national politics. This leads to some changes in the gender gap, most notably the disappearance of any gender gap in Labour/Conservative vote choice for those born in the 1930s. Larger gender gaps are found for those born after 1958: men socialised during the Conservative 1979-1997 and Labour 1997-2010 governments are positively biased towards the relevant party, but their female peers appear to be particularly unsupportive of the party in power when they came of age. This produces a reversal of the

traditional gender gap especially for those born in the 1960s. For those born in the 1970s women are again more supportive of the Conservatives and less supportive of Labour than men, and the modern gender gap that re-emerges for those born in the 1980s is much smaller than that of the 1960s. This suggests that previous evidence presented for the gender-generation gap in Britain by Norris (1999), which analysed the BES when those born in the 1960s were one of the youngest cohorts, is due to the distinctive behaviour of those socialised during the Conservative government 1979-97. Moreover, this evidence indicates that when processes of government socialisation are explored in other contexts, the possibility of gender differences should not be ignored.

It is noteworthy that for older cohorts government socialisation simply has very little impact on women, whilst for those born in the 1960s onwards women are particularly unsupportive of the party in power during their formative years. In these later cohorts gender differences in political engagement and interest may be closing as women take on more non-traditional roles outside the home, a trend Inglehart and Norris (2003) also suggest is occurring. For these women, it might be their dissatisfaction with the actions of government, rather than a lack of interest in or knowledge about it, which leads them to be unsupportive of the party of government during their youth. In particular, the Conservative Party under Thatcher has been criticised for not being women-friendly, despite having a female Prime Minister. However, this line of argument fits less well with the subsequent New Labour period. Although New Labour did not integrate gender equality into its policies as much as it could have (Annesley et al., 2007), it did see the extension of childcare provision and tax credits, and precipitated an unprecedented rise in the number of female MPs being elected to parliament. As a result, the generational trends identified in this paper could actually be due

to young women rejecting Thatcher in particular and switching to Labour, producing a specific gender gap for this generation which then makes it appear as though women socialised during the New Labour period are less supportive of Labour than you would expect in comparison. Indeed, fig. 2 shows that there is simply very little gender difference for cohorts born in the 1970s and 1980s, not that women are less supportive of Labour than men. Further research could usefully examine gender differences in policy positions and evaluations of the Conservative government 1979-97 and the Labour government 1997-2010 within the cohort born 1958-87 in order to analyse further the roots of the changing gender gap for these cohorts.

This analysis has shown that the political generations found by previous research to be related to the party in power when a cohort came of age (e.g. by Russell et al., 1992; Tilley & Evans, 2014; Tilley, 2002) are much more applicable to cohorts of men than cohorts of women. This suggests gender differences in the process of political socialisation should be considered in generational research. Additionally, the emergence of a substantial modern gender gap is only found for the cohort born in the 1960s, and is the product of a particular political context. The subsequent disappearance for later cohorts shows that we cannot expect a realignment of the gender gap in Britain.

Modernisation versus political generations: gender gaps in support for redistribution and spending in the US and Britain

1. Introduction

Women are generally found to be more economically left-wing – supportive of government spending, redistribution, and welfare – than men in the US, Britain, and other Western European countries (Shapiro and Mahajan 1986; Norris 1988; Howell and Day 2000; Campbell 2012). Such differences are generally attributed to material gender inequalities: that since women tend to be in weaker economic positions than men it is more in their interests to support policies that favour higher spending on social services and greater levels of redistribution. This has been argued to have consequences for electoral outcomes and political campaigns. In particular, the emergence of a gender vote gap in the US from the mid-1970s onwards, where women are more likely to vote for the Democrats than men, has been linked to differences between men and women in economic preferences (Andersen, 1999; Box-Steffensmeier et al., 2004; Erie & Rein, 1988). It seems that gender inequalities in socioeconomic position affect political preferences and political outcomes via shaping men's and women's preferences in different ways.

This paper examines how the gender gap in attitudes towards redistribution and social spending changes over generations in the US and Britain, because if relative economic positions between men and women differ for different generations, then the gender gap is likely to as well. As discussed in previous papers, a key prediction of Inglehart and Norris' (2003) modernisation theory is that women in younger cohorts become more and more left-wing in their economic preferences relative to men, and that this is an important reason

behind the gender-generation gap in vote choice, where men are more left-wing than women in older cohorts but women are more left-wing than men in younger cohorts. This paper contrasts the expectations of the modernisation theory, as set out by Inglehart and Norris, with a perspective that focuses on political socialisation through the national policy context. The US and Britain are useful cases to compare in this respect: they both have liberal welfare regimes and have seen similar developments in terms of changes to women's socioeconomic position over time, and they both have appropriate data for age-period-cohort analysis in the form of the American National Election Study (1982-2008) and British Election Studies (1987-2015).

I find that in the US, the gender gap gradually increases in size with each birth cohort until cohorts born about 1950, when the gender gap stabilises. Whilst this is partially related to differences between men and women in socioeconomic position – such as labour force participation, education, marital status – as the modernisation theory suggests, a sizeable gender gap remains even once these socioeconomic differences are taken into account, suggesting that the gender gap is mostly related to factors other than this. In the US, there is also no evidence that a process of political socialisation influences generations' attitudes towards redistribution and spending, and support for redistribution and spending steadily rises for younger cohorts.

Conversely, in Britain, generations which came of age during the neoliberal (1980s) and third way (1990s) contexts are less supportive of redistribution and spending than older generations, especially those who came of age during the post-war era. Furthermore, the attitudinal gender gap narrows and disappears for these younger generations, so that for the very youngest generation – born after 1976 – there is no gender gap in preferences for

redistribution and spending at all. This is completely contrary to the predictions of the modernisation theory. The theory presented in this paper suggests that the differences in Britain could be attributed to changing socialisation experience: the generation which grew up in the post-war period spent their formative years during a time of expansion in the role of the state, and a political consensus around this expansion. Moreover, this expansion of the state was particularly relevant for women, since it for the first time recognised the value of unpaid work in the home and enabled women to be financially independent from men. However, in the neoliberal and third way periods more emphasis was placed on the market and state retrenchment, which decreased both support for redistribution and spending for generations coming of age in these periods, and the gender gap in such attitudes.

Complicating the picture is the fact that some of these developments were also present in the US, especially the turn towards neoliberalism in the 1980s and subsequent third way period in the 1990s. At the same time, in the US there has traditionally been a lower degree of political consensus around what role the state should have and more continuity around such policies than in Britain. As a result, I would expect the changing political context to be less important in the US for shaping each generations' attitudes than in Britain, but instead it appears to have no effect in the US at all. The results in this paper thus raise further questions about how gender gaps in such attitudes are formed and what the role of political context is in this process.

These findings offer interesting insights into the development of gender gaps in vote choice in the US and Britain. In the US, we see in most elections a consistent aggregate-level gender gap in vote choice where women are more supportive of the Democrats than men, whilst there is no such gender vote gap in elections in Britain. The lack of a consistent gender

gap across all generations in preferences for spending and redistribution in Britain, compared to the persistence of the gender gap in attitudes for all generations born after 1950 in the US, is a possible reason for this. Additionally, modernisation theory expects there to be a gender-generation gap in vote choice, where men are more left-wing in their vote choice in older cohorts, whilst women are more left-wing in their vote choice in younger cohorts (Inglehart and Norris 2000, 2003). Inglehart and Norris argue that one of the reasons behind this gender-generation gap is that younger cohorts of women are becoming steadily more left-wing in their economic preferences than younger cohorts of men. However, there is evidence that in fact, there is no such gender-generation gap in vote in either the US (Harsgor, 2015) or in Britain (Shorrocks, 2016). The results in this paper show that a contributing factor to this could be that neither country has the generational trends in the gender gap in economic preferences that Inglehart and Norris argue are important.

This paper proceeds as follows: in section 2 I discuss the existing literature and theoretical expectations; the data and methods in section 3; the results in section 4; robustness checks in section 5; a discussion of the findings and their implications in section 6; and finally the conclusion in section 7.

2. Existing literature and theoretical expectations

2.1. Gender and attitudes towards redistribution

Women are usually found to be more supportive of redistribution and social spending on welfare and services than men are (e.g. Campbell, 2006; Howell and Day, 2000; Kaufmann and Petrocik, 1999; Norris, 1988; Shapiro and Mahajan, 1986). Two main sets of reasons are usually given for this. The first is that women are more compassionate than men,

drawing on the work of Carol Gilligan (1982) who argued that whilst men base moral decisions on an ethics of 'rights', women tend to base theirs on an ethics of 'responsibilities' or 'care.' She suggests that this is because women are more likely than men to think of themselves in a set of interconnected relationships rather than in isolation. This gender difference in moral thinking has been hypothesised to lead women to support policies which might help others, such as redistribution and state spending on services. Howell and Day (2000) find that women in the US are more egalitarian than men and attach more value to helping others than men do, which in turn makes them more supportive of social spending. Similarly, women have been more likely to vote sociotropically, giving more weight to the national economic situation than that of themselves or their family, whilst men are more likely to vote egotropically (Chaney, Alvarez, & Nagler, 1998; Welch & Hibbing, 1992). These authors often argue that since these gender differences do not appear to be related to gender differences in income, education, or labour force participation, this evidence supports the compassion perspective.

The second perspective, conversely, focuses on women's self-interest. Women are more economically vulnerable and dependent on state spending than men are, as a result of their lower on average incomes and earning power, and this makes them more likely to be in favour of redistribution and spending since it actually benefits them more. This argument has been linked to women's higher support for the Democrats in the US (Andersen, 1999; Box-Steffensmeier et al., 2004; Erie & Rein, 1988; Manza & Brooks, 1998). Similarly, Kristi Andersen (1999) has argued that women are more likely to experience the effects of spending than men because they are more likely to be caring for children and the elderly, and so use services such as education, health, and social care to a greater extent. This means

women have an interest in continued redistribution in the form of using taxes to spend on services, whilst for men the opposite may apply: since they do not come into contact with state services as much, men have more of an interest in maximising their income through low taxation (Iversen & Rosenbluth, 2006).

The ‘compassion’ perspective expects gender differences in attitudes to be reasonably static, whilst the second perspective – ‘self-interest’ – expects the gender gap to vary with how economically vulnerable women are relative to men, or with the extent to which they have responsibilities for caring. The modernisation perspective, put forward by Inglehart and Norris (2000; 2003), argues that modernisation has led to structural changes which have altered men’s and women’s roles, and in particular led to growing differences between men and women in socio-economic position. These changes include women’s entry into the labour force and higher education rates, as well as declining marriage rates, and are expected to make women less economically secure. This is because, for example, women receive lower pay than men in the labour force but are also less likely to be married and are therefore more dependent on their own, rather than their husband’s, income. At the same time, such changes are seen as making women more economically autonomous from men and thus more likely to develop a distinct set of preferences. In support of this perspective, Manza and Brooks (1998) have argued that women’s greater entry into the workforce has increased their preference for social spending because working women are often employed in the public sector, require childcare services, and if they are low paid require income maintenance. Similarly, Togeby argues that whilst women have entered new economic roles in the workforce at higher rates, this has not been coupled with a comparable decrease in home and family responsibilities as women still take on a disproportionate amount of caring and

domestic tasks (Togeby, 1994), leading them to be more supportive of social spending and the provision of state services.

Such changes to women's lives have occurred on a generational basis, with each new generation of women more likely to participate in the labour force and less likely to be married. As a result, each new generation of women is expected to be more left-wing in their economic attitudes than the last, widening the gender gap between men and women in younger generations. This leads to the first hypothesis:

Modernisation hypothesis: The gender gap in attitudes towards redistribution widens for each new birth cohort born in the post-war period or later due to changes to women's socioeconomic position.

2.2. Gender and political generations

The modernisation perspective expects gradual change in the gender gap in attitudes toward social spending and redistribution across generations, according to generational changes to women's lives, in both the US and Britain. However, this ignores the fact that it is not only gender-roles and women's socioeconomic position that is changing, but also the political context with respect to social spending and redistributive policies. This could be another source of generational change in the gender gap in attitudes towards redistribution.

Generational approaches to attitudinal change argue that attitudes are especially influenced during the formative experiences of young adulthood, when individuals are thought to be the most 'impressionable' (Becker, 1990; Jennings & Niemi, 1981; Krosnick & Alwin, 1989; Mannheim, 1968). 'Political generations' are formed through the collective political experiences of those born at the same time, shaping attitudes which differ from

generation to generation due to the changing political context. Attitudes do not remain completely fixed once the formative years are over, and are also affected by subsequent events or changes in an individual's life. However, theories of political socialisation suggest that events during youth are particularly influential and as a result political generations differ on attitudes formed during these impressionable years.

Previous research has found that the character of elections during a generation's youth can affect life-long partisan identification and likelihood to turnout to vote (Bartels & Jackman, 2014; Smets & Neundorf, 2012) and that the party in power during a generation's youth has a lasting impact on their vote choice (Ghitza & Gelman, 2014; Tilley & Evans, 2014). Similarly, the generation who experienced their formative years during the 1960s and 1970s are particularly active in social movements and protests (Grasso, 2014) and exposure to communism during youth has a lasting negative influence on support for democratic values (Neundorf, 2010; Pop-Eleches & Tucker, 2014). Thus, the political context with respect to government spending and redistribution may help to shape a generation's attitudes towards these policies, and since women, as discussed above, have a different relationship with state spending and service provision than men, they may be differently affected by the political context than men. The following sections apply this argument to the case studies of Britain and the US.

2.2.1 Comparing the US and Britain

Britain

The post-war period in Britain saw a broad political consensus centred around Keynesian economic policy, a mixed economy, and a social democratic welfare state.

Although the degree of ideological consensus between Labour and the Conservatives can be overstated, there was in practice a consensus around policy objectives – for example, the National Health Service and nationalisation – as the Conservative governments in the 1950s continued many of the policies started under Attlee's post-war Labour government of 1945-51 (Hickson, 2004). These policy positions, explicitly endorsed by both Labour and the Conservatives in successive election campaigns, emphasised the role of the state. This is in contrast to the 1930s, which saw a lack of a comprehensive programme to deal with economic depression and if anything a conservative tendency towards selling off some nationalised industries and cuts to unemployment benefit.

The post-war expansion of the role of the state, both in terms of welfare and service provision, had a particular significance for women. It was built around the male-breadwinner model with women expected to provide care within the family (Clarke, Langan, & Williams, 2001a), but despite this the expansion of the state was particularly beneficial for women for three reasons. Firstly, most women at this time expected to be wives and mothers, and thus the reinforcement of these roles through the structure of the welfare state would not necessarily have been seen as a negative thing. Women at the time campaigned for a stronger welfare state and welcomed its post-war development precisely because it gave recognition to the value of women's unpaid work (Pateman, 2014). Secondly, the post-war period involved an expansion in the provision of services such as education and health care which likely made more of an impact on women since they will have had more contact with such services through their traditional role in caring for the family. In addition, some of these provisions were already available to (employed) men through insurance programs prior to the war, and so women gained more from the state taking on this role. Thirdly, the post-war

welfare state meant that women could have economic security outside marriage, by transferring their dependence to the state (Pateman, 2014). As a result, the expansion of the welfare state provided a measure of independence for women by allowing them to remain single, which may have been particularly attractive to young women at the time who were not already married. Therefore, as a result of their greater use of state service provision through their roles as carers, and their greater economic vulnerability, women were likely to have looked on welfare state expansion more favourably than men.

By the 1970s the consensus was already fragmenting, and the election of the Conservatives under Thatcher in 1979 marked the end of this post-war period. Thatcherism involved a rejection of some aspects of the post-war consensus, with a programme of privatisation, a reduction in top tax rates, and the aim to reduce government (especially local government) expenditure. Although there is debate about the extent to which the Thatcher governments did in fact reduce social spending (Bean & Papadakis, 1998; Gamble, 2015), Thatcher's rhetoric certainly suggested a wholesale rejection of the social democratic consensus of the 1950s and 1960s and envisaged a different, non-interventionist role for the state (Smith, 2015). Despite rising female labour force participation during this period, Thatcherism did not conceive of women beyond their roles as wives and mothers, but whilst the welfare state of the post-war era allowed for some redistribution in favour of women, there was a lack of consideration for this within neoliberalism (Campbell 2015). Furthermore, the New Right evoked imagery of the traditional family, and emphasised that care and welfare should be provided within the family rather than by the state. Thus, the ideology contained within it an endorsement of traditional gender roles (Clarke et al., 2001a).

After 1997, Blair's governments increased social spending and enacted policies

designed to reduce inequality. However, they also remained committed to certain aspects of the Thatcherite project (Jessop, 2015), including reforming social services to include private providers and developing a rhetoric of ‘rights and responsibilities’, emphasising the state’s role in reducing inequality but also an individuals’ responsibility to help themselves.

Moreover, Sefton (2009) noted that the Blair government sometimes failed to emphasise the redistributive nature of its politics. The ‘Third Way’ period did attempt to take gender inequality seriously and focused on policies to help women reconcile work and family life, including the provision of childcare and tax credits. At the same time, the Blair governments have been criticised by some as prioritising privatisation and the market for social service provision over making improvements to women’s lives, and the policies aimed at helping full-time women did not appear to affect the distribution of paid and unpaid work between men and women, and as such also helped perpetuate traditional gender roles (Annesley et al., 2007).

From the perspective of the political socialisation theory, this historical account thus suggests that in Britain, those growing up during the post-war period and who experienced the expansion of the role of the state during their youthful, formative period, will be more supportive of social spending and redistribution than other generations. Those who grew up during the subsequent neoliberal and third way periods will be less supportive, as they were exposed to a very different rhetoric and set of policies surrounding the role of the state. The difference between the generations is likely to be even greater for women, since the post-war expansion of the state was likely to have been viewed especially positively by women given the particular benefits it provided, as described above. However, the gender gap is likely to decline for subsequent generations where the benefits of the state’s welfare policy are less

clear for women, particularly when the state continued to emphasise or reinforce traditional gender roles at a time when they no longer accorded with what many women's lives looked like. This set of expectations leads to the following hypotheses. For clarity, the expectations of these hypotheses are summarised in table 1 below.

Post-war consensus hypothesis: The generation socialised during the post-war period but before the rise of neoliberalism will be more supportive of social spending and redistribution than subsequent generations.

Gendered post-war consensus hypothesis: The gender gap between men and women in support for social spending and redistribution will be the widest amongst the generation socialised in the post-war period before neoliberalism.

Previous research has found that the Thatcher era did not produce significant attitudinal change in the population as a whole (Bosanquet, 1984; Curtice & Fisher, 2003; Taylor-Gooby, 1987, 1988), but that there was a drop in support for spending during the 1990s (Curtice & Fisher, 2003; Sefton, 2009). However, despite the lack of evidence that the Conservative government's policies of the 1980s altered attitudes in the British population as a whole, there is evidence that they did do so for those who were *young* during this period. Russell, Johnston and Pattie (1992) found that those who were first-time voters in 1979 and 1987 were less supportive of nationalisation, trade unions, taxation, public spending, and the NHS than would have been expected given their young age. They conclude that the values and policies of Thatcherism had a particularly strong impact on those who were most 'impressionable', coining the phrase 'Thatcher's children' to describe this generation, although their analysis cannot indicate whether these generations remained particularly

conservative in subsequent years. Similarly, using the British Social Attitudes Survey, Grasso et al. (2017) show that the generation that came of age during the consensus era are particularly supportive of redistribution and social spending, but subsequent generations were less supportive of such policies than the consensus generation. With the post-war consensus hypothesis, this paper thus seeks to confirm Grasso et al.'s findings with a different dataset.

Table 1: Historical context and theoretical expectations

Generation	Pre-war	Post-war	Neoliberal	Third way
Period	1930-44	1945-80 (US) 1945-78 (Britain)	1981-92 (US) 1979-96 (Britain)	1993-2008 (US)* 1997-2009 (Britain)
Presidents	Hoover (1929-33); Roosevelt (1933-45)	Truman (1945-53); Eisenhower (1953-61); Kennedy (1961-63); Johnson (1963-69); Nixon (1969-74); Ford (1974-77); Carter (1977-81)	Reagan (1981-89); Bush Sr. (1989-93)	Clinton (1993-01); Bush Jr. (2001-09)
Prime Ministers	MacDonald (1929-35); Baldwin (1935-37); Chamberlain (1937-40); Churchill (1940-45)	Atlee (1945-51); Churchill II (1951-55); Eden (1955-57); MacMillan (1957-63); Douglas-Home (1963-64); Wilson (1964-70); Heath (1970-74); Wilson II (1974-76); Callaghan (1976-79)	Thatcher (1979-90); Major (1990-97)	Blair (1997-07); Brown (2007-10)
Expectations	Low support for spending and redistribution and a small gender gap	High support and a large gender gap	Lower support and a smaller gender gap than post-war	Lower support and smaller gender gap a than post-war

Almost no research has considered how the gender gap in attitudes might change with generation. Campbell (2006) has found that the gender gap in socialist/laissez faire attitudes, towards redistribution and the role of government, is wider for cohorts born between 1947

and 1976 than those born 1907-1946, and that there is a slight widening of the gender gap in support for higher taxation and spending on health, education, and social benefits for the post-war cohorts compared to the pre-war cohorts. However, this generational categorisation makes no distinction between the post-war and neoliberal generations and does not include the third way generation because few members of this generation were present in the data at the time.

The US

The pre-1980 period in the US was characterised by a lower degree of consensus around government policy than seen in Britain. Roosevelt took a different approach to dealing with the Great Depression than that taken by the governments of the 1930s in Britain. Roosevelt argued for an expanded role for the federal government, which he saw as having an obligation to guarantee Americans' right to economic security (Wall, 2008). The roots of the modern welfare state were laid down in the form of Roosevelt's New Deal, which established benefits for the elderly and unemployed, as well as public works schemes. In the post-war period, Democrats in the US continued to argue for the federal government to intervene in the issue of poverty, and these arguments culminated in the 'New Frontier', 'Great Society,' and 'War on Poverty' reforms of the Kennedy and Johnson presidencies in the 1960s, which expanded education, healthcare, and welfare provision. These programmes can be seen as natural descendants of the New Deal, with Johnson in particular citing the New Deal as part of his inspiration and motivation (Brauer, 1982). In this sense, the US post-war experience contained more continuity with the 1930s than the same periods in Britain. However, similarly to Britain, the policies of these periods tended to reinforce traditional gender roles. The schemes of the New Deal were based on contributions during employment

and so excluded women working in the home, and in fact many occupations where female workers were concentrated were excluded (Clarke, 2001). The 1960s and 1970s did see some barriers to women's ability to provide economically for themselves and their families lifted, but there remained implicit support for traditional gender roles through, for example, a lack of childcare provision (Sapiro, 1990).

The US also showed continuity in another respect between these two periods: the desire to expand the role of the federal government and to enact redistributive policies was a Democratic project, and was consistently challenged in both the pre-war and post-war periods by Republicans and other groups who rather wanted to emphasise individual liberty. In the 1930s, manufacturers and businesses explicitly aimed to challenge Roosevelt's New Deal rhetoric through the use of radio broadcasting and advertising containing ideas around free enterprise and freedom of opportunity, and a rejection of the notion that only the state could provide economic security (Wall, 2008). In the 1950s, Eisenhower and other Republicans presented a barrier to Democratic legislation on poverty reduction and did not believe that the state needed to expand its role in this area. This is in contrast to the degree of consensus presented in Britain in the pre- and post-war periods: the 1930s were a Conservative-dominated decade, and the post-war period saw a practical agreement between Labour and the Conservatives in terms of the role of the state.

Reagan's presidency in the 1980s bore much more of a resemblance to Thatcher's premiership in Britain, with a staunch adherence to neoliberal economics and a commitment to a reduction in welfare, social security, and other forms of state aid. The New Right of this period provided a moral rationale for such a change in direction, arguing American values had been undermined in the preceding period (Clarke, 2001). This ideological position

argued that the welfare state had created a crisis in the family by undermining parental authority and ‘family values’ (Abramovitz, 2006). Neoliberalism in the US thus also contained a rejection of women entering into new economic roles outside the home and placed a strong emphasis on family, as in Britain. Furthermore, the Clinton era, like the Blair era, continued much of the neoliberal agenda, with a claim to “end welfare as we know it.” This promise came to fruition with the Personal Responsibility and Work Opportunity Reconciliation Act which substantially reduced benefit entitlements, and put in place policies which were pro-marriage, an agenda that was continued under George W. Bush (Abramovitz, 2006).

The US incarnations of the neoliberal turn in the 1980s and subsequent ‘third way’ period were thus in some ways similar to that in Britain, and the gendered implications of policies were similar in both countries in both the pre- and post-1980 period. However, there were considerable differences between the two countries in terms of the political context with respect to social spending and the role of the state. As already discussed, the post-war period saw a lower level of consensus around such policies in the US than in Britain. Moreover, the role of the state in the US was never as far-reaching as it was seen to be in the post-war period in Britain. For example, the National Health Service in Britain was far more comprehensive than reforms such as Medicare and Medicaid in the US in terms of the extent of service provision. Moreover, other aspects of the British post-war consensus, in particular the nationalisation of key industries, were never adopted in the US. As a result, the neoliberal period of the 1980s represented a much less dramatic break with the past in the US in Britain. Finally, the federal system in the US meant that the federal government had both lower levels of control over certain aspects of government spending, and resulted in an uneven

implementation of certain reforms, particularly during the Clinton era where states were given more power over welfare provision (Abramovitz, 2006; Clarke, Langan, & Williams, 2001b).

This suggests that, despite some similarities between the US and Britain, the generational differences hypothesised by the post-war hypothesis and gendered post-war hypothesis should be less pronounced in the US than in Britain. This is in contrast to the modernisation theory, which would expect generational change in the gender gap in the US and Britain to be similar given they experienced a similar process of modernisation. This leads to the following hypothesis:

Comparative hypothesis: The generational trends in the post-war hypothesis and the gendered post-war hypothesis will be smaller in the US than in Britain.

Like in Britain, research in the US has found little evidence for attitudinal change in the population as a whole during the 1980s (Mayer 1992; Page and Shapiro 1992), and some have even argued that attitudes took a more liberal direction in the US during this period (Davis, 1992). However, like in Britain, there was a drop in support for spending during the 1990s, which has been linked to the consensus amongst both Democrats and Republicans during this period that welfare needed serious reform (Schneider & Jacoby, 2005). There is contradictory evidence in the US with respect to generational differences in attitudes towards redistribution. In data from the 1990s, the youngest cohort born after 1976 were found to be more, not less, supportive of government intervention to provide jobs for all, provide a decent standard of living, and reduce income differences between the rich and poor, than those born before 1960 (Edlund and Svallfors 2012). However, Edlund and Svallfors also found these cohort differences were no longer present in the 2000s, suggesting they may be

confounded with period and age effects. Others have found that new cohorts have become gradually more supportive of spending on education and health, but that younger cohorts born after 1970 become less supportive of spending on social security (Fullerton & Dixon, 2010). To my knowledge there has been no research in the US which examines how the gender gap in economic attitudes differs across generations. This paper thus provides a test of whether the generational trends seen in Britain and hypothesised by the post-war hypothesis also exist in the US, a different political context, and gives a first examination of whether generational differences in the gender gap in support for social spending and redistribution exist in the US.

3. Data and Methods

In order to analyse generational changes in attitudes this paper employs data from two election studies: the British Election Study (1987, 1992, 1997, 2001, 2005, 2015) and the American National Election Study (1982, 1984, 1986, 1990, 1992, 2004, 2008). The repeated cross-sections provided by these data are necessary to isolate generational differences by providing data on the same generations in multiple years. Other years of these surveys are excluded because of a lack of the dependent variable of interest. In the ANES, the dependent variable is a scale ranging from 1 for support for whether the government should provide fewer services to reduce spending versus a highest value of 7 meaning the government should provide more services even if it means increasing spending. In the BES, the dependent variable is a 1-10 scale for whether the government should cut taxes and spend less on health and social services to raise taxes and spend more. These questions were selected because the two datasets had comparable questions on these attitudes. They also avoid using the words ‘welfare’ or ‘poor’ which have been found to produce very different

responses in the US (Page & Shapiro, 1992). As a result, the questions focus on redistribution in order to pay for services instead of redistribution in order to pay for benefits or cash transfers. Although these are different issues, the theoretical expectations here apply to both and so the results should not be unduly influenced by this choice of dependent variable.¹

This paper uses a combination of ordinary least squares (OLS) regression models and generalised additive models (GAMs) to test the hypotheses and overcome the challenges of generational research. In the OLS models, the developmental hypothesis is tested using a continuous measure of *birth year* (1910-88 in the BES; 1913-86 in the ANES) and its interaction with *female* (a dichotomous variable for being female). To test the post-war and gendered post-war hypotheses, a categorical variable *political generation* is created, assigning individuals to different political generations based on the historical phase in which they have spent the majority of their formative years. Given these hypotheses rely on political awareness, socialisation is expected to occur during the mid-teens to the mid-to-late 20s (see e.g. Alwin and Krosnick 1991; Becker 1990; Jennings and Niemi 1981; Krosnick and Alwin 1989). An individual is thus assigned to a generation if they spent more than half of the ages 18-25 during this period.

This method of categorising generations has the advantage that it places emphasis on

¹ Full question wording is as follows:

ANES: Some people think the government should provide fewer services, even in areas such as health and education, in order to reduce spending. Other people feel that it is important for the government to provide many more services even if it means an increase in spending. Where would you place yourself on this scale, or haven't you thought much about it? 1 Government should provide many fewer services: reduce spending a lot – 7 Government should provide many more services: increase spending a lot.

BES: Some people feel that government should put up taxes a lot and spend much more on health and social services (1). Other people feel that government should cut taxes a lot and spend much less on health and social services (11). And other people have views somewhere in-between. Which comes closest to your own views about taxes and government spending? In 2005 & 2010, this was a 0-10 scale.

the historical period of a generation's socialisation. The generations are coded as follows: In the US, (1) Pre-war, born 1910-1924; (2) Post-war, born 1925-1959 (reference category); (3) Neoliberal, born 1960-71; (4) Third way, born 1972-1986 (this includes those socialised under Bush Jnr.). In Britain, (1) Pre-war, born 1910-1924; (2) Post-war, born 1925-1957 (reference); (3) Neoliberal, born 1958-1975; (4) Third way, born 1976-1988. The differences in the coding between the US and Britain take into account that Thatcher was elected 2 years earlier than Reagan, and Blair was elected 4 years after Clinton. The reference category is the post-war generation who are expected to have the highest support for redistribution and spending. *Political generation* is then interacted with *female* to test the gendered post-war hypothesis.

Measures of socioeconomic characteristics are included as potential mediators for both differences between generations and differences between men and women. In particular, changing gender differences in these characteristics are thought under modernisation theory to account for the increasing gender gap in younger cohorts. *Marital Status* has four categories: Married/cohabiting (reference; widowed; divorced/separated; and never married. *Union Membership* is dichotomous for being a member of a union. *Income* is coded into three categories: those in the bottom third of the income distribution (reference); in the middle third, and in the top third. *Social Class* is self-reported, with three categories: none; working class; and middle class. Those who report no social class are a neutral category with no strong identification and so are included as the reference category. This enables a comparison of those who have no or little identification with a class with those who do identify with a class (either middle or working). *Employment Status* has six categories: in work (reference); in full-time education; unemployed; disabled or retired; looking after

home; and other. *Education Level* in the BES is dichotomous for having any qualifications or not. In the ANES, *Education Level* has four categories: grade school or less (reference); high school; some college; and college or advanced degree. *Religion* in the BES has three categories: not religious (reference); belonging to a Christian denomination; and belonging to a non-Christian religion. *Religion* in the ANES has four categories: Protestant (reference); Catholic; Jewish; and other/none. *Race* is also included as a control in the ANES analysis: White (reference); Black; Hispanic; and other.

Age and period effects are potential confounders for the effect of generation. Age effects suggest that people become more conservative as they age. Moreover, certain historical moments – or periods – are understood to change everyone’s attitudes. Age and period are therefore included as controls in this analysis. *Age* is a three-level factor variable coded (1) under 34 years; (2) 35-59 year; (3) over 60 years.² Period is measured by *year of survey*. Age, period, and year of birth are perfectly linearly related to each other, but the categorisation of the age variable in this way ‘breaks’ this perfectly collinearity and allows for model identification. As a robustness check the OLS models which include the *political generation* variable instead of the *birth year* variable were also run using an alternative specification of age – continuous age and age squared, to ensure the results are not due to the particular coding of *age*. The results are robust to this alternative model specification.

As a further robustness check, this analysis makes use of GAMs to check the validity of the grouping of birth years in the *political generation* variable. GAMs allow for the

² This coding of age broadly distinguishes between individuals who are likely to have children or recently to have had children in the home, and those who are pensioners/retired. This is important since a variable for having children is not available for all years in all datasets and is thus not included in the models, but having children is relevant for attitudes towards spending on services and in particular women with children might be especially left-wing (Campbell 2006).

estimation of a smoothed, non-parametric function for birth year which can then be plotted and visually inspected without placing any restrictions in terms of which birth years should behave similarly to each other in the way that models with the *political generation* variable do. This checks that the coding of the *political generation* variable is valid and that the results are not due to the decisions made in the construction of this variable. The OLS models thus provide clear, statistical tests of the hypothesis using theoretically (rather than arbitrarily) derived generational groups, and also allow for an interaction between gender and birth cohort/generation. The GAMs then allow us to check that the theoretical expectations with respect to political generations are valid. This method has been used previously to identify generational differences in the gender gap (Shorrocks, 2016).

4. Results

4.1. Descriptive statistics

Table 2 shows the raw means for support for redistribution across generations as well as the differences between men and women in the US and Britain. Table 3 shows the means in the US for the dependent variable rescaled to be a 1-10 rather than 1-7 scale, to allow for a more informative comparison between means in the two countries.

In Britain, there is little difference between the pre-war and post-war generations in support for redistribution and spending, but the neoliberal and third way generations become progressively less supportive, and the difference between both these generations and the post-war generation are statistically significant at $p < 0.001$. This gives support for the post-war consensus hypothesis. There is also evidence in Britain for the gendered post-war consensus hypothesis, as the gender gap is widest – .31 on the 10-point scale – for the post-war generation. It narrows to .24 for the neoliberal generation, and to a statistically

insignificant .11 for those socialised during the third way period. The BES results thus provide no evidence for the modernisation hypothesis.

Table 2. Support for spending in the US and Britain by gender and generation

	US Raise taxes and more services vs. cut taxes and fewer services (7-point scale, ANES)				Britain Raise taxes and spend more vs. cut taxes and spend less (10-point scale, BES)			
	Overall	Men	Women	Gap	Overall	Men	Women	Gap
Pre-war	4.04	4.00	4.01	0.01	6.94	6.92	6.95	0.03
Post-war	4.17	3.93	4.39	0.46	6.81	6.65	6.96	0.31
Neoliberal	4.53	4.30	4.74	0.44	6.44	6.31	6.55	0.24
Third way	4.78	4.51	4.99	0.48	5.89	5.83	5.94	0.11

NB: Gender gaps in bold are statistically significant at $p < 0.05$. The gap is calculated as women's mean placement – men's mean placement

Table 3. Support for spending in the US (rescaled)

	US Raise taxes and more services vs. cut taxes and fewer services (rescaled 7-point scale, ANES)			
	Overall	Men	Women	Gap
Pre-war	5.76	5.71	5.81	0.10
Post-war	5.96	5.61	6.27	0.66
Neoliberal	6.47	6.14	6.76	0.62
Third way	6.83	6.45	7.13	0.68

NB: Gender gaps in bold are statistically significant at $p < 0.05$. The gap is calculated as women's mean placement – men's mean placement. 7-point rescaled so 7 = 10.

Conversely, the results from the ANES show that overall for each younger generation the mean is higher, indicating greater support for redistribution than the previous one. The generation socialised before and during WWII scores a mean of 4.04 on the 7-point scale, where higher values indicate support for raising taxes and more services (versus cutting taxes and fewer services). This rises to 4.17 for the post-war generation, to 4.53 for the neoliberal generation, and then again to 4.78 for the generation coming of age in the third way formative years (1980-1991). Each generation is statistically significantly different from the

previous one at $p < 0.001$. In terms of gender differences, while men and women in the pre-war generation are as supportive of redistribution as each other, a statistically significant gender gap is present for the younger three generations. This gap is stable in size, at 0.46 for the post-war generation, 0.44 for the neoliberal generation, and 0.48 for the third way generation. This first descriptive evidence from the US does not provide evidence for any of the hypotheses. There are no declines in support for redistribution and spending for the neoliberal and third way generations, as in Britain. The gendered post-war generation would suggest that the gender gap should reduce for younger generations, and the modernisation hypothesis expects steady growth in the gender gap. In fact, there is a stable gender gap for the post-war, neoliberal, and third way generations. Furthermore, examining table 3 as well as table 2 shows that the gender gaps in the US are considerably larger than those in Britain, even for the post-war generation.

Comparing the ANES results in table 3 to the BES results in table 2 allows us to see that the pre-war and post-war generations in the US are less supportive of spending and redistribution than the equivalent generations in Britain, the neoliberal generations in both countries are very similar, and the third way generation in the US is more supportive of redistribution and spending than the equivalent generation in Britain. This is because support increases across generations in the US but declines in Britain, and is broadly consistent with previous research finding that younger cohorts in the two countries are more similar to each other than older cohorts, and that cohort replacement is part of the reason for a convergence between the two countries in support for redistribution (Edlund and Svallfors 2012).

4.2. Regression results

Tables 4 (BES) and 5 (ANES) show the results of the OLS regressions. Model 1a includes *birth year* and its interaction with *female*, as well as *age* and *year of survey*, and model 1b adds the socioeconomic variables to this model. This tests the modernisation hypothesis. Model 2a includes *political generation* and its interaction with *female*, *age* and *year of survey*, and model 2b adds the socioeconomic variables. This tests the post-war consensus hypothesis and the gendered post-war consensus hypothesis.

The results for models 1a and 1b from Britain, reported in table 4, show no support for the modernisation hypothesis. The coefficient for *female* is positive and statistically significant, indicating that women in the oldest birth year are more supportive of redistribution and spending than men. However, the coefficient for the interaction between *female* and *birth year* is negligible in size and statistically insignificant, indicating that this gender gap does not change in a linear way across birth years as the modernisation theory would suggest. Model 1b adds the measures for socioeconomic position. Those who are widowed, have higher incomes, and belong to a non-Christian religion are less supportive of spending and redistribution; union members, the more educated, the working class and those with no class, and all groups who are not in work are more supportive of spending and redistribution. After adding the measures for socioeconomic position in model 1b the gender gap in the oldest birth year becomes larger, suggesting that gender differences in socioeconomic position, at least for the oldest cohort, actually make women less rather than more supportive of redistribution and spending relative to men.

Model 2b, however, shows evidence for the post-war consensus generation, with the neoliberal and third way generations less supportive of redistribution than the post-war

generation as shown by the negative and statistically significant coefficients for these generations, although there is no difference between the pre-war and post-war generations. There is also strong evidence for the gendered post-war consensus hypothesis, with the largest gender gap present for the post-war generation, given by the positive and statistically significant coefficient for *female* in this model. The gender gap then narrows for both the neoliberal and third way generations, although the difference in the gender gap between the post-war generation and these younger generations is not statistically significant until model 2b, when the socioeconomic variables are added. For clarity, these results are visualised in fig. 1, which gives the marginal effect of gender in each of the generations, for model 2a and 2b, with other variables held at their means or medians.³ This shows that in Britain the gender gap is greatest for the post-war generation and then decreases in size for the neoliberal and third way generations. The difference in the gender gap between the post-war generation and these two youngest generations becomes larger in model 2b once the socioeconomic variables are included. This indicates that in the youngest generations, women's socioeconomic position does make them more economically left-wing than men, and if men and women had similar characteristics the gender gap would be smaller in these generations. This is not the case for the post-war generation: there is almost no change in the gender gap for this generation, indicating that women's greater support of spending and redistribution in this generation is due to something other than gender differences in socioeconomic position, such as socialisation experience.

³ Aged 30-59; year 2005; married; not a union member; highest income group; no class; has qualifications; employed; Christian.

Table 4. OLS regression results for Britain

	Model 1a	Model 1b	Model 2a	Model 2b
Birth year	-0.011*** (0.004)	-0.007* (0.004)		
Female	0.252** (0.106)	0.390*** (0.110)	0.329*** (0.060)	0.342*** (0.062)
Female*Birth year	0.000 (0.002)	-0.003 (0.002)		
Generation. Reference: post-war				
Pre-war generation			0.053 (0.128)	-0.070 (0.129)
Neoliberal generation			-0.220*** (0.084)	-0.179** (0.085)
Third way generation			-0.369*** (0.139)	-0.380*** (0.145)
Pre-war*Female			-0.274* (0.155)	-0.172 (0.155)
Neoliberal*Female			-0.077 (0.095)	-0.118 (0.095)
Third way*Female			-0.227 (0.153)	-0.329** (0.152)
Age. Reference: 18-34				
Aged 35-59	0.143* (0.079)	0.130 (0.080)	0.138** (0.070)	0.077 (0.071)
Aged 60+	0.031 (0.149)	-0.122 (0.151)	0.217** (0.105)	-0.055 (0.116)
Year of survey. Reference: 1987				
1992	0.368*** (0.080)	0.375*** (0.080)	0.340*** (0.079)	0.358*** (0.079)
1997	0.864*** (0.070)	0.874*** (0.071)	0.816*** (0.066)	0.846*** (0.066)
2001	0.131* (0.076)	0.067 (0.080)	0.083 (0.069)	0.030 (0.072)
2005	-0.241** (0.100)	-0.331*** (0.104)	-0.299*** (0.092)	-0.365*** (0.094)
2015	-0.064 (0.108)	-0.199* (0.114)	-0.158* (0.087)	-0.233*** (0.090)
Marital status. Reference: married/cohabiting				
Widowed		-0.317*** (0.094)		-0.243*** (0.093)
Divorced/separated		-0.035 (0.081)		-0.063 (0.081)
Never married		-0.101 (0.065)		-0.077 (0.065)
Union membership		0.322*** (0.053)		0.318*** (0.052)
Income. Reference: Low				
Middle		-0.178*** (0.061)		-0.207*** (0.061)
High		-0.222*** (0.066)		-0.250*** (0.066)
Has qualifications		0.178*** (0.046)		0.210*** (0.047)
Social class. Reference: none				

Working class		0.338***		0.335***
		(0.049)		(0.049)
Middle class		0.054		0.051
		(0.058)		(0.058)
Employment status. Reference: in work				
In FT education		0.331**		0.424***
		(0.159)		(0.164)
Unemployed		0.245**		0.225**
		(0.107)		(0.107)
Disabled or retired		0.374***		0.390***
		(0.083)		(0.082)
Looking after home		0.177**		0.191**
		(0.081)		(0.081)
Other		0.441*		0.413*
		(0.235)		(0.235)
Religion. Reference: none				
Christian		-0.044		-0.050
		(0.047)		(0.047)
Non-Christian religion		-0.249**		-0.231**
		(0.107)		(0.107)
Intercept	6.688***	6.404***	6.325***	6.253***
	(0.182)	(0.203)	(0.079)	(0.107)
R ²	0.04	0.05	0.04	0.06
N	11,336	11,336	11,336	11,336

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses

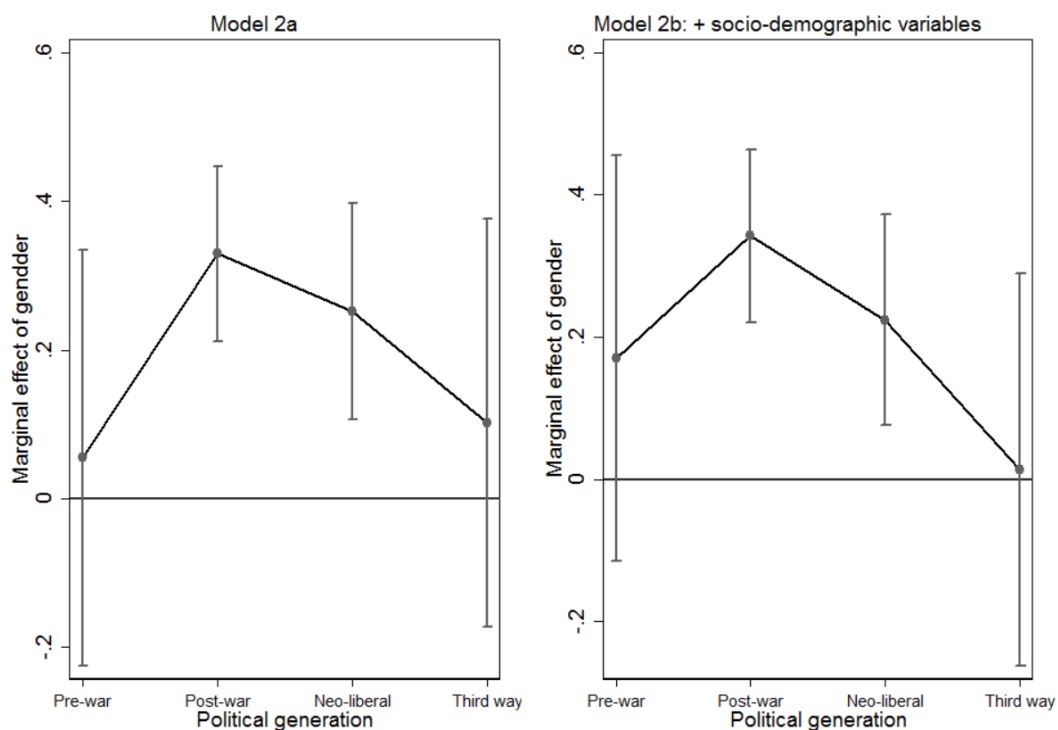


Fig. 1. Marginal effect of gender on attitudes towards redistribution by generation from models 2a and 2b, BES

Fig. 2 shows the results from the GAMs from the BES, for models with and without the socioeconomic variables. The GAMs cannot test whether the generational and gender differences are statistically significant, but can be used to assess whether the coding of the *political generation* variable is valid, by visually inspecting the smoothed birth year function and comparing it to the generation categorisation. Fig. 2 shows that it is: there is little change between birth years within the post-war generation, even though this is a large category. There is then a sharp decline in support for redistribution and social spending within the neoliberal generation which levels off for the third way generation. The bottom panel of fig. 2 shows the predicted gender gap calculated from the GAMs, again with other variables held at the same means and medians as for the marginal effects calculated from the OLS models, for models with and without the socioeconomic variables. This shows a very similar pattern to the regression models: the gender gap is largest for the post-war generation, before declining for the neoliberal and third way generations. This pattern is more pronounced when the socioeconomic indicators are added: once again, if men and women were similar in their socioeconomic position the gender gap in the youngest generations would be much smaller relative to the post-war generation than it actually is. It seems that women's socioeconomic position does make them more left-wing in economic preferences relative to men, but that socialisation experience also matters – and for the neoliberal and third way generations this works in the opposite direction to socioeconomic factors, i.e., this experience makes women less supportive of spending and redistribution than men.

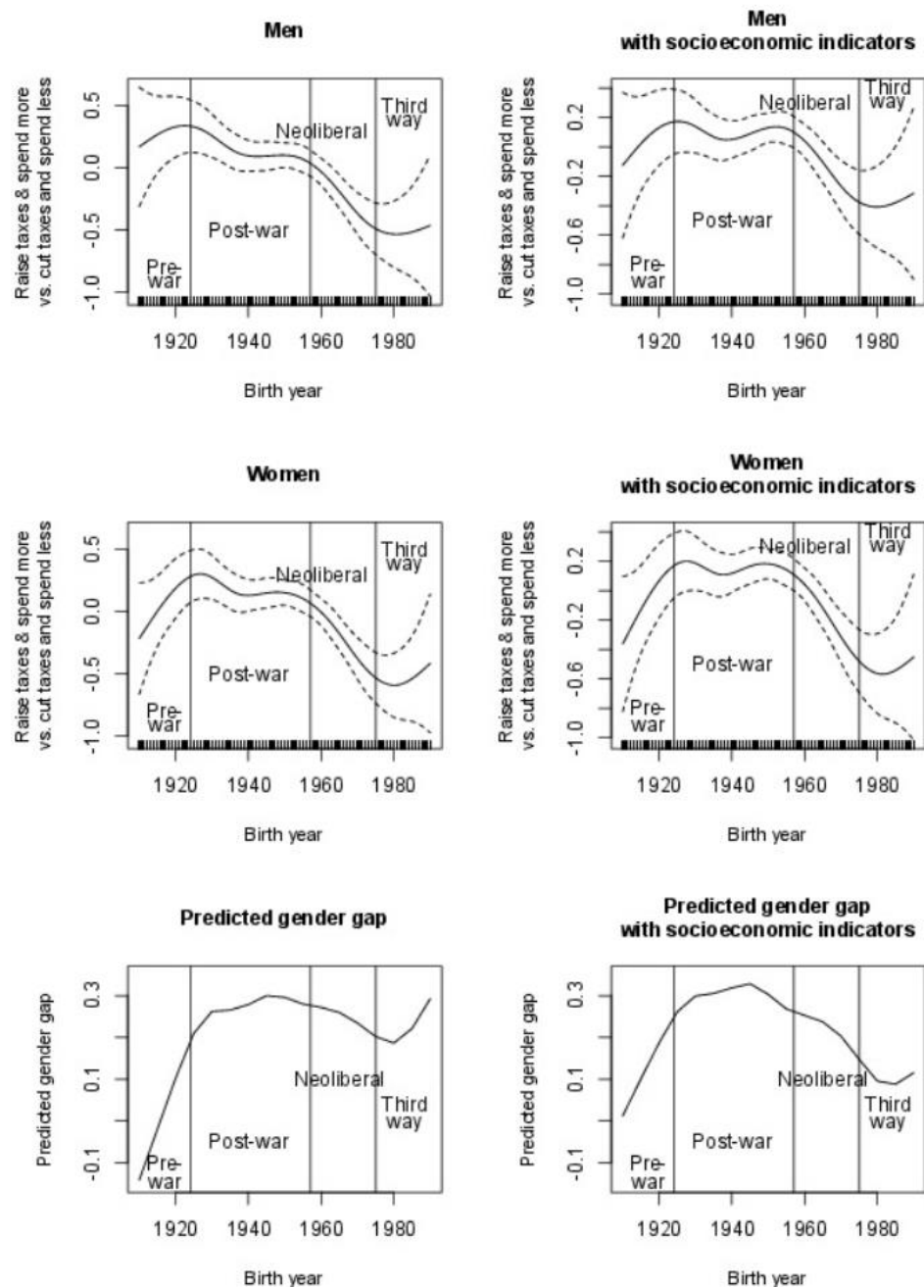


Fig. 2. Generational trends in Britain in support for spending on social services for men and women, BES (GAMs).

Table 5 shows the results of the same models for the US with the ANES data. Model 1a shows that women in the oldest cohort are more supportive of redistribution and social spending than men, and the positive and statistically significant interaction between *female* and *birth year* shows that this gender gap grows across birth cohorts. This is in accordance with the modernisation hypothesis. However, whilst the gender gap for the oldest birth year – given by the *female* coefficient – becomes smaller and statistically insignificant once the socioeconomic variables are added in model 1b, the size of the coefficient for the interaction remains the same, indicating that the *change* in the gender gap is not mediated by these socioeconomic variables. In model 1b, those who are married, in work, white, Protestant, less educated, and have higher incomes are less supportive of redistribution and social spending than other groups.

Models 2a and 2b shows that, as expected by the comparative hypothesis, the generational differences are less pronounced in the US than they are in Britain. In fact, the result is even more extreme than this: there appear to be little or no generational differences in attitudes towards redistribution in the US associated with the changing political contexts between the post-war, neoliberal, and third way periods. In model 2a, men of the post-war generation appear less supportive of redistribution than men of the pre-war generation, as shown by the positive and statistically significant coefficient for the pre-war generation. However, this disappears in model 2b, suggesting that it is due to socioeconomic differences between these generations. There are no other statistically significant generational differences between generations of men.

Table 5. OLS regression results for the US

	Model 1a	Model 1b	Model 2a	Model 2b
Birth year	0.006** (0.003)	0.007** (0.003)		
Female	0.196** (0.080)	0.117 (0.082)	0.450*** (0.042)	0.374*** (0.042)
Female*Birth year	0.006*** (0.002)	0.006*** (0.002)		
Generation. Reference: post-war				
Pre-war generation			0.228** (0.105)	0.128 (0.103)
Neoliberal generation			0.187*** (0.070)	0.100 (0.069)
Third way generation			0.187 (0.130)	0.049 (0.128)
Pre-war*Female			-0.407*** (0.111)	-0.347*** (0.109)
Neoliberal*Female			-0.007 (0.086)	0.034 (0.083)
Third way*Female			0.018 (0.151)	0.056 (0.146)
Age. Reference: 18-34				
Aged 35-59	-0.109* (0.062)	-0.037 (0.060)	-0.184*** (0.046)	-0.155*** (0.045)
Aged 60+	0.005 (0.120)	-0.150 (0.117)	-0.257*** (0.084)	-0.409*** (0.086)
Year of Survey. Reference: 1982				
1984	0.142** (0.068)	0.103 (0.065)	0.153** (0.067)	0.117* (0.065)
1986	0.522*** (0.067)	0.450*** (0.065)	0.541*** (0.067)	0.477*** (0.064)
1988	0.294*** (0.071)	0.247*** (0.069)	0.320*** (0.070)	0.283*** (0.067)
1990	0.504*** (0.072)	0.436*** (0.070)	0.540*** (0.070)	0.486*** (0.068)
1992	0.162** (0.083)	0.137* (0.080)	0.204** (0.080)	0.195** (0.077)
2004	0.520*** (0.095)	0.447*** (0.093)	0.624*** (0.086)	0.590*** (0.084)
2008	0.586*** (0.102)	0.333*** (0.102)	0.700*** (0.091)	0.501*** (0.090)
Employment status. Reference: in work				
In FT education		0.130 (0.113)		0.136 (0.113)
Unemployed		0.245*** (0.069)		0.247*** (0.069)
Disabled/retired		0.262*** (0.065)		0.223*** (0.065)
Looking after the home		0.044 (0.060)		0.034 (0.060)
Other		0.413 (0.882)		0.415 (0.883)

Marital status. Reference: married/cohabiting				
Widowed	0.274***		0.255***	
	(0.073)		(0.073)	
Divorced/separated	0.148***		0.146***	
	(0.049)		(0.049)	
Never married	0.020		0.026	
	(0.049)		(0.050)	
Union membership	0.251***		0.254***	
	(0.053)		(0.053)	
Race. Reference: white				
Black	0.882***		0.888***	
	(0.051)		(0.051)	
Hispanic	0.340***		0.347***	
	(0.068)		(0.068)	
Other	0.162**		0.162**	
	(0.080)		(0.080)	
Income. Reference: low				
Middle	-0.175***		-0.175***	
	(0.044)		(0.044)	
High	-0.294***		-0.297***	
	(0.050)		(0.050)	
Social class. Reference: none				
Working class	0.135***		0.131***	
	(0.042)		(0.042)	
Middle class	-0.036		-0.040	
	(0.042)		(0.042)	
Religion. Reference: Protestant				
Catholic	0.295***		0.295***	
	(0.040)		(0.040)	
Jewish	0.734***		0.738***	
	(0.120)		(0.120)	
Other/none	0.219***		0.225***	
	(0.051)		(0.051)	
Education. Reference: Grade school or less				
High school	-0.144*		-0.120	
	(0.083)		(0.083)	
Some college	-0.284***		-0.253***	
	(0.088)		(0.088)	
College or advanced degree	-0.374***		-0.340***	
	(0.090)		(0.091)	
Intercept	3.527***	3.589***	3.942***	3.935***
	(0.136)	(0.156)	(0.117)	(0.142)
R ²	0.05	0.13	0.05	0.12
N	9,137	9,137	9,137	9,137

NB: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses

There is a statistically significant and positive main effect of gender, which gives the gender gap for the post-war generation. This gender gap is smaller for the pre-war generation, indicated by the negative coefficient for the interaction between gender and this

coefficient. However, for the neoliberal and third way generations there appears to be little difference in the gender gap when compared to the post-war generation. This is consistent with table 2 for the raw gender gaps for these generations, which showed a relatively stable gender gap in the US for the post-war generation onwards. The results for gender are given as marginal effects, with other variables held at their means and medians,⁴ in fig. 3. This clearly shows that there is almost no gender difference for the pre-war generation, and a large (around 0.4 of the 7-point scale) and consistent gender gap for all subsequent generations which barely changes in size.

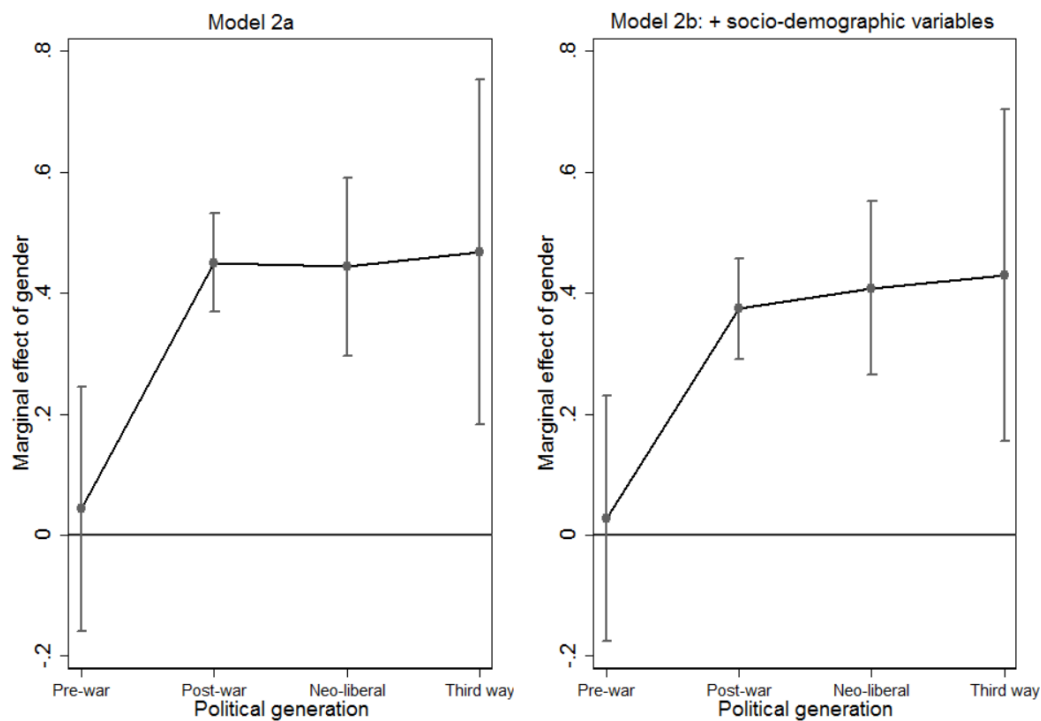


Fig. 3. Marginal effect of gender on attitudes towards redistribution for each generation from models 2a and 2b, ANES

⁴ Aged 30-59; year 1986; in work; married; not a union member; middle income group; working class; Protestant; high school education; white.

The GAMs for the US data in fig. 4 show that the generational distinctions are less relevant in the US than in Britain. There appears instead to be a more gradual change within the post-war generation, and then no real decline in support for redistribution for the neoliberal and third way generations. This indicates that perhaps the best way of modelling cohort change in attitudes towards redistribution in the US is using model 1a and 1b's approach of using a continuous birth year variable, because this captures the gradual change observed in the GAMs. However, models 2a and 2b suggest that the gender gap does not change in a linear way for younger cohorts and instead remains stable for all generations born in the post-war generation and after. This is broadly borne out by the results of the GAMs. The predicted gender gap is consistent in size for these cohorts, and especially for those born after 1950. Interestingly, for the third way generation, if men and women's socioeconomic positions were more similar, the gender gap would steadily *increase* in size, as shown by the steep change within this generation in the plots from the models including the socioeconomic indicators. This is in the opposite direction to the effect the socioeconomic indicators have on this generation in Britain.

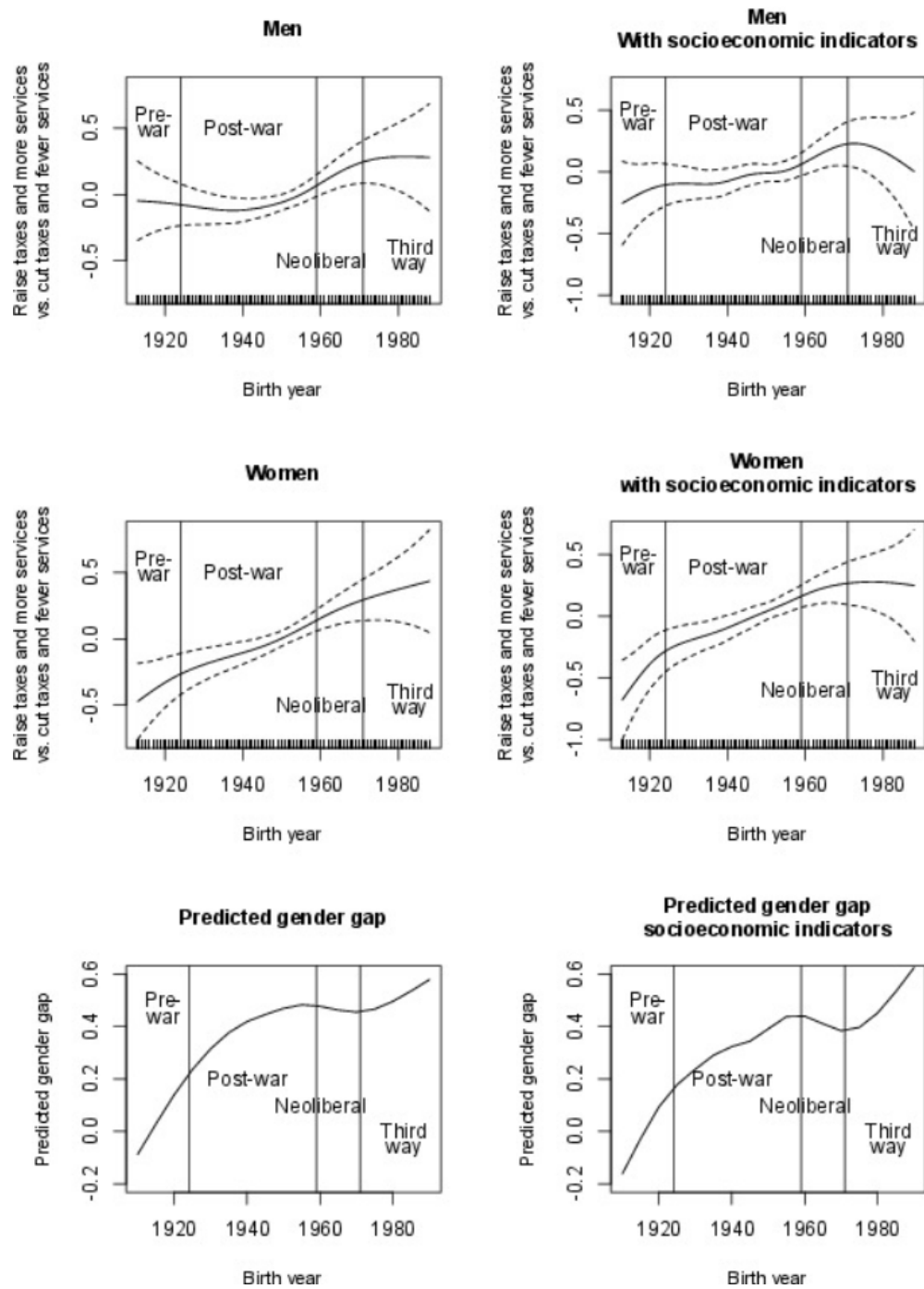


Fig. 4. Generational trends in the United States for support for spending on social services for men and women, ANES (GAMs)

5. Robustness checks

These results are robust to including interactions between gender and period, gender and age, and age and period in the model. These interactions are almost always statistically insignificant and, most importantly, do not affect the generational results and do not change the substantive conclusions presented above.

6. Discussion

This paper has attempted to explore how both modernisation and the changing political context with respect to government spending and the welfare state have altered the gender gap in attitudes towards redistribution across generations in Britain and the US. The results presented here are exploratory and preliminary, and more work needs to be done on this question. One of the most interesting conclusions from the analysis above is the fact that the US and Britain have such a different pattern of change in the gender gap despite the similarities in their experience with both modernisation and the neoliberal/third way periods.

The British results very much conform to the expectations of the post-war consensus hypothesis and gendered post-war consensus hypothesis. The generational differences, and the change in the gender gap, fit well with the periodisation between the post-war, neoliberal, and third way generations, and thus suggest a socialisation effect. However, the US results neither show a weaker pattern of generational change than in Britain, as expected by the comparative hypothesis, nor do they wholly support the modernisation hypothesis. The gender gap does not change in the US from about the middle of the post-war generation, according to the GAMs, whilst we would expect a widening for younger cohorts if the modernisation thesis was correct. The lives of women born in, say, the 1950s are very different from those in the 1980s, and accordingly modernisation theory suggests a wider

gender gap for the younger cohort than the older. Additionally, in the US, the gender gap appears in the GAMs to *increase* for the youngest cohort once the socioeconomic indicators are included. This is exactly the opposite of what modernisation theory expects. According to the theory, the gender gap should be at least partially explained by differences in socioeconomic position between men and women, and thus *decrease* when these indicators are included.

The comparative hypothesis suggested that the generational patterns in the US should be weaker than in Britain because: (1) there was less of a consensus in the US between Democrats and Republicans around the policies and rhetoric in each of the periods; (2) the state took on a less extensive role in the post-war period than in Britain; and (3) the federal system means that changes at the national level have less of an impact. However, what we see instead is a completely different generational pattern in the US than in Britain, and so this argument does not seem plausible. National context still clearly matters: there are very clear differences between the US and Britain which must be in some way related to other differences between these two countries. It thus makes sense to look elsewhere to find the sources of differences between the two countries.

One possible reason for the difference is the lower social safety net that exists in the US compared to Britain, and this has special relevance to women – for example, there is no guaranteed paid maternity leave in the US, and there is in Britain. Perhaps in a context where social provision is so low, women will always say that they want more spending because spending never reaches a sufficient minimum level. However, where certain social services appear more guaranteed and there is more provision, perhaps women (and men) are more willing to say they want less spending and service provision, because they do not believe that

it will go below an acceptable level. As a result, new generations are influenced more in Britain than in the US because respondents in the two countries have different interpretations of what ‘less’ spending would mean: in Britain, certain provisions would still be guaranteed, whilst in the US there is less certainty on this point.

The argument presented above is somewhat consistent with previous research into the dynamics of the gender gap in public opinion in the US. The thermostatic model of public opinion suggests that as policy moves to the left (right), voters adjust their relative preferences accordingly in favour of less (more) spending (Bartle, Dellepiane-Avellaneda, & Stimson, 2010; Wlezien, 1995, 2004). At the same time, research in the US has found that women’s preferences adjust in a right-ward direction to a lesser extent than men’s when public policy moves in a ‘liberal’ direction towards more government action (Kellstedt et al., 2010). Whilst Kellstedt et al. shy away from offering an explanation for this, it could be that women respond to policy shifts in a liberal direction because they have preferences for high spending that are still not met in the US even when policy moves towards a larger role for government. This collection of arguments would suggest that in contexts where there is lower welfare provision, gender gaps in preferences for redistribution and spending are larger and more consistent. This hypothesis could usefully be tested utilising cross-national variation in welfare spending over time in many more countries, to assess whether a lower social safety net has an impact on gender gaps in policy preferences or political behaviour.

More generally, there is evidence for the thermostatic model in the period effects found in this paper, but not in the generational effects. The period effects in both Britain and the US, measured by survey year, are reasonably large and go up and down roughly in line with public policy, as expected by the thermostatic model. So for example, in Britain,

preferences for spending are higher in 1987, during the Thatcher era, than they were in 2001 and 2005, under the Labour governments. However, in Britain at least, generations who grew up during periods where there was a smaller role for government remain less supportive of spending throughout their life-span, rather than more supportive which is what would be expected if the thermostatic model also applied in a generational way. This indicates that while period effects which apply to all generations respond ‘thermostatically’ to public policy, some generations will always be less supportive of spending than others depending on their socialisation experience.

7. Analysis with the British Social Attitudes Survey

The analysis presented here is part of a larger piece of work co-authored with Dr. Maria Grasso at the University of Sheffield.⁵ This co-authored paper includes an analysis of the British Social Attitudes (BSA) survey (1983-2012) conducted by Dr. Grasso, in addition to analysis with the BES and ANES similar to that presented here. In some ways the BSA is very consistent with the BES, in that the decline in support for redistribution in the neoliberal and third way generations compared to the post-war generation are seen clearly in both datasets. The gender gap is also largest for the post-war generation in the BSA. However, the gender gap actually widens, rather than disappears, for the third way generation in the BSA data. The survey item wordings are similar in the BES and BSA, although the BSA question is structured differently. Instead of a 1-11 scale, it asks: ‘Suppose the government had to choose between the three options on this card. Which do you think it should choose? (1) Reduce taxes and spend less on health, education and social benefits; (2) Keep taxes and

⁵ A recent version of this co-authored paper can be found here:
<https://blogs.kent.ac.uk/epop/files/2016/07/Shorrocks-and-Grasso.pdf>

spending on these services at the same level as now; and (3) Increase taxes and spend more on health, education and social benefits.’ It might be that the BES and BSA attract different respondents into their samples, or the BES is affected by being asked only in election years, which might prime links between political party rhetoric and preferences for spending. However, it is unclear why there would be such a discrepancy between the two datasets and more work needs to be done to ascertain why there is a difference.

8. Conclusions

The findings presented in this paper raise many questions and puzzles about what shapes generational change in attitudinal gender gaps and are also subject to the caveat presented in section 7. However, they are also informative about generational change in the gender gap in attitudes towards redistribution and how they differ between the US and Britain. In Britain, the developments in rhetoric and policy around government spending and the welfare state appear to have had an influence on both attitudes towards redistribution and the gender gap in attitudes towards redistribution. In the US, however, this is not the case.

This paper provides preliminary evidence that women of the post-war generation in Britain are even more supportive of the role of government than men of this political generation. This is likely because of their closer relationship to the state, the benefits they received as a direct consequence of the post-war expansion of spending, and the congruence between the roles the welfare state expected women to fulfil and the expectations of women themselves. This shows that gender differences in political attitudes could be mediated by political context as well as by socioeconomic position. Socialisation can occur through multiple mechanisms, including through elite rhetoric and ideology and through the

experience of the provision (or not) of particular services. Both these are likely to be at work in Britain since politicians both advocated for their specific vision of what the state should do and also altered the way in which redistribution occurred and what services were provided by the state.

However, this pattern only applies in Britain. In the US, the gender gap in support for redistribution is reasonably stable for all cohorts born after approximately 1950, according to the results of the GAMs. This is not consistent with Inglehart and Norris' modernisation theory which would expect some change in the gender gap for post-1950 cohorts since there were many changes for these cohorts associated with societal modernisation. Moreover, this gender gap is not accounted for by changes to the socioeconomic positions of men and women across generations, as the modernisation theory would expect. In fact, were men and women similar in these positions, the gender gap in the youngest cohorts would have been even larger. The modernisation theory is thus found to not hold in either Britain or the US.

The greater generational differences found in Britain correspond to certain features of the national political context – in particular the political consensus around the role of the state in the post-war period and the strong break with previous policy that 1979 represented – and thus may be seen as evidence for a political socialisation effect. These characteristics were not as pronounced in the US and as a result, successive generations of men and women did not differ as much in their socialisation experience with respect to government policy, rhetoric, and ideology around redistribution and the role of the state in the US as in Britain. In order to explain the absence of the expected socialisation effect on generations in the US, and its presence in Britain, more comparative research is required.

The growth and stabilisation of the gender gap across birth cohorts in the US, and the

contrasting narrowing of the gender gap for younger generations in Britain, suggests that gender differences may remain more marked in country contexts characterised by less generous welfare. The differences between the US and Britain also indicate that explanations for generational change in gender gaps which emphasise common causes across post-industrial nations such as the modernisation theory have limitations: although some of the gender gap for younger generations is related to differences in social characteristics between men and women, country-specific contexts also produce different gender gaps within different political generations.

These findings have implications for gender gaps in elections. It is suggested that there should be a gender-generation gap in vote choice in Western countries, including the US and Britain, where men are more left-wing in older cohorts and women are more left-wing in younger cohorts. One of the factors that Inglehart and Norris, as well as this thesis, argue contribute to the gender-generation gap is the growing gender gap for younger cohorts in economic attitudes. It is thus interesting that both the US and Britain have been found to not have a gender-generation gap in vote choice (Harsgor, 2015; Shorrocks, 2016) and also do not exhibit the expected trend in the gender gap in preferences for social spending that would be expected by the modernisation theory. Moreover, there is a consistent aggregate-level gender gap in elections in the US, which may be contributed to by the stable gender gap in attitudes for all generations seen in this paper. Similarly, the declining gender gap in preferences for spending and redistribution with younger generations in Britain may contribute to the lack of such an aggregate-level gender gap in British elections.

A feminist generation? Cohort change in gender-role attitudes and the second-wave feminist movement

A version of this paper is published as: Shorrocks, Rosalind. (2016) A feminist generation? Cohort change in gender-role attitudes and the second-wave feminist movement.

International Journal of Public Opinion Research. doi: 10.1093/ijpor/edw028

1. Introduction

This paper examines generational trends, and how they differ between men and women, in gender-role attitudes across Europe. Studies of gender-egalitarianism in Europe have tended to ignore the influence of the second-wave feminist movement of the 1970s on such attitudes, despite evidence suggesting it played an important role in shaping a generation's attitudes in Australia and the US (Peltola, Milkie, & Presser, 2004; Schnittker, Freese, & Powell, 2003; van Egmond, Baxter, Buchler, & Western, 2010). The movement championed equal pay and role equality between men and women and aimed to challenge traditional gender norms (Dahlerup, 1986; Lovenduski, 1986), in contrast to subsequent decades characterised by third-wave, post- and anti-feminist ideas. Here, I assess the extent to which the socialisation experience of the second-wave feminist movement influenced the gender-egalitarianism of men and women who came of age during it, as well as contrasting the cohort trends in Western Europe with Eastern European countries which did not experience the same feminist movement. A combination of generalised additive models (GAMs) and ordered logit models are used to examine these questions and to overcome the age-period-cohort identification problem.

As is consistently found in previous research, younger cohorts are more gender-

egalitarian than older cohorts, and this is partially accounted for by differences between generations in education level, labour force participation, religiosity, and marriage rates. Moreover, the trend across birth cohorts towards greater egalitarianism tends to be stronger for women than men, producing a growing gender gap across birth cohorts. However, in non-Eastern European countries, the cohort who came of age during the second-wave feminist movement are unusually feminist in comparison to cohorts born before and after them. The high level of gender-egalitarianism of this generation compared to older cohorts is not accounted for by factors such as their higher levels of education, female labour force participation and secularism. Moreover, the youngest generation who came of age during the subsequent period of third-wave, post- and anti- feminist ideas are less egalitarian than this feminist generation once their higher education levels, higher female labour force participation, lower religiosity, and lower propensity to be married are controlled for. This is especially the case when the question poses a trade-off between employment and family life for women. The same pattern is not seen in Eastern Europe which did not experience the same second-wave feminist movement as Western Europe, strengthening the conclusion that the movement was an important socialisation experience for those who spent their youth during it and that it was a strong influence on gender-egalitarian attitudes.

The analysis presented here makes a considerable contribution to our existing knowledge of generational trends in gender-role egalitarianism. Firstly, I theorise, and then show, that cohort trends in gender-role attitudes are related to the unique socialisation experience of the second-wave feminist movement in Western Europe, and that the high gender-egalitarianism of the cohort that came of age during the second-wave feminist movement is a phenomenon that applies across Western countries. Secondly, I highlight

differences in generational patterns between regions within Europe and argue that these differences can be related to their varying histories with respect to gender norms and the feminist movement. In particular, the feminist generation does not exist in Eastern European countries. Thirdly, this paper explicitly considers gender differences in generational trends, so far not analysed in Europe. Fourthly, this analysis shows that gender and generational trends in gender-role attitudes differ between dimensions of gender equality.

2. Previous research and theoretical expectations

2.1. Modernisation and generational replacement

Theories of generational change argue that those born at the same time share the same socialisation experiences during their youthful, ‘impressionable’ years, and this shapes their values, attitudes and behaviour (Mannheim, 1968). This leads values and attitudes to differ between cohorts and to remain stable across the lifespan, as later experiences have less impact than earlier ones. This suggests we should expect cohort groups to emerge which hold distinctive values depending on the prevailing context when they came of age.

Inglehart and Norris (2003) argue that cohort change in gender-role attitudes in postindustrial societies is unidirectional, with newer cohorts consistently more egalitarian than older cohorts. This is attributed to modernisation: cohorts born before World War Two were socialised during a period of economic depression and military conflict, leading them to prioritise ‘materialist’ values, including traditional gender roles. In contrast, cohorts born after the war were socialised during a time of greater affluence and international stability, leading them to support ‘postmaterialist’ values, including gender equality. Generational replacement thus contributes to increasing egalitarianism in gender-role attitudes.

Evidence primarily from the US (e.g., Brewster & Padavic, 2000; Brooks &

Bolzendahl, 2004; Ciabattari, 2001; Cotter et al., 2011), but also Britain and Germany (Braun, Scott, & Alwin, 1994; Lee, Alwin, & Tufis, 2007; Scott, 2008; Scott, Alwin, & Braun, 1996), supports such an inter-cohort explanation for rising gender-egalitarianism. More recent research suggests this process is occurring across all Western countries (Dorius & Alwin, 2011; Pampel, 2011). Inter-cohort differences in attitudes can be partially attributed to changes across cohorts associated with other aspects of societal modernisation in addition to the rising affluence that Inglehart and Norris point to, such as rising education levels, declining religiosity and marriage rates, and increasing female labour force participation (Brooks & Bolzendahl, 2004; Dorius & Alwin, 2011; Scott, 2008).

Women have been found to be more egalitarian than men, because they are more likely to experience non-traditional roles, while men are more likely to defend the traditional gender roles which have tended to benefit them (Alwin, Braun, and Scott 1992; Ciabattari 2001; Inglehart and Norris 2003; Scott, Alwin, and Braun 1996). At the same time, Inglehart and Norris emphasise how processes of modernisation are especially affecting women's lives (Inglehart & Norris, 2003), which would suggest that generational change in gender egalitarianism should be faster for women than for men. In the US the gender gap in egalitarianism appears to be widening for younger cohorts (Brewster & Padavic, 2000), which is attributed to a slower rate of change amongst men because of the costs to them of women reducing time spent on mothering and the fact that younger women, with more economic independence, feel able to express different attitudes to men. Others have argued that the size of the gender gap in gender-egalitarianism is smaller where women are more dependent on men (Baxter & Kane, 1995), which is likely to be more applicable in older

cohorts. These arguments suggest that cohort change in gender-role attitudes will be different for men and women in Europe as well. This discussion leads to the following hypotheses:

Modernisation hypothesis: Younger cohorts are more egalitarian than older cohorts in all European countries.

Gendered modernisation hypothesis: The cohort differences brought by modernisation are greater for female cohorts than male cohorts.

2.2. The second-wave feminist movement and the formation of a feminist generation

The modernisation account of inter-cohort change in gender-role attitudes omits some relevant aspects of the socialisation experience of post-war cohorts: that of the political context. Previous research suggests that changing political contexts can produce generations with distinctive attitudes. Factors such as election victories and the party in power, and other political ‘shocks’ during a cohort’s youth affect their life-long partisan identification (see e.g., Bartels & Jackman, 2014). Similarly, those socialised during the rise of non-traditional forms of political participation in the 1960s and 1970s are more likely to participate in social movements and protests than other generations (Grasso, 2014).

The second-wave feminist movement in Western and Southern Europe provides a crucial socialisation experience for those in their formative years during it, potentially creating a distinctive, egalitarian, generation – a ‘feminist generation.’ The movement, with some variation, first emerged in the late 1960s and early 1970s. It began earlier in Western European countries such as Britain, Scandinavia, West Germany and France (Kaplan, 1992; Lovenduski, 1986; Randall, 1987) but did not start until the mid-1970s in the Southern

European countries of Spain, Italy and Portugal (Dahlerup, 1986; Kaplan, 1992). In all countries the movement campaigned for free full-time childcare provision, equal pay, role equality and the liberalisation of abortion law, as well as actively attempting to change norms related to the position of women in society and challenging traditional conceptions of women's homemaking and mothering role (Dahlerup, 1986; Lovenduski, 1986).

Additionally, the structure and operation of the second-wave feminist movement means it is likely it made more of an impact on women than men. It focused primarily on altering women's roles and gaining equality with men, its leadership was dominated by women, and some groups actively excluded men from participation (Dahlerup, 1986). The movement is therefore highly likely to have influenced gender-role attitudes, especially those of women, and has been linked to increasing egalitarianism (Inglehart & Norris, 2003; Scott, 2008).

In the 1980s and 1990s there continued to be rising gender equality on a number of dimensions, including women's participation in public life. At the same time, however, the feminist movement itself experienced a strong decline in visibility and influence, as economic concerns overtook those of gender equality (Kaplan, 1992). Questions were raised about the role or relevance of the movement when it seemed many of its original goals had been achieved; this standpoint (or 'myth') that feminism was simply no longer required is referred to as post-feminism, particularly in the US and Britain (Gillis, Howie, & Munford, 2007; Oakley & Mitchell, 1997a). A backlash against feminism was also observed in the 1980s and 1990s, again especially in the Anglo-American world but also in other European countries (see e.g., Oakley & Mitchell, 1997b). This backlash manifested itself in politics, public policy, and the media, and generally took the position that the second-wave feminist movement, by opposing the traditional role of women as housewives or mothers, had

negative consequences for men, women, children, and the family as a whole (Oakley, 1997). Backlash figures and writings thus tended to be pro-motherhood in a way that encouraged women to adopt this as their main identity and role. Finally, third-wave feminism has been used to describe feminist thinking after the second wave (Evans, 2015; Genz, 2006). This feminism is seen as more individualised than second-wave feminism, characterised by personal choice and the idea that there is no single way to be a feminist (although the second-wave feminist movement was also not a single, unified, ideology) (Gillis et al., 2007).

Third-wave feminism, post-feminism, and the backlash produced a very different cultural context relating to gender roles in the 1980s and 1990s in comparison to the 1970s, so cohorts coming of age in these decades had very different socialisation experiences. In the US, the youngest cohorts are less likely to identify as feminists (Schnittker et al., 2003) or to see a collective women's movement as relevant to them (Peltola et al., 2004) than cohorts socialised during second-wave feminism. At the same time, these changes may also have influenced gender-egalitarianism. The greater fragmentation and lower visibility of the movement in this period compared to the 1970s may have removed the strong, egalitarian, signal that those coming of age during the 1970s received. At the same time, the pro-family and motherhood stance of the backlash may have increased support for traditional gender roles in these younger cohorts. There is also some evidence in Australia that younger cohorts are less gender-egalitarian on some measures than those born in the 1960s and 1970s (van Egmond et al., 2010). Furthermore, Cotter et al. (2011) find a decline in gender-egalitarianism during the 1990s in the US, which they attribute to the backlash against some feminist ideas. So far, however, literature examining the importance of the feminist movement for attitudes has focused on single country cases, has tended to describe the

impact of country-specific socialisation experiences with respect to the second-wave feminist movement, and rarely examines the impact on gender-role attitudes. However, the movement was concerned with gender roles and occurred throughout Western countries, and so a generational pattern associated with the changing feminist movement should apply to gender-role attitudes in Europe. No European study has yet examined whether there are generational differences in gender-egalitarianism associated with the different socialisation experiences of the second-wave feminist movement and its subsequent decline.

Eastern European countries under state socialism had a very different experience to the West with respect to gender roles. There was a rhetoric of equality for men and women which encouraged, and actively facilitated through the provision of childcare and maternity pay, the mass entry of women into the full-time labour force (Braun et al., 1994; Haller & Hoellinger, 1994; Voicu & Tufis, 2012). As a result, after the end of World War Two, female labour force participation became rapidly higher in the East than in the West. In contrast to its status as a hard-won right and route to independence and emancipation in the West, female employment in the East was forced on women by the economic necessity of having two-income families and the equality ideals of state socialism (Braun et al., 1994).

At the same time there was no attempt in Eastern Europe to encourage gender equality in the domestic sphere, resulting in a double or triple burden for women: full-time employment; childcare and homemaking; and activity in the 'second economy' taken up out of economic necessity (Crompton & Harris, 1997; Panayotova & Brayfield, 1997; Voicu & Tufis, 2012). In addition, women faced considerable discrimination in the labour force with unequal pay and gender segregation, with women pushed into lower skilled jobs (Einhorn, 1991; Lobodzinska, 1996). As a result, with the end of state socialism and the decline in the

demand for labour, women were both pushed out of the labour force and voluntarily removed themselves as a solution to the double or triple burden (Einhorn, 1991; Lee et al., 2007).

The persistent inequality between the genders under state socialism, despite the official commitment to gender equality and the emancipation of women, as well as the absence of the second-wave feminist movement, suggests a different pattern in Eastern Europe to Western Europe. The above discussion therefore produces the following hypotheses:

Feminist generation hypothesis: Cohorts in non-Eastern Europe which came of age during the second-wave feminist movement are socialised into more egalitarian gender-role attitudes than those born before or after them.

Gendered feminist generation hypothesis: The cohort changes in non-Eastern Europe brought about by the changing fortunes of the second-wave feminist movement are greater for female cohorts than male cohorts.

2.3. The confounders of age and period

Age is a potential confounder with birth cohort, as there is reason to expect gender-role attitudes to change with ageing. The exposure-based approach to gender-role attitude change indicates that personally experiencing traditional gender-roles leads to an individual holding more traditional gender-role attitudes over time (Brooks & Bolzendahl, 2004; Kroska & Elman, 2009). Social ageing, such as marriage and childbearing, is correlated with ageing and also plays a part in generating traditional gender-role attitudes, although having children has been found to have a positive effect on egalitarianism for women only (Kroska & Elman, 2009). Egalitarianism has also been found to be rising for everyone over time, as

well as across generations (Brewster & Padavic, 2000; Brooks & Bolzendahl, 2004; Ciabattari, 2001; Scott et al., 1996). While overall these period effects have been in the egalitarian direction, Cotter et al. (2011) noted a negative period effect in the 1990s in the US.

3. Data and methods

3.1. Data

Waves 2-4 of the European Values Study (1990-93, 1999-2001 and 2008-10)¹ provide data on gender-role attitudes and other key variables for a longer time span, and more countries, than recent cross-national analysis of gender-role attitudes (e.g., Dorius & Alwin, 2011; Pampel, 2011). The EVS collects data from randomly selected representative samples of adults using face-to-face interviews. There are 22 countries used here: Austria, Belgium, Britain, Bulgaria, the Czech Republic, Denmark, East Germany, Finland, France, Hungary, Iceland, Ireland, Italy, the Netherlands, Northern Ireland, Poland, Portugal, Romania, the Slovak Republic, Slovenia, Spain and West Germany.

3.2. Measuring gender-role attitudes

Gender-role attitudes are measured with the following questions from the EVS: ‘People talk about the changing roles of men and women today. For each of the following statements I read out, can you tell me how much you agree with each.’

¹ EVS (2011): European Values Study 1981-2008, Longitudinal Data File. GESIS Data Archive, Cologne, Germany, ZA4804 Data File Version 2.0.0 (2011-12-30), doi:10.4232/1.11005. Full details of the EVS can be found here: <http://www.europeanvaluesstudy.eu/>. Wave 1 (1981-84) does not contain the gender-role attitude indicators. Response rates are in appendix 2.

‘Men have more right to a job than women’ (*the ‘men priority’ indicator*).

‘A pre-school child is likely to suffer if his or her mother works’ (*‘child suffers’ indicator*).

‘A job is alright, but what most women really want is a home and children’ (*‘home and children’ indicator*).

‘Being a housewife is just as fulfilling as working for pay’ (*‘housewife’ indicator*)

Egalitarian attitudes are indicated by disagreement with the statements, and are coded as higher numbers. For the men priority indicator, responses are given on a three-point scale: ‘agree’ (coded 1), ‘neither’ (2), or ‘disagree’ (3). For the other three indicators, answers are given on a four-point scale: ‘strongly agree’ (1) ‘agree’ (2), ‘disagree’ (4), and ‘strongly disagree’ (5). For all indicators, those who said they don’t know are included in the central category, so the latter three indicators have five possible categories.²

These four questions are used separately for multiple reasons. Firstly, previous research argues that gender-role attitudes have several conceptually distinct dimensions that can be only weakly related to each other (Braun, 1998; Ciabattari, 2001; Crompton & Harris, 1997). This can be seen with the indicators above: the men priority indicator taps opinions towards gender equality in labour force participation, focusing on equal rights in the workforce; the child suffers indicator asks about the consequences of women working for children; and the home and children and housewife indicators focus on essentialist beliefs

² The don’t know responses are included for several reasons. Firstly, the answer appears meaningful: less than 0.1% of the respondents in the sample used recorded ‘don’t know’ for all indicators, suggesting the response captures a genuine uncertainty about whether to agree or disagree with the statement. Secondly, including these responses considerably enlarges the sample size, which is helpful for modelling the GAMs. Thirdly, including these responses hardly altered the mean response to each question, and when the analysis was conducted without the ‘don’t know’ responses the results were seldom different from those reported here. Fourthly, although there is some tendency for men to be more likely to respond with ‘don’t know’ than women, especially on the home and children preferred and housewife as fulfilling as working indicators, excluding the ‘don’t knows’ again made no difference to the gender results presented here. In the 1999-2001 wave, Austria, Ireland, and Northern Ireland had a middle response category of ‘can’t choose,’ which are included with the don’t knows.

about women's preferences towards the trade-off between employment and family life, sometimes referred to as 'gender ideology' (Braun et al., 1994; Scott et al., 1996). Secondly, empirically it does not appear appropriate to combine the items into a scale. In a factor analysis, constraining the number of factors to 1, the eigenvalue is low at .88 and each item has a high degree of uniqueness (.65-.87).³ The Cronbach's alpha is also low at .56. Thirdly, different indicators of gender-egalitarianism have been found to behave in different ways: the gender gap between men and women tends to be wider when the indicator asks about the consequences of women working (Alwin, Braun, & Scott 1992; Bolzendahl & Myers 2004; Scott 2008), and attitudes towards women's preferences or 'gender ideology' can diverge from beliefs about the consequences of female employment (Braun & Scott, 2009; Scott, 2008; Scott et al., 1996). Examining each indicator as a separate dependent variable rather than an index therefore avoids missing these differences, and indeed, this analysis does find important differences in the results between indicators.⁴ Fourthly, there are multiple possible interpretations of some of the indicators. For example, it may be seen by some respondents that agreeing that 'being a housewife is just as fulfilling as working for no pay' is actually the egalitarian response because it validates the choice of women to be a housewife rather than enter the labour force. In order to be as transparent as possible about the results regarding the more problematic indicators the results are reported for all indicators separately.

³ Similar results are obtained when constraining the number of factors to 2, and when conducting the analysis for the separate geographic regions used in this paper.

⁴ Cohort effects are seen when using the indicators separately that are not seen when they are used together as an index. Thus, using an index is less informative than using the individual questions.

3.3. Methods

A combination of ordered logit models and generalised additive models (GAMs) are used here to accurately model cohort effects and to overcome the age-period-cohort identification problem. Both use *female*, a dichotomous variable for being female, and a measure of birth cohort to test the hypotheses. The ordered logit uses a categorical cohort variable to both ‘break’ the perfect collinearity between age, period and cohort and to model the expected non-linear relationship between birth cohort and gender-role attitudes. Such a method is often used to solve the age-period-cohort (APC) identification problem, is easily interpretable and makes the identifying assumptions of the model transparent.

Creating a categorical cohort variable requires identifying which birth cohort came of age during the second-wave feminist movement, and which birth cohort came of age after it. The second-wave feminist movement can be seen as taking place from the late 1960s to the early 1980s, although it did not begin until the mid-1970s in Southern Europe. There is some debate in the political socialisation literature as to at what ages individuals are particularly susceptible to influence, with estimates ranging from adolescence to the mid-twenties (Bartels & Jackman, 2014; Jennings & Niemi, 1981; Markus, 1979). Thus it seems likely that the cohort socialised by the second-wave feminist movement was born in approximately the 1950s and 1960s, with those socialised afterwards born in the 1970s and 1980s. However, this discussion shows that, although using a categorical cohort variable has distinct advantages, it can also be problematic because the results are dependent on the accurate coding of this variable. Furthermore, it assumes distinct breaks between generations, whereas we might expect a more gradual transition in attitudes, and such a strategy thus loses information about the data. Using an approach similar to Grasso (2014), this analysis first

uses GAMs in order to overcome these problems.

The majority of the GAM is set up as a standard ordered logit model, with the same independent and dependent variables. The difference is that it uses a continuous *birth year* variable, 1925-85,⁵ and instead of estimating a single coefficient the GAM allows for the estimation of an arbitrary non-parametric smoothed function for birth year. This provides a visual representation of the cohort effects in gender-role attitudes.⁶ Such a model specification places no a priori assumptions on the form the cohort effect will take, as the grouped categorical variable for birth year does, and is particularly useful here since the debate about when socialisation takes place produces uncertainty as to where to place the boundaries between cohorts. In addition, conducting the APC analysis using two methods under different identifying assumptions produces more robust results. The results of the GAMs are thus discussed first to accurately identify the categorical cohort variable for the ordered logit models. The ordered logit models then provide further verification of the results of the GAMs and allow for the identification of different cohort trends for men and women through an interaction between cohort and gender.

3.4. Controls

Age is a categorical variable: 18-25 (reference); 25-44; 45-64; and 65-84, which provides an identifying assumption for the GAMs and allows for a non-linear effect in age. The results are robust to alternative specifications of age: 18-30, 31-40, 41-50, 51-60, 61-70, 71-84; and continuous variables for age and age squared. The results are also robust to an

⁵ This eliminates those born in the earliest and latest cohorts available in the survey, who only experienced the very oldest or very youngest ages.

⁶ The smoothed function used here is a regression spline. The degree of smoothing is determined by the effective degrees of freedom estimated from the data, and is constrained to have zero mean (see Wood, 2006 for a full account of GAM model specification).

interaction between age and gender.

The feminist generation hypothesis expects a certain cohort trend associated with the socialisation experience of the second-wave feminist movement, where the generation who had this experience during their formative years are particularly egalitarian. However, other differences between cohorts could also lead some generations to be more egalitarian than others. Therefore, controls for marital status, having children, education, employment status, religiosity, and postmaterialism are included. These are all variables which have previously been linked to levels of gender-egalitarianism and change across cohorts, with younger cohorts less likely to be married, less religious, more educated, more likely to be employed (in the case of women), and more postmaterialist. Marital status and children also capture social ageing factors influencing gender-egalitarianism.

Marital status has four categories: married/cohabiting (reference); widowed; divorced/separated; and single. *Children* is a dichotomous variable for if the respondent has ever had children. *Education* is measured using age completed formal education and age completed education², with 0 as no formal education at all. *Employment status* is a dichotomous variable for currently being in full-time (30+ hours per week) employment.

Religiosity has three categories: no religion (reference), Christian, and non-Christian.⁷

Postmaterialism has three categories: materialist (reference), mixed, and postmaterialist.⁸

Fixed effects for *survey wave* and *country* are included in all models. Since period effects are

⁷ Religiosity categories derived from answers to the questions ‘Do you belong to a religious denomination?’ and ‘What is your religious denomination?’

⁸ Postmaterialism is missing from wave 3 (1999-2001) in Britain, and so for Britain only the data from waves 2 and 4 are included. The results for models without postmaterialism are the same including this wave of British data, and the results for all models are the same as presented here with Britain completely omitted. To measure postmaterialism, respondents were asked which of these was most important, and which was the next most important: 1) maintaining order in the nation; 2) giving people more say in important government decisions; 3) fighting rising prices; and 4) protecting freedom of speech. They were classed as materialist if they selected both 1 and 3, postmaterialist for both 2 and 4, and mixed if they selected any other combination.

unlikely to be identical across countries, the analysis was also done with interactions between *survey wave* and *country*, and the results are robust to this specification.

Preliminary analysis on individual countries suggested that, despite differences between countries in terms of the second-wave feminist movement, female labour force participation, and gender equality, the countries form three groups which behave similarly to each other. Southern Europe (Italy, Portugal, and Spain) behaved differently to other Western European countries in terms of the timing of cohort change (details below), and Eastern European countries behaved differently again to non-Eastern European countries.

4. Results

4.1. Western and Southern Europe

Figs. 1 and 2 show the smoothed non-parametric functions from the GAMs, plotting the relationship between birth year and gender-role attitudes for Western and Southern Europe, firstly including just *age*, *female*, *birth year* and *country* and *survey wave* fixed effects, and then with the controls for *marital status*, *children*, *education*, *employment status*, *religiosity*, and *postmaterialism* added. They show that there is an increase in egalitarianism across cohorts for all indicators without the controls, although this increase levels off for the youngest cohorts. For the child suffers, home and children, and housewife indicators, including the controls produces a less pronounced increase in egalitarianism across cohorts, with a peak in egalitarianism for those born 1950-70 in Western Europe and 1955-75 in Southern Europe, shown by the shaded area, and a subsequent decrease in egalitarianism for the younger cohorts. The later peak for Southern Europe is to be expected given the second-wave feminist movement emerged later in these countries.

Tables of the distribution of *education*, *religiosity*, and *postmaterialism* by birth

cohort can be found in appendix 4 (*marital status, children and employment status* are also affected by life-cycle effects which makes them difficult to examine in this way). Younger cohorts are consistently more educated and less religious, but from the 1950s onwards do not become more postmaterialist. Analysis adding the controls one by one showed that it was especially the higher education levels of the youngest cohorts, but also their higher female labour force participation, lower religiosity, and lower marriage rates which led them to be more egalitarian than the feminist generation. Cohort differences in postmaterialism are, however, unimportant for increasing egalitarianism since the models do not change when postmaterialism is removed as a control, which is consistent with the lack of increase in postmaterialism for most cohorts. The cohort socialised during the second-wave feminist movement are the most gender-egalitarian once their lower levels of education and female labour force participation, and higher religiosity and marriage rates, compared to the youngest cohort are accounted for.

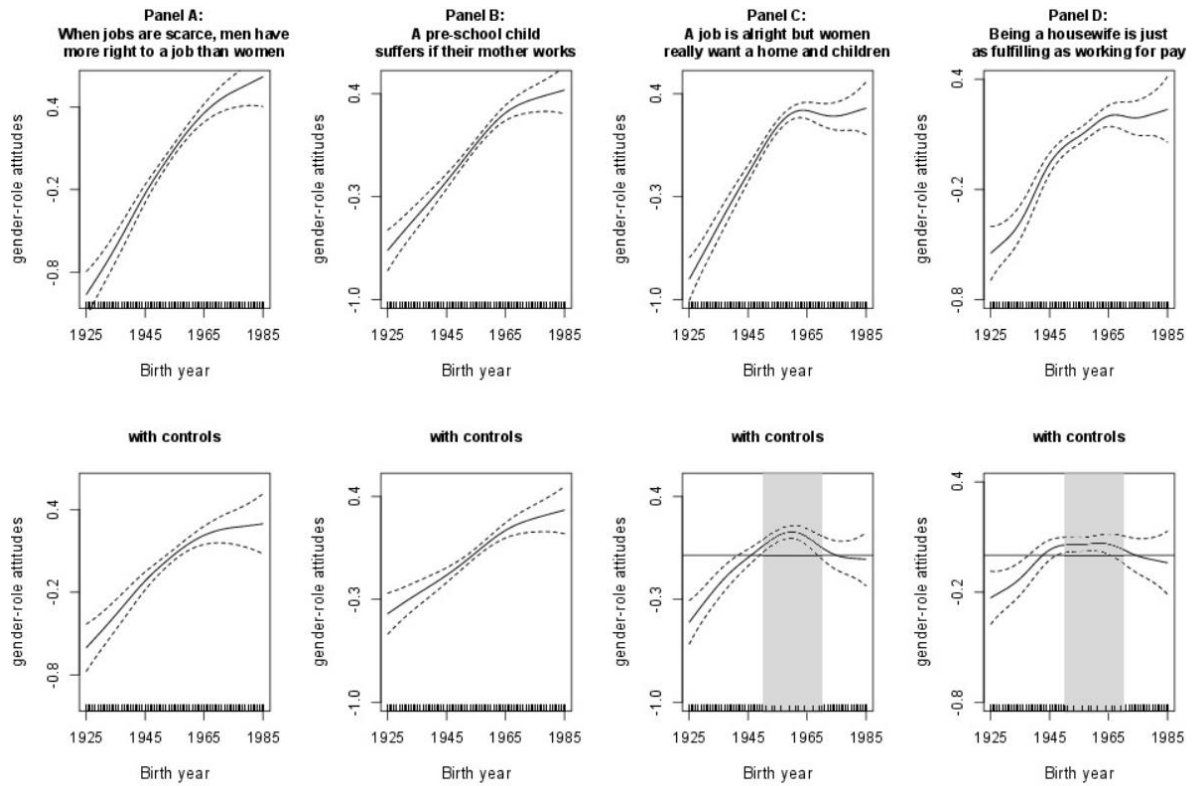


Fig. 1. Smoothed functions for birth year from GAMs for Western European countries. $N=31,071$. The dotted lines show 95% confidence intervals. The shaded area shows the most egalitarian birth cohort, born 1950-1970. The y-axis can be interpreted as a log odds.

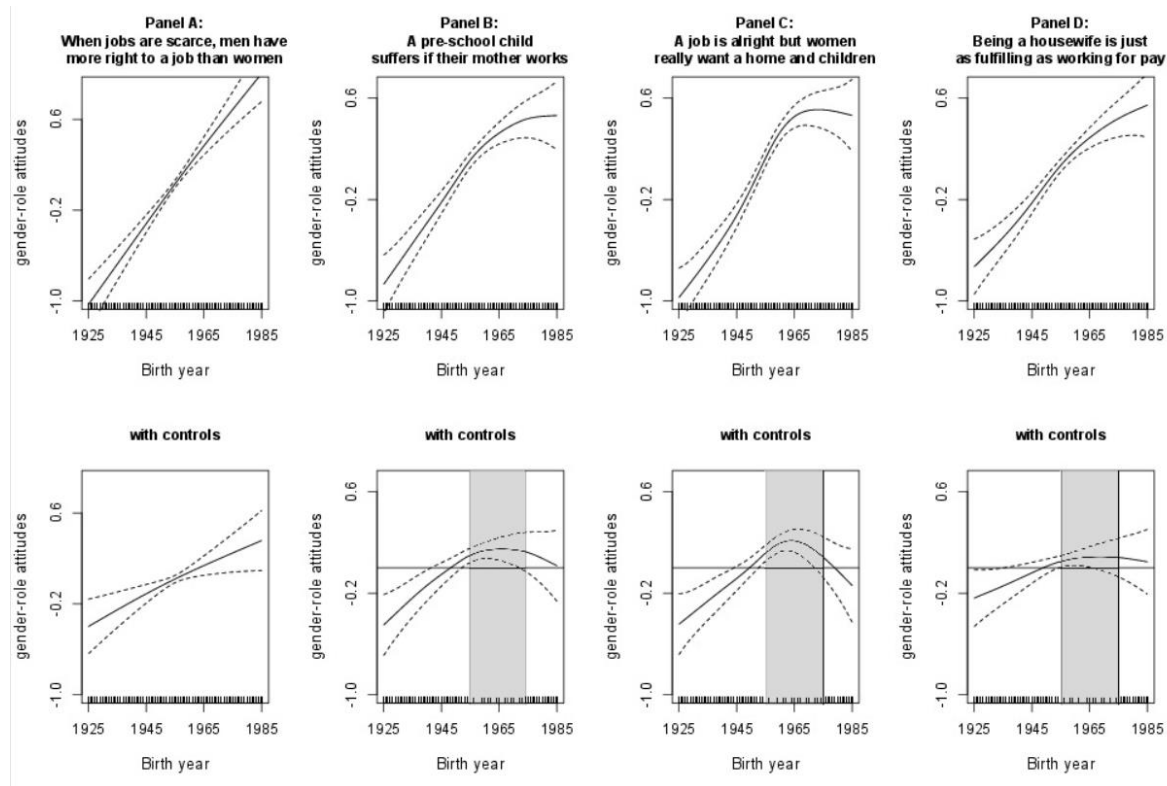


Fig. 2. Smoothed function for birth year from GAMs for Southern European countries $N = 11,563$. The dotted lines show 95% confidence intervals. The shade area shows the most egalitarian birth cohort, born 1955-1975. The y-axis can be interpreted as a log odds.

Using the information from the GAMs, the following categorical variables are specified in the ordered logits: in Western Europe, born 1950-70 (reference); born 1925-39; born 1940-49; born 1971-85; and in Southern Europe, born 1955-75 (reference); born 1925-39; born 1940-54; born 1976-85. These models verify the results from the GAMs and an interaction between the categorical cohort variable and *female* shows the different cohort trends for men and women. Tables 2 and 3 in appendix 3 show the results for Western and Southern Europe for models with and without an interaction between birth cohort and gender. Both models include the controls: the young, women, those who are divorced/separated or single, do not have children, are more educated, are employed full time, have no religion and are postmaterialist are the most egalitarian groups in both regions.

Fig. 3 shows the predicted probability of selecting an egalitarian response by gender and cohort in Western and Southern Europe, calculated from the ordered logit models with gender and cohort interactions with other variables held at their means or medians.⁹ The results are consistent with the GAMs. The men priority indicator shows an increase in egalitarianism, and this is as expected greater for women than for men. For the child suffers, home and children, and housewife indicators the increase in egalitarianism between the oldest cohort and the feminist generation in both Western and Southern Europe is greater for women than for men. However, when looking at the youngest generation, there is contradictory evidence for the gendered feminist generation hypothesis. In Western Europe, the decrease in egalitarianism for the youngest cohort can be seen for men for all indicators (including men priority), but for women only in the home and children and housewife indicators. Conversely, the decline in egalitarianism for the youngest generation in Southern Europe appears more pronounced for women, especially for the home and children and housewife indicators.

⁹ Western Europe: aged 25-44, 2008-10 survey wave, married/cohabiting, has children, 18 years of education, not employed full time, Christian, mixed postmaterialist, Belgium. Southern Europe: aged 25-44, 2008-10 survey wave, married/cohabiting, has children, 16 years of education, not employed full time, Christian, mixed postmaterialist, Spain.

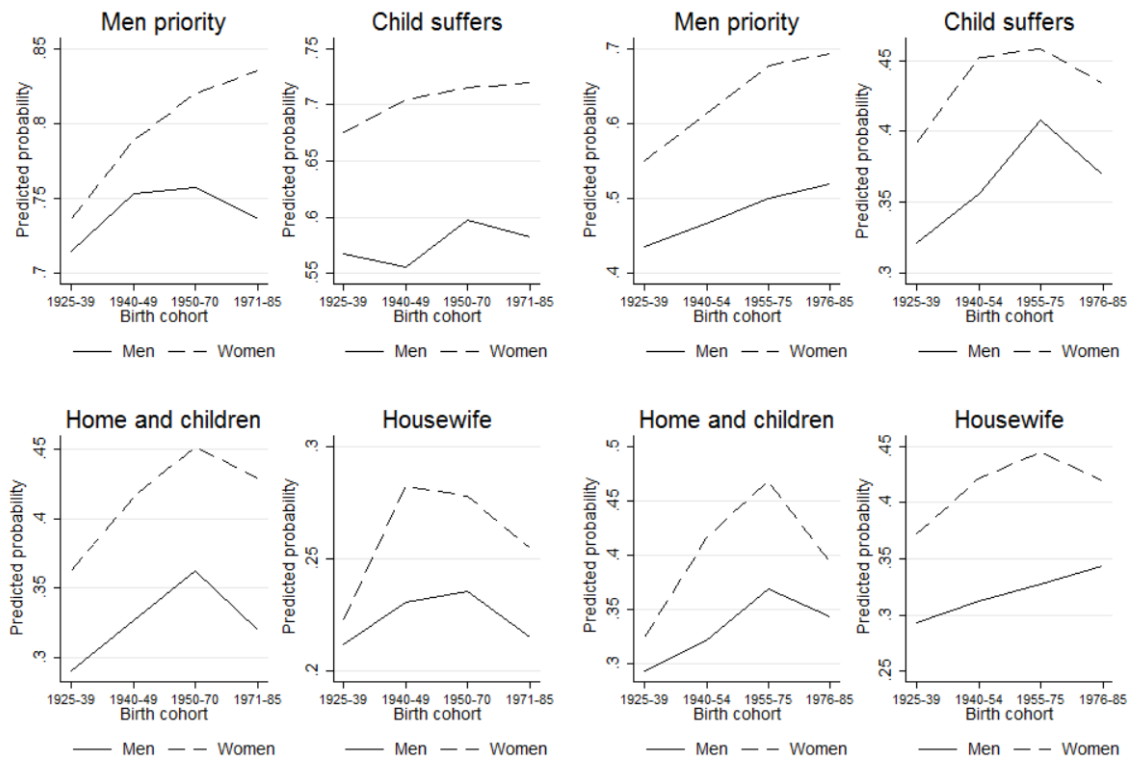


Fig. 3. Predicted probability of selecting an egalitarian response (either disagreeing or strongly disagreeing) by cohort for men and women in Western (left) and Southern (right) Europe.
Probability for child suffers, home and children, and housewife is cumulative: $p(\text{disagree}) + p(\text{strongly disagree})$

4.2. Eastern Europe

Fig. 4 shows the GAM smoothed functions for Eastern Europe. The results show support for the modernisation hypothesis, as younger birth cohorts are more egalitarian than older birth cohorts. This largely remains the case when the controls are added although the upward trend in egalitarianism becomes less steep indicating the changing characteristics of cohorts leads to generational change in gender-egalitarianism. For the child suffers indicator there is an abrupt decline in egalitarianism for those born after the early 1970s, which may reflect a rejection of the communist rhetoric around gender equality for cohorts socialised

in the post-state socialist period. Some have argued that after communism, many women who retreated from paid work partially did so out of a desire for their children to spend less time in childcare than they themselves did as a result of their mothers' double burden (Einhorn, 1991), which could be an explanation for why this trend is only seen for the indicator which focuses on the consequences of mothers working. As expected, there is no evidence of a feminist generation like that seen in non-Eastern Europe once the controls are added.

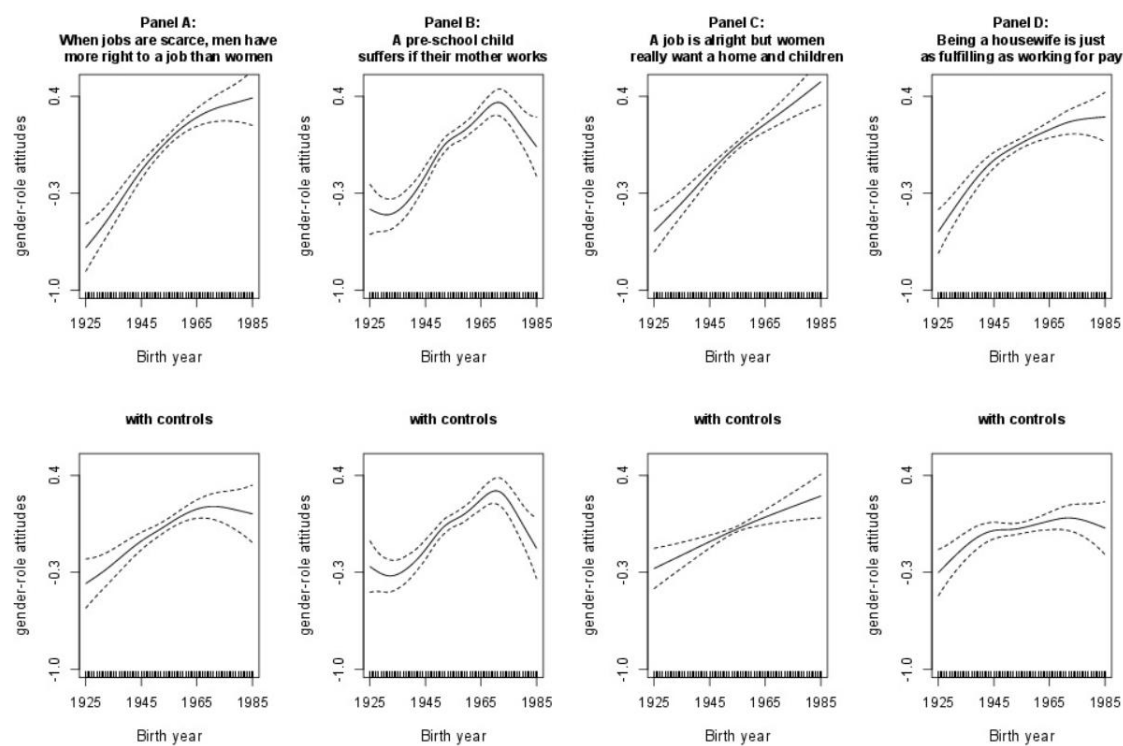


Fig. 4. Smoothed functions for birth year from GAMs for Eastern European countries. $N = 25,148$. The dotted lines show 95% confidence intervals. The y-axis can be interpreted as log-odds.

The GAMs largely suggest a gradual increase in egalitarianism across birth cohorts, as expected, and so the categorical cohort variable in the ordered logits is specified as follows: born 1925-40 (reference); 1941-55; 1956-70; 1971-85. Table 4 in appendix 3 shows the results of these models. Women, the young, divorced/separated, childless, educated, in

full time employment, not religious, and postmaterialist are again the most egalitarian.

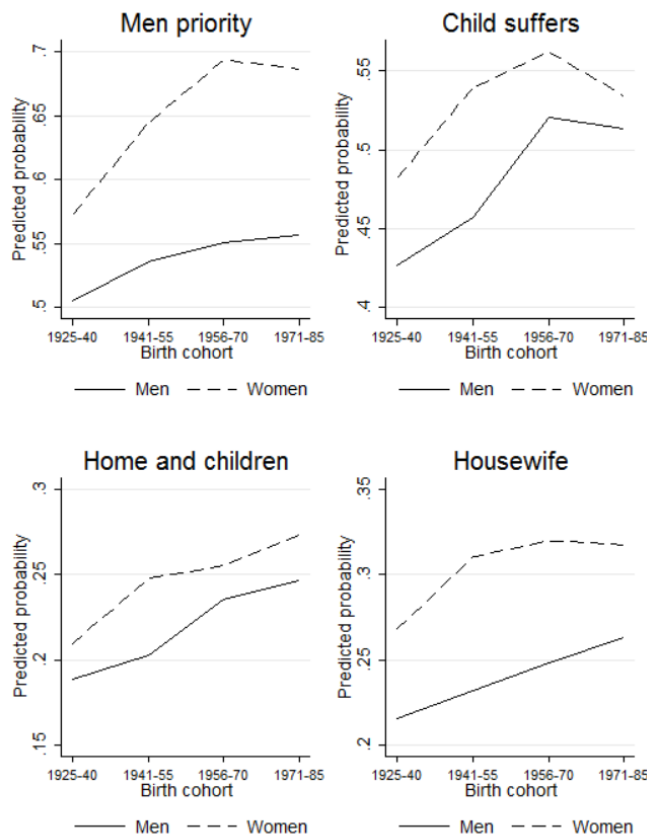


Fig. 5. Predicted probability of selecting an egalitarian response (either disagreeing or strongly disagreeing) by cohort for men and women in Eastern Europe
Probability for child suffers, home and children, and housewife is cumulative: $p(\text{disagree}) + p(\text{strongly disagree})$

Fig. 5 shows the predicted probability of selecting an egalitarian response for men and women in Eastern Europe, calculated from models with an interaction between gender and birth cohort.¹⁰ The results for birth cohort are consistent with the GAMs and support the modernisation hypothesis, as younger cohorts are statistically significantly more egalitarian than older cohorts, but this is only greater for women than men for the men priority indicator,

¹⁰ Other variables held at means or medians: aged 25-44, 2008-10 survey wave, married, has children, 18 years of education, not employed FT, Christian, mixed postmaterialist, Czech Republic.

which interestingly behaves the same across all European countries. The decline in egalitarianism for the youngest cohort for the child suffers indicator is especially strong for women, with a negative interaction between gender and this birth cohort, significant at $p < 0.1$.

5. Discussion and Conclusions

In Western and Southern Europe each new birth cohort is more egalitarian than the last, in accordance with modernisation theory. The greater egalitarianism of the youngest cohorts is due primarily to their higher education levels, as well as their higher female labour force participation, lower religiosity, and lower likelihood of being married. Such variables are likely to operate through both self-interest and socialisation mechanisms, for example, education systems may socialise younger cohorts into more egalitarian values. The extent to which this occurs may grow for younger cohorts, because the youngest cohorts may have experienced an education which is particularly likely to produce gender-egalitarian values. However, once differences between birth cohorts in these characteristics are accounted for, those socialised at the time of the second-wave feminist movement are the most egalitarian compared with other cohorts, including the youngest cohorts socialised during the subsequent period of third-wave, post- and anti- feminism.¹¹ This generation are thus unusually feminist given especially their lower levels of education, and potentially the different character of their education, in comparison to the youngest cohorts. Therefore, the socialisation experience of birth cohorts with respect to the changing feminist movement is

¹¹ These results are unlikely to be the result of ceiling effects: there are continued increases in egalitarianism across birth cohorts for the men priority indicator; different regions do not show a pattern whereby some similar level is reached before the decline occurs; and the timing of the change in generational trends occurs at the theoretically expected generations.

important for shaping their gender-role attitudes. The combination of two opposite influences on the gender-role attitudes of the youngest cohort – the positive impact of modernisation and the negative impact of the post-second-wave feminist period – produce the levelling off in egalitarian gender-role attitudes for younger generations seen in the models without the controls.

These results show that the importance of the second-wave feminist movement for generational change in attitudes applies in Western Europe as well as in Australia and the US. Moreover, a different generational pattern is found in Eastern Europe, which did not experience the same feminist movement. This suggests that there are differences in cohort trends between different societies depending on socialisation experience, and indicates further research is needed into the influence of socialisation on gender-role attitudes in other contexts.

The influence of the changing feminist movement can be especially seen for questions which ask about the trade-off between employment and family life for women: in the form of the consequences for children of mother's employment (child suffers indicator), but particularly for the indicators focusing on essentialist claims about what women's preferences in this trade-off are (home and children and housewife indicators). For the men priority indicator, which asked about gender equality in labour force participation without any reference to a trade-off with home and family life, each new birth cohort was more egalitarian than the last and there was no evidence for a particularly egalitarian generation for those socialised during the second-wave feminist movement.

These differences likely reflect the influence of the changing feminist movement. The men priority indicator can be interpreted as having an unambiguous gender-egalitarian

answer: that women have just as much right to work as men do. However, whilst the second-wave feminist movement challenged the traditional division of labour between men and women, the 1980s and 1990s were populated by third-wave feminist ideas, which focused on each individual woman's choice: to the third-wave feminist, acknowledging women might prefer to be housewives and mothers may not be seen as gender-inegalitarian. At the same time the backlash against feminism was emphasising a mothering role for women and the importance of family, so that questions which focus on women as mothers, such as the child suffers and home and children indicators, may elicit more traditional responses. This indicates that the generational impression left by the second-wave feminist movement and the subsequent changes to feminism is particularly pronounced for the issues which were contentious between the periods.

The increases in egalitarianism across birth cohorts are stronger for women than for men, especially for the men priority indicator. The large gender gap for the youngest cohort for this indicator suggests there will be growing divergence in the opinions of men and women. The growth in egalitarianism from the oldest cohort to the feminist generation also appears greater for women than for men, but there is little evidence that the decline and change in the movement after the 1970s had a consistently larger effect on women. This does suggest that the widening of the gender gap in younger cohorts will not close as a result of a greater negative effect of the post-second wave feminist movement period on women.

Studies of cohort change in gender-role attitudes in countries which experienced a feminist movement should take into account non-linear trends in cohort, and should appreciate that such cohort trends are likely to differ between dimensions of gender-role equality, as well as between men and women. Although the results indicate the importance of

other factors including modernisation, rising education and declining religiosity, the role of the feminist movement in shaping public opinion was crucial and cannot be overlooked in studies of gender-role attitudes.

Discussion and Conclusion

1. Answering the research questions

This thesis set out to answer the following research questions: 1) are there cohort and/or generational differences in political gender gaps? and 2) what explains how the gender gap changes across birth cohorts and/or generations? In answer to the first, there are generational differences in political gender gaps. In particular, there is a gender-generation gap in many Western countries where men of older birth cohorts are more left-wing than women, whilst women of younger cohorts are more left-wing than men. However, this does not occur in all countries, for example in Britain where there is no gender-generation gap. Furthermore, there are generational differences in gender gaps in attitudes, not just in vote choice. This thesis shows that the gender gap in support for redistribution and spending narrows in Britain for the youngest generations, and the gender gap in gender-egalitarianism widens for the youngest generations in European countries.

In answer to the second question, modernisation is important in producing the gender-generation gap in many Western countries: specifically, secularisation is crucial in producing this phenomenon. However, the political context or national zeitgeist is also important in shaping how gender gaps change with generations through a process of political socialisation, suggesting that country- and time- specific contexts are also key to producing different gender gaps within different generations. Sociological processes associated with modernisation interact with political factors to produce a complex pattern of change in political gender gaps across generations.

Table 1 summarises the evidence presented in this thesis for the existence of different political gender gaps in different generations, and the explanations for them.

Table 1. Summary of the evidence of cohort and/or generational change in political gender gaps

	Modernisation	Political socialisation
Chapter 1: Left-right self-placement and vote choice in Europe and Canada	Yes. In most countries there is a gender-generation gap where men are more left-wing than women in older cohorts, and this reverses for younger cohorts.	Not examined in this chapter.
Chapter 2: Vote choice in Britain	Partial evidence. Older cohorts of women are more supportive of the Conservatives than Labour compared to men.	Yes. Men are consistently more supportive of the party in power during their formative years and women are not, creating different gender gaps in different generations.
Chapter 3: Support for redistribution/spending in Britain and the US	Partial evidence. In the US, the gender gap in support for redistribution is largest (but stable in size) for cohorts born post-1925.	Yes. In Britain alone, the gender gap is larger for the generation brought up in the post-war period 1945-79, and smaller for subsequent generations.
Chapter 4: Gender-role egalitarianism in Europe	Yes. For the <i>men priority</i> indicator alone the gender gap in egalitarianism gets larger for younger cohorts.	Partial evidence. Some evidence in Southern Europe that the gender gap is widest for the generation brought up during the second-wave feminist movement.

2. Discussion

Inglehart and Norris's theory of modernisation places emphasis on social changes such as rising female labour force participation, declining marriage rates, rising education rates, and secularisation in order to explain the gender-generation gap. They argue that such change has led to a series of attitudinal and value changes, especially amongst women, and hence a realignment of the gender gap. This thesis shows that, in fact, secularisation is the only one of these processes that is really key to the emergence of the gender-generation gap. Religiosity is central to the gender gap in older cohorts where men are more left-wing,

because they are less religious than women. With secularisation, religiosity declines, the gender gap in religiosity declines, and the salience of religiosity for political position declines. This leads to the disappearance of the ‘traditional’ gender gap where men are more left-wing, and allows women’s left-wing attitudes on economic issues to exert more influence on their political position in younger cohorts, pushing them to the left of men.

This account of the gender-generation gap raises the question of why women’s economic attitudes are more to the left of men’s. The literature provides two possible explanations for this gender difference: the ‘compassion’ perspective that women are more caring than men, and the ‘self-interest’ perspective that women are more economically vulnerable than men. Some argue that differences between women and men in economic preferences cannot be explained by gender differences in income, education, or labour force participation and so conclude that gender differences in compassion must be at least partly responsible (Box-Steffensmeier, De Boef, & Lin, 1997; Chaney et al., 1998; Welch & Hibbing, 1992). Indeed, the analysis of attitudes towards spending and redistribution in the US and Britain in this thesis shows that gender gaps in all generations are unexplained by a host of socioeconomic indicators. However, others have pointed out that this perspective ‘unacceptably essentialises gender differences’ (Andersen, 1999). Furthermore, the argument that gender gaps in policy preferences are not explained by income disparities and that they are therefore due to gender differences in the conceptualisation of morality ignores nuanced points put forward by the self-interest perspective. For example, women, as primary caregivers, are more likely to come into contact with state services and this leads them to favour more state spending and intervention. Gender inequalities which are more complex go largely untested as the source of attitudinal gender gaps, suggesting we need to construct

more multifaceted theories of gender inequality and political gender gaps that focus on the intersection of the unequal distribution of employment, income, and childcare responsibilities, before we can conclude that a ‘compassion gap’ between men and women really leads to such differences in economic preferences.

The analysis of gender differences in support for spending and redistribution in the US and Britain in this thesis has shown that gender gaps in such preferences can, and do, differ between generations. Any analyses of gender gaps in economic preferences that focus on the aggregate-level gender gap are therefore problematic. The differences in the gender gap across generations in Britain, and the differences in the gender-generation trends between the US and Britain, are hypothesised to be because of factors related to the political context – specifically public policy and government action – as well as potentially the extent of welfare provision. Future research, as well as focusing on individual-level factors, should spend more time examining how the national context or zeitgeist influences the gender gap in economic attitudes.

It is interesting that the gender gap in vote choice and left-right self-placement widens in younger cohorts whilst these same cohorts are becoming more gender-egalitarian in their attitudes. It should, however, be noted that younger cohorts are only consistently more egalitarian for some measures of gender-egalitarianism – in particular which focus only on gender equality in the workplace – whilst for measures of gender-egalitarianism which ask about the trade-off between work and family life for women, all cohorts born after approximately 1960 are very similar. Women, meanwhile, are consistently more gender-egalitarian than men in all cohorts; this gender gap widens for younger cohorts but again only for measures of gender-egalitarianism which focus on gender equality in the workplace.

This thesis finds that the gender-generation gap in left-right self-placement in Europe and Canada is only somewhat related to gender differences in gender-egalitarianism, but this analysis does not utilise a wide range of measures of gender-egalitarianism because of issues of data availability. The relationship between gender-egalitarianism, and especially different types of feminist attitudes, and gender gaps in vote choice and left-right self-placement should thus be examined in more detail.

The discussion above describes general trends identified in this thesis. However, there is considerable cross-country variation in the magnitude of the gender-generation gap. It is large in Scandinavian countries – Finland, Sweden, Iceland, and Norway – but also in Austria, Italy, and the Netherlands (for left-right self-placement). Countries with a medium-sized gender-generation gap include Belgium, Spain, and France. In other countries, there is no evidence of a gender-generation gap, especially Ireland, West Germany, and Britain. This indicates that national context is also important in shaping the gender-generation gap, beyond the more universal process of secularisation. Important aspects of the country-specific context influencing the size of the gender-generation gap might be overall levels of religiosity, the type of welfare regime, or culture with respect to gender ideology. It seems the gender-generation gap is larger where there is a social democratic welfare regime, for example, and smaller where religiosity is higher. Further research could examine the causes of this cross-country variation. Interestingly, the size of the aggregate-level gender gap does not appear to be highly correlated with the size of the gender-generation gap.

The British case study in this thesis shows one example of how there is a universal process shaping how gender gaps change with generations, but also how country-specific developments can lead to particular patterns of generational change in political gender gaps.

In Britain, there is a ‘traditional’ gender gap in older cohorts, where women are more supportive of the Conservatives relative to Labour than men are. In accordance with the general trends found across all countries, this is especially related to women’s higher religiosity compared to men: adding the controls of religiosity, social class, education, and children one at a time to the models examining the British Election Study in chapter 2 showed that religiosity was the key factor in producing this gender gap in older cohorts. However, younger cohorts of women in Britain are not consistently more left-wing than younger cohorts of men in their vote choice. Women born 1958-75 are especially supportive of Labour, and unsupportive of the Conservatives, than men of this generation. For the generation born post-1976, this gender gap closes.

This thesis argues that gendered political socialisation – where men and women respond differently to the government in power during their youth – can also produce different gender gaps within different generations, as seems to be the case in younger cohorts in Britain. For cohorts born after 1958 men are more supportive of the party in power when they were young but women are less supportive of it, producing this generational variation in the gender gap in vote choice. Britain provides a useful case study, testing the contributions of modernisation and socialisation on how the gender gap differs across generations, but also also raises further questions. There are only two generations born after 1958: those who spent their formative years during the Conservative government 1979-1997, and those who spent their formative years during the Labour government 1997-2010. The findings thus may be because women are less favourable towards male-dominated, national institutions that don’t always act in women’s interests in general, or because they happened to be less supportive of the Conservative 1979-1997 and Labour 1997-2010 governments in Britain

specifically. Further research, expanding to other country contexts, is required in order to assess this.

Furthermore, it is not the case that the changes to attitudinal gender gaps that are thought to accompany modernisation occur for all countries. Again taking Britain as a case study, attitudes are influenced not only by more universal processes but also by the political context. In Britain, the gender gap in support for redistribution and spending is widest for the post-war generation, born 1925-57, and then closes for the youngest generations. The lack of a steadily widening gender gap in economic preferences for younger cohorts may well be a contributing factor behind the lack of a gender-generation gap in vote choice in Britain: there is no upward pressure from a gender gap in economic attitudes to the gender gap in vote choice. This indicates that when looking for sources of country variation in the gender-generation gap, we should also examine country variation in attitudes.

The British example shows that the predictions of the modernisation perspective – and in particular the gender-generation gap – are not found everywhere. Britain is the only country examined in great detail here, and it is likely that other countries will demonstrate similarly distinctive patterns as well as sharing the same general trend. This suggests both that country-specific political contexts matter for how the gender gap changes across generations, and that the relationship between generational change in attitudes, and generational change in vote choice, might not be as straightforward as the modernisation theory suggests. Further research is required to assess how the connection between attitudes and vote depends on political context and how this impacts political gender gaps. For example, the consensus between Labour and the Conservatives in the post-war period in Britain may have meant that for the post-war generation the Conservatives were in fact

associated with a reasonably large role for the state, leading the large attitudinal gender gap found in Britain for spending preferences to fail to translate into a gender vote gap for this generation. To examine such questions from a generational perspective might be problematic due to a lack of data for sufficient years on all of the required variables, but as survey and election study data grows this should become increasingly possible.

Much of the discussion above is speculative, and this is partly because the approach used in chapters 2-4 measures gendered political socialisation via the national context indirectly, by theorising about what generational patterns we would expect if such a process were taking place and then assessing whether we observe such generational trends. In order to fully assess whether political socialisation takes place in a gendered way, further research using panel data and taking into account factors such as political interest and government approval is needed. The approach used in this thesis is helpful here because the central question of the thesis was to assess whether political gender gaps do, in fact, differ by generation, and it was therefore important to observe political gender gaps in different generations using the combination of constrained generalised linear models and generalised additive models. However, this has opened up new questions about the mechanisms producing such generational differences in political gender gaps that should be explored further.

3. Contribution and implications

This thesis makes a considerable contribution to our knowledge of political gender gaps. The identification of the gender-generation gap helps us to understand a puzzle present in the gender gap literature: that at the aggregate-level, the gender gap is small in magnitude (Allen et al., 2014; Baldez, 2011; Huddy et al., 2008) but in the European context this gender

gap has also been resistant to attempts to explain it through the inclusion of socioeconomic differences between men and women in labour force participation, income, and religiosity (Giger, 2009; Inglehart & Norris, 2003). The analysis here shows that the reason that gender gaps appear small is because a focus on the aggregate-level gender gap averages over different gender gaps in different birth cohorts, therefore leading to an underestimation of political differences in preferences and vote between men and women. This observation contributes to other critiques of the current approach in the gender gap literature, which argue that women (and men) are not homogenous blocks and we should be examining how women differ from each other politically in order to assess the complex ways in which gender influences political behaviour and attitudes (Gerson 1987; Gidengil 2007; Baldez 2011). These criticisms focus on economic and racial differences between groups of women; this thesis argues that generation is another ‘source of political disunity’ (Huddy et al., 2008) between women.

This thesis also shows that a focus on the aggregate-level gender gap actually limits our understanding of what produces political gender differences between all men and all women. The aggregate-level gender gap averages over different gender gaps in different generations, and these gender gaps have different explanations. For example, broadly, the gender gap where men are more left-wing in older cohorts is related to women’s religiosity, whilst the gender gap where women are more left-wing in younger cohorts is rooted in differences between men and women in economic preferences. Just examining the aggregate-level gender gap will fail to appreciate the different factors which compose it. Furthermore, the literature has been very concerned with explaining why women are becoming more left-wing than men over time, but again, this cannot be understood without examining cohort

change. Although most of the chapters in this thesis indicate that there are strong period effects influencing both vote choice and attitudes, these are often not in consistent directions and the general trend where women are becoming more left-wing than men can be more plausibly attributed to generational replacement. In the first EVS/WVS survey wave for each country, during the 1980s/1990s, those born after 1955 made up on average 30% of the sample. By the final wave, around 2010, this figure was 57%. The descriptive statistics presented in the first chapter show that in almost all countries, there is a gender gap for those born after 1955 where women are more left-wing than men. It is thus no surprise that we have also witnessed a general trend towards women at the aggregate-level becoming more left-wing than men. The change in the political gender gap for different cohorts thus suggests that when trying to explain the aggregate-level gender gap, we should focus especially on younger groups of men and women, and why they differ from each other, rather than trying to construct explanations and theories of political gender differences which attempt to apply to all men and all women.

The findings in this thesis also have implications for issues of representation. The study of gender differences in vote intention, ideology, and attitudes is important because only if we know how men and women actually differ on these factors can we know whether our current political institutions can in fact adequately represent women (Allen et al., 2014). This thesis adds complexity to the question of women's representation, as it may be the case that some groups of women with particular sets of interests are particularly under-represented. Fig. 1 shows the mean left-right self-placement for men and women born after in the final EVS/WVS wave available for every country.

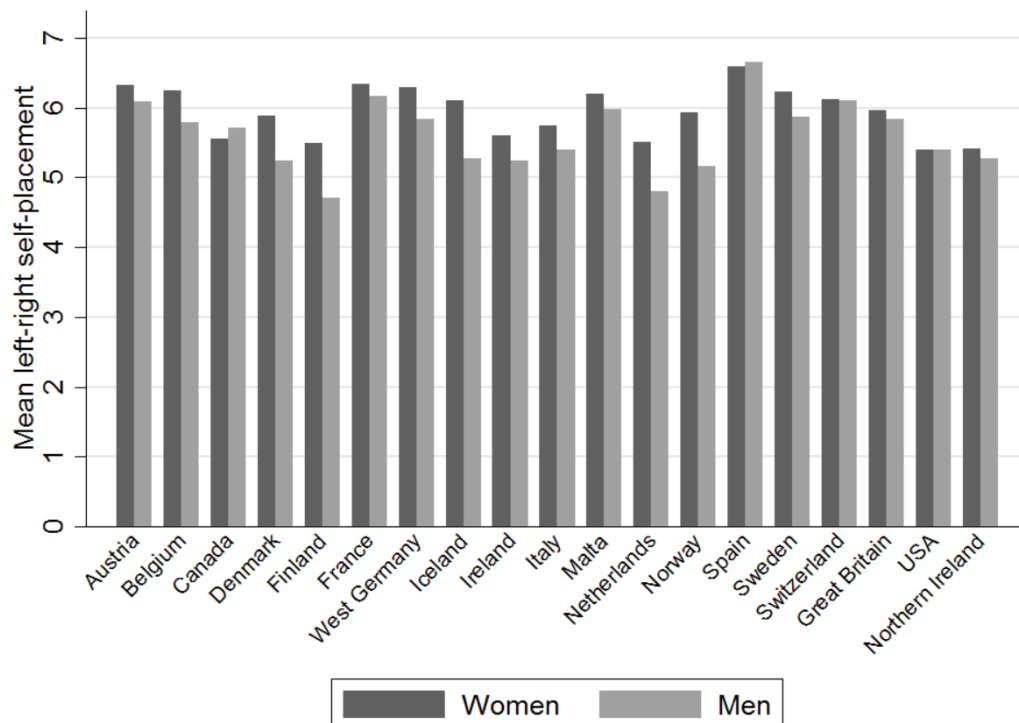


Fig. 1. Mean left-right self-placement for men and women born after 1980.

Source: Canada: WVS 2005-09; Austria, Belgium, Denmark, Finland, France, Iceland, Ireland, Italy, Malta, Norway, Spain, Sweden, Switzerland, Britain, Northern Ireland: EVS 2008-10; West Germany, the Netherlands, Sweden, US: WVS 2010-14

This figure shows that young people are generally reasonably left-wing, indicating that their preferences are likely not represented by right-wing governments who are generally seen as supporting policies that are more beneficial to older cohorts or age groups. However, fig. 1 crucially suggests that it is young *women* who are especially unrepresented by right-wing governments. In 17 of these 19 countries, women born after 1980 are more supportive of the left than men in this group – the only exceptions in this dataset are Canada and Spain. Of these 17 countries, only six currently have governments either comprised of, or led by, left-wing parties. Young women are likely to have a particular set of distinct interests due to their high levels of education and participation in the labour force, coupled with persisting

gender inequality in the form of unequal caring responsibilities and sexism in the workplace. It is therefore significant that their interests and preferences are under-represented by right-wing governments.

Furthermore, it is theorised that the under-representation of women in male-dominated political institutions is critical: women are best represented by women because of their shared experiences and thus shared interests (Mansbridge, 1999; Phillips, 1995). However, at the same time, it can be argued that there is heterogeneity within the larger group of ‘women’ which cast doubt on the ability of *any* woman to satisfactorily represent *all* women, because this heterogeneity leads to a diverse range of experiences (Campbell, Childs, and Lovenduski 2010). This thesis shows that women of different generations may indeed have different experiences and thus interests, and as a result, for example, women of older generations may not be able to substantively represent younger women. Some interests do appear to be shared by women of all generations – for example, women are almost universally more gender-egalitarian than men. At the same time this is not always the case, as the British case shows: women are not more supportive of redistribution than men in all generations. Identifying these differences between women raises questions about exactly which women are represented, and with respect to which types of interests, when more female members of parliament are elected.

The findings presented in this thesis also have consequences for party competition. The shift towards an aggregate-level gender gap where women are more left-wing than men suggests that the voter base of parties on the left is changing to be more skewed towards women. This research shows that, at least for the time being, this is especially the case for young women. Political parties often want to appeal to women voters, but it might be the

case that parties on the left especially want to target *young* women, with consequences for the policies that they offer. For example, young women might be especially supportive of policies that focus on the provision of childcare or abortion rights. The changing character of left-wing parties towards a more female voter base might also be a contributing influence towards them being more quick to adopt socially liberal policies, such as support for gay marriage. Since this thesis focuses largely on gaps between men and women, rather than overall levels of party support, it is difficult to assess the relationship between changing gender gaps and the decline of traditional social democratic parties. However, the results do suggest that such parties are less able to attract younger men than younger women, and this observation could inform future research into the fortunes of these parties.

The above discussion considers the way in which gender gaps, and especially the gender-generation gap, can influence the political arena. However, this thesis shows that the generational variation in gender gaps is also in itself related to the political context: there can be generational differences in the gender gap which display a different pattern to the gender-generation gap, and these appear to be related to factors such as the party in power, government policy, or general national political context during a generations' youth. This means that although there are general trends taking place in Western countries that will lead to women being more left-wing than men, this will not necessarily be the case in countries where political factors lead to a different pattern of political gender gaps across generations, for example in Britain. There is thus a reciprocal relationship between the political context and political gender gaps: gender gaps influence politics, but politics also influences gender gaps. The observation that political factors can affect how gender gaps differ across generations is important, since often political gender gaps are seen as the result of societal or

economic differences between men and women. Gender gaps should not be seen as independent from political factors and the actions of political actors. The impact of political context on gender gaps should be examined in much more detail in future research.

4. Priorities for future research

This thesis suggests that future research on political gender gaps should take seriously the way in which the gender gap differs across cohorts in order to allow for a fuller understanding of how and why men and women differ in their political preferences and behaviour. Based on the theoretical arguments and empirical findings in this thesis, I agree with existing critiques of the gender gap literature that we should be examining political and attitudinal gender *gaps*, rather than the aggregate-level gender *gap*. In order to understand the development of the aggregate-level gender gap, it is important to focus specifically on younger cohorts. These are the cohorts that will make up a larger and larger share of the electorate and they differ greatly compared to older cohorts in terms of political gender differences. As a result, we should develop theories that apply specifically to the social and political context for these cohorts, rather than relying on theory that tries to make distinctions between all men and all women.

Furthermore, the findings in this thesis and the discussion above indicate that we should focus more on how gender gaps in vote choice and political attitudes are influenced by political factors – such as the party in power, government policy, and social movements – and the national context – such as welfare regime or degree of religiosity. Such a focus can explain gender gaps between cohorts – as this thesis begins to show – but also over time and place which is currently an understudied aspect of political gender gaps. Studies which do attempt to explain such variation tend to focus on sociological differences between countries

such as women's labour force participation or marriage rates (Abendschon & Steinmetz, 2014; Giger, 2009), but this thesis suggests that political factors may be just as important in shaping gender gaps.

5. Conclusion

Political gender gaps in vote choice, left-right self-placement, and attitudes differ according to birth cohort and/or generation. This is related to both modernisation, especially secularisation, which leads to a general tendency for men in older cohorts to be more left-wing than women, and women of younger cohorts to be more left-wing than men, and to political socialisation via the national, political context during a generations' formative years, which leads to variation in political gender gaps across generations in addition to this overall trend. This has implications for both the direction of future research into political gender gaps, as well as for issues of representation and political competition.

Appendix to Chapter 1

1. Distribution of respondents

Table 1. Distribution of respondents by country and wave (left-right self-placement)

	EVS 1990-93	WVS 1994-98	EVS 1999- 2001	WVS 1999- 2004	WVS 2005-09	EVS 2008-10	WVS 2010-14	Total
Austria	817	0	961	0	0	942	0	2,720
Belgium	1,112	0	1,084	0	0	1,200	0	3,396
Canada	1,063	0	0	1,297	1,202	0	0	3,562
Finland	285	592	602	0	728	596	0	2,803
France	560	0	965	0	793	1,156	0	3,474
West Germany	976	0	0	0	527	679	706	2,888
Iceland	493	0	654	0	0	492	0	1,639
Ireland	716	0	549	0	0	367	0	1,632
Italy	1,110	0	1,231	0	549	707	0	3,597
Netherlands	702	0	827	0	581	1,224	1,363	4,697
Norway	705	995	0	0	870	835	0	3,405
Spain	1,300	532	0	739	667	890	726	4,854
Sweden	601	719	0	0	760	480	796	3,356
Total	10,440	2,838	6,873	2,036	6,677	9,568	3,591	42,023

Table 2. Distribution of respondents by country and wave (vote intention)

	EVS 1990-93	WVS 1994-98	EVS 1999- 2001	WVS 1999- 2004	WVS 2005-09	EVS 2008-10	WVS 2010-14	Total
Austria	903	0	870	0	0	871	0	2,644
Belgium	1,471	0	1,292	0	0	1,206	0	3,969
Canada	1,233	0	0	1,144	1,488	0	0	3,865
Finland	300	567	669	0	717	572	0	2,825
France	672	0	1,138	0	0	1,075	0	3,885
West Germany	1,063	0	0	0	471	610	597	2,741
Iceland	527	0	709	0	0	433	0	1,669
Ireland	791	0	544	0	0	430	0	1,765
Italy	1,420	0	1,500	0	0	705	0	3,652
Netherlands	751	0	853	0	0	1,144	1,199	3,947
Norway	747	932	0	0	821	742	0	3,242
Spain	1,610	557	0	693	650	737	634	4,881
Sweden	651	615	0	0	679	460	7901	3,106
Total	12,139	2,671	7,575	1,837	4,826	8,985	3,131	41,164

Table 3. Distribution of respondents by wave and birth cohort (left-right self-placement)

	EVS 1990-93	WVS 1994-98	EVS 1999- 2001	WVS 1999- 2004	WVS 2005-09	EVS 2008-10	WVS 2010-14	Total
1925-29	859	178	368	98	240	261	77	2,081
1930-34	867	184	495	146	364	407	147	2,610
1935-39	982	172	557	150	442	601	235	3,139
1940-44	1,118	245	541	176	553	757	345	3,735
1945-49	1,222	317	706	169	633	905	394	4,346
1950-54	1,352	303	716	201	631	954	397	4,554
1955-59	1,323	330	752	250	667	963	305	4,590
1960-64	1,324	334	868	233	736	1,056	374	4,925
1965-69	1,045	352	841	235	733	1,075	357	4,638
1970-74	348	283	603	177	639	972	338	3,360
1975-79	0	140	367	156	554	855	308	2,380
1980-85	0	0	59	45	485	762	314	1,665
Total	10,440	2,838	6,873	2,036	6,677	9,568	3,591	42,023

Table 4. Distribution of respondents by wave and birth cohort (vote intention)

	EVS 1990-93	WVS 1994-98	EVS 1999- 2001	WVS 1999- 2004	WVS 2005-09	EVS 2008-10	WVS 2010-14	Total
1925-29	998	171	407	86	190	266	72	2,190
1930-34	1,008	176	550	134	265	391	135	2,659
1935-39	1,123	167	615	128	325	593	217	3,168
1940-44	1,270	218	570	161	400	738	314	3,671
1945-49	1,397	297	761	151	469	870	345	4,290
1950-54	1,542	282	772	181	460	926	345	4,508
1955-59	1,516	304	831	227	473	921	282	4,554
1960-64	1,540	313	948	210	574	975	317	4,877
1965-69	1,309	339	944	211	521	988	292	4,604
1970-74	436	273	685	160	425	890	291	3,160
1975-79	0	131	425	150	403	757	261	2,127
1980-85	0	0	67	38	321	670	260	1,356
Total	12,139	2,671	7,575	1,837	4,826	8,985	3,131	41,164

2. Full results

Table 5a. Full results from models 1-4 for left-right self-placement

	Model 1	2a: + Economic position	2b: + Economic position* Birth year	3a: + Religiosity	3b: + Religiosity * Birth year	Model 4
Birth year	-0.066* (0.030)	-0.113* (0.030)	-0.184* (0.040)	-0.161* (0.029)	-0.261* (0.032)	-0.377* (0.041)
Female	-0.184* (0.043)	-0.172* (0.045)	-0.153* (0.047)	-0.051 (0.042)	-0.010 (0.042)	0.004 (0.047)
Female* Birth year	0.090* (0.013)	0.097* (0.013)	0.090* (0.014)	0.080* (0.013)	0.067* (0.013)	0.069* (0.014)
Age	0.010* (0.005)	0.020* (0.005)	0.013* (0.006)	0.001 (0.005)	-0.001 (0.005)	0.005 (0.006)
Age ²	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)
Marital status (married)						
Cohabiting		0.214* (0.040)	0.343* (0.122)			0.096 (0.121)
Single		0.270* (0.029)	0.245* (0.084)			0.225* (0.082)
Divorced/separated		0.333* (0.035)	0.328* (0.089)			0.103 (0.087)
Widowed		0.120* (0.049)	0.165* (0.080)			0.152 (0.078)
Age left education		0.002 (0.002)	-0.005 (0.003)			-0.011* (0.003)
Homemaker		-0.176* (0.035)	-0.310* (0.072)			-0.223* (0.071)
Children		0.022 (0.035)	-0.128 (0.066)			-0.029 (0.065)
Cohabiting*Birth year			-0.033 (0.031)			0.005 (0.030)
Single*Birth year			0.005 (0.021)			-0.004 (0.021)
Divorced/separated*Birth year			0.000 (0.029)			0.039 (0.029)
Widowed*Birth year			-0.033 (0.047)			-0.031 (0.046)
Age left education*Birth year			0.003* (0.001)			0.004* (0.001)
Homemaker*Birth year			0.052* (0.024)			0.040 (0.024)
Children*Birth year			0.084* (0.029)			0.041 (0.029)
Religion (no religion)						
Christian				-0.493* (0.026)	-0.854* (0.060)	-0.838* (0.060)
Non-Christian religion				-0.090 (0.061)	-0.551* (0.146)	-0.558* (0.146)
Church attendance				-0.437* (0.029)	-0.552* (0.054)	-0.541* (0.055)
Religious person				-0.371* (0.023)	-0.441* (0.052)	-0.448* (0.053)
Christian*Birth year					0.113* (0.017)	0.113* (0.017)
Non-Christian religion*Birth year					0.132* (0.040)	0.140* (0.040)
Church attendance*Birth year					0.056* (0.018)	0.057* (0.019)
Religious person*Birth year					0.022 (0.015)	0.026 (0.015)
Log-likelihood	-99019.736	-87915.059	-87905.81	-87238.302	-87191.749	-87131.346

*p<0.05. N=42,023. Standard errors are in parentheses. Positive numbers indicate more support for the left. Random effects for country-year are included in all models.

NB: Birth year is adjusted so that the coefficient for female can be interpreted as the gender gap at the oldest birth year, 1925.

Table 5b. Full results of models 5a-7 for left-right self-placement

	5a: + Economic attitudes	5b: + Economic attitudes* Birth year	6a: + Values	6b: + Values* Birth year	Model 7
Birth year	-0.569* (0.040)	-0.685* (0.045)	-0.344* (0.041)	-0.345* (0.047)	-0.645* (0.050)
Female	-0.065 (0.044)	-0.055 (0.045)	-0.040 (0.046)	-0.033 (0.047)	-0.097* (0.045)
Female* Birth year	0.059* (0.013)	0.055* (0.013)	0.070* (0.014)	0.068* (0.014)	0.056* (0.013)
Age	-0.015* (0.005)	-0.015* (0.005)	0.004 (0.006)	0.004 (0.006)	-0.017* (0.005)
Age ²	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)
Marital status (married)					
Cohabiting	0.099 (0.115)	0.115 (0.115)	-0.006 (0.119)	-0.003 (0.120)	0.013 (0.114)
Single	0.112 (0.079)	0.134 (0.079)	0.214* (0.081)	0.216* (0.081)	0.126 (0.078)
Divorced/separated	0.034 (0.083)	0.045 (0.083)	0.052 (0.086)	0.072 (0.087)	0.010 (0.083)
Widowed	0.103 (0.075)	0.113 (0.075)	0.161* (0.077)	0.164* (0.077)	0.126 (0.074)
Age left education	-0.004 (0.003)	-0.006 (0.003)	-0.020* (0.003)	-0.020* (0.003)	-0.016* (0.003)
Homemaker	-0.261* (0.067)	-0.248* (0.067)	-0.174* (0.070)	-0.175* (0.070)	-0.197* (0.067)
Children	-0.034 (0.062)	-0.050 (0.063)	0.045 (0.065)	0.045 (0.065)	0.021 (0.062)
Cohabiting*Birth year	-0.004 (0.029)	-0.009 (0.029)	0.019 (0.030)	0.019 (0.030)	0.006 (0.029)
Single*Birth year	0.001 (0.020)	-0.007 (0.020)	-0.009 (0.021)	-0.010 (0.021)	-0.013 (0.020)
Divorced/separated*Birth year	0.038 (0.027)	0.034 (0.027)	0.041 (0.028)	0.034 (0.028)	0.031 (0.027)
Widowed*Birth year	-0.035 (0.044)	-0.038 (0.044)	-0.024 (0.045)	-0.025 (0.045)	-0.032 (0.043)
Age left education*Birth year	0.004* (0.001)	0.005* (0.001)	0.004* (0.001)	0.004* (0.001)	0.005* (0.001)
Homemaker*Birth year	0.041 (0.023)	0.037 (0.023)	0.044 (0.023)	0.044 (0.023)	0.042 (0.022)
Children*Birth year	0.033 (0.028)	0.041 (0.028)	-0.001 (0.029)	-0.001 (0.029)	0.002 (0.028)
Religion (no religion)					
Christian	-0.787* (0.057)	-0.794* (0.057)	-0.704* (0.059)	-0.701* (0.060)	-0.664* (0.057)
Non-Christian religion	-0.478* (0.139)	-0.468* (0.139)	-0.477* (0.144)	-0.467* (0.144)	-0.379* (0.138)
Church attendance	-0.527* (0.052)	-0.535* (0.052)	-0.440* (0.055)	-0.435* (0.056)	-0.423* (0.053)
Religious person	-0.430* (0.050)	-0.437* (0.050)	-0.347* (0.052)	-0.342* (0.053)	-0.328* (0.051)
Christian*Birth year	0.110* (0.016)	0.113* (0.016)	0.096* (0.017)	0.095* (0.017)	0.094* (0.016)
Non-Christian religion*Birth year	0.118* (0.038)	0.114* (0.038)	0.151* (0.039)	0.147* (0.039)	0.121* (0.038)
Church attendance*Birth year	0.050* (0.018)	0.054* (0.018)	0.064* (0.018)	0.062* (0.019)	0.058* (0.018)
Religious person*Birth year	0.030* (0.015)	0.032* (0.015)	0.022 (0.015)	0.021 (0.016)	0.026 (0.015)
Competition	0.090* (0.004)	0.082* (0.009)			0.074* (0.009)
Benefits	0.008 (0.005)	-0.017 (0.012)			-0.014 (0.012)
Responsibility	0.093* (0.004)	0.064* (0.008)			0.065* (0.008)
Equalise incomes	0.163* (0.004)	0.148* (0.008)			0.150* (0.008)

Appendix 1

	(0.004)	(0.008)		(0.008)	
Competition*Birth year		0.003		0.004	
		(0.003)		(0.003)	
Benefits*Birth year		0.008*		0.008*	
		(0.003)		(0.003)	
Responsibility*Birth year		0.010*		0.009*	
		(0.002)		(0.002)	
Equalise incomes*Birth year		0.005*		0.004	
		(0.002)		(0.002)	
Divorce		0.024*	0.001	0.007	
		(0.005)	(0.010)	(0.010)	
Postmaterialism (materialist)					
Mixed		0.119*	0.093	0.131*	
		(0.026)	(0.053)	(0.051)	
Postmaterialist		0.659*	0.597*	0.571*	
		(0.032)	(0.069)	(0.066)	
Homosexuality		-0.231*	-0.263*	-0.275*	
		(0.027)	(0.052)	(0.050)	
Abortion		0.034*	0.056*	0.054*	
		(0.004)	(0.010)	(0.009)	
Housewife (strongly agree)					
Agree		-0.002	0.066	0.078	
		(0.027)	(0.055)	(0.053)	
Don't know		0.140*	0.225*	0.206*	
		(0.044)	(0.092)	(0.088)	
Disagree		0.092*	0.201*	0.217*	
		(0.029)	(0.062)	(0.059)	
Strongly disagree		0.163*	0.089	0.106	
		(0.038)	(0.091)	(0.087)	
Divorce*Birth year			0.008*	0.006*	
			(0.003)	(0.003)	
Mixed*Birth year			0.009	0.003	
			(0.016)	(0.016)	
Postmaterialist*Birth year			0.021	0.006	
			(0.021)	(0.020)	
Homosexuality*Birth year			0.013	0.016	
			(0.018)	(0.017)	
Abortion*Birth year			-0.007*	-0.007*	
			(0.003)	(0.003)	
Agree*Birth year			-0.025	-0.018	
			(0.018)	(0.017)	
Don't know*Birth year			-0.031	-0.012	
			(0.028)	(0.027)	
Disagree*Birth year			-0.038*	-0.027	
			(0.019)	(0.018)	
Strongly disagree*Birth year			0.018	0.029	
			(0.027)	(0.025)	
Log-likelihood	-85136.251	-85117.657	-86595.307	-86586.626	-84596.465

*p<0.05. N=42,023. Standard errors are in parentheses. Positive numbers indicate more support for the left. Random effects for country-year are included in all models.

NB: Birth year is adjusted so that the coefficient for female can be interpreted as the gender gap at the oldest birth year, 1925.

Table 6a. Full results of models 1-4 for vote intention

	Model 1	2a: + Economic position	2b: + Economic position* Birth year	3a: + Religiosity	3b: + Religiosity * Birth year	Model 4
Birth year	0.145* (0.033)	0.104* (0.033)	-0.020 (0.045)	0.056 (0.033)	-0.023 (0.035)	-0.203* (0.048)
Female	-0.106* (0.048)	-0.089 (0.050)	-0.079 (0.053)	0.051 (0.049)	0.105* (0.050)	0.109* (0.054)
Female* Birth year	0.057* (0.014)	0.061* (0.015)	0.057* (0.016)	0.041* (0.015)	0.023 (0.015)	0.025 (0.016)
Age	0.034* (0.005)	0.042* (0.006)	0.034* (0.006)	0.025* (0.005)	0.024* (0.005)	0.027* (0.006)
Age ²	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)
Cohabiting		0.320* (0.044)	0.530* (0.134)			0.278* (0.137)
Single		0.211* (0.032)	0.154 (0.092)			0.141 (0.095)
Divorced/separated		0.283* (0.039)	0.395* (0.096)			0.184 (0.098)
Widowed		0.072 (0.054)	0.166 (0.090)			0.160 (0.092)
Age left education		0.001 (0.002)	-0.013* (0.004)			-0.019* (0.004)
Homemaker		-0.143* (0.038)	-0.279* (0.080)			-0.166* (0.082)
Children		0.027 (0.039)	-0.154* (0.073)			-0.070 (0.075)
Cohabiting*Birth year			-0.057 (0.034)			-0.016 (0.035)
Single*Birth year			0.011 (0.024)			0.006 (0.024)
Divorced/separated*Birth year			-0.041 (0.032)			-0.003 (0.032)
Widowed*Birth year			-0.068 (0.053)			-0.067 (0.054)
Age left education*Birth year			0.006* (0.001)			0.007* (0.001)
Homemaker*Birth year			0.053* (0.027)			0.034 (0.027)
Children*Birth year			0.101* (0.033)			0.063 (0.034)
Christian				-0.327* (0.029)	-0.531* (0.066)	-0.518* (0.066)
Non-Christian religion				-0.110 (0.071)	-0.767* (0.179)	-0.765* (0.179)
Church attendance				-0.685* (0.036)	-0.823* (0.070)	-0.819* (0.070)
Religious person				-0.341* (0.026)	-0.523* (0.058)	-0.537* (0.059)
Christian*Birth year					0.064* (0.019)	0.065* (0.019)
Non-Christian religion*Birth year					0.189* (0.049)	0.195* (0.049)
Church attendance*Birth year					0.065* (0.024)	0.068* (0.024)
Religious person*Birth year					0.059* (0.017)	0.065* (0.017)
Log-likelihood	-25823.322	-25753.476	-25737.586	-25229.368	-25194.135	-25148.11

*p<0.05. N=41,164. Standard errors are in parentheses; coefficients are log odds. Positive numbers indicate more support for the left.

Random effects for country-year are included in all models.

NB: Birth year is adjusted so that the coefficient for female can be interpreted as the gender gap at the oldest birth year, 1925.

Table 6b. Full results of models 5a-7 for vote intention

	5a: + Economic attitudes	5b: + Economic attitudes* Birth year	6a: + Values	6b: + Values* Birth year	Model 7
Birth year	-0.336* (0.049)	-0.343* (0.055)	-0.192* (0.048)	-0.195* (0.055)	-0.327* (0.063)
Female	0.060 (0.055)	0.058 (0.056)	0.067 (0.055)	0.057 (0.056)	0.001 (0.057)
Female* Birth year	0.019 (0.016)	0.020 (0.016)	0.025 (0.016)	0.029 (0.017)	0.023 (0.017)
Age	0.016* (0.007)	0.016* (0.007)	0.024* (0.006)	0.024* (0.006)	0.013* (0.007)
Age ²	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)
Cohabiting	0.273 (0.140)	0.274 (0.140)	0.190 (0.138)	0.184 (0.138)	0.170 (0.142)
Single	0.041 (0.097)	0.046 (0.097)	0.133 (0.096)	0.133 (0.096)	0.035 (0.098)
Divorced/separated	0.136 (0.101)	0.139 (0.101)	0.134 (0.099)	0.132 (0.099)	0.082 (0.102)
Widowed	0.135 (0.094)	0.138 (0.094)	0.168 (0.093)	0.173 (0.093)	0.153 (0.095)
Age left education	-0.014* (0.004)	-0.015* (0.004)	-0.027* (0.004)	-0.029* (0.004)	-0.025* (0.004)
Homemaker	-0.183* (0.084)	-0.184* (0.084)	-0.125 (0.083)	-0.123 (0.083)	-0.137 (0.084)
Children	-0.076 (0.077)	-0.075 (0.077)	-0.010 (0.076)	-0.002 (0.077)	-0.006 (0.078)
Cohabiting*Birth year	-0.018 (0.036)	-0.019 (0.036)	-0.003 (0.035)	-0.001 (0.035)	-0.001 (0.036)
Single*Birth year	0.014 (0.025)	0.013 (0.025)	0.001 (0.025)	0.001 (0.025)	0.009 (0.025)
Divorced/separated*Birth year	-0.003 (0.033)	-0.004 (0.033)	-0.002 (0.033)	-0.001 (0.033)	-0.002 (0.033)
Widowed*Birth year	-0.072 (0.055)	-0.073 (0.055)	-0.062 (0.054)	-0.065 (0.054)	-0.073 (0.055)
Age left education*Birth year	0.008* (0.001)	0.008* (0.001)	0.007* (0.001)	0.008* (0.001)	0.009* (0.001)
Homemaker*Birth year	0.030 (0.028)	0.031 (0.028)	0.035 (0.028)	0.034 (0.028)	0.031 (0.028)
Children*Birth year	0.058 (0.034)	0.058 (0.034)	0.031 (0.034)	0.026 (0.034)	0.021 (0.035)
Christian	-0.515* (0.068)	-0.515* (0.068)	-0.413* (0.067)	-0.401* (0.067)	-0.396* (0.069)
Non-Christian religion	-0.745* (0.182)	-0.745* (0.182)	-0.691* (0.181)	-0.673* (0.181)	-0.646* (0.184)
Church attendance	-0.837* (0.071)	-0.842* (0.071)	-0.724* (0.071)	-0.704* (0.072)	-0.719* (0.073)
Religious person	-0.538* (0.060)	-0.540* (0.060)	-0.451* (0.059)	-0.436* (0.060)	-0.431* (0.062)
Christian*Birth year	0.070* (0.020)	0.070* (0.020)	0.052* (0.019)	0.048* (0.019)	0.053* (0.020)
Non-Christian religion*Birth year	0.185* (0.049)	0.185* (0.049)	0.203* (0.049)	0.196* (0.049)	0.187* (0.050)
Church attendance*Birth year	0.068* (0.024)	0.070* (0.024)	0.077* (0.024)	0.070* (0.024)	0.072* (0.025)
Religious person*Birth year	0.068* (0.018)	0.069* (0.018)	0.063* (0.017)	0.059* (0.018)	0.061* (0.018)
Competition	0.074* (0.005)	0.076* (0.011)	0.063* (0.017)	0.059* (0.018)	0.071* (0.011)
Benefits	0.027* (0.006)	0.011 (0.014)			0.015 (0.014)
Responsibility	0.066* (0.005)	0.066* (0.010)			0.069* (0.010)
Equalise incomes	0.109* (0.004)	0.110* (0.009)			0.114* (0.010)
Competition*Birth year		-0.001			0.001

Appendix 1

	(0.003)			(0.003)	
Benefits*Birth year	0.005			0.004	
	(0.004)			(0.004)	
Responsibility*Birth year	-0.000			-0.001	
	(0.003)			(0.003)	
Equalise incomes*Birth year	-0.000			-0.001	
	(0.003)			(0.003)	
Divorce		0.028*	0.019	0.023	
		(0.005)	(0.012)	(0.012)	
Mixed		0.067*	0.053	0.092	
		(0.031)	(0.064)	(0.065)	
Postmaterialist		0.438*	0.526*	0.537*	
		(0.037)	(0.081)	(0.083)	
Homosexuality		-0.189*	-0.254*	-0.281*	
		(0.032)	(0.064)	(0.065)	
Abortion		0.042*	0.060*	0.062*	
		(0.005)	(0.012)	(0.012)	
Agree		-0.075*	-0.098	-0.091	
		(0.031)	(0.066)	(0.067)	
Don't know		-0.102*	-0.224*	-0.224*	
		(0.051)	(0.109)	(0.111)	
Disagree		-0.021	-0.045	-0.028	
		(0.033)	(0.073)	(0.075)	
Strongly disagree		0.063	0.047	0.062	
		(0.044)	(0.106)	(0.108)	
Divorce*Birth year			0.003	0.002	
			(0.004)	(0.004)	
Mixed*Birth year			0.004	-0.000	
			(0.020)	(0.020)	
Postmaterialist*Birth year			-0.029	-0.040	
			(0.025)	(0.025)	
Homosexuality*Birth year			0.026	0.029	
			(0.021)	(0.022)	
Abortion*Birth year			-0.006	-0.006	
			(0.003)	(0.004)	
Agree*Birth year			0.008	0.013	
			(0.021)	(0.021)	
Don't know*Birth year			0.041	0.050	
			(0.033)	(0.034)	
Disagree*Birth year			0.008	0.015	
			(0.023)	(0.023)	
Strongly disagree*Birth year			0.006	0.016	
			(0.031)	(0.032)	
Log-likelihood	-24428.503	-24427.718	-24869.798	-24864.986	-24152.872

*p<0.05. N=42,023. Standard errors are in parentheses. Positive numbers indicate more support for the left. Random effects for country-year are included in all models.

NB: Birth year is adjusted so that the coefficient for female can be interpreted as the gender gap at the oldest birth year, 1925.

3. Robustness checks

Table 7. Model 1 for expanded set of countries: Austria, Belgium, Canada, Denmark, Finland, France, West Germany, Iceland, Ireland, Italy, Malta, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Great Britain and Northern Ireland.

	Left-right self- placement	Vote intention
Birth year	0.032 (0.022)	0.107* (0.026)
Female	-0.169* (0.031)	-0.115* (0.036)
Female*birth year	0.079* (0.010)	0.055* (0.011)
Age	0.010* (0.003)	0.031* (0.004)
Age ²	-0.000* (0.000)	-0.000* (0.000)

*p<0.05. N=76,887 for left-right self-placement; 71,294 for vote intention. Standard errors are in parentheses. Positive numbers indicate more support for the left. Random effects for country-year are included in all models. NB: Birth year is adjusted so that the coefficient for female can be interpreted as the gender gap at the oldest birth year, 1925.

Table 8. Model 1 for left-right self-placement excluding each country

Excluding:	Austria	Belgium	Canada	Finland	France	West Germ- any	Iceland	Ireland	Italy	NL	Norway	Spain	Sweden
Birth year	-0.292* (0.039)	-0.070* (0.030)	-0.128* (0.050)	-0.006 (0.032)	-0.072* (0.030)	-0.081* (0.031)	-0.063* (0.030)	-0.073* (0.030)	0.193* (0.037)	-0.063* (0.030)	-0.069* (0.031)	-0.074* (0.030)	-0.066* (0.030)
Female	-0.195* (0.045)	-0.160* (0.045)	-0.201* (0.045)	-0.165* (0.044)	-0.188* (0.044)	-0.214* (0.045)	-0.183* (0.043)	-0.190* (0.044)	-0.170* (0.044)	-0.206* (0.045)	-0.195* (0.045)	-0.161* (0.046)	-0.176* (0.044)
Female*birth year	0.093* (0.013)	0.088* (0.014)	0.096* (0.014)	0.084* (0.013)	0.096* (0.013)	0.099* (0.014)	0.087* (0.013)	0.094* (0.013)	0.086* (0.013)	0.091* (0.014)	0.088* (0.014)	0.091* (0.014)	0.083* (0.013)
Age	-0.011* (0.005)	0.012* (0.005)	0.007 (0.006)	0.014* (0.005)	0.006 (0.005)	0.010* (0.005)	0.011* (0.005)	0.012* (0.005)	0.031* (0.005)	0.008 (0.005)	0.012* (0.005)	0.014* (0.005)	0.009 (0.005)
Age ²	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)
N	39,303	38,627	38,461	39,220	38,549	39,135	40,384	40,391	38,426	37,326	38,618	37,169	38,667

*p<0.05. Standard errors are in parentheses. Positive numbers indicate more support for the left. Random effects for country-year are included in all models.

NB: Birth year is adjusted so that the coefficient for female can be interpreted as the gender gap at the oldest birth year, 1925.

Table 9. Model 1 for vote intention excluding each country

Excluding:	Austria	Belgium	Canada	Finland	France	West Germ- any	Iceland	Ireland	Italy	NL	Norway	Spain	Sweden
Birth year	0.002 (0.041)	0.143* (0.033)	0.137* (0.056)	0.135* (0.036)	0.145* (0.033)	0.137* (0.033)	0.145* (0.033)	0.140* (0.033)	0.250* (0.043)	0.149* (0.033)	0.177* (0.035)	0.144* (0.034)	0.148* (0.033)
Female	-0.097 (0.050)	-0.091 (0.050)	-0.108* (0.049)	-0.088 (0.049)	-0.108* (0.050)	-0.126* (0.049)	-0.094 (0.048)	-0.108* (0.048)	-0.057 (0.050)	-0.149* (0.050)	-0.109* (0.050)	-0.116* (0.051)	-0.128* (0.050)
Female*birth year	0.053* (0.015)	0.056* (0.015)	0.059* (0.015)	0.053* (0.015)	0.062* (0.015)	0.062* (0.015)	0.053* (0.015)	0.062* (0.015)	0.048* (0.015)	0.065* (0.015)	0.054* (0.015)	0.065* (0.016)	0.058* (0.015)
Age	0.018* (0.006)	0.039* (0.005)	0.034* (0.007)	0.031* (0.006)	0.032* (0.005)	0.033* (0.005)	0.032* (0.005)	0.035* (0.005)	0.043* (0.006)	0.033* (0.006)	0.035* (0.006)	0.035* (0.006)	0.034* (0.005)
Age ²	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)
N	38,520	37,195	37,299	38,339	38,279	38,423	39,495	39,399	37,539	37,217	37,922	36,283	38,058

*p<0.05. Standard errors are in parentheses. Positive numbers indicate more support for the left. Random effects for country-year are included in all models.

NB: Birth year is adjusted so that the coefficient for female can be interpreted as the gender gap at the oldest birth year, 1925.

Table 10. Model 1 for left-right self-placement for each country

	Austria	Belgium	Canada	Finland	France	West Germ- any	Iceland	Ireland	Italy	NL	Norway	Spain	Sweden
Birth year	0.286* (0.112)	0.030 (0.102)	0.175 (0.093)	-0.112 (0.125)	0.355* (0.114)	0.177* (0.084)	0.050 (0.161)	0.173 (0.125)	0.042 (0.111)	-0.037 (0.090)	0.001 (0.106)	0.171* (0.069)	0.291* (0.097)
Female	-0.035 (0.127)	-0.320* (0.122)	-0.043 (0.115)	-0.427* (0.167)	-0.307* (0.137)	0.196 (0.100)	-0.051 (0.202)	-0.104 (0.148)	-0.582* (0.135)	-0.134 (0.111)	-0.076 (0.127)	-0.544* (0.094)	-0.162 (0.118)
Female*birth year	0.050 (0.040)	0.075 (0.039)	0.052 (0.037)	0.147* (0.050)	0.056 (0.042)	-0.016 (0.032)	0.147* (0.063)	0.000 (0.047)	0.195* (0.042)	0.110* (0.035)	0.112* (0.040)	0.103* (0.028)	0.098* (0.037)
25-34	0.221 (0.162)	-0.136 (0.141)	0.236 (0.123)	-0.354 (0.207)	0.551* (0.148)	0.114 (0.113)	0.095 (0.196)	-0.037 (0.147)	0.210 (0.141)	-0.174 (0.146)	-0.424* (0.147)	0.318* (0.096)	0.099 (0.153)
35-44	0.483* (0.239)	-0.236 (0.211)	0.187 (0.188)	-0.455 (0.281)	0.684* (0.225)	0.012 (0.174)	0.110 (0.318)	-0.054 (0.243)	0.328 (0.223)	-0.149 (0.198)	-0.365 (0.218)	0.145 (0.143)	0.410 (0.215)
45-54	0.641 (0.333)	-0.336 (0.298)	0.310 (0.269)	-0.129 (0.380)	1.094* (0.329)	0.040 (0.245)	0.129 (0.461)	-0.102 (0.358)	0.590 (0.323)	-0.055 (0.275)	-0.428 (0.311)	0.251 (0.202)	0.768* (0.296)
55-64	0.779 (0.440)	-0.385 (0.393)	0.438 (0.355)	-0.396 (0.493)	1.241* (0.430)	-0.078 (0.327)	0.327 (0.609)	-0.197 (0.472)	0.528 (0.427)	-0.086 (0.356)	-0.474 (0.407)	0.162 (0.266)	0.860* (0.383)
65-74	0.906 (0.538)	-0.399 (0.488)	0.510 (0.443)	-0.901 (0.607)	1.320* (0.538)	-0.098 (0.405)	0.958 (0.771)	-0.477 (0.598)	0.468 (0.530)	-0.256 (0.435)	-0.568 (0.506)	0.313 (0.329)	1.103* (0.474)
75+	0.721 (0.674)	-0.470 (0.614)	0.702 (0.535)	-0.788 (0.739)	1.310* (0.655)	-0.112 (0.493)	1.933 (0.998)	-0.732 (0.758)	0.107 (0.694)	-0.681 (0.524)	-0.605 (0.616)	0.331 (0.403)	0.814 (0.586)
EVS 1990-93		0.223 (0.135)	0.054 (0.109)		-0.268 (0.146)	0.203 (0.104)	-0.110 (0.158)	-0.062 (0.143)	-0.352* (0.137)	0.008 (0.127)	0.158 (0.128)	-0.124 (0.093)	-0.606* (0.141)
WVS 1994-98				0.547* (0.147) 0.440*							0.222 (0.174)	-0.376* (0.131)	-0.374* (0.177)
EVS 1999-2001	-0.100 (0.124)	0.704* (0.205)		(0.177)	-0.648* (0.217)	-0.140 (0.172)	-0.390 (0.262)	0.288 (0.236)	-1.058* (0.215)	0.349 (0.185)		-0.404* (0.150)	-0.588* (0.198)
WVS 1999-2004			0.066 (0.179)									-0.321* (0.153)	-0.743* (0.205)
WVS 2005-09			0.010 (0.221)	0.611* (0.221)	-0.768* (0.289)	0.213 (0.223)			-0.931* (0.281)	0.157 (0.235)	0.174 (0.268)	-0.335 (0.193)	-0.904* (0.247)
EVS 2008-10	-0.050 (0.211)	0.809* (0.295)		(0.262)	-0.996* (0.309)	0.039 (0.239)	-0.187 (0.410)	0.003 (0.341)	-1.095* (0.320)	0.001 (0.252)	0.125 (0.283)	-0.343 (0.196)	-1.041* (0.278)
WVS 2010-14						0.150 (0.274)				-0.101 (0.283)		-0.625* (0.212)	-1.098* (0.297)
N	3,241	4,534	4,661	3,419	4,635	5,365	2,511	2,713	5,045	6,071	4,265	7,700	6,445

*p<0.05. Standard errors are in parentheses. Positive numbers indicate more support for the left.

NB: Birth year is adjusted so that the coefficient for female can be interpreted as the gender gap at the oldest birth year, 1925.

Table 11. Model 1 for vote intention for each country

	Austria	Belgium	Canada	Finland	France	West Germ- any	Iceland	Ireland	Italy	NL	Norway	Spain	Sweden
Birth year	-0.008 (0.134)	-0.173 (0.109)	0.206 (0.129)	-0.130 (0.122)	0.079 (0.124)	0.320* (0.108)	-0.008 (0.189)	0.427* (0.196)	0.091 (0.123)	0.225 (0.119)	-0.180 (0.128)	0.054 (0.077)	0.052 (0.099)
Female	-0.178 (0.153)	-0.195 (0.133)	-0.191 (0.173)	-0.305 (0.165)	-0.057 (0.152)	-0.045 (0.126)	-0.232 (0.236)	-0.269 (0.247)	-0.742* (0.154)	0.210 (0.148)	-0.145 (0.161)	-0.193 (0.108)	0.075 (0.125)
Female*birth year	0.094 (0.049)	0.056 (0.042)	0.080 (0.052)	0.116* (0.050)	-0.007 (0.047)	0.025 (0.039)	0.117 (0.073)	0.017 (0.072)	0.211* (0.048)	-0.008 (0.047)	0.118* (0.049)	0.034 (0.032)	0.038 (0.038)
25-34	0.772* (0.202)	-0.262 (0.151)	0.357* (0.179)	-0.025 (0.204)	0.402* (0.176)	0.384* (0.142)	0.435 (0.267)	0.098 (0.240)	0.249 (0.159)	0.260 (0.230)	0.053 (0.184)	0.187 (0.109)	-0.084 (0.162)
35-44	0.765* (0.291)	-0.426 (0.226)	0.418 (0.266)	-0.060 (0.275)	0.454 (0.255)	0.429 (0.220)	0.533 (0.394)	0.390 (0.381)	0.405 (0.251)	0.613* (0.289)	-0.034 (0.268)	0.203 (0.162)	0.095 (0.224)
45-54	0.764 (0.404)	-0.806* (0.317)	0.606 (0.374)	0.106 (0.371)	0.486 (0.365)	0.605 (0.313)	0.561 (0.555)	0.448 (0.562)	0.696 (0.361)	0.872* (0.383)	-0.214 (0.378)	0.145 (0.229)	0.137 (0.305)
55-64	0.763 (0.532)	-0.998* (0.419)	0.770 (0.493)	0.037 (0.482)	0.349 (0.474)	0.702 (0.416)	0.762 (0.725)	1.101 (0.738)	0.699 (0.480)	0.792 (0.485)	-0.387 (0.497)	0.074 (0.300)	-0.027 (0.394)
65-74	0.672 (0.647)	-1.323* (0.520)	0.508 (0.619)	-0.299 (0.594)	0.469 (0.586)	0.978 (0.515)	0.950 (0.907)	1.304 (0.932)	0.935 (0.590)	0.972 (0.587)	-0.849 (0.612)	0.114 (0.371)	0.025 (0.486)
75+	0.643 (0.812)	-1.059 (0.652)	0.406 (0.758)	-0.300 (0.724)	0.152 (0.728)	0.793 (0.635)	1.278 (1.148)	0.853 (1.245)	0.578 (0.780)	0.959 (0.707)	-0.681 (0.741)	0.192 (0.452)	-0.220 (0.603)
EVS 1990-93		0.344 (0.239)	0.033 (0.237)		-0.693* (0.187)	-0.492* (0.142)	-0.977* (0.213)	0.088 (0.340)	1.393* (0.251)		-0.174 (0.244)	-0.965* (0.126)	
WVS 1994-98				0.632* (0.147)							0.306 (0.176)	-0.644* (0.163)	0.892* (0.123)
EVS 1999-2001	0.050 (0.147)	0.419 (0.291)		0.402* (0.173)	-0.934* (0.258)	-1.130* (0.224)	-0.495 (0.319)	0.399 (0.448)	0.673* (0.314)	0.082 (0.142)		-1.254* (0.181)	0.013 (0.136)
WVS 1999-2004			0.119 (0.311)									-0.507* (0.186)	0.340* (0.144)
WVS 2005-09			0.150 (0.358)	0.749* (0.218)		-0.817* (0.289)					0.174 (0.268)	-0.256 (0.227)	0.434* (0.181)
EVS 2008-10	-0.232 (0.252)	1.547* (0.370)		0.263 (0.260)	-0.766* (0.354)	-1.107* (0.309)	0.101 (0.487)	-0.502 (0.593)	1.000* (0.408)	-0.662* (0.229)	0.318* (0.104)	-0.475* (0.232)	0.037 (0.210)
WVS 2010-14						-0.613 (0.353)				-1.447* (0.272)		-1.309* (0.253)	0.226 (0.230)
N	3,213	5,101	4,555	3,526	3,569	5,365	2,139	2,376	4,748	4,334	3,482	7,356	5,420

*p<0.05. Standard errors are in parentheses. Positive numbers indicate more support for the left.

NB: Birth year is adjusted so that the coefficient for female can be interpreted as the gender gap at the oldest birth year, 1925.

Appendix to Chapter 2

1. Descriptive tables

Table 1: Cross-tabulation of birth cohorts and survey year

Year/ Birth cohort	Nation- al & War born 1908-23	Lab 1945-51 Born 1924-29	Con 1951-64 Born 1930-42	Lab 1964-70 Born 1943-48	Con 1970-74 Born 1949-52	Lab 1974-79 Born 1953-57	Con 1979-97 Born 1958-75	Lab 1997- 2010 Born 1976-87	Total
1964	531	175	309	19	0	0	0	0	1034
1966	496	187	339	90	0	0	0	0	1112
1970	219	89	176	101	65	0	0	0	650
Oct '74	502	216	432	224	115	101	0	0	1590
1979	339	192	356	207	120	103	67	0	1384
1983	603	299	666	397	245	254	434	0	2898
1987	523	314	643	367	259	285	642	0	3033
1997	275	232	504	248	197	236	745	94	2531
2001	2	5	24	19	12	22	77	17	178
2005	2	3	46	43	42	34	151	47	368
2010	0	9	172	138	92	138	509	219	1277
2015	2	16	125	129	105	127	431	213	1,148
Total	3,494	1,737	3,792	1,982	1,252	1,300	3,056	590	17,203

NB: Figures are unweighted. Respondents with missing values on any of the controls and who are thus omitted from multinomial logits are excluded.

Table 2: Distribution of degree holders by birth cohort

	Do not have a degree		Have a degree	
	Men	Women	Men	Women
National & Wartime. Born 1908-23	96.37	98.36	3.63	1.64
Lab 1945-51. Born 1924-29	93.25	96.30	6.75	3.70
Con 1951-64. Born 1930-42	90.28	95.73	9.72	4.27
Lab 1964-70. Born 1943-48	86.81	91.76	13.19	8.24
Con 1970-74. Born 1949-52	80.38	87.09	19.62	12.91
Lab 1974-79. Born 1953-57	79.52	82.81	20.48	17.19
Con 1979-97. Born 1958-75	76.15	76.44	23.85	23.56
Lab 1997-2010. Born 1976-87	57.56	60.50	42.44	39.50

Table 3: Distribution of religious people by birth cohort

	No religion		Christian		Other religion	
	Men	Women	Men	Women	Men	Women
National & Wartime. Born 1908-23	19.14	11.08	79.74	88.13	1.13	0.79
Lab 1945-51. Born 1924-29	21.89	13.00	76.69	85.43	1.42	1.57
Con 1951-64. Born 1930-42	26.00	15.58	71.54	82.75	2.46	1.67
Lab 1964-70. Born 1943-48	33.44	24.53	64.28	73.90	2.28	1.57
Con 1970-74. Born 1949-52	45.56	30.33	50.68	68.32	3.75	1.35
Lab 1974-79. Born 1953-57	46.88	35.70	48.96	61.04	4.16	3.26
Con 1979-97. Born 1958-75	53.61	39.05	42.38	56.68	4.01	4.27
Lab 1997-2010. Born 1976-87	61.62	51.72	24.72	40.13	13.65	8.15

Table 4: Distribution of having children in the household by birth cohort

	Do not have children in the household		Have children in the household	
	Men	Women	Men	Women
National & Wartime. Born 1908-23	72.11	77.89	27.89	22.11
Lab 1945-51. Born 1924-29	60.83	66.48	39.17	33.52
Con 1951-64. Born 1930-42	50.03	52.32	49.97	47.68
Lab 1964-70. Born 1943-48	42.06	37.78	57.94	62.22
Con 1970-74. Born 1949-52	43.34	36.79	56.66	63.21
Lab 1974-79. Born 1953-57	42.88	37.04	57.12	62.96
Con 1979-97. Born 1958-75	52.66	40.83	47.34	59.17
Lab 1997-2010. Born 1976-87	46.49	30.72	53.51	69.28

Table 5: Distribution of social class by birth cohort

	No class		Working class		Middle class	
	Men	Women	Men	Women	Men	Women
National & Wartime. Born 1908-23	45.40	46.33	37.65	34.20	16.95	19.47
Lab 1945-51. Born 1924-29	47.69	45.52	34.08	32.62	18.22	21.86
Con 1951-64. Born 1930-42	46.82	47.11	35.13	31.21	18.05	21.68
Lab 1964-70. Born 1943-48	47.04	49.66	34.79	27.09	18.17	23.26
Con 1970-74. Born 1949-52	46.25	51.20	33.28	27.63	20.48	21.17
Lab 1974-79. Born 1953-57	50.72	48.59	30.40	28.44	18.88	22.96
Con 1979-97. Born 1958-75	51.28	46.29	29.18	30.80	19.55	22.91
Lab 1997-2010. Born 1976-87	47.23	45.14	26.94	34.17	25.83	20.69

2. Full results of the multinomial logit models, including all controls

Table 6. Multinomial logits on vote choice: Labour versus Conservatives.

	Model 1	Model 2 + controls	Model 3 + Conservative governments	Model 4 + Labour governments
Birth year (mean centred)	0.018*** (0.006)	0.019*** (0.007)	0.020*** (0.007)	0.017** (0.007)
Female	-0.090** (0.035)	-0.003 (0.037)	-0.107** (0.054)	0.042 (0.046)
Female*Birth year	0.002 (0.002)	0.001 (0.002)	-0.001 (0.002)	0.004 (0.002)
<i>Government socialisation cohorts. Reference: socialised by a non-Conservative government</i>				
Conservative 1951-63			-0.131** (0.066)	
Conservative 1970-74			-0.335*** (0.115)	
Conservative 1979-97			-0.026 (0.090)	
Female* Conservative 1951-63			0.190** (0.093)	
Female* Conservative 1970-74			0.300* (0.155)	
Female* Conservative 1979-97			0.218* (0.124)	
<i>Government socialisation. Reference: socialised by a non-Labour government</i>				
Labour 1945-51				0.219** (0.092)
Labour 1964-70				-0.221** (0.087)
Labour 1974-79				0.132 (0.108)
Labour 1997-2010				0.308** (0.146)
Female* Labour 1945-51				-0.095 (0.128)
Female* Labour 1964-70				0.029 (0.121)
Female* Labour 1974-79				-0.239 (0.149)
Female* Labour 1997-2010				-0.415** (0.202)
<i>Age. Reference: 18-24</i>				
25-34	0.048 (0.088)	0.002 (0.093)	0.032 (0.094)	0.003 (0.093)
35-44	0.175 (0.134)	0.189 (0.142)	0.212 (0.142)	0.190 (0.143)
45-54	0.223 (0.191)	0.280 (0.200)	0.308 (0.201)	0.245 (0.201)
55-64	0.262 (0.250)	0.348 (0.261)	0.374 (0.261)	0.279 (0.262)
65-74	0.398 (0.312)	0.520 (0.325)	0.546* (0.326)	0.476 (0.326)
75-84	0.128 (0.379)	0.342 (0.396)	0.373 (0.397)	0.277 (0.397)
85+	-0.027 (0.578)	0.345 (0.601)	0.368 (0.602)	0.226 (0.601)

Appendix 2

Election year. Reference: 1964				
1966	0.144 (0.093)	-0.365*** (0.101)	-0.364*** (0.101)	-0.349*** (0.101)
1970	-0.200 (0.131)	-0.259* (0.137)	-0.236* (0.138)	-0.215 (0.138)
October 1974	-0.117 (0.109)	-0.285** (0.114)	-0.269** (0.114)	-0.238** (0.115)
1979	-0.620*** (0.131)	-0.917*** (0.137)	-0.903*** (0.138)	-0.865*** (0.138)
1983	-0.941*** (0.145)	-1.201*** (0.152)	-1.192*** (0.153)	-1.142*** (0.153)
1987	-0.902*** (0.166)	-1.175*** (0.175)	-1.168*** (0.175)	-1.113*** (0.176)
1997	-0.177 (0.225)	-0.409* (0.236)	-0.408* (0.236)	-0.339 (0.237)
2001	-0.320 (0.290)	-0.546* (0.302)	-0.559* (0.303)	-0.467 (0.304)
2005	-0.669** (0.291)	-0.890*** (0.304)	-0.894*** (0.305)	-0.822*** (0.305)
2010	-1.252*** (0.305)	-1.650*** (0.319)	-1.668*** (0.321)	-1.578*** (0.321)
2015	-1.394*** (0.335)	-1.930*** (0.351)	-1.943*** (0.353)	-1.850*** (0.353)
Degree		0.191*** (0.064)	0.190*** (0.064)	0.182*** (0.064)
Religiosity. Reference: no religion				
Christian		-0.388*** (0.044)	-0.387*** (0.044)	-0.384*** (0.044)
Non-Christian religion		0.691*** (0.111)	0.689*** (0.111)	0.669*** (0.112)
Social class. Reference: no class identification				
Working class		1.258*** (0.044)	1.260*** (0.044)	1.260*** (0.044)
Middle class		-0.306*** (0.051)	-0.305*** (0.051)	-0.308*** (0.051)
Children		0.085* (0.045)	0.092** (0.045)	0.090** (0.045)
Intercept	0.463*** (0.088)	0.490*** (0.099)	0.515*** (0.104)	0.432** (0.102)

N=17,126. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses. Positive coefficients indicate greater support for Labour than the Conservatives.

Table 7. Multinomial logits on vote choice: Liberals versus Conservatives

	Model 1	Model 2 + controls	Model 3 + Conservative governments	Model 4 + Labour governments
Birth year (mean centred)	0.022*** (0.008)	0.019** (0.008)	0.020** (0.008)	0.019** (0.008)
Female	0.017 (0.043)	0.093** (0.044)	0.028 (0.063)	0.116** (0.055)
Female*Birth year	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.003)	-0.001 (0.003)
<i>Government socialisation cohorts. Reference: socialised by a non-Conservative government</i>				
Conservative 1951-63			-0.271*** (0.084)	
Conservative 1970-74			0.070 (0.121)	
Conservative 1979-97			-0.185* (0.104)	
Female* Conservative 1951-63			0.260** (0.114)	
Female* Conservative 1970-74			-0.211 (0.170)	
Female* Conservative 1979-97			0.143 (0.142)	
<i>Government socialisation. Reference: socialised by a non-Labour government</i>				
Labour 1945-51				0.242** (0.115)
Labour 1964-70				-0.062 (0.101)
Labour 1974-79				0.315*** (0.119)
Labour 1997-2010				0.140 (0.174)
Female* Labour 1945-51				-0.084 (0.156)
Female* Labour 1964-70				0.075 (0.137)
Female* Labour 1974-79				-0.230 (0.163)
Female* Labour 1997-2010				-0.078 (0.237)
Age. Reference: 18-24				
25-34	0.189* (0.107)	0.138 (0.110)	0.122 (0.112)	0.113 (0.111)
35-44	0.331** (0.164)	0.315* (0.168)	0.316* (0.168)	0.322* (0.169)
45-54	0.367 (0.235)	0.371 (0.238)	0.393* (0.239)	0.374 (0.239)
55-64	0.421 (0.308)	0.429 (0.311)	0.417 (0.311)	0.404 (0.312)
65-74	0.543 (0.383)	0.584 (0.386)	0.582 (0.387)	0.618 (0.388)
75-84	0.543 (0.462)	0.607 (0.466)	0.623 (0.467)	0.647 (0.468)
85+	0.895 (0.689)	0.980 (0.694)	0.973 (0.696)	0.975 (0.695)
Election year. Reference: 1964				
1966	-0.287* (0.107)	-0.419*** (0.110)	-0.416*** (0.112)	-0.417*** (0.111)

Appendix 2

	(0.151)	(0.155)	(0.155)	(0.155)
1970	-0.899***	-0.898***	-0.905***	-0.893***
	(0.243)	(0.245)	(0.245)	(0.245)
October 1974	0.408***	0.316**	0.311**	0.310**
	(0.147)	(0.148)	(0.149)	(0.149)
1979	-0.259	-0.416**	-0.417**	-0.426**
	(0.175)	(0.177)	(0.177)	(0.178)
1983	0.277	0.148	0.146	0.136
	(0.185)	(0.188)	(0.188)	(0.189)
1987	0.155	0.043	0.042	0.029
	(0.211)	(0.214)	(0.214)	(0.215)
1997	0.093	-0.002	-0.007	-0.021
	(0.283)	(0.286)	(0.287)	(0.288)
2001	-0.299	-0.526	-0.529	-0.541
	(0.375)	(0.378)	(0.379)	(0.380)
2005	0.191	0.016	-0.004	-0.003
	(0.357)	(0.361)	(0.362)	(0.363)
2010	-0.146	-0.460	-0.479	-0.482
	(0.377)	(0.382)	(0.383)	(0.384)
2015	-1.351***	-1.713***	-1.743***	-1.740***
	(0.419)	(0.425)	(0.426)	(0.428)
Degree		0.678***	0.675***	0.674***
		(0.067)	(0.067)	(0.067)
Religiosity. Reference: no religion				
Christian		-0.327***	-0.322***	-0.325***
		(0.051)	(0.051)	(0.051)
Non-Christian religion		-0.103	-0.111	-0.110
		(0.146)	(0.147)	(0.147)
Social class. Reference: no class identification				
Working class		0.439***	0.437***	0.442***
		(0.055)	(0.055)	(0.055)
Middle class		-0.130**	-0.130**	-0.130**
		(0.056)	(0.056)	(0.056)
Children		0.042	0.038	0.040
		(0.054)	(0.054)	(0.054)
Intercept	-1.063***	-0.917***	-0.826***	-0.951***
	(0.123)	(0.132)	(0.137)	(0.134)

N=17,126. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses. Positive numbers indicate greater support for the Liberals than the Conservatives.

Table 8. Multinomial logits on vote choice: Liberals versus Labour

	Model 1	Model 2 + controls	Model 3 + Conservative governments	Model 4 + Labour governments
Birth year (mean centred)	0.003 (0.008)	-0.000 (0.008)	0.000 (0.008)	0.002 (0.008)
Female	0.107** (0.044)	0.096** (0.045)	0.135** (0.064)	0.074 (0.056)
Female*Birth year	-0.004 (0.002)	-0.003 (0.002)	-0.001 (0.003)	-0.005* (0.003)
<i>Government socialisation cohorts. Reference: socialised by a non-Conservative government</i>				
Conservative 1951-63			-0.140 (0.086)	
Conservative 1970-74			0.404*** (0.127)	
Conservative 1979-97			-0.158 (0.103)	
Female* Conservative 1951-63			0.070 (0.117)	
Female* Conservative 1970-74			-0.511*** (0.177)	
Female* Conservative 1979-97			-0.074 (0.141)	
<i>Government socialisation. Reference: socialised by a non-Labour government</i>				
Labour 1945-51				0.023 (0.116)
Labour 1964-70				0.159 (0.106)
Labour 1974-79				0.183 (0.118)
Labour 1997-2010				-0.168 (0.168)
Female* Labour 1945-51				0.011 (0.159)
Female* Labour 1964-70				0.046 (0.144)
Female* Labour 1974-79				0.009 (0.165)
Female* Labour 1997-2010				0.337 (0.231)
<i>Age. Reference: 18-24</i>				
25-34	0.140 (0.106)	0.136 (0.110)	0.090 (0.111)	0.110 (0.110)
35-44	0.155 (0.165)	0.125 (0.170)	0.104 (0.171)	0.132 (0.172)
45-54	0.145 (0.238)	0.091 (0.242)	0.085 (0.243)	0.129 (0.244)
55-64	0.159 (0.312)	0.081 (0.317)	0.043 (0.318)	0.124 (0.319)
65-74	0.145 (0.389)	0.064 (0.395)	0.036 (0.397)	0.141 (0.397)
75-84	0.415 (0.473)	0.265 (0.482)	0.250 (0.483)	0.369 (0.484)
85+	0.922 (0.729)	0.635 (0.739)	0.606 (0.740)	0.749 (0.741)
<i>Election year. Reference: 1964</i>				
1966	-0.431*** (0.147)	-0.054 (0.151)	-0.052 (0.151)	-0.069 (0.151)
1970	-0.700***	-0.639***	-0.669***	-0.678***

Appendix 2

	(0.241)	(0.243)	(0.244)	(0.244)
October 1974	0.525***	0.601***	0.580***	0.548***
	(0.144)	(0.147)	(0.148)	(0.148)
1979	0.361**	0.502***	0.486***	0.439**
	(0.176)	(0.179)	(0.180)	(0.180)
1983	1.218***	1.350***	1.338***	1.278***
	(0.187)	(0.191)	(0.192)	(0.193)
1987	1.057***	1.217***	1.210***	1.142***
	(0.213)	(0.218)	(0.218)	(0.219)
1997	0.270	0.407	0.401	0.319
	(0.285)	(0.291)	(0.292)	(0.292)
2001	0.021	0.020	0.031	-0.074
	(0.369)	(0.376)	(0.377)	(0.378)
2005	0.860**	0.906**	0.890**	0.820**
	(0.359)	(0.366)	(0.368)	(0.368)
2010	1.106***	1.190***	1.188***	1.096***
	(0.382)	(0.390)	(0.392)	(0.393)
2015	0.043	0.218	0.201	0.110
	(0.425)	(0.435)	(0.437)	(0.438)
Degree		0.487***	0.485***	0.492***
		(0.069)	(0.070)	(0.070)
Religiosity. Reference: no religion				
Christian		0.061	0.065	0.059
		(0.051)	(0.051)	(0.051)
Non-Christian religion		-0.794***	-0.800***	-0.779***
		(0.135)	(0.135)	(0.135)
Social class. Reference: no class identification				
Working class		-0.819***	-0.823***	-0.818***
		(0.053)	(0.053)	(0.053)
Middle class		0.176***	0.175***	0.179***
		(0.062)	(0.062)	(0.062)
Children		-0.043	-0.054	-0.050
		(0.054)	(0.055)	(0.054)
Intercept	-1.526***	-1.408***	-1.341***	-1.383***
	(0.121)	(0.130)	(0.135)	(0.133)

N=17,126. * $p<0.1$; ** $p<0.05$; *** $p<0.01$. Standard errors are in parentheses. Positive numbers indicate greater support for the Liberals than Labour.

3. Likelihood-ratio tests for models with gender interactions

Comparing null model equivalent to model 3 with no gender interactions to model 3:

$$\chi^2(8) = 19.07 \text{ } p=0.0145$$

Comparing null model equivalent to model 4 with no gender interactions to model 4:

$$\chi^2(10) = 10.55, p=0.3933$$

4. Multi-collinearity diagnostics

Table 9 shows variance inflation factors from models equivalent to models 3 and 4 but without any interactions between birth cohort and gender. The tables show that multi-collinearity affects the continuous birth year variable, age, and survey year, which is to be expected in age-period-cohort analysis. However, the birth year variable is still statistically significant in the models (indicating that high collinearity is not leading to an erroneous conclusion that there is no relationship between birth year and vote choice), and is consistently found to be of a similar magnitude and direction when the analysis is performed on randomly selected sub-sections of the data.

Multi-collinearity is not affecting the results of the government socialisation birth cohorts at all.

Table 9: variance inflation factors

Variable	Model 3 (without gender interactions)	Model 4 (without gender interactions)
Birth year	48.77	47.73
Female	1.02	1.02
Age 25-34	4.05	4.00
Age 35-44	9.97	10
Age 45-54	19.01	19.02
Age 55-64	26.62	26.66
Age 65-74	27.71	27.76
Age 75-84	13.45	13.47
Age 85+	3.23	3.23
1966	2.17	2.18
1970	1.88	1.88
Oct 1974	3.66	3.69
1979	4.46	4.50
1983	10.17	10.27
1987	11.97	12.08
1997	23.11	23.23
2001	3.98	3.99
2005	7.56	7.58
2010	19.51	19.56
2015	29.46	29.52
Degree	1.18	1.18
Christian	1.25	1.25
Non-Christian	1.07	1.07
Working class	1.22	1.22
Middle class	1.21	1.21
Children	1.51	1.51
Con 1951-64	1.15	
Con 1970-74	1.15	
Con 1979-97	1.80	
Lab 1945-51		1.13
Lab 1964-70		1.09
Lab 1974-79		1.12
Lab 1997-2010		1.37

5. Robustness checks

5.1. Generalised additive models on vote choice

As described in section 3.3 of chapter 2, generalised additive models (GAMs) are used to check the validity of the government socialisation cohort groupings. The GAMs estimate a non-parametric smoothed function to show the relationship between birth year and vote choice, instead of a single coefficient for birth year or a series of coefficients for birth cohort which impose a particular functional form on the data. In this analysis, the GAM has the following form:

$$\log\left(\frac{\pi}{1-\pi}\right) = a + \text{female} + \text{age group} + \text{election year} + \\ + g(\text{female birth year}) + h(\text{male birth year}),$$

where π is the probability of voting for the party of interest, a is a constant and $g(\text{female birth year})$ and $h(\text{male birth year})$ are smoothed functions¹ of the birth year variable interacted with gender.²³ Three dichotomous dependent variables are used: Conservative vote choice versus Labour and Liberals; Labour vote choice versus Conservatives and Liberals; and Liberal vote choice versus Conservatives and Labour. The GAMs produce

¹ The smoothed functions used here are cubic regression splines, which are computationally advantageous in comparison to other types of regression spline. They require the specification of a number of equally spaced knots, between which is fitted a 3rd degree polynomial, constrained to join at the knots creating a continuous curve. The number of knots, and hence the degree of smoothing, is determined by the effective degrees of freedom specified in the model. The maximum possible effective degrees of freedom is included in the model specification by setting the basis dimension, which is the same (10) in all models shown here. Results from models using other basis dimensions were not different from those presented here. The smoothed functions in the model are constrained to have zero mean.

² The interaction here is analogous to a re-parameterisation of the standard, multiplicative interaction. Compare to the standard notation: $\beta_1 \text{female} + \beta_2 \text{birth year} + \beta_3 \text{female*birth year}$, where female*birth year is a multiplicative interaction. An equivalent expression would be $\beta_1 \text{female} + \beta_2 \text{male birth year} + (\beta_2 + \beta_3) \text{female birth year}$, where women take on the value zero and men take on the value of their birth year in the male birth year term, and vice versa for the female birth year term. Instead of using coefficients, the GAMs estimate an arbitrary smoothed function of birth year: $f(\text{female birth year})$ and $g(\text{male birth year})$. $f(\text{female birth year})$ is thus not a measure of deviation from $g(\text{male birth year})$ in the way that β_3 is in relation to β_2 in the usual case.

³ As with the multinomial logits, the results from the GAMs are robust to the different age specifications described in footnote 5.

plots of the smoothed functions which can be visually inspected to assess the validity of using particular cohort groupings in the multinomial logit. In addition, conducting the APC analysis using two different methods which rely on different assumptions provides another strong robustness check for the results.

Table 9 shows the full results of the GAMs. The smoothed functions for the relationship between birth year and vote choice are shown in terms of predicted probabilities at the median age group (35-44) and median election year (1983) in figs. 1-3 for voting Conservative, Labour and Liberal respectively. The lightest shaded area indicates those socialised under the coalition governments of 1931-39 and 1939-45; the mid-grey shading under Conservative governments; and the dark grey under Labour governments, categorising those socialised by a particular government as those who spent the majority of their formative years during it.

The figures show that the government socialisation birth cohort categories are largely valid, as there are non-linear patterns that correspond to those expected by government socialisation. The downward slope in Conservative vote choice is halted for those socialised during the Conservative 1951-64 and 1979-97 governments, suggesting these cohorts are more supportive of the Conservatives because of when they were socialised than the overall trend would have suggested. At the same time, the upward trend in Labour and Liberal vote choice flattens out for these two birth cohorts. There is less variation in Labour vote choice associated with government socialisation than for Conservative vote choice, although the general increase in Labour vote choice does flatten out for cohorts socialised by the Conservative government 1951-64. For Liberal vote choice there is a peak in support for those socialised during the 1970s, reflecting a period of weak Labour and Conservative governments which coincided with a revival of Liberal fortunes. There are no fluctuations from the overall trends for the National

government 1931-39 and the Wartime government 1939-45, which is as would be expected from government socialisation theory given that both these governments were coalitions.

In addition, the fluctuation in Conservative and Liberal vote choice associated with government socialisation appears to be less pronounced for women than for men, and men and women differ particularly in the cohort socialised during the Conservative government 1979-97, as seen in the results of the multinomial logit models.

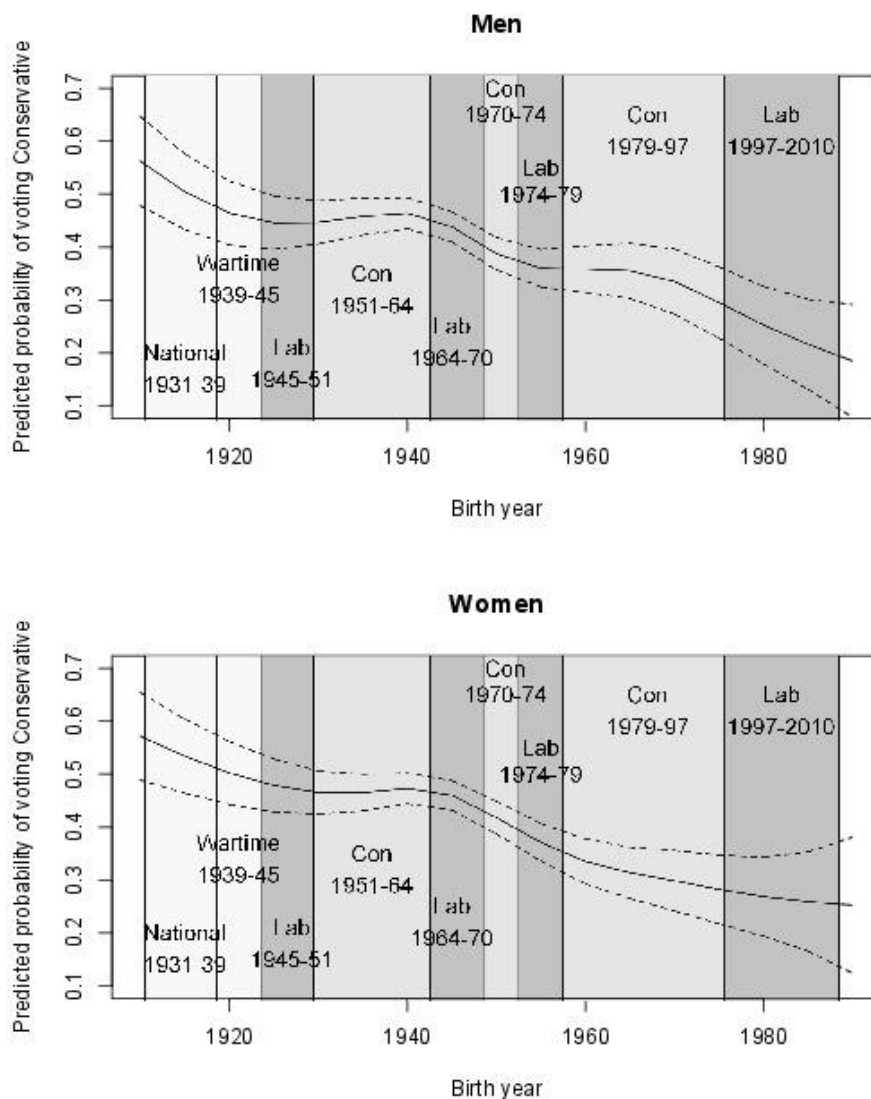


Fig. 1. Predicted probabilities of voting Conservative for men and women from the GAM for Conservative vote choice.

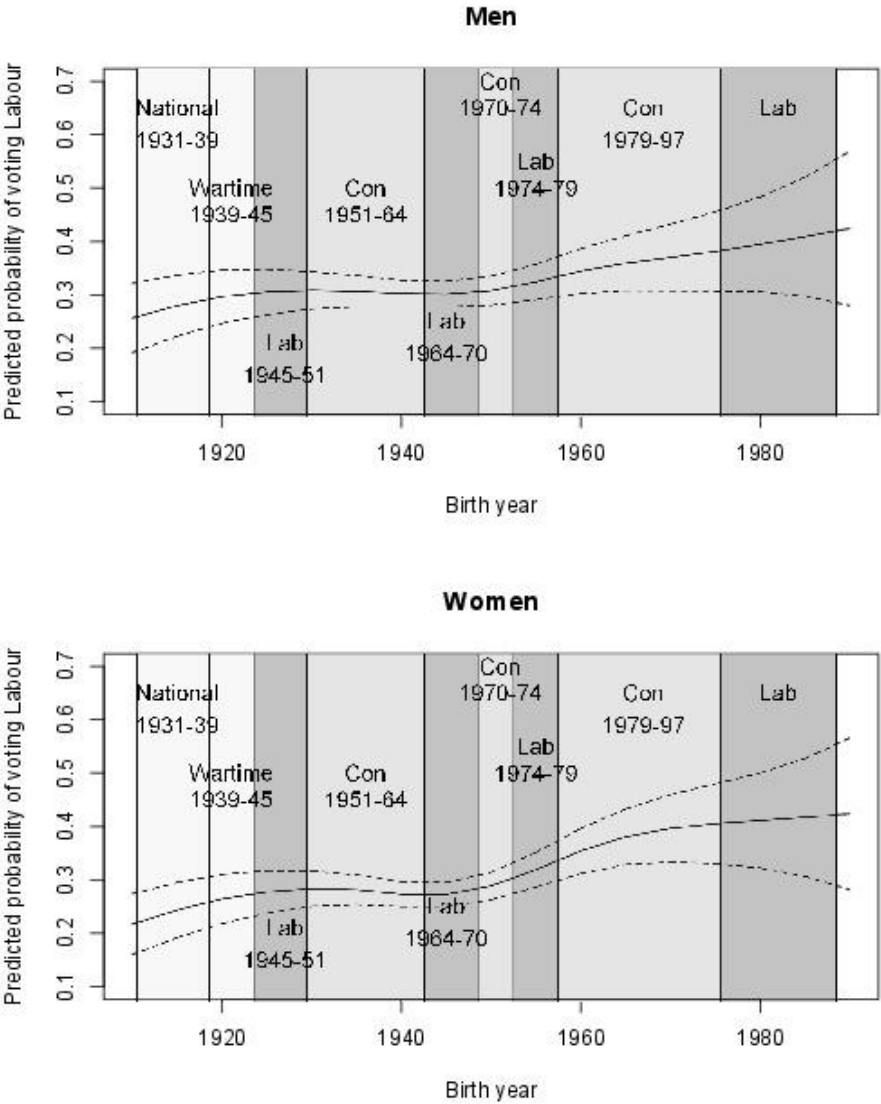


Fig. 2. Predicted probability of voting for Labour for men and women from the GAM for Labour vote choice

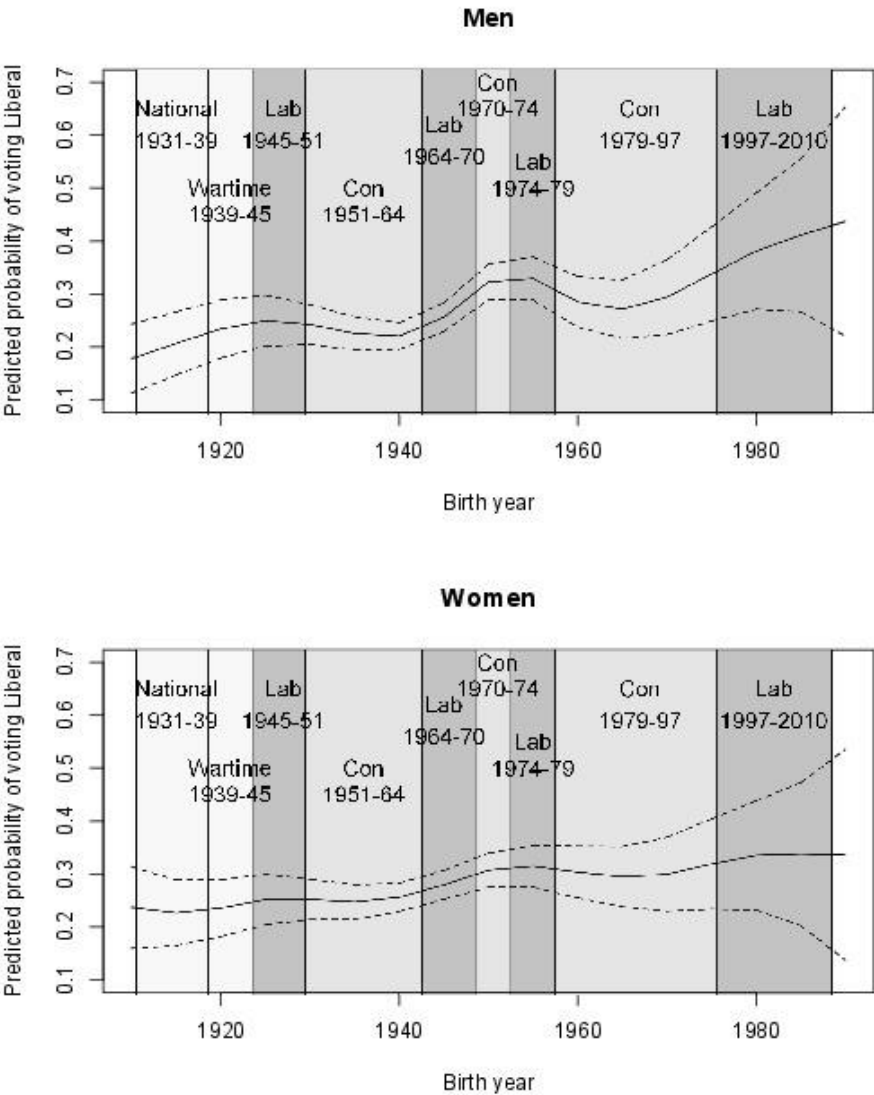


Fig. 3. Predicted probability of voting for the Liberals for men and women from the GAM for Liberal vote choice

Table 9. Full results of the GAMs for Conservative, Labour, and Liberal vote choice

	Conservative vote choice	Labour vote choice	Liberal vote choice
Birth year	See fig. 1	See fig. 2	See fig. 3
Female	0.042 (0.025)	-0.081** (0.025)	0.065* (0.032)
Age. Reference: 18-24			
25-34	-0.098 (0.067)	0.030 (0.065)	0.075 (0.081)
35-44	-0.190 (0.098)	0.056 (0.097)	0.172 (0.121)
45-54	-0.153 (0.138)	0.022 (0.137)	0.175 (0.171)
55-64	-0.205 (0.180)	0.109 (0.178)	0.115 (0.223)
65-74	-0.334 (0.223)	0.183 (0.221)	0.201 (0.277)
75-84	-0.147 (0.268)	0.123 (0.266)	-0.046 (0.333)
85 and over	-0.104 (0.336)	-0.124 (0.336)	0.335 (0.423)
Election year. Reference: 1964			
1966	-0.083 (0.089)	0.210* (0.087)	-0.347* (0.142)
1970	0.233* (0.093)	-0.007 (0.091)	-0.599** (0.153)
Feb 1974	-0.055 (0.093)	-0.256** (0.092)	0.563** (0.126)
Oct 1974	-0.088 (0.095)	-0.172 (0.093)	0.479** (0.128)
1979	0.444** (0.108)	-0.453** (0.108)	0.064 (0.149)
1983	0.433** (0.113)	-0.906** (0.114)	0.748** (0.150)
1987	0.457** (0.128)	-0.851** (0.128)	0.659** (0.167)
1992	0.561** (0.147)	-0.635** (0.146)	0.206 (0.191)
1997	-0.119 (0.168)	-0.020 (0.166)	0.232 (0.215)
2001	-0.168 (0.186)	-0.052 (0.183)	0.345 (0.235)
2005	0.124 (0.200)	-0.436* (0.198)	0.540* (0.252)
2010	0.566* (0.222)	-0.868** (0.220)	0.547 (0.279)

2015	1.074** (0.243)	-0.733** (0.242)	-0.605 (0.312)
------	--------------------	---------------------	-------------------

N=27,249. * p<0.05, **p<0.01. Standard errors are in parentheses.

Age is generally statistically insignificant, although the coefficients are negative for the model for Conservative vote choice and positive in the model for Labour vote choice which is in the opposite direction to what is generally expected. This suggests there is a possibility that the overall cohort trends shown in the GAMs towards lower Conservative support and higher Labour support in younger cohorts might be over-estimated in the GAMs. However, this does not impact on the non-linear part of the cohort effect shown in the smoothed functions, and the results for cohort are robust to other specifications of age (a 5-year categorical variable and a 2-year categorical variable). The results for survey year are what might be expected from the electoral fortunes of the parties.

Table 10: Results of logit models for left party versus non-left party vote (excluding Liberals)

	Model 1	Model 2	Model 3	Model 4
Birth year	0.018*** (0.006)	0.020*** (0.007)	0.020*** (0.007)	0.017*** (0.007)
Female	-0.062* (0.035)	0.039 (0.037)	-0.058 (0.054)	0.077* (0.046)
Birth year*female	0.003 (0.002)	0.003 (0.002)	0.001 (0.002)	0.005** (0.002)
<i>Government socialisation cohorts: Socialised by a non-Conservative government</i>				
Conservative 1951-63			-0.137** (0.066)	
Conservative 1970-74			-0.319*** (0.115)	
Conservative 1979-97			-0.048 (0.087)	
Female* Conservative 1951-63			0.184** (0.093)	
Female* Conservative 1970-74			0.268* (0.155)	
Female* Conservative 1979-97			0.200 (0.122)	
<i>Government socialisation cohorts. Socialised by a non-Labour government</i>				
Labour 1945-51				0.198** (0.093)
Labour 1964-70				-0.220** (0.086)
Labour 1974-79				0.131 (0.107)
Labour 1997-2010				0.356** (0.142)
Female* Labour 1945-51				-0.091 (0.129)
Female* Labour 1964-70				0.063 (0.121)
Female* Labour 1974-79				-0.247* (0.148)
Female* Labour 1997-2010				-0.368* (0.197)
<i>Age. Reference: 18-24</i>				
25-34	0.043 (0.088)	0.012 (0.093)	0.042 (0.094)	0.010 (0.094)
35-44	0.167 (0.133)	0.201 (0.142)	0.220 (0.142)	0.202 (0.142)
45-54	0.211 (0.190)	0.298 (0.199)	0.318 (0.200)	0.267 (0.200)
55-64	0.265 (0.248)	0.384 (0.260)	0.403 (0.261)	0.326 (0.261)
65-74	0.375 (0.309)	0.558* (0.324)	0.576* (0.325)	0.515 (0.325)
75-84	0.153 (0.376)	0.425 (0.395)	0.445 (0.396)	0.362 (0.396)
85+	-0.014 (0.573)	0.362 (0.598)	0.370 (0.599)	0.255 (0.598)
<i>Election year. Reference: 1964</i>				
1966	0.140	-0.362***	-0.361***	-0.348***

Appendix 2

	(0.093)	(0.101)	(0.101)	(0.102)
1970	-0.198	-0.262*	-0.239*	-0.221
	(0.131)	(0.137)	(0.137)	(0.137)
October 1974	-0.122	-0.313***	-0.299***	-0.273**
	(0.108)	(0.113)	(0.114)	(0.114)
1979	-0.626***	-0.935***	-0.922***	-0.883***
	(0.130)	(0.137)	(0.137)	(0.138)
1983	-0.951***	-1.226***	-1.212***	-1.167***
	(0.144)	(0.152)	(0.152)	(0.153)
1987	-0.911***	-1.205***	-1.196***	-1.141***
	(0.165)	(0.174)	(0.174)	(0.175)
1997	-0.260	-0.531**	-0.524**	-0.463**
	(0.223)	(0.235)	(0.235)	(0.236)
2001	-0.305	-0.587*	-0.598**	-0.511*
	(0.287)	(0.301)	(0.302)	(0.303)
2005	-0.765***	-1.047***	-1.052***	-0.993***
	(0.286)	(0.301)	(0.302)	(0.302)
2010	-1.307***	-1.785***	-1.793***	-1.721***
	(0.302)	(0.318)	(0.319)	(0.320)
2015	-1.528***	-2.190***	-2.196***	-2.123***
	(0.331)	(0.350)	(0.351)	(0.351)
Degree		0.290***	0.292***	0.282***
		(0.063)	(0.064)	(0.064)
Religiosity. Reference: no religion				
Christian		-0.395***	-0.396***	-0.390***
		(0.044)	(0.044)	(0.044)
Non-Christian religion		0.765***	0.763***	0.739***
		(0.110)	(0.110)	(0.111)
Social class. Reference: no class identification				
Working class		1.208***	1.209***	1.209***
		(0.044)	(0.044)	(0.044)
Middle class		-0.302***	-0.302***	-0.304***
		(0.051)	(0.051)	(0.051)
Children		0.064	0.071	0.072
		(0.045)	(0.045)	(0.045)
Intercept	0.467	0.506	0.537	0.447
	(0.088)***	(0.100)***	(0.104)***	(0.102)***

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. $N = 14,192$. Standard errors are in parentheses. Positive numbers indicate greater support for the left than the right.

Table 11: Results of logit models for left party versus non-left party vote (including Liberals)

	Model 1	Model 2	Model 3	Model 4
Birth year	0.019*** (0.006)	0.018*** (0.006)	0.019*** (0.006)	0.017*** (0.006)
Female	-0.028 (0.032)	0.061* (0.033)	-0.028 (0.048)	0.097** (0.041)
Birth year*female	0.001 (0.002)	0.001 (0.002)	-0.000 (0.002)	0.003 (0.002)
<i>Government socialisation cohorts. Reference: socialised by a non-Conservative government</i>				
Conservative 1951-63			-0.178*** (0.060)	
Conservative 1970-74			-0.163* (0.098)	
Conservative 1979-97			-0.121 (0.078)	
Female* Conservative 1951-63			0.212** (0.083)	
Female* Conservative 1970-74			0.089 (0.134)	
Female* Conservative 1979-97			0.194* (0.108)	
<i>Government socialisation cohorts. Reference: socialised by a non-Labour government</i>				
Labour 1945-51				0.220*** (0.084)
Labour 1964-70				-0.152** (0.076)
Labour 1974-79				0.210** (0.094)
Labour 1997-2010				0.310** (0.129)
Female* Labour 1945-51				-0.094 (0.115)
Female* Labour 1964-70				0.057 (0.105)
Female* Labour 1974-79				-0.230* (0.129)
Female* Labour 1997-2010				-0.316* (0.178)
<i>Age. Reference: 18-24</i>				
25-34	0.090 (0.080)	0.037 (0.084)	0.052 (0.085)	0.033 (0.084)
35-44	0.218* (0.120)	0.208* (0.126)	0.225* (0.126)	0.224* (0.127)
45-54	0.255 (0.172)	0.274 (0.178)	0.300* (0.178)	0.270 (0.178)
55-64	0.312 (0.225)	0.349 (0.232)	0.364 (0.232)	0.316 (0.232)
65-74	0.417 (0.280)	0.487* (0.288)	0.505* (0.289)	0.491* (0.289)
75-84	0.275 (0.338)	0.425 (0.349)	0.454 (0.350)	0.422 (0.350)
85+	0.297 (0.504)	0.507 (0.519)	0.522 (0.520)	0.454 (0.519)
Election year. Reference: 1964				
1966	0.068	-0.303***	-0.302***	-0.293***

Appendix 2

	(0.089)	(0.095)	(0.095)	(0.095)
1970	-0.304**	-0.346***	-0.337***	-0.318**
	(0.126)	(0.130)	(0.130)	(0.130)
October 1974	0.013	-0.114	-0.110	-0.091
	(0.101)	(0.104)	(0.104)	(0.105)
1979	-0.537***	-0.765***	-0.761***	-0.741***
	(0.120)	(0.124)	(0.124)	(0.125)
1983	-0.544***	-0.719***	-0.714***	-0.690***
	(0.131)	(0.136)	(0.136)	(0.137)
1987	-0.572***	-0.749***	-0.745***	-0.719***
	(0.150)	(0.156)	(0.156)	(0.157)
1997	-0.189	-0.356*	-0.357*	-0.328
	(0.203)	(0.210)	(0.211)	(0.211)
2001	-0.311	-0.534*	-0.540**	-0.500*
	(0.266)	(0.274)	(0.274)	(0.275)
2005	-0.507*	-0.695***	-0.706***	-0.676**
	(0.261)	(0.269)	(0.270)	(0.271)
2010	-0.949***	-1.295***	-1.313***	-1.275***
	(0.274)	(0.283)	(0.284)	(0.285)
2015	-1.529***	-2.016***	-2.036***	-1.996***
	(0.301)	(0.312)	(0.313)	(0.313)
Degree		0.475***	0.474***	0.469***
		(0.054)	(0.054)	(0.054)
Religiosity. Reference: no religion				
Christian		-0.364***	-0.362***	-0.360***
		(0.039)	(0.039)	(0.039)
Non-Christian religion		0.498***	0.490***	0.476***
		(0.104)	(0.104)	(0.104)
Social class. Reference: no class identification				
Working class		0.956***	0.957***	0.958***
		(0.040)	(0.040)	(0.040)
Middle class		-0.238***	-0.239***	-0.240***
		(0.043)	(0.043)	(0.043)
Children		0.061	0.064	0.066
		(0.040)	(0.040)	(0.040)
Intercept	0.634***	0.699***	0.755***	0.640***
	(0.083)	(0.091)	(0.096)	(0.093)

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. $N = 17,471$. Standard errors are in parentheses. Positive numbers indicate greater support for the left than the right.

Appendix to Chapter 4

Table 1: Response rates for the European Values Study

Country	Response rate 1999-2001 wave ^a	Response rate 2008-10 wave ^b
Austria	NA	.67
Belgium	NA	.50
Bulgaria	.74	.73
Czech Republic	.53	.61
Denmark	.59	.51
Finland	.48	.87
France	NA	.38
Germany (West and East)	.57	.40
Hungary	.75	.51
Iceland	.66	.54
Ireland	.57	.47
Italy	.76	.61
Netherlands	.47	.49
Poland	.75	.83
Portugal	.67	.70
Romania	NA	.53
Slovak Republic	.95	.56
Slovenia	.70	.61
Spain	.57	.51
Great Britain	NA	.23
Northern Ireland	.69	.29

Note: The response rates are calculated using the American Association for Public Opinion Research (AAPOR) definition (RR2): (complete interviews + partial interviews)/(number of all interviews + non-interviews + those ineligible to be interviewed). See the AAPOR *Standard Definitions Report* (2011).

The response rates are unavailable for the 1990-93 survey wave.

NA = not available

^a Source: Halman, Loek. 2001. *The European Values Study: The Third Wave. Source book of the 1999/2000 European Values Study surveys*, pp.370-73.

^b Source: 2010. *European Values Study 2008 Method Report*.

Table 2: Ordered logit models for gender-role attitudes in Western Europe

	Men priority		Child suffers		Home and children		Housewife	
	Egalitarian response: 3 (disagree)		Egalitarian response: 5 (strongly disagree)					
<i>Birth cohort. Reference: 1950-70</i>								
1925- 39	-0.363** (0.061)	-0.219** (0.071)	-0.156** (0.049)	-0.122* (0.058)	-0.351** (0.049)	-0.330** (0.057)	-0.215** (0.049)	-0.134* (0.056)
1940- 49	-0.118* (0.047)	-0.023 (0.060)	-0.111** (0.037)	-0.173** (0.048)	-0.154** (0.036)	-0.160** (0.047)	-0.002 (0.036)	-0.026 (0.046)
1971- 85	0.001 (0.055)	-0.111 (0.070)	-0.019 (0.039)	-0.063 (0.052)	-0.138** (0.039)	-0.189** (0.051)	-0.116** (0.039)	-0.114* (0.050)
Female	0.300** (0.029)	0.380** (0.042)	0.550** (0.022)	0.529** (0.032)	0.381** (0.022)	0.373** (0.032)	0.200** (0.022)	0.224** (0.031)
1925-39*		-0.272** (0.069)		-0.067 (0.058)		-0.042 (0.057)		-0.161** (0.057)
Female				0.117* (0.058)		0.011 (0.057)		0.048 (0.057)
1940-49*		-0.180* (0.072)						
Female				0.082 (0.062)		0.097 (0.062)		-0.004 (0.061)
1971-85*		0.214* (0.089)						
Female								
<i>Age. Reference: 18-24</i>								
25-44	-0.198** (0.057)	-0.192** (0.057)	-0.016 (0.042)	-0.015 (0.042)	0.064 (0.043)	0.065 (0.043)	-0.036 (0.042)	-0.034 (0.042)
45-64	-0.352** (0.076)	-0.347** (0.076)	-0.248** (0.058)	-0.246** (0.058)	-0.082 (0.058)	-0.081 (0.058)	-0.168** (0.057)	-0.166** (0.057)
65+	-0.448** (0.104)	-0.452** (0.104)	-0.524** (0.082)	-0.524** (0.082)	-0.202* (0.081)	-0.203* (0.081)	-0.152 (0.080)	-0.153 (0.080)
<i>Marital status. Reference: married/cohabiting</i>								
Divorced/ separated	0.207** (0.049)	0.213** (0.049)	0.010 (0.038)	0.010 (0.038)	0.125** (0.038)	0.126** (0.038)	0.182** (0.037)	0.183** (0.037)
Widowed	-0.061 (0.058)	-0.010 (0.059)	-0.091 (0.050)	-0.076 (0.051)	-0.028 (0.050)	-0.016 (0.050)	-0.098* (0.049)	-0.072 (0.050)
Single	0.190** (0.049)	0.201** (0.050)	0.037 (0.036)	0.038 (0.036)	0.013 (0.036)	0.015 (0.036)	0.099** (0.036)	0.102** (0.036)
Children	-0.041 (0.043)	-0.054 (0.044)	0.069* (0.033)	0.067* (0.033)	-0.205** (0.033)	-0.207** (0.033)	-0.114** (0.032)	-0.116** (0.032)
Years of education	0.145** (0.009)	0.145** (0.009)	0.083** (0.007)	0.083** (0.007)	0.127** (0.007)	0.127** (0.007)	0.067** (0.007)	0.067** (0.007)
Years of Education ²	-0.002** (0.000)	-0.002** (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.002** (0.000)	-0.002** (0.000)	-0.001** (0.000)	-0.001** (0.000)
Employed FT	0.172** (0.031)	0.180** (0.031)	0.307** (0.024)	0.310** (0.024)	0.286** (0.024)	0.287** (0.024)	0.315** (0.024)	0.320** (0.024)
<i>Religiosity. Reference: no religion</i>								
Christian	-0.274** (0.034)	-0.273** (0.034)	-0.192** (0.027)	-0.191** (0.027)	-0.280** (0.027)	-0.280** (0.027)	-0.242** (0.026)	-0.242** (0.026)
Other religion	-0.501** (0.089)	-0.492** (0.089)	-0.760** (0.072)	-0.756** (0.072)	-0.610** (0.071)	-0.607** (0.071)	-0.626** (0.071)	-0.623** (0.071)
<i>Post- materialism. Reference: materialist</i>								
Mixed	0.319** (0.035)	0.319** (0.035)	0.186** (0.029)	0.185** (0.029)	0.262** (0.028)	0.262** (0.028)	0.104** (0.028)	0.104** (0.028)
Post- materialist	0.277** (0.040)	0.278** (0.040)	0.415** (0.033)	0.416** (0.033)	0.669** (0.033)	0.669** (0.033)	0.274** (0.032)	0.275** (0.032)

N=31,071* $p < 0.05$; ** $p < 0.01$. Coefficients are log odds, standard errors in parentheses. Fixed effects for country and survey wave are included. Source: EVS waves 1990-93, 1999-2001, 2008-10 for Austria, Belgium, Britain, Denmark, Finland, France, Iceland, Ireland, the Netherlands, Northern Ireland, and West Germany.

Table 3: Ordered logit models for gender-role attitudes in Southern Europe

	Men priority		Child suffers		Home and children		Housewife		
	Egalitarian response: 3 (disagree)				Egalitarian response: 5 (strongly disagree)				
<i>Birth cohort. Reference: 1955-75</i>									
1925- 39	-0.399** (0.101)	-0.261* (0.113)	-0.323** (0.093)	-0.377** (0.105)	-0.482** (0.090)	-0.344** (0.102)	-0.234** (0.089)	-0.160 (0.101)	
1940- 54	-0.206** (0.071)	-0.134 (0.086)	-0.117 (0.064)	-0.218** (0.079)	-0.214** (0.062)	-0.213** (0.077)	-0.083 (0.062)	-0.068 (0.076)	
1976- 85	0.075 (0.096)	0.078 (0.119)	-0.129 (0.076)	-0.162 (0.100)	-0.209** (0.075)	-0.112 (0.098)	-0.012 (0.074)	0.072 (0.097)	
Female	0.627** (0.042)	0.737** (0.064)	0.280** (0.037)	0.205** (0.054)	0.336** (0.036)	0.411** (0.053)	0.448** (0.036)	0.500** (0.052)	
1925-39*		-0.277** (0.102)		0.106 (0.095)		-0.266** (0.092)		-0.141 (0.091)	
Female		-0.147 (0.097)		0.192* (0.088)		-0.001 (0.086)		-0.026 (0.085)	
1940-54*		0.002 (0.173)		0.065 (0.132)		-0.199 (0.129)		-0.173 (0.129)	
Female									
<i>Age. Reference: 18-24</i>									
25-44	-0.203** (0.078)	-0.196* (0.078)	0.110 (0.065)	0.106 (0.065)	-0.006 (0.064)	-0.003 (0.064)	-0.030 (0.063)	-0.028 (0.063)	
45-64	-0.217 (0.112)	-0.211 (0.112)	-0.015 (0.097)	-0.020 (0.097)	-0.039 (0.095)	-0.038 (0.095)	-0.040 (0.094)	-0.040 (0.094)	
65+	-0.116 (0.152)	-0.113 (0.152)	0.157 (0.137)	0.158 (0.137)	0.042 (0.133)	0.048 (0.133)	-0.137 (0.132)	-0.136 (0.132)	
<i>Marital status. Reference: married/cohabiting</i>									
Divorced/ separated	0.383** (0.105)	0.386** (0.105)	0.200* (0.086)	0.198* (0.086)	0.255** (0.086)	0.255** (0.086)	0.249** (0.085)	0.249** (0.085)	
Widowed	0.012 (0.087)	0.051 (0.088)	-0.054 (0.084)	-0.069 (0.085)	-0.060 (0.082)	-0.028 (0.083)	-0.179* (0.081)	-0.163* (0.082)	
Single	0.000 (0.082)	0.015 (0.082)	0.055 (0.069)	0.046 (0.069)	-0.046 (0.068)	-0.035 (0.069)	0.163* (0.068)	0.170* (0.068)	
Children	-0.188* (0.074)	-0.195** (0.074)	-0.172** (0.064)	-0.169** (0.064)	-0.293** (0.063)	-0.294** (0.063)	-0.053 (0.063)	-0.053 (0.063)	
Years of education	0.077** (0.013)	0.075** (0.013)	0.059** (0.009)	0.060** (0.009)	0.062** (0.009)	0.060** (0.009)	0.064** (0.009)	0.063** (0.009)	
Years of Education ²	-0.000 (0.000)	-0.000 (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.001** (0.000)	-0.001** (0.000)	
Employed FT	0.244** (0.045)	0.245** (0.045)	0.191** (0.040)	0.195** (0.040)	0.207** (0.039)	0.214** (0.039)	0.222** (0.038)	0.224** (0.038)	
<i>Religiosity. Reference: no religion</i>									
Christian	-0.369** (0.057)	-0.368** (0.057)	-0.305** (0.048)	-0.306** (0.048)	-0.344** (0.047)	-0.344** (0.047)	-0.331** (0.047)	-0.330** (0.047)	
Other religion	-0.554** (0.142)	-0.559** (0.142)	-0.704** (0.127)	-0.703** (0.127)	-0.251* (0.126)	-0.260* (0.126)	-0.324** (0.124)	-0.329** (0.124)	
<i>Post- materialism. Reference: materialist</i>									
Mixed	0.350** (0.046)	0.346** (0.046)	0.087* (0.043)	0.089* (0.043)	0.213** (0.042)	0.210** (0.042)	0.105* (0.042)	0.104* (0.042)	
Post- materialist	0.835** (0.066)	0.833** (0.066)	0.362** (0.058)	0.365** (0.058)	0.562** (0.056)	0.562** (0.056)	0.228** (0.055)	0.228** (0.055)	

N = 11,563. * $p < 0.05$; ** $p < 0.01$. Coefficients are log odds with standard errors in parentheses. Source: EVS waves 2-4 (1990-93, 1999-2001, 2008-10) for Italy, Portugal, and Spain. Positive coefficients indicate greater egalitarianism.

Table 4: Ordered logit models for gender-role attitudes in Eastern Europe

Men priority	Child suffers		Home and children		Housewife		Men priority	
	Egalitarian response: 3 (disagree)			Egalitarian response: 5 (strongly disagree)				
Birth cohort. Reference: 1925-40								
1941-55	0.215** (0.047)	0.120* (0.060)	0.180** (0.044)	0.121* (0.056)	0.158** (0.044)	0.091 (0.056)	0.152** (0.043)	0.094 (0.055)
1956-70	0.356** (0.066)	0.180* (0.075)	0.349** (0.060)	0.376** (0.070)	0.269** (0.061)	0.280** (0.070)	0.217** (0.060)	0.183** (0.069)
1971-85	0.358** (0.089)	0.203* (0.100)	0.272** (0.081)	0.348** (0.091)	0.344** (0.082)	0.340** (0.092)	0.249** (0.081)	0.261** (0.090)
Female	0.476** (0.027)	0.270** (0.055)	0.215** (0.024)	0.222** (0.051)	0.164** (0.024)	0.131* (0.052)	0.338** (0.024)	0.287** (0.051)
1940-54*		0.182** (0.071)		0.109 (0.066)		0.126 (0.066)		0.110 (0.065)
Female								
1955-70*		0.344** (0.072)		-0.054 (0.067)		-0.024 (0.067)		0.067 (0.066)
Female								
1971-85*		0.289** (0.087)		-0.139 (0.078)		0.009 (0.078)		-0.023 (0.077)
Female								
Age group. Reference: 18-24								
25-44	-0.124* (0.057)	-0.115* (0.057)	-0.149** (0.050)	-0.154** (0.050)	0.033 (0.051)	0.031 (0.051)	-0.028 (0.050)	-0.027 (0.050)
45-64	-0.115 (0.077)	-0.109 (0.078)	-0.186** (0.069)	-0.191** (0.069)	0.075 (0.070)	0.073 (0.070)	-0.000 (0.069)	-0.001 (0.069)
65+	-0.072 (0.103)	-0.074 (0.103)	-0.100 (0.093)	-0.104 (0.093)	0.109 (0.094)	0.106 (0.094)	0.074 (0.092)	0.073 (0.092)
Marital status. Reference: married/cohabiting								
Divorced/ separated	0.165** (0.052)	0.169** (0.052)	0.064 (0.047)	0.062 (0.047)	0.221** (0.047)	0.220** (0.047)	0.289** (0.046)	0.288** (0.046)
Widowed	0.064 (0.050)	0.111* (0.051)	0.065 (0.047)	0.054 (0.048)	0.038 (0.047)	0.038 (0.048)	-0.070 (0.046)	-0.065 (0.047)
Single	0.059 (0.058)	0.074 (0.058)	0.048 (0.052)	0.040 (0.052)	0.082 (0.052)	0.079 (0.052)	-0.018 (0.051)	-0.020 (0.051)
Children	-0.096 (0.052)	-0.108* (0.052)	-0.058 (0.046)	-0.051 (0.046)	-0.170** (0.047)	-0.166** (0.047)	-0.123** (0.046)	-0.122** (0.046)
Years of education	0.116** (0.007)	0.114** (0.007)	0.046** (0.007)	0.047** (0.007)	0.082** (0.007)	0.082** (0.007)	0.066** (0.006)	0.066** (0.007)
Education ²	-0.001** (0.000)	-0.001** (0.000)	-0.000** (0.000)	-0.000** (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)
Employed FT	0.155** (0.030)	0.157** (0.030)	0.097** (0.027)	0.095** (0.027)	0.146** (0.027)	0.145** (0.028)	0.205** (0.027)	0.204** (0.027)
Religiosity. Reference: no religion								
Christian	-0.199** (0.032)	-0.196** (0.032)	-0.316** (0.029)	-0.317** (0.029)	-0.319** (0.029)	-0.319** (0.029)	-0.204** (0.029)	-0.204** (0.029)
Other religion	-0.366** (0.094)	-0.369** (0.095)	-0.438** (0.089)	-0.435** (0.088)	-0.402** (0.090)	-0.401** (0.090)	-0.250** (0.086)	-0.249** (0.086)
Postmaterialism. Reference: materialist								
Mixed	0.200** (0.028)	0.197** (0.028)	0.005 (0.026)	0.004 (0.026)	0.077** (0.026)	0.076** (0.026)	0.030 (0.026)	0.029 (0.026)
Post- materialist	0.462** (0.053)	0.461** (0.053)	0.002 (0.046)	0.001 (0.046)	0.195** (0.046)	0.194** (0.046)	0.061 (0.046)	0.060 (0.046)

N=25,059. * $p < 0.05$; ** $p < 0.01$. Coefficients are log odds with standard errors in parentheses. Fixed effects for country and survey wave are in all models. Source: EVS waves 2-4 (1990-93, 1999-2001, 2008-10) for Bulgaria, the Czech Republic, East Germany, Hungary, Poland, Romania, the Slovak Republic, and Slovenia.

Bibliography

- Abendschon, S., & Steinmetz, S. (2014). The Gender Gap in Voting Revisited: Women's Party Preferences in a European Context. *Social Politics: International Studies in Gender, State & Society*, 21(2), 1–30. <http://doi.org/10.1093/sp/jxu009>
- Abramovitz, M. (2006). Welfare Reform in the United States: gender, race and class matter. *Critical Social Policy*, 26(2), 336–364. <http://doi.org/10.1177/0261018306062589>
- Allen, P., Campbell, R., & Espirito-Santo, A. (2014). The Slippery Slope: Measuring Women's Political Interests. In R. Campbell & S. Childs (Eds.), *Deeds and Words: Gendering Politics after Joni Lovenduski* (pp. 229–247). Colchester: ECPR Press.
- Alwin, D. F., Braun, M., & Scott, J. (1992). The separation of work and the family: Attitudes towards women's labour-force participation in Germany, Great Britain, and the United States. *European Sociological Review*, 8(1), 13–37.
- Alwin, D. F., & Krosnick, J. A. (1991). Aging, cohorts, and the stability of sociopolitical orientations over the life span. *American Journal of Sociology*, 97(1), 169–195.
- Andersen, K. (1999). The gender gap and experiences with the welfare state. *PS: Political Science & Politics*, 32(1), 17–19.
- Annesley, C., Gains, F., & Rummery, K. (2007). *Women and New Labour: Engendering politics and policy?* Oxford: Oxford University Press.
- Baldez, L. (2011). The UN Convention to Eliminate All Forms of Discrimination Against Women (CEDAW): A New Way to Measure Women's Interests. *Politics & Gender*,

7(3), 419–423. <http://doi.org/10.1017/S1743923X11000183>

Banaszak, L. A., & Plutzer, E. (1993a). Contextual determinants of feminist attitudes: National and subnational influences in Western Europe. *American Political Science Review*, 87(1), 145–157.

Banaszak, L. A., & Plutzer, E. (1993b). The social bases of feminism in the European community. *Public Opinion Quarterly*, 57(1), 29–53.

Bartels, L. M., & Jackman, S. (2014). A generational model of political learning. *Electoral Studies*, 33, 7–16. <http://doi.org/10.1016/j.electstud.2013.06.004>

Bartle, J., Dellepiane-Avellaneda, S., & Stimson, J. A. (2010). The Moving Centre: Preferences for Government Activity in Britain, 1950–2005. *British Journal of Political Science*, 41(2), 259–285. <http://doi.org/10.1017/S0007123410000463>

Baxter, J., & Kane, E. W. (1995). Dependence and Independence: A Cross-National Analysis of Gender Inequality and Gender Attitudes. *Gender & Society*, 9(2), 193–215.

Bean, C., & Papadakis, E. (1998). A Comparison of Mass Attitudes Towards the Welfare State in Different Institutional Regimes, 1985–1990. *International Journal of Public Opinion Research*, 10(3), 211–236. <http://doi.org/10.1093/ijpor/10.3.211>

Becker, H. A. (1990). *Life histories and generations: Volume I*. Isor/Rijksuniversiteit Te Utrecht.

Bell, A., & Jones, K. (2014a). Another 'futile quest'? A simulation study of Yang and Land's Hierarchical Age-Period-Cohort model. *Demographic Research*, 30(February), 333–360. <http://doi.org/10.4054/DemRes.2013.30.11>

- Bell, A., & Jones, K. (2014b). Don't birth cohorts matter? A commentary and simulation exercise on Reither, Hauser, and Yang's (2009) age-period-cohort study of obesity. *Social Science & Medicine*, 101, 176–80.
<http://doi.org/10.1016/j.socscimed.2013.09.004>
- Bergh, J. (2007). Gender attitudes and modernization processes. *International Journal of Public Opinion Research*, 19(1), 5–23.
- Black, A., & Brooke, S. (1997). The Labour Party, Women, and the Problem of Gender, 1951-1966. *Journal of British Studies*, 36(4), 419. <http://doi.org/10.1086/386144>
- Bolzendahl, C. I., & Myers, D. J. (2004). Feminist attitudes and support for gender equality: Opinion change in women and men, 1974–1998. *Social Forces*, 83, 759–790.
- Bosanquet, N. (1984). Social Policy and the Welfare State. In R. Jowell & C. Airey (Eds.), *British Social Attitudes: 1984 Report* (pp. 75–98). London: Gower Publishing Company.
- Box-Steffensmeier, J. M., De Boef, S., & Lin, T.-M. (1997). Macroideology, macropartisanship, and the gender gap. *Paper Prepared for the 1997 Annual Meeting of the American Political Science Association, Washington, D.C.* Retrieved from <http://www.polmeth.wustl.edu/media/Paper/boxst97c.pdf>
- Box-Steffensmeier, J. M., De Boef, S., & Lin, T.-M. (2004). The Dynamics of the Partisan Gender Gap. *American Political Science Review*, 98(3), 515–528.
<http://doi.org/10.1017/S0003055404001315>
- Brambor, T., Clark, W. R., & Golder, M. (2006). Understanding interaction models:

Improving empirical analyses. *Political Analysis*, 14(1), 63–82.

<http://doi.org/10.1093/pan/mpi014>

Brauer, C. M. (1982). Kennedy, Johnson, and the War on Poverty. *The Journal of American History*, 69(1), 98–119.

Braun, M. (1998). Gender Roles. In J. W. Van Deth (Ed.), *Comparative Politics: The Problem of Equivalence* (pp. 111–135). London: Routledge.

Braun, M., & Scott, J. (2009). Gender-role egalitarianism—is the trend reversal real? *International Journal of Public Opinion Research*, 21(3).

Braun, M., Scott, J., & Alwin, D. F. (1994). Economic necessity or self-actualization? Attitudes toward women's labour-force participation in East and West Germany. *European Sociological Review*, 10(1), 29–47.

Brewster, K. L., & Padavic, I. (2000). Change in gender ideology, 1977–1996: The contributions of intracohort change and population turnover. *Journal of Marriage and Family*, 62(2), 477–487.

Brooks, C., & Bolzendahl, C. (2004). The transformation of US gender role attitudes: cohort replacement, social-structural change, and ideological learning. *Social Science Research*, 33(1), 106–133. [http://doi.org/10.1016/S0049-089X\(03\)00041-3](http://doi.org/10.1016/S0049-089X(03)00041-3)

Butler, D., & Stokes, D. E. (1974). *Political change in Britain: the evolution of electoral choice*. London: Macmillan.

Campbell, A., Converse, P. E., Miller, W. E., & Stokes, D. E. (1960). *The American Voter*. Chicago: University Of Chicago Press.

- Campbell, B. (2015). Margaret Thatcher: To be or not to be a woman. *British Politics*, 10(1), 41–51. <http://doi.org/10.1057/bp.2014.27>
- Campbell, R. (2006). *Gender and the Vote in Britain: Beyond the Gender Gap?* Colchester: ECPR Press.
- Campbell, R. (2012). What Do We Really Know about Women Voters? Gender, Elections and Public Opinion. *The Political Quarterly*.
- Campbell, R. (2016). Representing women voters: The role of the gender gap and the response of political parties. *Party Politics*. <http://doi.org/10.1177/1354068816655565>
- Campbell, R., & Childs, S. (2015). All Aboard the Pink Battle Bus? Women Voters, Women's Issues, Candidates and Party Leaders. *Parliamentary Affairs*, 68(3), 206–223.
- Campbell, R., Childs, S., & Lovenduski, J. (2010). Do Women Need Women Representatives? *British Journal of Political Science*, 40(1), 171. <http://doi.org/10.1017/S0007123409990408>
- Carroll, S. J. (1988). Women's autonomy and the gender gap: 1980 and 1982. In C. M. Mueller (Ed.), *The Politics of the Gender Gap: The Social Construction of Political Influence* (pp. 236–257). Beverley Hills, CA: Sage.
- Chaney, C. K., Alvarez, R. M., & Nagler, J. (1998). Explaining the Gender Gap in US Presidential Elections, 1980-1992. *Political Research Quarterly*, 51(2), 311–339.
- Ciabattari, T. (2001). Changes in Men's Conservative Gender Ideologies: Cohort and Period Influences. *Gender & Society*, 15(4), 574–591.

- Clarke, J. (2001). US Welfare: Variations on the Liberal Regime. In A. Cochrane, J. Clarke, & S. Gewirtz (Eds.), *Comparing Welfare States* (2nd ed., pp. 114–153). London: Sage.
- Clarke, J., Langan, M., & Williams, F. (2001a). Remaking welfare: The British Welfare Regime in the 1980s and 1990s. In A. Cochrane, J. Clarke, & S. Gewirtz (Eds.), *Comparing Welfare States* (2nd ed., pp. 72–105). London: Sage.
- Clarke, J., Langan, M., & Williams, F. (2001b). The Construction of the British Welfare State. In A. Cochrane, J. Clarke, & S. Gewirtz (Eds.), *Comparing Welfare States* (2nd ed., pp. 30–68). London: Sage.
- Coffé, H., & Bolzendahl, C. (2010). Same game, different rules? gender differences in political participation. *Sex Roles*, 62, 318–333. <http://doi.org/10.1007/s11199-009-9729-y>
- Conover, P. J. (1988). Feminists and the Gender Gap. *The Journal of Politics*, 50(4), 985–1010. <http://doi.org/10.2307/2131388>
- Converse, P. E. (1974). *The dynamics of party support: Cohort-analyzing party identification*. Beverley Hills, CA: Sage Publications.
- Cotter, D., Hermesen, J. M., & Vanneman, R. (2011). The end of the gender revolution? Gender role attitudes from 1977 to 2008. *American Journal of Sociology*, 117(1), 259–89.
- Crompton, R., & Harris, F. (1997). Women's employment and gender attitudes: A comparative analysis of Britain, Norway and the Czech Republic. *Acta Sociologica*, 40(2), 183–202.

- Curtice, J., & Fisher, S. (2003). The power to persuade? A tale of two Prime Ministers. In A. Park, J. Curtice, K. Thomson, L. Jarvis, & C. Bromley (Eds.), *British Social Attitudes: The 20th Report* (pp. 233–245). London: Sage.
- Dahlerup, D. (1986). Introduction. In D. Dahlerup (Ed.), *The New Women's Movement: Feminism and Political Power in Europe and the USA* (pp. 1–26). London: SAGE Publications.
- Dalton, R. J., Beck, P. A., & Flanagan, S. C. (1984). Electoral Change in Advanced Industrial Democracies. In R. J. Dalton, S. C. Flanagan, & P. A. Beck (Eds.), *Electoral Change in Advanced Industrial Democracies: Realignment or Dealignment?* (pp. 3–25). Princeton: Princeton University Press.
- Davis, J. (1992). Changeable Weather in a Cooling Climate Atop the Liberal Plateau: Conversion and Replacement in Forty-Two General Social Survey Items, 1972-1989. *Public Opinion Quarterly*, 56(3), 261–306. <http://doi.org/10.1086/269322>
- De Vaus, D., & McAllister, I. (1989). The changing politics of women: Gender and political alignment in 11 nations. *European Journal of Political Research*, 17(3), 241–262.
- de Vries, C. E., Hakhverdian, A., & Lancee, B. (2013). The Dynamics of Voters' Left/Right Identification: The Role of Economic and Cultural Attitudes. *Political Science Research and Methods*, 1(2), 223–238. <http://doi.org/10.1017/psrm.2013.4>
- Dolan, K. (2011). Do Women and Men Know Different Things? Measuring Gender Differences in Political Knowledge. *The Journal of Politics*, 73(1), 97–107. <http://doi.org/10.1017/S0022381610000897>

- Doring, H., & Manow, P. (2010). ParlGov 10/11 Fall 2010 Release. Retrieved from <http://hdl.handle.net/EUDODCTEST/10029>
- Dorius, S. F., & Alwin, D. F. (2011). The Global Development of Egalitarian Beliefs — A Decomposition of Trends in the Nature and Structure of Gender Ideology. *Population Studies Center Research Report No 10-723*.
- Duverger, M. (1955). *The political role of women*. Paris: UNESCO.
- Edlund, J., & Svallfors, S. (2012). Cohort, class and attitudes to redistribution in two liberal welfare states: Britain and the United States, 1996-2006. In *Ageing Populations in Post-Industrial Democracies: Comparative studies of policies and politics* (pp. 206–225). Oxford: Routledge.
- Edlund, L., & Pande, R. (2002). Why have women become left-wing? The political gender gap and the decline in marriage. *Quarterly Journal of Economics*, 117(3), 917–961.
- Einhorn, B. (1991). Where have all the women gone? Women and the women's movement in East Central Europe. *Feminist Review*, (39), 16–36.
- Emmenegger, P., & Manow, P. (2014). Religion and the Gender Vote Gap: Women's Changed Political Preferences from the 1970s to 2010. *Politics & Society*, 42(2), 166–193. <http://doi.org/10.1177/0032329213519419>
- Erickson, L., & O'Neill, B. (2002). The Gender Gap and the Changing Woman Voter in Canada. *International Political Science Review*, 23(4), 373–392. <http://doi.org/10.1177/0192512102023004003>
- Erie, S. P., & Rein, M. (1988). Women and the Welfare State. In C. M. Mueller (Ed.), *The*

- Politics of the Gender Gap: The Social Construction of Political Influence* (pp. 173–91). London: Sage Publications.
- Evans, E. (2015). *The Politics of Third Wave Feminisms: Neoliberalism, Intersectionality, and the State in Britain and the US*. Basingstoke: Palgrave.
- Feather, N. T. (1977). Value importance, conservatism, and age. *European Journal of Social Psychology*, 7(2), 357–361.
- Francis, M. (2000). Labour and gender. In D. Tanner, P. Thane, & N. Tiratsoo (Eds.), *Labour's first century*. Cambridge: Cambridge University Press.
- Franklin, M. (1992). The decline of cleavage politics. In M. Franklin, T. Mackie, & H. Valen (Eds.), *Electoral change: responses to evolving social and attitudinal structures in western countries* (pp. 381–403). Colchester: ECPR Press.
- Frazer, E., & Macdonald, K. (2003). Sex Differences in Political Knowledge in Britain. *Political Studies*, 51, 67–83.
- Freire, A. (2006). Bringing Social Identities Back In: The Social Anchors of Left-Right Orientation in Western Europe. *International Political Science Review/ Revue Internationale de Science Politique*, 27(4), 359–378.
<http://doi.org/10.1177/0192512106067358>
- Fullerton, A. S., & Dixon, J. C. (2010). Generational conflict or methodological artifact? Reconsidering the relationship between age and policy attitudes in the U.S., 1984-2008. *Public Opinion Quarterly*, 74(4), 643–673. <http://doi.org/10.1093/poq/nfq043>
- Gamble, A. (2015). The Thatcher myth. *British Politics*, 10(1, SI), 3–15.

<http://doi.org/10.1057/bp.2014.20>

Genz, S. (2006). Third Way/ve: The politics of postfeminism. *Feminist Theory*, 7(3), 333–353. <http://doi.org/10.1177/1464700106069040>

Gerson, K. (1987). Emerging Social Divisions Among Women: Implications for Welfare State Politics. *Politics & Society*, 15(2), 213–221.
<http://doi.org/10.1177/003232928701500207>

Ghitza, Y., & Gelman, A. (2014). The Great Society, Reagan's Revolution, and Generations of Presidential Voting. Retrieved from
http://www.stat.columbia.edu/~gelman/research/unpublished/cohort_voting_20140605.pdf

Gidengil, E. (2007). Beyond the Gender Gap. *Canadian Journal of Political Science/Revue Canadienne de Science Politique*, 40(4), 815–831.

Gidengil, E., Hennigar, M., Blais, A., & Nevitte, N. (2005). Explaining The Gender Gap in Support for the New Right: The Case of Canada. *Comparative Political Studies*, 38(10), 1171–1195. <http://doi.org/10.1177/0010414005279320>

Giger, N. (2009). Towards a modern gender gap in Europe? *The Social Science Journal*, 46(3), 474–492. <http://doi.org/10.1016/j.soscij.2009.03.002>

Gilligan, C. (1982). *In a Different Voice: Psychological Theory and Women's Development*. Cambridge: Harvard University Press.

Gillis, S., Howie, G., & Munford, R. (2007). Introduction. In S. Gillis, G. Howie, & R. Munford (Eds.), *Third Wave Feminism: A Critical Exploration* (2nd ed.). Basingstoke:

Palgrave Macmillan.

Goerres, A. (2008). The grey vote: Determinants of older voters' party choice in Britain and West Germany. *Electoral Studies*, 27(2), 285–304.

<http://doi.org/10.1016/j.electstud.2007.12.007>

Grasso, M. T. (2014). Age, period and cohort analysis in a comparative context: Political generations and political participation repertoires in Western Europe. *Electoral Studies*, 33, 63–76. <http://doi.org/10.1016/j.electstud.2013.06.003>

Grasso, M. T. (2016). *Generations, Political Participation and Social Change in Western Europe*. London: Routledge.

Grasso, M. T., Farrall, S., Gray, E., Hay, C., & Jennings, W. (2017). Thatcher's Children, Blair's Babies, Political Socialization and Trickle-down Value Change: An Age, Period and Cohort Analysis. *British Journal of Political Science*, 1–20.

<http://doi.org/10.1017/S0007123416000375>

Haller, M., & Hoellinger, F. (1994). Female Employment and the Change of Gender Roles: the Conflictual Relationship Between Participation and Attitudes in International Comparison. *International Sociology*, 9(1), 87–112.

<http://doi.org/10.1177/026858094009001006>

Harsgor, L. (2015). The Transformation of the Electoral Gender Gap: the Role of Generational Replacement. Presented at the 4th European Conference on Politics and Gender, Uppsala, June 2015.

Hayes, B. C. (1995). The Impact of Religious Identification on Political Attitudes: An

- International Comparison. *Sociology of Religion*, 2(56), 177–194.
- Hayes, B. C., McAllister, I., & Studlar, D. T. (2000). Gender, Postmaterialism, and Feminism in Comparative Perspective. *International Political Science Review*, 21(4), 425–439. <http://doi.org/10.1177/0192512100214006>
- Heath, A., Jowell, R., & Curtice, J. (1985). *How Britain Votes*. Oxford: Pergamon Press.
- Hickson, K. (2004). The Postwar Consensus Revisited. *Political Quarterly*, 75(2). <http://doi.org/10.1111/j.1467-923X.2004.00597.x>
- Howell, S. E., & Day, C. L. (2000). Complexities of the gender gap. *Journal of Politics*, 62(3), 858–874.
- Huddy, L., Cassese, E., & Lizotte, M. (2008). Sources of Political Unity and Disunity among Women: Placing the Gender Gap in Perspective. In L. Whitaker (Ed.), *Voting the Gender Gap*. Chicago: University of Illinois.
- Inglehart, R. (1990). *Culture Shift in Advanced Industrial Society*. Princeton: Princeton University Press.
- Inglehart, R. (1997). *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*. Princeton: Princeton University Press.
- Inglehart, R. (2008). Changing Values among Western Publics from 1970 to 2006. *West European Politics*, 31(1–2), 130–146. <http://doi.org/10.1080/01402380701834747>
- Inglehart, R., & Klingemann, H. D. (1976). Party Identification, Ideological Preference and the Left-Right Dimension among Western Mass Publics. In I. Budge, I. Crewe, & D.

- Farlie (Eds.), *Party Identification and Beyond: Representations of Voting and Party Competition* (pp. 243–273). London: John Wiley & Sons.
- Inglehart, R., & Norris, P. (2000). The developmental theory of the gender gap: Women's and men's voting behavior in global perspective. *International Political Science Review*, 21(4), 441–463.
- Inglehart, R., & Norris, P. (2003). *Rising Tide: Gender Equality and Cultural Change Around the World*. Cambridge: Cambridge University Press.
- Iversen, T., & Rosenbluth, F. (2006). The Political Economy of Gender: Explaining Cross-National Variation in the Gender Division of Labor and the Gender Voting Gap. *American Journal of Political Science*, 50(1), 1–19.
- Jennings, M. K. (1989). The Crystallization of Orientations. In M. K. Jennings & J. van Deth (Eds.), *Continuities in political action: a longitudinal study of political orientations in three western democracies* (pp. 313–348). Berlin: Walter de Gruyter.
- Jennings, M. K., & Niemi, R. G. (1981). *Generations and Politics: A Panel Study of Young Adults and Their Parents*. Princeton University Press.
- Jessop, B. (2015). Margaret Thatcher and Thatcherism: Dead but not buried. *British Politics*, 10(1), 16–30. <http://doi.org/10.1057/bp.2014.22>
- Kaplan, G. (1992). *Contemporary Western European Feminism*. New York: New York University Press.
- Kaufmann, K. M. (2002). Culture wars, secular realignment, and the gender gap in party identification. *Political Behavior*, 24(3), 283–307.

- Kaufmann, K. M., & Petrocik, J. R. (1999). The changing politics of American men: Understanding the sources of the gender gap. *American Journal of Political Science*, 43(3), 864–887.
- Kellstedt, P. M., Peterson, D. A. M., & Ramirez, M. D. (2010). The Macro Politics of a Gender Gap. *Public Opinion Quarterly*, 74(3), 477–498.
<http://doi.org/10.1093/poq/nfq003>
- Knutsen, O. (1995). Value orientations, political conflicts and left-right identification: A comparative study. *European Journal of Political Research*, 28(1), 63–93.
<http://doi.org/10.1111/j.1475-6765.1995.tb00487.x>
- Kroska, A., & Elman, C. (2009). Change in attitudes about employed mothers: Exposure, interests, and gender ideology discrepancies. *Social Science Research*, 38(2), 366–382.
<http://doi.org/10.1016/j.ssresearch.2008.12.004>
- Krosnick, J. A., & Alwin, D. F. (1989). Aging and susceptibility to attitude change. *Journal of Personality and Social Psychology*, 57(3), 416–25.
- Lawless, J. L. (2004). Politics of Presence? Congresswomen and Symbolic Representation. *Political Research Quarterly*, 57(1), 81–99.
<http://doi.org/10.1177/106591290405700107>
- Lee, K. D., Alwin, D. F., & Tufis, P. A. (2007). Beliefs about Women's Labour in the Reunified Germany, 1991–2004. *European Sociological Review*, 23(4), 487–503.
<http://doi.org/10.1093/esr/jcm015>
- Lewis, J. (1992). *Women in Britain since 1945*. Oxford: Blackwell.

- Lizotte, M.-K., & Sidman, A. H. (2009). Explaining the Gender Gap in Political Knowledge. *Politics & Gender*, 5(2), 127. <http://doi.org/10.1017/S1743923X09000130>
- Lobodzinska, B. (1996). Women's Employment or Return to "Family Values" in Central-Eastern Europe. *Journal of Comparative Family Studies*, 27(3).
- Lovenduski, J. (1986). *Women and European Politics: Contemporary Feminism and Public Policy*. Univ of Massachusetts Press.
- Lovenduski, J. (1996). Sex, Gender and British Politics. *Parliamentary Affairs*, 49(1), 1–16. <http://doi.org/10.1093/oxfordjournals.pa.a028660>
- Lovenduski, J., Norris, P., & Burness, C. (1994). The Party and Women. In A. Seldon & S. Ball (Eds.), *Conservative Century: The Conservative Party since 1900* (pp. 611–636). Oxford: Oxford University Press.
- Lupfer, M. B., & Rosenberg, J. P. (1983). Differences in adults' political orientations as a function of age. *The Journal of Social Psychology*.
- Mackie, T., & Franklin, M. (1992). Electoral change and social change. In M. Franklin, T. Mackie, & H. Valen (Eds.), *Electoral change: responses to evolving social and attitudinal structures in western countries* (2009 editi, pp. 43–69). Colchester: ECPR Press.
- Maguire, G. E. (1998). *Conservative Women: A History of Women and the Conservative Party, 1874-1997*. Basingstoke: Macmillan.
- Mair, P. (2007). Left-Right Orientations. In R. J. Dalton & H.-D. Klingemann (Eds.), *The Oxford Handbook of Political Behaviour*. Oxford: Oxford University Press.

- Mannheim, K. (1968). The problem of generations. In P. Kecskemeti (Ed.), *Essays on the Sociology of Knowledge* (pp. 276–321). London: Routledge & K. Paul.
- Mansbridge, J. (1999). Should Blacks Represent Blacks and Women Represent Women? A Contingent “Yes.” *The Journal of Politics*, 61(3), 628. <http://doi.org/10.2307/2647821>
- Manza, J., & Brooks, C. (1998). The Gender Gap in US Presidential Elections: When? Why? Implications? *American Journal of Sociology*, 103(5), 1235–1266.
- Manza, J., & Brooks, C. (1999). Chapter 5: Gender. In *Social Cleavages and Political Change: Voter Alignments and US Party Coalitions*. Oxford: Oxford University Press.
- Markus, G. B. (1979). The political environment and the dynamics of public attitudes: A panel study. *American Journal of Political Science*, 23(2), 338–359.
- Mason, K. O., & Lu, Y.-H. (1988). Attitudes toward women’s familial roles: Changes in the United States, 1977-1985. *Gender & Society*, 2(1), 39–57.
- Mason, K. O., Mason, W. M., Winsborough, H. H., & Poole, W. K. (1973). Some methodological issues in cohort analysis of archival data. *American Sociological Review*, 38(2), 242–258.
- Mayer, L. C., & Smith, R. E. (1985). Feminism and religiosity: Female electoral behaviour in Western Europe. *West European Politics*, 8(4), 38–49.
- Mayer, W. G. (1992). *The Changing American Mind: How and Why American Public Opinion Changed between 1960 and 1988*. Ann Arbor: University of Michigan Press.
- Mondak, J. J., & Anderson, M. R. (2004). The Knowledge Gap: A Reexamination of

Gender-Based Differences in Political Knowledge. *The Journal of Politics*, 66(2), 492–512.

Neundorf, A. (2010). Democracy in Transition: A Micro perspective on System Change in Post-Socialist Societies. *The Journal of Politics*, 72(4), 1096–1108.
<http://doi.org/10.1017/S0022381610000551>

Neundorf, A., & Niemi, R. G. (2014). Beyond political socialization: New approaches to age, period, cohort analysis. *Electoral Studies*, 33, 1–6.
<http://doi.org/10.1016/j.electstud.2013.06.012>

Norris, P. (1988). The Gender-Gap: A Cross-National Trend? In C. Mueller (Ed.), *The Politics of the Gender Gap: The Social Construction of Political Influence* (pp. 192–217). Beverley Hills, CA: SAGE Publications.

Norris, P. (1996). Mobilising the “women”s vote’: the gender-generation gap in voting behaviour. *Parliamentary Affairs*. Retrieved from
<http://pa.oxfordjournals.org/content/49/2/333.short>

Norris, P. (1999). Gender: A Gender Generation Gap? In G. Evans & P. Norris (Eds.), *Critical Elections: British Parties and Voters in Long-term Perspective* (pp. 148–164). London: SAGE Publications.

Norris, P., Lovenduski, J., & Campbell, R. (2004). *Gender and political participation. The Electoral Commission Research Report, April.*

Oakley, A. (1997). A Brief History of Gender. In A. Oakley & J. Mitchell (Eds.), *Who’s Afraid of Feminism?* (pp. 29–56). London: Hamish Hamilton.

- Oakley, A., & Mitchell, J. (1997a). Introduction. In A. Oakley & J. Mitchell (Eds.), *Who's Afraid of Feminism? Seeing through the Backlash* (pp. 1–13). London: Hamish Hamilton.
- Oakley, A., & Mitchell, J. (1997b). *Who's Afraid of Feminism?: Seeing Through the Backlash*. New Press.
- Page, B. I., & Shapiro, R. Y. (1992). *The Rational Public: Fifty Years of Trends in American Policy Preferences*. Chicago: University of Chicago Press.
- Pampel, F. (2011). Cohort change, diffusion, and support for gender egalitarianism in cross-national perspective. *Demographic Research*, 25, 667–694.
<http://doi.org/10.4054/DemRes.2011.25.21>
- Panayotova, E., & Brayfield, A. (1997). National Context and Gender Ideology: Attitudes toward Women's Employment in Hungary and the United States. *Gender & Society*, 11(5), 627–655.
- Pateman, C. (2014). The Patriarchal Welfare State. In C. Pierson, F. Castles, & I. Naumann (Eds.), *The Welfare State Reader* (3rd ed., pp. 102–119). Cambridge.
- Peltola, P., Milkie, M. A., & Presser, S. (2004). The “Feminist” Mystique Feminist Identity in Three Generations of Women. *Gender & Society*, 18(1), 122–144.
- Perrigo, S. (1999). Women, Gender, and New Labour. In G. R. Taylor (Ed.), *The Impact of New Labour* (pp. 162–177). Basingstoke: Macmillan.
- Phelan, J., Link, B. G., Stueve, A., & Moore, R. E. (1995). Education, Social Liberalism, and Economic Conservatism: Attitudes Toward Homeless People. *American Sociological*

Review, 60(1), 126. <http://doi.org/10.2307/2096349>

Phillips, A. (1995). *The Politics of Presence*. Oxford: Oxford University Press.

Pop-Eleches, G., & Tucker, J. A. (2014). Communist socialization and post-communist economic and political attitudes. *Electoral Studies*, 33, 77–89.
<http://doi.org/10.1016/j.electstud.2013.06.008>

Randall, V. (1987). *Women and Politics: An International Perspective*. Chicago: University of Chicago Press.

Reither, E. N., Land, K. C., Jeon, S. Y., Powers, D. A., Masters, R. K., Zheng, H., ... Claire Yang, Y. (2015). Clarifying hierarchical age-period-cohort models: A rejoinder to Bell and Jones. *Social Science and Medicine*, 145, 125–128.
<http://doi.org/10.1016/j.socscimed.2015.07.013>

Reither, E. N., Masters, R. K., Yang, Y. C., Powers, D. A., Zheng, H., & Land, K. C. (2015). Should age-period-cohort studies return to the methodologies of the 1970s? *Social Science and Medicine*, 128, 356–365. <http://doi.org/10.1016/j.socscimed.2015.01.011>

Rekker, R. (2016). The lasting impact of adolescence on left-right identification: Cohort replacement and intracohort change in associations with issue attitudes. *Electoral Studies*, 44, 120–131. <http://doi.org/10.1016/j.electstud.2016.06.016>

Rose, R., & McAllister, I. (1986). *Voters Begin to Choose: From Closed-Class to Open Elections in Britain*. London: SAGE Publications.

Russell, A. . T., Johnston, R. J., & Pattie, C. J. (1992). Thatcher's children: exploring the links between age and political attitudes. *Political Studies*, 40(4), 742–756.

- Sapiro, V. (1990). The Gender Basis of American Social Policy. In L. Gordon (Ed.), *Women, the State, and Welfare*. Madison: The University of Wisconsin Press.
- Schlozman, K. L., Burns, N., & Verba, S. (1999). "What Happened at Work Today?": A Multistage Model of Gender, Employment, and Political Participation. *The Journal of Politics*, 61(1), 29. <http://doi.org/10.2307/2647774>
- Schneider, S. K., & Jacoby, W. G. (2005). Elite Discourse and American Public Opinion: The Case of Welfare Spending. *Political Research Quarterly*, 58(3), 367–379.
- Schnittker, J., Freese, J., & Powell, B. (2003). Who are feminists and what do they believe? The role of generations. *American Sociological Review*, 68(4), 607–622.
- Schuman, H., & Corning, A. (2011). Generational Memory and the Critical Period: Evidence for National and World Events. *Public Opinion Quarterly*, 76(1), 1–31.
<http://doi.org/10.1093/poq/nfr037>
- Scott, J. (2008). Changing gender role attitudes. In J. Scott, S. Dex, & H. Joshi (Eds.), *Women and Employment: Changing Lives and New Challenges* (pp. 156–176). Cheltenham: Edward Elgar.
- Scott, J., Alwin, D. F., & Braun, M. (1996). Generational Changes in Gender-Role Attitudes: Britain in a Cross-National Perspective. *Sociology*, 30(3), 471–492.
<http://doi.org/10.1177/0038038596030003004>
- Sears, D. O., & Funk, C. L. (1999). Evidence of the Long-Term Persistence of Adults' Political Predispositions. *The Journal of Politics*, 61(1), 1.
<http://doi.org/10.2307/2647773>

- Sefton, T. (2009). Moving in the right direction? Public attitudes to poverty, inequality, and redistribution. In J. Hills, T. Sefton, & K. Stewart (Eds.), *Towards a more equal society? Poverty, inequality, and policy since 1997*. Oxford: Oxford University Press.
- Shapiro, R. Y., & Mahajan, H. (1986). Gender Differences in Policy Preferences: A Summary of Trends from the 1960s to the 1980s. *Public Opinion Quarterly*.
- Shorrocks, R. (2016). Modernisation and government socialisation: Considering explanations for gender differences in cohort trends in British voting behaviour. *Electoral Studies*, 42, 237–248. <http://doi.org/10.1016/j.electstud.2016.03.004>
- Short, C. (1996). Women and the Labour Party. *Parliamentary Affairs*, 49(1), 17–25.
- Smets, K., & Neundorff, A. (2012). *The Making of Political Generations : Party Preferences and National Governments across Western Democracies*. Oxford: Nuffield's Working Papers Series in Politics.
- Smith, M. J. (2015). From consensus to conflict: Thatcher and the transformation of politics. *British Politics*, 10(1), 64–78. <http://doi.org/10.1057/bp.2014.25>
- Taylor-Gooby, P. (1987). Citizenship and Welfare. In R. Jowell, S. Witherspoon, & B. Lindsay (Eds.), *British Social Attitudes: the 1987 Report* (pp. 1–18). London: Gower Publishing Company.
- Taylor-Gooby, P. (1988). The Future of the British Welfare State: Public Attitudes, Citizenship and Social Policy under the Conservative governments of the 1980s. *European Sociological Review*, 4(1), 1–19.
- Thorburn, P. (1977). Political Generations: The Case of Class and Party in Britain. *European*

Journal of Political Research, 5, 135–148.

Tilley, J. (2002). Political generations and partisanship in the UK, 1964–1997. *Journal of the Royal Statistical Society. Series A (Statistics in Society)*, 165(1), 121–135.

Tilley, J., & Evans, G. (2014). Ageing and generational effects on vote choice: Combining cross-sectional and panel data to estimate APC effects. *Electoral Studies*, 33, 19–27.
<http://doi.org/10.1016/j.electstud.2013.06.007>

Togeby, L. (1994). Political implications of increasing numbers of women in the labor force. *Comparative Political Studies*, 27(2), 211–240.

Truett, K. R. (1993). Age differences in conservatism. *Personality and Individual Differences*, 14(3), 405–411. [http://doi.org/10.1016/0191-8869\(93\)90309-Q](http://doi.org/10.1016/0191-8869(93)90309-Q)

Trzebiatowska, M., & Bruce, S. (2012). *Why are Women more Religious than Men?* Oxford: OUP.

van der Brug, W. (2010). Structural and Ideological Voting in Age Cohorts. *West European Politics*, 33(3), 586–607. <http://doi.org/10.1080/01402381003654593>

van Egmond, M., Baxter, J., Buchler, S., & Western, M. (2010). A stalled revolution? Gender role attitudes in Australia, 1986-2005. *Journal of Population Research*, 27(3), 147–168.

Verba, S., Burns, N., & Schlozman, K. L. (1997). Knowing and Caring about Politics: Gender and Political Engagement. *The Journal of Politics*, 59(4), 1051–72.

Voas, D., McAndrew, S., & Storm, I. (2013). Modernization and the gender gap in

- religiosity: Evidence from cross-national European surveys. *Kölner Zeitschrift Für Soziologie Und Sozialpsychologie*, 65(S1), 259–283. <http://doi.org/10.1007/s11577-013-0226-5>
- Voicu, M., & Tufis, P. A. (2012). Trends in gender beliefs in Romania: 1993–2008. *Current Sociology*, 60(1), 61–80. <http://doi.org/10.1177/0011392111426648>
- Wall, W. (2008). *Inventing the “American Way”: The Politics of Consensus from the New Deal to the Civil Rights Movement*. Oxford: Oxford University Press.
- Welch, S., & Hibbing, J. (1992). Financial Conditions, Gender, and Voting in American National Elections. *The Journal of Politics*, 54(1), 197. <http://doi.org/10.2307/2131650>
- Wlezien, C. (1995). The Public as Thermostat : Dynamics of Preferences for Spending. *American Journal of Political Science*, 39(4), 981–1000.
- Wlezien, C. (2004). Patterns of Representation: Dynamics of Public Preferences and Policy. *Journal of Politics*, 66(1), 1–24. <http://doi.org/10.1046/j.1468-2508.2004.00139.x>
- Wolak, J., & McDevitt, M. (2011). The Roots of the Gender Gap in Political Knowledge in Adolescence. *Political Behavior*, 33(3), 505–533. <http://doi.org/10.1007/sl>
- Wood, S. N. (2006). *Generalized Additive Models: An Introduction with R*. Boca Raton: Chapman & Hall/CRC.
- Yang, Y., & Land, K. C. (2006). A mixed models approach to the age-period-cohort analysis of repeated cross-section surveys, with an application to data on trends in verbal test scores. *Sociological Methodology*, 36(2006), 75–97.

Bibliography

- Yang, Y., & Land, K. C. (2008). Age-Period-Cohort Analysis of Repeated Cross-Section Surveys: Fixed or Random Effects? *Sociological Methods & Research*, 36(3), 297–326.
<http://doi.org/10.1177/0049124106292360>