

London School of Economics and Political Science

How British citizens think about the relationship between social identity, party identity, and vote

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Economics and Political Science for the degree of Doctor of Philosophy

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Abstract

Why do citizens vote the way they do? One of the constructs that appears in several of the answers to this question is that of "party identity". The close connection between attitudes towards parties (partisanship) and the behavior of vote choice is one of the most robust features of the study of democratic politics. In this thesis I examine some of the building blocks of the main perspectives on party identity and its links to vote choice. The first empirical paper of this thesis measures how accurate citizens are in their perception of the "prototypical supporter" of parties and EU referendum alternatives in Great Britain. This paper provides a direct comparison of the "images" of party supporters that citizens have in their heads and the actual composition of party support. I find that the relationship between party images and social groups is, on average, fairly accurate. However, there is substantial variation in the precision of these images and low levels of attention to politics are associated with less accuracy. The second paper measures the perception of political commonality across a variety of social demographic attributes. This allows me to disentangle the relative importance of different social identities for how citizens perceive political commonality with their fellow citizens in Great Britain. I find evidence of the importance of ethnicity, especially among Conservative and Leave voters. The third paper tests the relevance of policy vote in comparison to party labels. This paper studies the relevance of party labels and their interaction with candidates' policy position and how it varies for different sections of the electorate. I find that, while party labels have a significant and substantive effect for sections of the electorate, many voters behave in similar ways with or without explicit party labels. In sum, the results show the complexity involved in citizens' decision on how to vote, which differs from simplistic narratives. The results also show how more complex measurement strategies involving survey experiments can help in disentangling the complexity of this choice.

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Declaration

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science (LSE) is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it). The copyright of this thesis rests with the author.

Quotation from it is permitted, provided that full acknowledgement is made. This thesis may not be reproduced without my prior written consent. I warrant that this authorisation does not, to the best of my belief, infringe the rights of any third party. I declare that my thesis consists of 45,470 words.

This is a paper-based thesis. Chapter 1 introduces the research puzzle and main conceptual constructs the thesis addresses. Chapter 2 presents an overview of the conceptual and empirical elements in the thesis. Chapters 3, 4, and 5 are meant to stand alone as publishable papers. The paper in Chapter 3 is co-authored with Prof. Benjamin Lauderdale and has already been published in the *Political Science Research and Methods* journal. The paper in Chapter 4 is single-authored and has been accepted in the *British Journal of Political Science*. The paper in Chapter 5 is co-authored with Prof. Benjamin Lauderdale and we are aiming at submitting it to a journal soon. The three paper chapters include appendices with descriptive information and some robustness checks.

I confirm that Chapter 3 was jointly co-authored with Professor Benjamin Lauderdale and that I contributed 70% of this work. I also confirm that Chapter 5 was jointly co-authored with Professor Lauderdale and that I contributed 80% of this work. Chapter 4 was single-authored by myself, as were chapters 1, 2, and 6.

I can confirm that my thesis was copy edited for conventions of language, spelling and grammar by the LSE's Language Centre proof-reading services.

Chapter 1

Introduction

Why do citizens vote the way they do? This question is the basis of several theoretical and empirical debates in political science. One of the constructs that appears in several of the answers to this question is that of “party identity”. The close connection between attitudes towards parties (partisanship) and the behaviour of vote choice is one of the most robust features of the study of democratic politics. Two possible reasons a candidate’s party affiliation might be relevant to voters are that citizens have an affective attachment to a party (e.g. A. Campbell et al., 1960) or that party affiliation works as a heuristic that provides a proxy for a candidate’s policy positions (e.g. Fiorina, 2002). While few would deny the existence of party identity, the exact nature of this attitudinal variable, its origins, and effect on vote choice are far from being free of controversy.

In this thesis I examine some of the building blocks of the affective attachment version of party identity, specifically in its social identity version (e.g. D. P. Green et al., 2004). I also develop experimental strategies to translate the components that underlie party identity into quantifiable measures. Concretely, I carry out two experiments that allow for a better understanding of party images and the politicization of social identities. It is in the interaction of these two elements that the social identity perspective sees the emergence of party identification.

Additionally, I generate a third experimental measurement strategy to better

understand the relative weight of both affective and instrumental aspects present in the way party labels affect vote choice. In other words, rather than adjudicating between the two main perspectives of party identity and their relation to vote choice, I present a method by which this debate can be translated into empirical measurements. This allows us to better understand for which sections of the electorate party labels affect vote choice and how this effect interacts with policy preferences.

Figure 1.1 presents graphically the different components of the puzzle tackled by this thesis. The figure shows the affective perspective of party identity, in its social identity version, as a product of the interaction between social identities in the population and party images of prototypical party supporters. It also shows the instrumental perspective of party identity as a product of the interaction between citizens' policy preferences and the positions parties and candidates take on these issues. Finally, both perspectives of party identity can claim an effect on the behaviour of vote choice, through candidates' party labels, which work as informational cues.

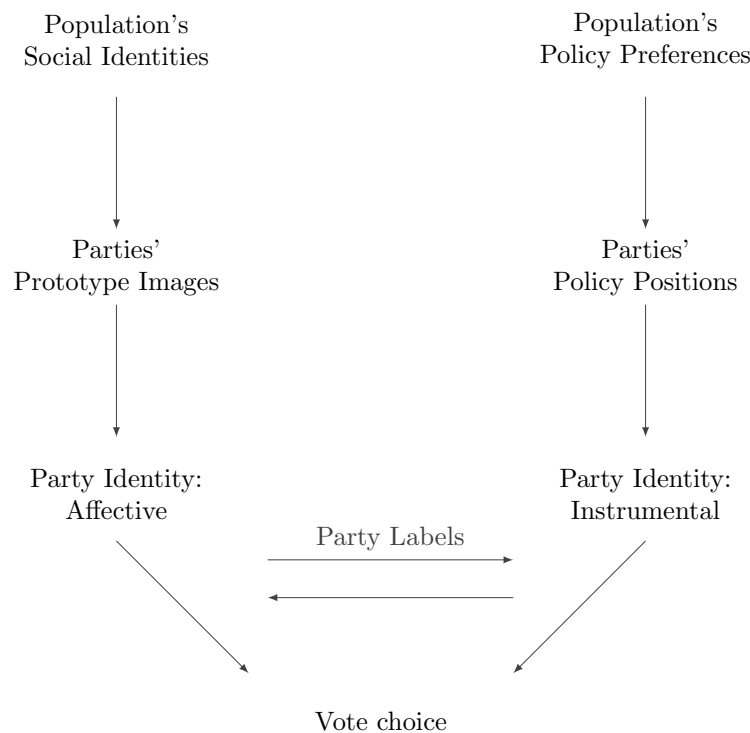


Figure 1.1: Conceptual framework for party identity and vote choice

After this introductory chapter, in chapter 2 I summarize the main conceptual and empirical debates emerging from the concepts in Figure 1.1. Chapters 3, 4, and 5 present my contributions to the literature in paper format. Each of these three chapters is a self-contained unit of both theoretical and empirical development. The paper in chapter 3 presents the results of an experiment aimed at measuring the relationship between parties' images in the minds of citizens and the actual composition of parties' support. The paper in chapter 4 presents the results of an experiment measuring the relative importance of different social identities for the perception of political commonalities. The paper in chapter 5 presents the results of a third experiment, in which I measure the effects of including and excluding party labels for vote choice, and the way these interact with policy positions held by candidates.

In chapter 2, after a brief description of the two main perspectives of party identification, I present the more recent development of party identity in the affective school of thought, linked to social identity theory (Tajfel, 1974; Tajfel et al., 1979). I also explore the instrumental view, where parties' main role is their function as labels signalling policy positions (Fiorina, 1981, 2002). For the instrumental perspective, I focus on the question of party labels as cues for broad policy platform in contrast to the notion that party identity implies a voting behaviour that is largely detached from policies. In this, I follow Fowler (2020) recent distinction between policy vote and "party intoxication".

In the empirical overview in Chapter 2, I present some of the discussion on party identification and social identification measurements, with a special emphasis on the difficulties traditional operationalizations have in answering the kind of questions presented. Many of the conceptual arguments described in the literature have a strong empirical component. Specifically, questions on the relative salience of social identities, the relative importance of different factors affecting vote choice, as well as the capacity of voters to disentangle the complex configuration of party compositions,

lend themselves to conjoint or other multivariate experimental designs, which I describe in this chapter and further explore in the three papers.

One methodological improvement on previous conjoint experiments attempting to tackle similar questions is that I follow De la Cuesta et al. (2019) in ensuring that for the three papers presented in chapters 3, 4, and 5 the treatment distribution of these experiments follows real world benchmark distributions. These benchmarks are the distribution of the electorate in the 2017 general election for the papers in chapters 3 and 4, obtained from the British Elections Study (BES), and the distribution of candidates for the 2019 general elections for the paper in chapter 5, obtained from combining information from the BES with the Representative Audit of Britain (RAB).

Chapter 3 further develops the discussion on the nature of party images. The notion of party images as their prototypical members, central to the social identity perspective on party identification, rests heavily on Converse (1964) notion of voters' "sophistication". According to this view, while some voters might decide their vote by prioritizing ideological and policy issues, a majority of citizens see parties in a group-centric way, as a coalition of different interest groups (Kalmoe, 2019; Kinder & Kalmoe, 2017). This tradition has tended to view these images as relatively stable and independent of the actual composition of the parties. This is the way D. P. Green et al. (2004) describe these images, as stereotypes that take long periods of time to change. The idea that party images have little relationship to the actual composition of parties is also present in more recent studies (e.g. Ahler & Sood, 2018). However, I briefly describe in Chapter 3 how, according to some studies, British politics has seen a relatively quick change in the party images of both Labour and Conservative, with traditional social class prototypes becoming less salient in politics (e.g. Evans & Tilley, 2017; O. Heath, 2015, 2018). Additionally, Chapter 3 discusses how the emergence of the EU referendum divide has a relevant role in the conceptualization of politicized social identities. "Leaver" and "Remainer" identities are conceptualized as

opinion-based identities, subject to similar discussions on the politicization of certain social identities and the emergence of new group images, in the process. In this chapter I show that, in fact, British citizens' images of parties are fairly close to the actual composition of their followers on average, including complex interaction among several social groups such as class, ethnicity, religion, and age. Chapter 3 shows that citizens are also aware to an important degree of the actual composition of the supporters of each side of the 2016 EU referendum, which, given the relatively short time these groups have existed, suggests citizens can update their images fairly quickly.

Chapter 4 will further develop the discussion on social identities in the population regarding the way they relate to political identities and behaviour. For group membership to become a political identity two elements must be present. First, the presence of a salient social identity is required (Huddy, 2001, 2013) and, second, this identity must rest on "political content" (Huddy, 2013, p. 739). This chapter presents some of the debates on the changing relevance of social identities for party identity and vote choice. In particular, in the UK there is a debate on the relevance that social class identity may hold for citizens, and its political importance, given recent changes in voting patterns. I implement a method of assessing directly the relative salience of social identities for perceived political commonalities. I find that ethnicity is the social identity citizens most strongly associate with perceived political commonality, noticeably surpassing the importance given to social class. The larger weight given to ethnicity is explained by the importance given to this identity by Conservative and Leave voters.

Chapter 5 further develops the question of how party labels interact with the two perspectives on party identity. Social identity partisan voting, in its more extreme version, would imply a "tribal" voter, with little concern for the policy position of candidates, which Fowler (2020) calls "intoxicated" voting. A more nuanced view described in Chapter 5 is that party labels and candidates' policy positions may play

different complementary roles and a voter might take into consideration both aspects when casting his or her vote. How much each aspect weighs, and how this varies across voters and contexts is something still debated in the literature. In this chapter I present the results of an experiment suggesting that the relevance of party labels might differ among Conservative and Labour voters. I also find that in the presence of party labels, the effect of the explicit policy positions of candidates loses much of its significance, but that there are some noticeable exceptions.

The studies presented in the thesis all examine the United Kingdom. There are several reasons to believe this political context is especially fruitful for the study of the issues mentioned above. First, the political identities that emerged after the EU referendum of 2016 (e.g. Hobolt et al., 2020), and the way this has interacted with the perception of the main British parties and the values they stand for (e.g. SurrIDGE, 2020) has made it an ideal context for the study of party images and the way these perceptions are connected to views on social groups. This is what I investigate in chapter 3. Second, there is evidence of a long process of class dealignment with the main political parties (e.g. Clark & Lipset, 1991; Evans & Tilley, 2017), and newer evidence of some new social realignment (e.g. Hobolt et al., 2020). This is an ideal scenario with which to study the nature of the connections between social identities and political identities, as I do in chapter 4. Additionally, the process of class and partisan dealignment (Särilvik et al., 1983), which, as SurrIDGE (2020) has pointed out, “gave more ‘space’ for short-term influences on vote choice” (p.5) makes studying the relevance of party labels, in comparison to candidates’ values and policy position, especially interesting. This is what I research in chapter 5.

Finally, chapter 6 presents the way the findings in the three papers can complement one another in advancing the literature debate, and what new avenues for research stem from this thesis.

Chapter 2

Conceptual and Empirical Overview

In this chapter I will summarize the research literature that the papers presented in the following sections build on and respond to. Taken together, the three papers answer questions on the way party identity emerges and translates into a specific political behaviour: vote choice. I will also present some of the empirical issues that surround the conceptual debate and, specifically, how conjoint experiments may help to address these challenges.

This chapter has two sections. First, a conceptual overview of the main theories of party identification, with an emphasis on the way identity translates into vote choice. Second, a review of relevant empirical operationalizations for the measurement of some of the constructs in the theory, with an emphasis on the relevance of conjoint experiments for the quantification of the relative importance of the different factors in party identification and vote choice.

2.1 Conceptual overview

2.1.1 The two conceptualizations of party identity

In this section I will briefly describe the two main conceptualization of party identity. That is, I will first discuss the original Michigan school definition of party identity as an affective attachment, as introduced by Campbell and colleges (e.g. A. Campbell et al., 1960), its implications for party identification as a stable aspect of identity, and the way it has been expanded beyond the US institutional context. Second, I will describe the instrumental view based on the utility maximizing paradigm of Downs (1957), as well as some of the complexities added to the original model, such as multiple axes and the role of heuristics.

Party Identity as affective attachment

In the 1950s the Survey Research Centre at Michigan led a research body that focused on the prevalence of psychological and motivational approaches to voting. The Michigan model, based on a sociological-psychological perspective of party identity, became popularized in several studies of US presidential elections, led by Angus Campbell (A. Campbell et al., 1954, 1960).

The main conceptual development in these studies of electoral choice was the construct of “party identity”. This construct is an affective attachment to a party, which becomes inscribed in the person’s identity and determines to a large extent his or her electoral behaviour, as well as the way the person interprets new political information. This element of the person’s identity would stem from the social groups in which that person was socialized.

Campbell and his colleagues defined party identity in several publications. One of the first precursors of their definition of party identity can be found in *The Voter Decides*, where they defined it as “the sense of personal attachment which the individual

feels toward the group of his choice” (1954, p. 86). Later, in what is perhaps their most influential text, *The American Voter* presented a slightly modified definition of party identification as an individual’s “affective orientation to an important group-object in his environment” (1960, p. 121). The main empirical consequence of this perspective is stable voting behaviour. As Clarke et al. (2004) explain, this model would imply “tribal” voting, in the sense that who the voter is determines how the voter—and those similar to him or her—vote.

The Michigan school of thought placed the focus of party choice in this independent attitudinal variable of voters. In doing so, they were moving away from the Columbia school’s (e.g. Berelson et al., 1986; Lazarsfeld et al., 1968) focus on sociological independent variables (such as demographic attributes) of vote choice, as well as social networks and their role in information flow (e.g. Sheingold, 1973). Their main criticism of Columbia’s sociological approach was that it had “taken the politics out of the study of voting” (Key & Munger, 1959, p. 281). However, beyond this critique, it is possible to see their differences as ones of mere emphasis. Campbell’s explanation for the emergence of party identity, rooted in early socialization and reinforcing partisan information loops, can be closely linked to the findings of the Columbia school. Nonetheless, the difference in emphasis manifested itself in that originally their interest was mainly on “the partisan division of the electorate and how it reflects the response of voters to public policy”, rather than “the psychology and sociology of human choice” (Sheingold, 1973, p. 716)

One critique of this conception of party identity that has emerged is that it is entrenched in the institutional factors unique to the US in the latter half of the 20th century (e.g. Budge et al., 2010; Fleury & Lewis-Beck, 1993). Elements such as a two party system with ideologically heterogeneous parties, a single-member plural electoral system with mandatory primaries, the presence of several levels for elections in a federal state, among others, may have played a role in the way it was conceived.

Beyond the US and its institutional context, this perspective, sometimes called “expressive”, penetrated and became dominant in the British context through the research led by scholars at Nuffield College (e.g. Bulter & Stokes, 1969; Butler & Stokes, 1974; Butler & Stokes, 1971). In Butler and Stokes’s studies of British politics, the main social groups were classes, and the identity divide could be summarized in a simple link between being from the working-class and identifying with Labour, on the one hand, and being from the middle-class and identifying with the Conservatives, on the other hand.

Party identity as informational cues

Setting aside variations on how the logic of identification might apply in different political contexts, the main alternative to this conception of party identity has come from the instrumental perspective. This theoretical development emerged from the works of Downs (1957). This model relies on the assumption of rational individuals facing a limited supply of party options (or politicians) who offer policies. A utility maximizing voter must choose the candidate or party that maximizes his or her utility, which depends on the closeness of the offered policies to the preferences of said individual. In its most basic form, this model distributes the population along the left-right axis and optimization occurs as office-seeking parties and utility maximizing individuals act in a rational manner.

More complex versions of this model have included the possibility that several different issue dimensions may be at play and, more importantly, that there are some issues on which the parties do not compete in terms of position, but rather valence (Evrenk et al., 2018; Stokes, 1963). In other words, parties compete on being perceived as the best suited to address certain issues, rather than their specific positions on those issues. Examples of valence issues can be general attributes such as “competence” and “integrity”, as well as specific issues such as: “high rates of economic growth coupled

with low rates of inflation and unemployment...low crime rates, effective health care...” (Clarke et al., 2004, p. 23).

Further versions of this logic have incorporated the idea that rational voters might nonetheless have limited information, given the weak incentives of individual citizens to invest large amounts of time in learning about politics. A number of implications arise from such models, related to the way that a party may provide a useful signal about details of politics that citizens may wish to avoid having to learn. In such models, partisanship can be conceptualized as “running tallies” (Fiorina, 1981) of previous performance or cues allowing voters to make judgments on future performance using little information (e.g. Clarke et al., 2004). The main empirical consequence of this perspective is that individual-level voting behaviour and party identity is stable not because it is an intrinsically stable affective commitment, but rather because the political positioning of the parties tends to be stable and it may take rational citizens a while to respond when it changes as they have little reason to be paying very close attention. Individuals may change their party support depending on the issue positioning of the parties and the perceived valence of the party and party leaders, but we should expect such changes to be rare because the incentives of voters, parties, and candidates lead to limited variation over time.

2.1.2 Social Identity and its relation to party identity

In the midst of the described debate between the affective/expressive and instrumental perspectives on party identification, D. P. Green et al. (2004) produced a party identity theory rooted in a social identity conceptualization. This perspective shifted the identity object of voters to social groups instead of the party. Party identity would result from these social identities being reflected in parties through party images. In other words, the crucial link between individuals’ identity and party identity was explained through the relationship between social identities and the corresponding

image of the party ¹.

In this perspective, citizens ask themselves two questions when identifying with a party: “What kinds of social groups come to mind as I think about Democrats, Republicans and Independents? Which assemblage of groups (if any) best describes me?” (p.8). While the second question can be viewed as closely related to the affective attachment described by the Michigan school as the essence of party identity, the first question links party identity to perceptions of party images. It is also possible to see this perspective as a further development of the British adaptation of the party identity theory that had already been developed. The Butler & Stokes (1969) version of party identity had always involved viewing party identification as a product of social class identification, D. P. Green et al. (2004) further describe the cognitive process of such social-party identification, including multiple social groups, and not only a working class/middle class divide.

The tradition of social identity theory and inter group relations was established by Tajfel (1974) and further developed in Tajfel et al. (1979). This theory affirms that a person’s social category (such as class, religion, or ethnicity) and the feelings that person has towards that category provide a “self-definition that is a part of the self-concept. People have a repertoire of such discrete category memberships that vary in relative overall importance in the self- concept” (Hogg et al., 1995, p. 259). Some social groups develop a sense of cohesion, while others do not. This is why it is relevant to distinguish between an “objective group membership” and “social identity”.

A precursor of this definition of social identity was the one given by Lane (1962), where he defines it as the “contribution” made to a person’s answer to the question “who am I?”, given by that person’s “sense of belonging to some specified part of human society, a community, a professional society, a church, a nationality group,

¹It is possible to see this theory as a synthesis between the Michigan and Columbia schools, reintroducing the importance of social groups as precedent to the attitudinal variables behind vote choice.

even sometimes a neighbourhood” (p.389).

The perspective of social identity is complemented with the notion of ‘self-categorization’ (Turner et al., 1987). The self-categorization element of social identity is the cognitive process by which a person highlights differences with out-group individuals and similarities with in-group individuals. One aspect of this theoretical background is of special interest for the present research: “prototype-based differentiation”. A group prototype is “a fuzzy set of attributes” that defines the group and differentiates it from other relevant groups (Hogg & Reid, 2006). In other words, group identity emerges as a feeling of similarity to the “typical member” or prototypical group member.

This group prototype is a fundamental part of what defines social identity. Prototypicality is related to the role of leadership in social identities (Hogg & Gaffney, 2014; Hogg & Reid, 2006). When social identity is salient, people will search for trustworthy information about the identity of the group and its associated prototype: “and this is provided by prototypical leaders or groups members whose prototypicality makes them de facto leaders” (Hogg & Reid, 2006, p. 573).

Huddy (2013) defines political identity as “a social identity with political relevance” (p. 739), such as social identities that become relevant for party identities. Following this definition, for group membership to become a political identity two elements must be present. First, the presence of salient social identity is required (Huddy, 2001, 2013) and, second, this identity must rest on “political content” (Huddy, 2013, p. 739). Membership in a social group is a necessary but not sufficient condition for the emergence of social identity, and social identity is a necessary but not sufficient condition for political identity.

The link between party identity and social identity: party images

The substantial cognitive and informational demands placed on citizens by democratic institutions has led to a number of theories about the mechanisms through which they process these demands: “One of the most robust debates in public opinion is the degree to which citizens meet the cognitive and informational demands placed on them by democratic institutions” (Kalmoe, 2019).

Party labels are often conceptualized in the literature as a way to ease decisions by giving cues or heuristic guidance for people, with relatively little need for information about the underlying policy choices at stake in politics (e.g. A. Campbell et al., 1960; Fiorina, 2002). In the instrumental tradition of party identity, the most commonly analyzed type of informational cue are the policy stances of the party and its candidates (e.g. Fiorina, 1981). Thus, one kind of information that citizens might understand as tied to a party label is a set of policy positions.

However, a number of studies have suggested that for many people, the information they possess about parties is not so much about their policy positions, but about the social identities and prototypes that the party is associated with. J. E. Rothschild et al. (2019) find that when people in the United States are asked to characterize partisans of the Democratic and Republican parties, they consistently refer to certain social identity stereotypes (such as class, age, ethnicity, religion, among others). Similarly, Ahler & Sood (2018) find that when asked to identify the groups that are members of the two parties, people systematically make mistakes, overestimating the proportion of stereotypical social groups in these parties. In other words, from this perspective: “...while parties include ideological elements, collections of intense policy demanding groups define parties” (Kalmoe, 2019). There is an important body of literature that find that most citizens, particularly those who are less knowledgeable about politics, behave in a more group-centred fashion than an ideological one (Converse, 1964; Kalmoe, 2019; Kinder & Kalmoe, 2017), with a general conclusion that “people are

naturally more group-oriented than ideological and that, in any case most ‘ideologues’ are probably familiar with the groups comprising each party’s coalition” (Kalmoe, 2019).

D. P. Green et al. (2004) propose that party identity is the result of a relationship between the social identities of the population and its interaction with the images of parties. They claim that this relationship is stable because both social identities and party stereotypes take long periods of time to change. While it makes sense to argue that identities are relatively fixed over time, the idea that stereotypes have the same tendency is less clear. Lupu (2013) and Lupu (2016) present evidence that these images need not be stable and can be affected and updated by parties’ behaviour. As Lupu (2014) explains:

Over the course of their lives, voters form perceptions of party prototypes based on what they see the parties say and do over time...These prototypes constitute what I call a ‘party brand’. Voters repeatedly update their perceptions of parties’ brands, incorporating new observations into their prior beliefs about those parties (p. 567-568)

Social Identities in Britain

One example of a change in party brands can be observed in the importance of social class in British politics. A persistent debate about competing social identities in western democracies has revolved around the importance of social class. Several studies have shown a historical relationship between social class membership and voting behaviour in the Anglo-American context (Alford, 1967) and in Europe (Houtman et al., 2009; Jansen et al., 2013a). This historical relationship has been the subject of intense debate, especially after Clark & Lipset (1991) showed the diminishing power of class in explaining political behaviours in several democratic regimes, and particularly in Western Europe (Evans & Graaf, 2013; Rydgren, 2012). Additionally, as several

studies have focused their attention on other characteristics of the European population that may explain electoral behaviour, the importance of ethnicity in predicting political attitudes and behaviours has come to the fore (e.g. Zick et al., 2008).

In this broader context I have focused on the British case because of its interest as an example of the general trend described above. Social class has been historically associated with party identity in the UK (Butler & Stokes, 1969, 1974; Butler & Stokes, 1971). However, there is an ongoing debate on whether class has maintained its importance for political behaviour and social identity. For example, Evans & Tilley (2017) and Tilley & Evans (2017) claim that class identity is the product of material differences among class groups, and therefore something that has not changed much in British society over time. In their view if class divides have become less salient in politics it is due to changes in the parties (e.g. Evans & Tilley, 2012; A. Heath, 2016; O. Heath, 2015, 2018). Furthermore, even if material conditions have changed for some Britons, Evans & Mellon (2016) argue that a social class divide persists, because the offspring of working-class parents may still define themselves as working class, regardless of their occupation. In other words, even if occupational class has become less informative, subjective class, i.e., the category individuals choose when asked to place themselves into a social class (Sosnaud et al., 2013), may still be important for social identity.

Kaufmann (2017) claims that class identity in the UK is no longer rooted in the material conditions of occupation, but rather in a clash of worldviews, in which ethnic identity has become increasingly relevant, especially in England as “the white working class will gravitate more to majority ethnicity than economic position as the focus of identity” (p.700). Whether the evidence supports this “white working-class” identity claim is debatable. In fact, there is some evidence that the perceived social distances between most ethnic groups have actually declined in Britain (Storm et al., 2017).

A different perspective from that proposed by Kaufmann is that historically these

racial/ethnic identities may have been less salient in the UK's political context, but that recent events, such as the 2016 EU referendum, have made ethnic identity increasingly salient in the UK. Brexit and the debates it sparked may have brought about the emergence of new political identities and "these new identities reflect pre-existing but less politicized social divisions..." (Hobolt et al., 2020, p. 3). These new politicized social divisions around the Brexit debate, may coexist with more traditional social class divisions. This perspective is strengthened by the fact that in the 2017 general election, for the first time, age became the main predictor of party choice (Sloam & Henn, 2019). It is therefore possible to envision the UK population split among several cross-cutting social groups, several of them politically relevant for partisanship.

While racial/ethnic identity may have always played a role in shaping partisanship, in recent years its importance in partisan politics has become more apparent (Ahler & Sood, 2018) as the social and identity aspects of political polarization have become more relevant, both in the US (e.g. Mason, 2016, 2018a, 2018b) and post-Brexit UK (Sobolewska & Ford, 2019). These social divisions include, among others, class, ethnicity or race, age, gender, home ownership, education, and geography (e.g. O. Heath, 2018; Jennings & Stoker, 2017; Reeves, 2017; Savage, 2015).

Class identities and parties' images in the UK

As mentioned before, the relevance of class in analysing political outcomes and party identity in the UK has a long tradition (e.g. Butler & Stokes, 1969, 1974; Butler & Stokes, 1971). More recent theories have analysed the way these links have come to exist in the context of the emergence of social democratic parties. As Przeworski (1986) argues, Social Democratic parties emerged from the electoral dilemma of socialism which implied that: "socialists must choose between a party homogeneous in its class appeal but sentenced to perpetual electoral defeats and a party that struggles for electoral success at the cost of diluting its class character" (24). This effort to expand

the parties' appeal beyond the working class usually takes the form of a “...trade-off between the recruitment of middle classes and of workers” (p.106). This is manifested in changes in the party image, which de-emphasize class struggle, and replace the party image as “the party of workers” to become the party of “the masses, the people, the nation, the poor, or simply...citizens” (p. 27).

In the case of the Labour party in the UK, as shown by the following graph, the 1990s brought a sharp reduction in the image of the Labour party as representing the working-class, in opposition to the middle class:

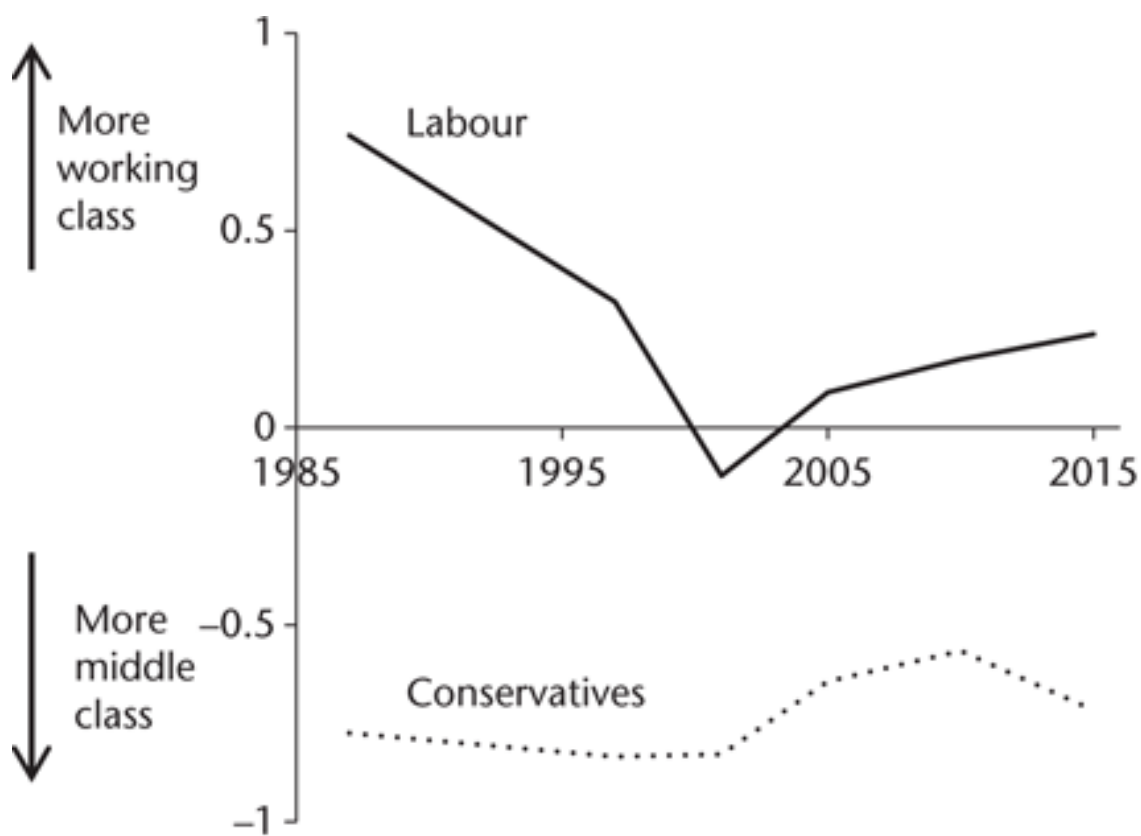


Figure 2.1: Perceptions of the extent to which parties look after the interests of classes. Note: The figure here shows people's perceptions of which classes the parties represent. A positive score means that people believe a party looks after the working class better than the middle class; a negative score means that people think a party looks after the middle class better than the working class. Source: Evans and Tilly (2017). P.165. Data from British Election Studies 1987–2015.

Together with these changes in the image of the Labour party, there has been a noticeable change in the class nature of its electorate, which manifested in a sharp tipping point in the mid-90s. In the post-war era there was around a 30% gap between middle and the working class's support for Labour. By 1997 that gap dropped to 10%, and in the 2017 election it vanished completely (Evans & Tilley, 2017, p. 153).

Opinion-based Identity and Brexit

There is no theoretical reason for which the previous discussion on political identities should be exclusively for political parties. Specifically, it is possible to envision a similar pattern of grouping along opinion-based divisions (Bliuc et al., 2007; McGarty et al., 2009). Hobolt et al. (2020) have argued that a major political cleavage that has emerged in the UK in the last few years is the one that surrounds the EU referendum debate. There are reasons to believe this political cleavage is becoming increasingly relevant, partly because of generational changes in the British electorate, which has become more educated and racially diverse (e.g. Sobolewska & Ford, 2019). These structural changes have coincided with the EU referendum, which has brought to the fore identity issues: “The strong links between identity attachments and EU referendum choices mean that Brexit debate could further politicise and polarise these identity politics divisions, even as Britain continues its slow transformation into a more inclusive multicultural society” (Sobolewska & Ford, 2019, p. 143).

In data collected between 2016 and 2019, Hobolt et al. (2020) found that identification as “Leavers” and “Remainers” is at least as strong as party identities. However, the socio-demographic determinants of Brexit identity seem to differ from those on the party divide. While age and education are the main predictor of this opinion-based division “measures of social class (such as income, occupation and housing tenure) continue to matter more for partisan identities than for Brexit identities despite sharp falls in class voting in Britain in recent decades” (p.14). Additionally, Hobolt and

colleagues find that in terms of trait stereotypes, i.e. positive in-group perception and negative out-group perception, the Brexit divide might be stronger than the partisan divide.

2.1.3 Candidates, policy positions, and party labels

One question that arises from the two ways to explain party identity is whether voters are affected by candidates' positions and characteristics in the presence of party labels. If the answer is no, then partisanship affects vote choice in a way that supersedes policy positions. This would have important consequences for the functioning of democracy. If voters solely consider party labels when voting, then their representatives may feel little pressure to follow their constituencies' preferences (Hanretty et al., 2021).

Fowler (2020) articulates this debate in terms of a vote motivated by policy versus a "partisan intoxication" vote. The first motivation means voters support candidates according to policy preferences and beliefs about government performance, while the second would imply that voters "blindly support that party in elections, regardless of the candidates' policy positions" (p.142). As Fowler (2020) and as Rogers et al. (2020) explain, these two explanations for vote choice need not be exhaustive or mutually exclusive.

Some observational studies focus on formally non-partisan matches to disentangle the relative importance of party affiliation and candidates' characteristics. These studies find that formally non-partisan contests show a smaller degree of partisan alignment in the electorate (e.g. Lim & Snyder Jr, 2015; Schaffner et al., 2001) and a greater importance of candidates' attributes (e.g. Badas & Stauffer, 2019). However, in elections where party labels are omitted because of regulations, voters might still infer the party alignment of candidates even in the absence of explicit labels. This might imply partisan or ideological voting, camouflaged as policy voting. For example, P. A. Kirkland & Coppock (2018) present experimental evidence that voters exhibit

preference for local candidates that signal partisan or ideological affiliation without using labels. Similarly, Lucas (2020) shows that municipal governments are responsive to the ideological preferences of their constituencies in Canada, even though municipal elections are formally non-partisan.

Experimental evidence has shown that in the presence of party labels other aspects, such as gender or ethnicity, may become less relevant (Burnett & Tiede, 2015; P. A. Kirkland & Coppock, 2018; Lavine et al., 2012; Rahn, 1993). Consistently, in the absence of party labels, candidates' attributes may become more relevant. For example, P. A. Kirkland & Coppock (2018) find that when choosing a candidate in competitions with no party labels, Republican voters give more importance to job experience, while Democrat voters assign more importance to political experience.

Furthermore, citizens' propensity to vote in a partisan manner is not limitless and generally loyal voters might defect because of different issue or policy positions (e.g. Boudreau & MacKenzie, 2014; Mummolo et al., 2019). For example, there is evidence in the US that legislators might be accountable for their voting records, at least under some circumstances (Ansolabehere & Jones, 2010; Canes-Wrone et al., 2002; Nyhan et al., 2012). Studies available for the UK, in terms of issue accountability, find that candidates' characteristics are minimally relevant by comparison to party labels (e.g. Butler & Stokes, 1971; Hanretty et al., 2021; Vivyan & Wagner, 2012).

Policy position of candidates versus party vote in the UK

In the British context, the relevance of candidates' positions has been studied less than in the US. In part, this is the result of a strong tradition of viewing vote as neatly divided between class lines, with working class citizens voting for Labour and middle-class citizens for the Conservatives (e.g. Butler & Stokes, 1969, 1974; Butler & Stokes, 1971). Even vote choice theories less reliant on social and party identity have tended to give little attention to the individual positions of candidates, emphasizing

the role of party manifestos and leaders (Clarke et al., 2004).

This view is strengthened by some evidence that MPs are minimally accountable for their individual stances. For example, Vivyan & Wagner (2012) find that only voters with negative views on the leadership reward MPs rebelling against the leadership and that this gain is small. Furthermore Hanretty et al. (2021) find that even on the highest profile issue that cuts across party lines in modern times, Brexit, MPs in the UK are negligibly accountable for their issue positions and that they are aware of this, implying little incentive to take into account the constituencies' positions on issues more generally. However, the fact that in actual electoral matches in the UK, as the ones analyzed in observational studies, candidates' positions and characteristics play a relatively modest role might be the result of endogenous selection bias, as candidates typically take stances on those issue they believe will improve their electoral results, or candidates are selected for constituencies in which they are deemed to be more competitive. For example, it makes sense for a party to select a candidate with a position on Brexit that benefits or, at least, does not hurt its electoral chances in a constituency.

One reason why candidates' positions might become relevant is the current political environment in the UK. There has been a process of class and partisan dealignment (Särilvik et al., 1983), which as SurrIDGE (2020) has pointed out, “gave more ‘space’ for short-term influences on vote choice” (p.5). Following the “funnel of causality” for vote choice, as defined by A. Campbell et al. (1960), these short-term influences include issue opinions and candidate image. In this original model of the “funnel of causality”, party attachment mediates between value orientations and both issue opinions and candidate image. Thus, without party attachment, the other elements of the funnel of causality may become more relevant (Dalton, 2013).

2.1.4 The conceptual framework

In conclusion, I have presented two main explanations for the way party identity emerges and affects vote choice. I have shown how each manifests in cognitive and affective processes stemming from characteristics in the population, which interact with characteristics of the parties and are expressed in vote choice thanks to the presence of party labels that signal parties' characteristics. This dissertation will not seek to adjudicate between these two perspectives, but rather to improve our understanding of these two perspectives.

First, I assume that citizens hold both social identities and policy preferences. Each citizen belongs to several different groups and may hold preferences on several different government policies. However, only some of these become relevant for party identity and influence any given election. The groups and the policies that motivate individual citizens may vary from person to person.

Second, parties are perceived both for their prototypical image and for their positions on policies (as well as some aspects of performance or valence). Citizens combine their social identities with the parties' prototypical image, asking themselves for the assemblage of prototypical members in each party that is closest to their social identity. This gives origin to affective party identity. At the same time, citizens may see parties as "running tallies" of previous performance and policy positions. Combining this aspect of parties with their own policy preference explains instrumental party identity. Finally, when faced with elections, voters are typically presented with candidates that hold complex combinations of policy positions and personal characteristics, as well as party labels, associated with social identities and policy positions.

From this conceptual layout several questions arise regarding the links between the different elements and the weight each one has. For the affective/social identity perspective of party identity, there is much to study on the links between the different

constructs it relies on. Questions such as why some social identities become relevant for political attitudes while others do not, or how anchored in reality is a party's image, are crucial for the real-world implications of this theory. Similarly, for the instrumental perspective of party identity, there are challenges to understanding the links between policy preferences and the relevance of party labels as heuristic for broad policy platforms, as well as the variation in policy positions across the party's different candidates.

In part, these questions are empirical. To better understand these links and their relative importance for vote choice, measurement strategies are relevant. Better measurement strategies will also allow us to determine whether for different sections of the electorate any of the links is more relevant at a given election.

The following section presents some of the discussions on measurement strategies for party and social identity. It also shows the advantages of conjoint experiments designed to disentangle the relevance of each element.

2.2 Empirical overview

Party Identification Measurement

The conceptualization of party identity and its measurement emerged almost simultaneously. Campbell and colleagues (1960) developed an operationalization of the concept that remains the standard in the study of US politics. This standard question for measuring party identity in the US first asks respondents to declare whether, "generally speaking" they think of themselves as a Republican, a Democrat, an independent, or something else (this is the wording that appears in the American National Elections Studies, ANES). If they answer either Republican or Democrat, they are then asked if they consider themselves to be a very strong Republican or Democrat or not. If they answer that they are independents, then they are asked if they consider

themselves to be closer to Republicans or Democrats. This is then usually treated as a seven category, ordered scale: Strong Democrat, Weak Democrat, Lean Democrat, Independent, Lean Republican, Weak Republican, Strong Republican. This measure has been adapted to different political contexts, including the existence of multiple party systems (Budge et al., 2010). Additionally, to make cross national comparisons easier, some measurements have changed the wording asking for “closeness to a particular party”, such as the Comparative Study of Electoral Systems (CSES).

A central element of Green, Palmquist, and Schickler’s partisanship theory is that they claim that partisanship tends to be stable among adults “because both stereotypes and self-conceptions tend to be stable” (D. P. Green et al., 2004, p. p11). However, Lupu (2014) argues that party images can be viewed as “brand images” (Popkin, 1991), where these perceptions are constantly updated by voters observing the parties’ behaviour. Through this behaviour, voters learn to associate a party with a prototypical partisan, and this prototype becomes the party brand. Similarly, in the UK’s context, several papers have claimed that the changing party images, in terms of the class nature of their supporters, may have had an impact on voting behaviour and broader evaluation of parties and party leaders (O. Heath, 2015, 2018). This distinction is relevant because in the view postulated by D. P. Green et al. (2004) the expectation would be that party images are independent (to a degree) of the actual party composition, potentially exaggerating group-stereotypes (Ahler & Sood, 2018) or failing to respond to recent changes in political alignments.

For example, in the UK, D. P. Green et al. (2004) claim that their evidence shows stability of partisanship, both at the aggregate and individual levels. This last claim, of individual-level stability, has become the basis of some controversy. Although Green and colleagues find that a relevant number of respondents change their partisanship status in repeated measurement (panel data), they claim that this instability, observed in different panel surveys, is due to random measurement error.

Following an established literature (Converse, 1964; Zaller & Feldman, 1992), it is possible to distinguish members of the population who authentically possess party orientations and other individuals who do not possess any party orientation and when confronted with the question of party affiliation will give a randomly selected answer. The apparent instability of individual-level partisanship would be a result of the random responses of those without any partisanship at all.

Against this argument, Clarke et al. (2004) find that the changes in partisanship vary between measurements with strong correlations to covariates (such as level of conservatism). Additionally, to reduce possible error measurement, Clarke et al. (2004), use data from surveys other than the BES, where the possible parties are not enumerated in the question wording, and so fewer respondents are expected to come up with a random answer. This fact, together with other statistical tests, drive Clarke and colleagues to reject the notion of partisan stability and, from this finding, to cast doubt on the social identities perspective of Green and colleagues.

The D. P. Green et al. (2004) versus Clarke et al. (2004) debate, exemplifies the measurement discussions that surround the partisanship question. As Lupu (2013) states: “Previous scholars of partisanship have arrived at diverging conclusions from the same observational data often by changing the assumption underlying their empirical models” (p. 50).

At least theoretically, it is not necessary to presuppose that only one of the perspectives explains partisanship. Furthermore, there are reasons to believe that both perspectives may explain parts of observed patterns of behaviour and have important interactions. Lupu (2014) describes one such interaction when claiming that: “As voters become more attached to a party they will forgive bad performance. But as they become less attached, performance will become an increasingly important determinant of vote choice” (p. 569). Although Lupu (2014) tests his theory for emerging democracies in Latin America, there are reasons to believe that a similar

phenomenon has occurred in Western Europe, where increasingly socially detached voters became more sensitive to economic performance. This points to the need to empirically assess which mechanisms are more important and for whom and in what contexts, rather than opting for one over the other (similar conclusions are presented, for example, in Fiorina (2002), Bullock (2011), and Arceneaux & Vander Wielen (2013)). As Huddy et al. (2015) summarize it:

Both models can claim empirical support, and there is growing evidence that instrumental and expressive accounts of partisanship may explain vote choice and public opinion at different times, under differing conditions, and among distinct segments of the electorate (p.1)

The Measurement of Social Identity

Traditionally, social identity in nationally representative surveys has been measured as a combination of self-categorization and “closeness” to a social group. This way of measuring social identity has been criticized, among other reasons, for not allowing for levels of identification (e.g. Wong, 2010), and, therefore, making comparisons between different identities virtually impossible.

For example: in the 2016 British Social Attitudes survey, respondents were first asked if they describe themselves in class terms, as working class or middle class (i.e. self-categorization), and then asked “Some people feel they have a lot in common with other people of their own class, but others don’t feel this way so much. How about you?...” and the answer was either affirmative or negative. Similarly, in 1996 and 2000, the American National Election Study (ANES) asked for social identity in the following way: “Here is a list of groups. Please read over the list and tell me the number of those groups you feel particularly close to – people who are most like you in their ideas and interests and feelings about things”.

Measuring social identities and their relative salience is relevant to determine

the potential for emerging political identities. However, when social identities are measured directly (as has been especially the case for class, ethnicity, and religion), comparisons of the relative strength of these identities tends to be difficult. This may be partly a methodological issue as many studies of competing social identities rely on simple one item questions, without measuring relative strength (e.g. Evans & Mellon, 2016).

On the other hand, more complex multi-item measurements, with identity scales, are typically designed for specific social groups, making comparisons hard. For example, there are several studies measuring ethnic identity and its strength (Smith & Trimble, 2016). The measurements vary considerably in their operationalization and theoretical background and many measurement scales are designed for specific ethnic groups. Even the widely used Multigroup Ethnic Identity Measure (MEIM), developed by Phinney (1992), and its revised version, MEIM-R (Phinney & Ong, 2007), are designed for comparisons only among individuals and groups in ethnic terms. These multi-item measurements of ethnicity have also been the subject of criticism in terms of conflating identity and sympathy, whereby positive ratings imply ethnic identification (Umaña-Taylor et al., 2004).

Conjoint experiments for disentangling the factors behind vote choice

Perhaps one of the most disputed aspects of the affective/expressive versus instrumental controversy is the notion that they are directly comparable. As Huddy et al. (2015) explain: “The traditional measure of partisanship does not distinguish between an instrumental and expressive basis for it and captures very minimal variation in partisan strength, merely distinguishing strong from not-so-strong identifiers and leaning independents” (p. 4). This explains the need for measuring strategies that allow us to disentangle different factors behind vote choice, party identity, policy preference, and candidates’ characteristics. One form of survey experiment is especially

useful for evaluating the impact of multifactor elements on discrete choices: conjoint experiment. The potential benefits of this method are reflected in the fact that since their original introduction in the 1970s (P. E. Green & Rao, 1971; Krantz & Tversky, 1971) it has become widely used in different fields such as marketing (e.g. Raghavarao et al., 2010), economics (e.g. Adamowicz et al., 1998), or health services (e.g. Ryan & Gerard, 2003). Finally, this method has also been used frequently in political science (e.g. Bansak, Hainmueller, Hopkins, Yamamoto, Druckman, et al., 2020; Hainmueller et al., 2015; Hainmueller et al., 2014).

These experiments ask respondents to perform a task, usually choosing between two hypothetical profiles or rating a hypothetical profile in some aspect. The profiles are generated through a combination of several individual characteristics (factors) in such a way as to elicit the underlying preferences and views of the respondent for each individual attribute. Some of the advantages of method (compared with other similar survey experiments) are (Hainmueller et al., 2014):

1. Real choices in politics involve candidates and parties with many characteristics, and so conjoint experiments are more realistic than more simple comparisons where the objects being chosen vary on only one or two characteristics.
2. For the researcher, conjoint experiments are cost-efficient in that they test several causal hypotheses simultaneously.
3. Since the impact of changing the different attributes is measured simultaneously on the same outcome, it is possible to compare the relative size of effects.
4. Conjoint analysis reduces concerns about social desirability bias, by allowing the respondents to justify their answers with any of the multiple attributes that differ between the two alternatives.

Specifically, this method is operationalized with the following four steps (Louviere et al., 2010). First, attributes are identified in “ad hoc and research specific ways” (p.60). Second, levels of the attribute are defined (again in an ad hoc fashion) and the

attribute level combinations are defined in some experimental form. The simplest of these designs is an orthogonal fractional array (every level appears randomly and the probabilities of the different levels of one attribute are independent from other attributes). Third, once this experimental design is determined, the elicitation task is designed, usually some form of preference elicitation. Finally, the responses are collected, and the data analysed. There are some concerns about the lack of clarity in terms of good practice in all four mentioned steps (e.g. Louviere et al., 2010).

As survey and conjoint experiments have become more frequent so have the questions on the external validity of their findings. External validity refers to whether causal relationships founded in a given context hold for different settings (Shadish et al., 2002). This is especially important if inferences on nation-wide voting behaviour and identities for any specific election are the object of study, as in the case of this thesis.

Anchoring treatment distributions on an external benchmark

One threat to the external validity of conjoint experiments comes from the potential for the independent randomization distribution to consequentially shape the results (De la Cuesta et al., 2019). Typically, the main quantity of interest is the Average Marginal Component Effects (AMCE), which can be interpreted causally as the effect of changing one attribute of the profile, averaged over the entire distribution of characteristics and their levels (Bansak, Hainmueller, Hopkins, & Yamamoto, 2020; Bansak, Hainmueller, Hopkins, Yamamoto, Druckman, et al., 2020). Since the AMCE averages over the treatment distribution, having a specific distribution is not innocuous for the external validity of any findings. A common manifestation of this problem is the fact that with independent randomization, implausible or impossible combinations of attributes may occur. More generally, more and less likely combinations of characteristics appear equally frequently as alternatives in such experiments.

To address this concern, some recent conjoint experiments have begun using external benchmarks to ensure that both the frequency and correlations of attributes are more realistic (De la Cuesta et al., 2019; Mummolo et al., 2019; Titelman & Lauderdale, 2021). In this thesis, I report experiments with randomisation distributions that are not independent, but are derived from available data on relevant population distributions of citizens (Chapters 3 and 4) and of candidates (Chapter 5). Moving to non-independent distributions introduces model dependence in the data analysis that I describe in the chapters, but in each application there is a clear benefit to grounding the experiment in the true joint distribution of the characteristics of citizens or candidates.

Chapter 3

Can Citizens Guess How Other Citizens Voted Based on Demographic Characteristics? ¹

How well do citizens understand the associations between social groups and political divisions in their societies? Previous research has indicated systematic biases in how the demographic composition of party supporters are perceived, but this need not imply that citizens misperceive the likely voting behaviour of specific individuals. We report results from two experiments where subjects were provided with randomly selected demographic profiles of respondents to the 2017 British Election Study (BES) and then asked to assess either (1) which party that individual was likely to have voted for in the 2017 UK election or (2) whether that individual was likely to have voted Leave or Remain in the 2016 UK referendum on EU membership. We find that, despite substantial overconfidence in individual responses, on average citizens' guesses broadly reflect the actual distribution of groups supporting the parties and referendum positions.

Public discussions of voter behaviour sometimes suggest that social groupings align

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much more strongly and simply with voter behaviour than is actually the case. As Ford & Cowley (2019) lament:

It's not that there are not under-pinning factors driving the way people vote, merely that voters are much more complicated than most discussion of this sort of analysis ever allows. Even individual voters are complex and contradictory, so this will certainly be true of any group of voters — whether we define them by place, or profession, or past vote or anything else.

It is not only pundits who tend to misperceive associations between voter behaviour and demographic characteristics. Recent studies in political science have found that citizens (Levendusky & Malhotra, 2016; Mildemberger & Tingley, 2019) as well as representatives (Broockman & Skovron, 2018) can be biased on average when assessing the aggregate political attitudes of the public. These findings are consistent with an older literature on such biases in social psychology (Chambers et al., 2006; Pronin et al., 2002; Shamir & Shamir, 1997; Sherman et al., 2003; Todorov & Mandisodza, 2004). In contrast to these findings of bias, other researchers have found that citizens' average ex-ante forecasts of aggregate electoral outcomes are often (but not always) close to accurate (Boon, 2012; Graefe, 2014; Lewis-Beck & Stegmaier, 2011; Murr, 2011; Murr, 2016; D. Rothschild & Wolfers, 2011), illustrating that citizens' can collectively form unbiased assessments of one another's votes in some instances. Of course, there is no reason to expect a single, consistent answer to all questions of the form: "do these [citizens/representatives] have unbiased perceptions of [measure of public opinion or voting behaviour]?" The direction, magnitude, and consequences of biases may vary substantially across different contexts.

Our focus in this paper is specifically on public perceptions about the relationship between socio-demographic characteristics and vote choice. Two recent studies in the US find that people tend to "overestimate the extent to which party supporters belong

the party-stereotypical groups” (Ahler & Sood, 2018) and that “evangelicals tend to overestimate the percent of Republicans who are evangelicals and overestimate the percent of Democrats who are secular (seculars exhibit more muted, but opposite patterns).” (Claassen et al., 2019).

These studies have asked respondents to make assessments at the population-level, with prompts that ask respondents for $p(X|vote)$: the proportion of people with a given characteristic (X) among those voting for a particular party ($vote$). These “compositional” questions are interesting because they tell us about the “images” of party supporters that respondents bring to mind. Ahler & Sood (2018) provide experimental evidence that misperceptions about the composition of party supporters are consequential because they increase perceived distance of individuals from the parties they do not support.

Our study complements this work by asking respondents to report their beliefs about $p(vote|X)$ instead of $p(X|vote)$. That is, instead of asking what proportion of the people who voted a given way have a particular demographic attribute, we ask what proportion of the people with given demographic attributes voted in a particular way. Where the “compositional” question asked by previous studies is useful to assessing “party images”, our “behavioural” question tells us about the assumptions that individuals make about the political behaviour of a *specific* person, based on that person’s demographic characteristics. Both compositional and behavioural assessments are important quantities to understand if our goal is to assess the political assumptions that citizens are making about one another.

Both of these quantities, $p(vote|X)$ and $p(X|vote)$, are likely to be difficult for respondents to report on a survey. They ask respondents to report quantities that could only be measured accurately using cross-tabulations of nationally representative surveys. In general, survey respondents struggle with questions that ask for shares of groups in the population (e.g. Joslyn & Haider-Markel, 2018; Kunovich, 2017).

Mistakes in reporting probabilities can take the form of overly extreme probabilities (e.g. Kahneman, 2011) or probabilities overly close to 50%, depending on circumstances (Atanasov et al., 2017; Baron et al., 2014). In terms of the specific information required to answer accurately, the compositional question $p(X|vote)$ is more difficult than the behavioural question $p(vote|X)$, as only the latter is typically reported in the media when presenting demographic breakdowns of election results. Indeed, Ahler & Sood (2020) propose that citizens' understandings of these proportions might be linked. They argue that citizens might be more familiar with $p(vote|X)$ and therefore recover $p(X|vote)$ by implicitly calculating (perhaps inaccurately) the relationship between the two: $p(X|vote) = p(vote|X)p(X)/p(vote)$. There are multiple ways that citizens might err in applying Bayes rule, but the most likely are by failing to implicitly multiply $p(vote|X)$ by $p(X)/p(vote)$ at all, or by holding inaccurate beliefs about the base population proportions of $p(X)$. Implicit in Ahler and Sood's argument is the idea that citizens might hold accurate beliefs about $p(vote|X)$. We test if, in fact, citizens can report accurate beliefs about this probability.

We examine citizens' perceptions about $p(vote|X)$, assessing perceptions about many social groupings (X) jointly rather than one at a time. Our two experiments consist of presenting profiles of voter characteristics (such as income, education, social class, ethnicity, religion, place of residence, age, etc.). In the first experiment we ask a group of respondents to assess which party that individual was likely to have voted for in the 2017 UK election. In the second experiment we ask another group of respondents whether that individual was likely to have voted Leave or Remain in the 2016 UK referendum on EU membership. The profiles of characteristics presented were randomly selected from the profiles of respondents to the face-to-face survey of the 2017 British Election Study (BES), so we know the true reported vote choice in both the 2016 referendum and 2017 election for each treatment profile, and the treatment profiles are representative in distribution of the voters in the referendum

and election. This allows us to benchmark public perceptions against the actual demographic associations in a variety of ways.

We find that on *average*, citizens' perceptions broadly reflect the actual demographic associations of voting. Across a very large number of demographic attributes and the two different vote choices, we find only a single attribute where respondents are, in the aggregate, directionally mistaken (on average respondents think that holding a university degree was associated with voting Conservative in 2017, when in fact it was associated with voting Labour). Otherwise, for both the "old" political divide of party and the "new" political divide of Brexit, respondents' assessments are responsive to variation in profiles in qualitatively correct ways, and often capture the relative strength of associations well. At the same time, while *average* beliefs track reality reasonably well, at the individual-level guesses are noisy and overconfident, and so respondents do not perform well in probabilistic assessments like Brier score. We show that this reflects the difficulties of making probabilistic assessments of what proportion of people with a given profile will have voted in a specific way. The accuracy of respondents' perceptions increases with their level of political attention but is not consistently predicted by any other measured characteristic of the respondent.

Whereas previous work by Ahler & Sood (2018) found that respondents caricature party supporters and do so more when they are more interested in politics, we do not find any such tendency. While we examine a different setting (the UK rather than the US), we believe it is more likely that these different findings are the result of the different way in which we elicit respondents' understandings of how political divides intersect with social and demographic groups in the population. Compositional questions make it easier to overstate demographic associations with vote, because demographic characteristics are presented one-at-a-time. In contrast, the behavioural question that we ask requires respondents to evaluate each demographic attribute in the context of many at once, to think about a particular person with a full profile of

attributes. In this context, overstating one demographic association requires ignoring others. We find that respondents do not do this, at least not on average with respect to any particular attribute. This is true even though respondents give far too many extreme responses, frequently (and implausibly) stating that certain profiles are 100% or 0% likely to have voted Leave, Remain, Conservative or Labour.

Our findings are mostly consistent with another recent study, which assesses US respondents' ability to infer the Trump/Clinton vote choices of profiles that as they reveal a mix of social/demographic characteristics as well as political attitudes (Carlson & Hill, 2021). Like their study, we find that individual-level assessments are noisy but that there are not major biases in those assessments. The inclusion of political attitudes (e.g. on abortion and partisanship) in the Carlson and Hill experiment means that their study answers a different question than ours. They find partisanship is the attribute that most increased the accuracy of guesses, followed by the profile's reported most important problem. While closely related methodologically, their experiment is designed to assess respondents' beliefs about the links between other individuals' political attitudes and vote choice, while ours is focused on the perceived links between social groups and political positions.

As Ahler & Sood (2020) observe, there are a number of mechanisms that could explain errors in citizens' reported beliefs, some of which involve consistently mistaken beliefs and some of which involve different internal logical inconsistencies in citizens' beliefs. In the conclusion, we suggest future research strategies for resolving some of the outstanding puzzles in this area, using a combination of the research design that we employ here along with those previously employed by Ahler and Sood.

3.1 The Role of Citizens' Perceptions of Group Political Behaviour

Why does it matter what citizens believe about the demographic patterns of voting? The substantial cognitive and informational demands placed on citizens by democratic institutions have led to a number of theories about the mechanisms through which they process these demands. Political sophistication is often defined as the ability to deploy political knowledge to make connections with other forms of knowledge (Luskin, 1987, 1990). One early articulation envisions citizens holding different 'levels of sophistication', varying according to their ability to recognize and judge social groups and the ideology associated with different political parties (A. Campbell et al., 1960; Converse, 1964). In this definition, citizens with higher levels of sophistication are those capable of making ideological judgements, while people with more moderate sophistication are those who perceive parties in a group-centric fashion, as representing a coalition of groups' interests. There is a body of literature that finds most citizens perceive politics in a more group-centred fashion than an ideological one (Converse, 1964; Kalmoe, 2019; Kinder & Kalmoe, 2017), with a general conclusion that "people are naturally more group-oriented than ideological and that, in any case, most 'ideologues' are probably familiar with the groups comprising each party's coalition" (Kalmoe, 2019).

Within the group-centric perspective, A. Campbell et al. (1960) differentiated between those who, when evaluating parties, only mention a single group and those who can reference multiple groups in conflict. In other words, it is possible that a more complex group-centric perspective is also related to higher sophistication. Group-centric perspectives can vary widely in their 'sophistication' according to their accuracy and the extent to which they encompass multiple, potentially overlapping, social groupings. Indeed, there are several academic (presumably sophisticated)

perspectives on parties which envision them primarily as group-based coalitions, in which different interest groups come together to coordinate policy demands (Bawn et al., 2012; Cohen et al., 2009). From this perspective: “...while parties include ideological elements, collections of intense policy demanding groups define parties” (Kalmoe, 2019).

Partisanship is often conceptualized in the literature as way to ease decisions by giving cues or heuristic guidance for people, with relatively little need for information on the candidates and the electoral context (e.g. Fiorina, 2002). These cues are usually thought of as policy stances of the party and its candidates, but they may as well be cues on the social groupings of party members. ->

3.1.1 Opinion-based Identity and Brexit

While voting and support for political parties are often the focal political behaviour, we can expect similar patterns for other salient opinion-based divisions (Bliuc et al., 2007; McGarty et al., 2009). Hobolt et al. (2020) find that, after the 2016 EU referendum, identification as “Leavers” and “Remainers” became at least as strong as party identities. The socio-demographic determinants of Brexit voting are different from those for the party divide. While age and education are the main predictor of this opinion-based division, “measures of social class (such as income, occupation and housing tenure) continue to matter more for partisan identities than for Brexit identities despite sharp falls in class voting in Britain in recent decades” (p.14). This is consistent with previous research on the determinants of Brexit vote that has found that remain voters tended to hold social liberal values, and also were more likely to be younger and hold more educational qualifications, while leave voters tended to hold social conservative values, and tended to be older and hold fewer educational qualifications (e.g. Alabrese et al., 2019; Dassonneville, 2016; Goodwin & Heath, 2016). There are reasons to believe these social cleavages became increasingly relevant

partly because of generational changes in the British electorate, which has become more educated and racially diverse (e.g. Sobolewska & Ford, 2019). The Brexit divide seems to rival party in terms of their potential to shape citizens' views about the political alignment of social groups. Hobolt et al. (2020) find that in terms of trait stereotype—positive in-group perception and negative out-group perception—the Brexit divide might be stronger than the partisan divide.

Thus, past research gives us reason to suspect that citizens' own social and political identities and their perceptions of the social and political identities of others are interrelated. This makes it important to know when perceptions are shaped by real demographic patterns, as well as in which circumstances they overstate or caricature those patterns (Ahler & Sood, 2018; Claassen et al., 2019). At the same time, people hold multiple political identities, and these may mobilize distinct aspects of their social identities. The existence of a long-standing (but evolving) party system in the UK, alongside the more recent “pseudo-party” system of Brexit vote and identity, provides a unique environment to examine how citizens understand the complex demographic associations with political behaviour.

3.2 Data and Methods

Our experiment consists of presenting real profiles of voter characteristics and then asking respondents to assess (1) which party that individual was likely to have voted for in the 2017 UK election or (2) whether that individual was likely to have voted Leave or Remain in the 2016 UK referendum on EU membership. The profiles of characteristics presented to respondents were those of individuals randomly selected

from the 2017 British Elections face-to-face Survey (BES).²³ Because each “treatment profile” corresponds to a real BES respondent, each sampled profile has a true vote choice in both the 2016 referendum and 2017 election, and it is possible to benchmark public perceptions against reality.⁴

This experimental design follows a trend towards the use of more complex survey designs, particularly involving multidimensional randomisations of complex treatments. The most widely applied such designs are conjoint experiments, which independently randomise a large numbers of attributes in order to enable estimation of *average marginal component effects* (Hainmueller et al., 2014). Our design is not a conjoint

²BES respondent profiles were randomly sampled with the probability of sampling proportional to the BES 2017 with result weights (*wt_vote*). This ensured that the profiles presented to respondents of the experiment were nationally representative of British voters, based on self-reported turnout, in the 2017 election. These weights are constructed using demographic weights targeted to the voting eligible population and weighting to Great Britain turnout and vote results. Not exactly the same people voted in the 2016 referendum and the 2017 election, so this means that the profiles were slightly unrepresentative with respect to 2016 referendum voters, however not to an extent that is consequential for our purposes.

³We use the BES weights based on self-reported voting (*wt_vote*) rather than validated voting (*wt_vote_valid*). The tradeoff in doing so is that while self-reported turnout is overstated, the success of the turnout validation process is 67% and not randomly assigned among those completing the survey. We elected to have a larger sample of profiles to sample from by using self-reported rather than validated turnout. While the validated turnout levels are clearly closer to correct for the aggregate turnout levels, our analysis is focused on the probability of voting one way versus the other conditional on age, gender, and other variables. For the inclusion of “turnout overstaters” to be a substantial problem for our analysis, it would need to be the case that the turnout overstaters had a different stated vote distribution than the validated voters, conditional on those other variables. Since turnout overstaters are 9% of profiles where validation was successful, these differences would have to be very large to change the benchmark for our analysis noticeably.

⁴Gender and region did not present missing values (they are used for the sampling process). To deal with missing attributes of the voters’ profiles, due to non-response, two strategies were followed. For all attributes, apart from ethnicity and religion, missing values were randomly imputed using STATA to fill in missing values using a multivariate imputation through chained equations (MICE). In other words, we imputed multiple variables iteratively via a sequence of univariate imputation models, one for each imputation variable, with fully conditional specifications of prediction equations (*mi impute chained* command in STATA). This imputation strategy relies on assumptions to model the relationship between variables. Specifically, multiple linear regression was used for age, logistic regression for home status, subjective class, and subjective family class, and ordinal logistic for education and income. Gender, region, and vote (EU referendum vote for Brexit experiment and General Elections vote for the party experiment), where used as predictors. For ethnicity and religion, “unknown” category was included in the experiment as a possible level of these attributes. Figure 3.10 in the appendix details missingness patterns before imputation. There are only 3.1% missing values for the Brexit experiment and 3.2% for the parties’ experiment and these are mainly concentrated in the income attribute, which is strongly predicted by other attributes, such as home status. We are therefore confident this imputation does not distort the profiles’ distribution in any consequential way.

experiment, because the attributes are not independently randomised, instead we randomly select full profiles of attributes from a population survey (the BES) using population weights. This means that the profile attributes we present to respondents are effectively sampled from the population joint distribution of those attributes.

There are two reasons that we do not use a conjoint design here, one of which is general and one of which is specific to our application. In general, one threat to the external validity of conjoint experiments comes from the potential for the independent randomization distribution to consequentially shape the results (De la Cuesta et al., 2019). Since the *average marginal component effects* (AMCEs) average over the treatment distribution, an independent distribution may not be innocuous for the external validity of any findings. One manifestation of this problem is the fact that with independent randomization, implausible or impossible combinations of attributes may occur. The more specific reason that we adopt this design is that, unlike the many conjoint experiments which interrogate voter preferences, in our application there is a right answer. We know the votes of the individual respondents to the BES; we would not know the votes of hypothetical profiles generated by randomising individual attributes.

The cost of randomising the attributes at the full profile level, rather than the individual attribute level, is that differences in mean response, comparing all responses to profiles with different attribute levels, lose their causal interpretation (they are no longer unbiased estimators of the AMCEs). We can, nonetheless, form *model-based* rather than *design-based* estimates of the causal effects of respondents seeing particular attribute levels, through the use of regression. For the purposes of this experiment, it makes sense to sacrifice having simple experimental comparisons for all attributes in exchange for having a meaningful external benchmark. Crucially, because the full profiles are themselves randomly assigned to respondents, the design still allows us to assess the causal effects of different attributes appearing in the treatment

profiles, subject to modelling assumptions about how the effects of different attributes aggregate.

Our experiment was fielded by YouGov in June 2019. The prompt for the Brexit experiment first asked the respondents to carefully read a table with 10 demographic attributes of the voter. It then asked the respondent to assign how likely it is this voter voted for either Leave or Remain in a slider (that automatically made sure the sum of the two percentages resulted in 100%). The slider allowed integer percentage responses from 0 to 100. The party experiment prompt followed a similar format with the addition of making explicit that the profile voter had cast his or her vote for either Labour or Conservative. Immediately above the slider, the prompt included a statement that aimed to explain to respondents how the scale works. Specifically, it explained that choosing any value other than 0 or 100% implies uncertainty. For the Brexit experiment, this read “If you indicate 100% for either Leave or Remain, you are saying that you are absolutely sure that a person with these characteristics would have voted for that option. A response of 50% indicates that a person with these characteristics would be equally likely to have voted Leave or Remain.”

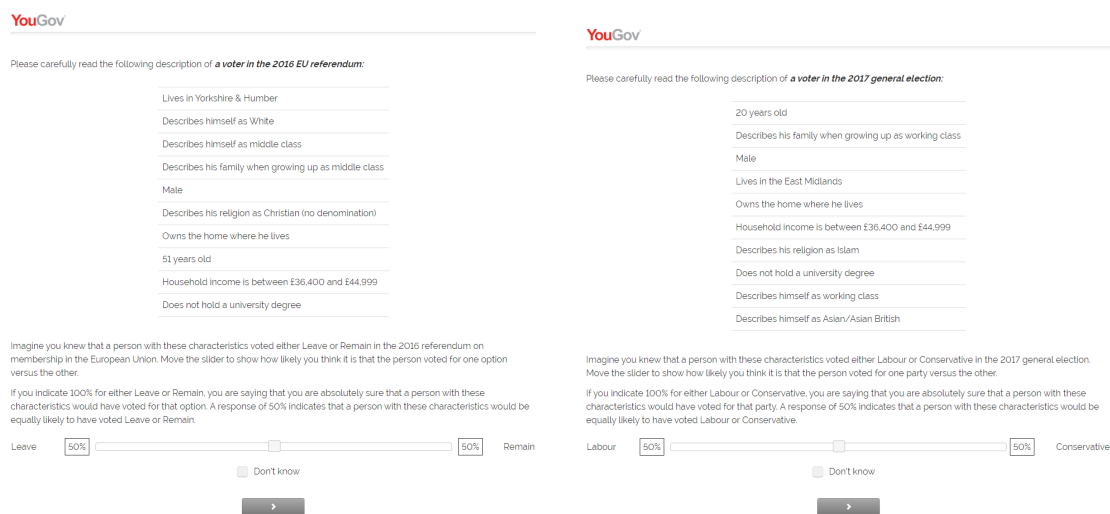


Figure 3.1: Survey prompts with example profile for Brexit experiment (left) and party experiment (right).

The prompt was repeated three times per respondent with different profiles. The order in which the attributes were listed, and which ends of the slider corresponded to Leave, Remain, Conservative or Labour, were randomised per respondent. 1694 respondents were recruited for the Brexit experiment and 1688 respondents for the party experiment. We use sample weights provided by YouGov that make the data nationally representative for the British population on standard demographic and past vote variables.

3.3 Determinants of Respondent Guesses

Figure 3.2 shows the distributions of guessed probabilities for voting Leave versus Remain, or Conservative versus Labour. Despite our efforts in the survey prompt to make clear that 0% and 100% responses are excessively strong statements, as they imply no uncertainty whatsoever, they remain common responses to the prompt.

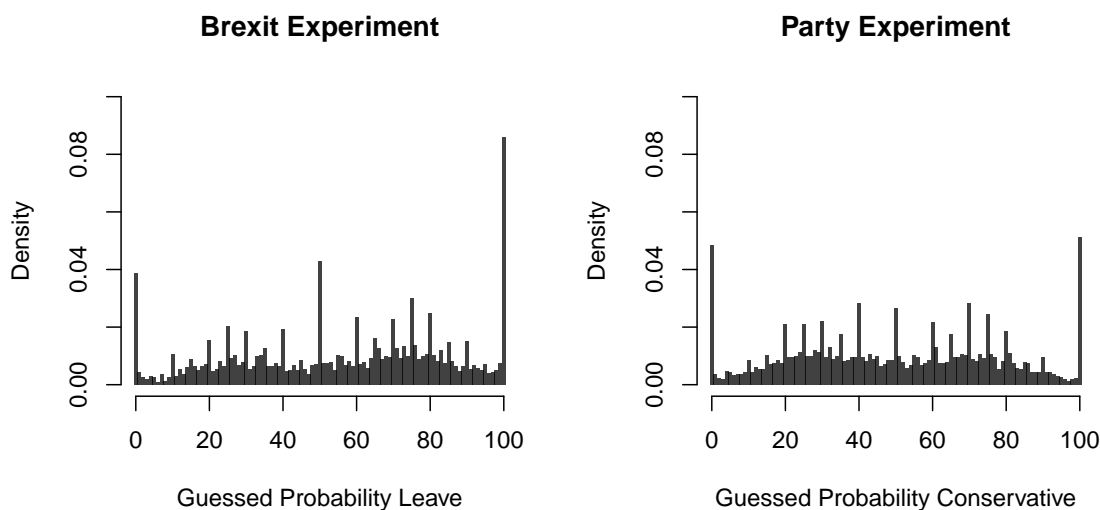


Figure 3.2: Distributions of guessed probabilities for voting Leave versus Remain (left), and Conservative versus Labour (right).

Because the experimental profiles were randomly sampled from the BES, we can benchmark general perceptions on average across all profiles. Do respondents

accurately perceive the general tendency of voters in the UK to support Labour versus the Conservatives and Leave versus Remain? The average guess for the party experiment is 49.8% Conservative vote (95% interval 48.8-50.8), slightly lower than the true value of 51.4% of the two-party vote and the proportion of the BES profiles which corresponded to Conservative voters, which was 51.5% (95% interval 48.5-54.4). In the Brexit experiment, the overall average guess is 56.5% Leave vote (95% interval 55.4-57.5), which is slightly greater than both the true value of 51.9% and the proportion of the BES profiles which corresponded to Leave voters, which was 50.3% (95% interval 47.6-53).⁵ While these differences are statistically significant, they are not substantively large.

3.3.1 Differences in Mean Guesses by Respondent Vote and Profile Vote

As an initial check on whether respondents are able to distinguish at all between Leave and Remain or Conservative and Labour profiles, we can calculate the average response given the true votes of the profiles that respondents observed. We find that the average guessed probability of a Leave vote was 52.7 (51.5%-54%) for BES profiles that actually voted for Remain, and 60.1 (58.8%-61.3%) for those that actually voted for Leave. We find that the average guessed probability of a Conservative vote was 46.6 (45.4%-47.9%) for BES profiles that actually voted Labour, and 53 (51.8%-54.2%) for those profiles that actually voted Conservative. Thus, we see clear evidence that responses were, on average, affected by information in the profiles in a way that made them more accurate than would have occurred if respondents were guessing without reference to the profile. They were more likely to guess higher probabilities of a Leave

⁵The BES estimates for our Brexit experiment are slightly smaller than the referendum result because the sample is weighted to correspond to general election voters rather than those who voted in the referendum. Thus, on average, respondents perceived profiles as being more likely to correspond to Leave voters than they ought to have, and were very close to accurate for Remain voters.

vote when the profile really was a Leave voter rather than a Remain voter; they were more likely to guess higher probabilities of a Conservative vote when the profile really was a Conservative voter rather than a Labour voter.

We can ask a similar question with respect to respondents' own vote history. Since the treatment profiles are randomly assigned to respondents, any difference that we see as a function of respondents' own vote history must be an indication of bias in how respondents perceive the votes of other citizens. We find that for both the party experiment and Brexit experiment there are small, but statistically significant differences predicted by respondents' previous vote. In the party experiment we find that respondents that voted for Labour in the 2017 general election underestimated the probabilities of Conservative vote, with an average guess of 47.2% (95% interval 45.7-48.7) while respondents who voted for Conservative were, on average, unbiased in their guesses, with an average guess of 51.4% (95% interval 50-52.9). In the referendum experiment, all respondents tended to overestimate Leave vote. However, this bias was stronger among leave voters, with an average of 59.3% (95% interval 57.9-60.7) versus an average of 54.5% (95% interval 53.1-55.9) for those who voted remain. While both experiments provide evidence of a tendency for respondents to make guesses about the profiles that tend slightly towards their own positions, the differences in average guess by respondents' own votes are still smaller than the differences by the profile's true vote.⁶

3.3.2 Differences in Mean Guesses by Profile Attribute

Because the profiles in our experiment are drawn from the real joint distribution of voters, we can analyse accuracy, subsetting by profile attribute values and comparing to the BES. The cross-tabulated BES distributions of vote by these attributes provide an appropriate benchmark for actual voting behaviour among individuals with these

⁶This may seem like a low standard, but respondents know their own vote and not the profile vote.

attributes, averaging over the actual distributions of other attributes that tend to come along with the attribute we are focusing on. Thus, for example, we can compare the guessed proportion of Leave voters for profiles with a university degree in the experiment (“*Guess*”) to the proportion of Leave voters among (weighted) BES respondents (“*BES*”) with a university degree. We are additionally able to compare to the true result of the election/referendum (“*Real*”) when we subset by region.

Note that while it facilitates benchmarking, the non-independent randomization of profile attributes means that we cannot conclude from this analysis that it was a specific grouping variable that *caused* respondents to guess differently with respect to vote. It could be that it was other attributes, themselves associated with that attribute in the UK population, which led respondents to make different guesses.

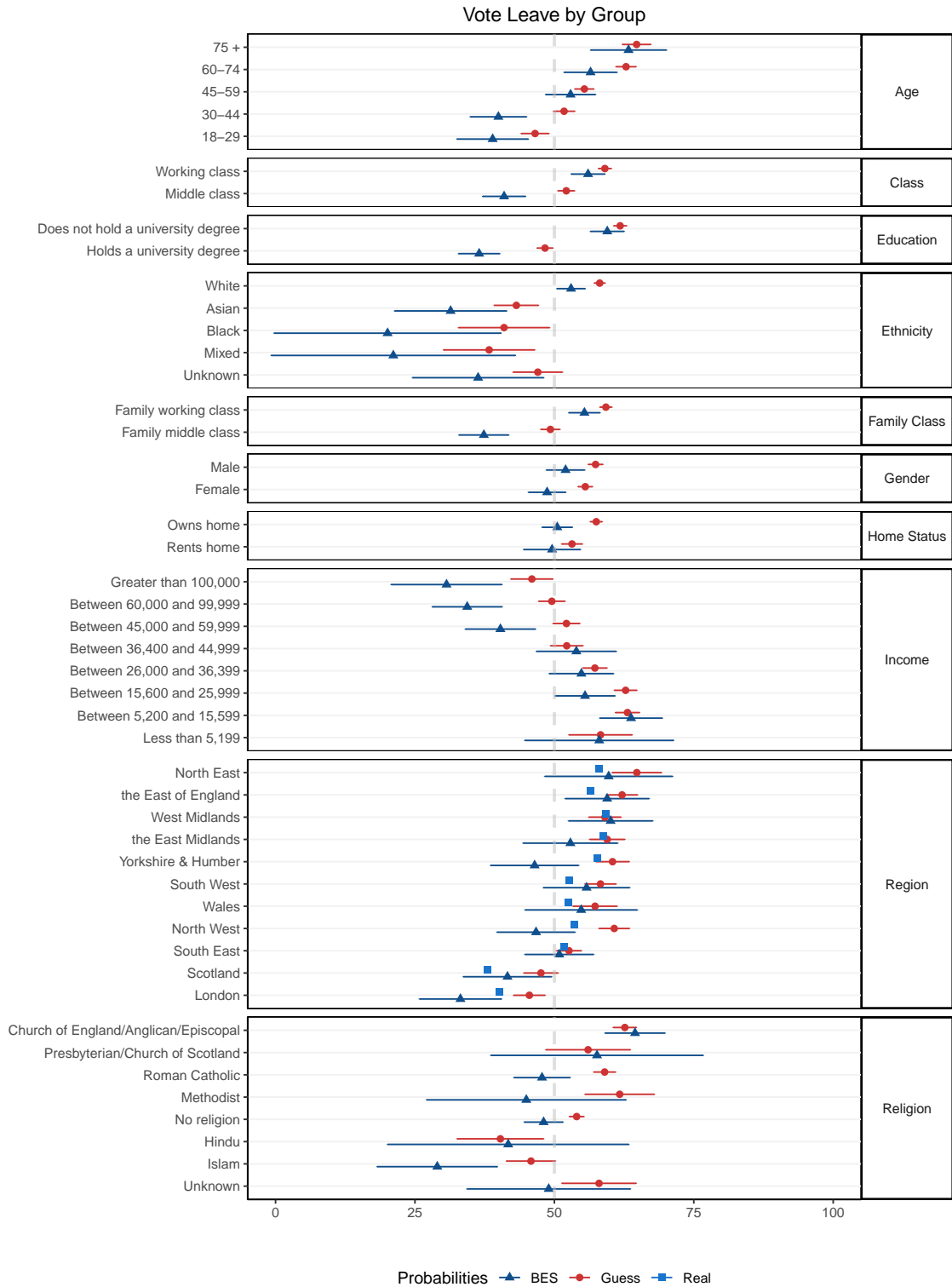


Figure 3.3: Average guess of vote versus BES estimates and known results by profile attribute for Brexit experiment.

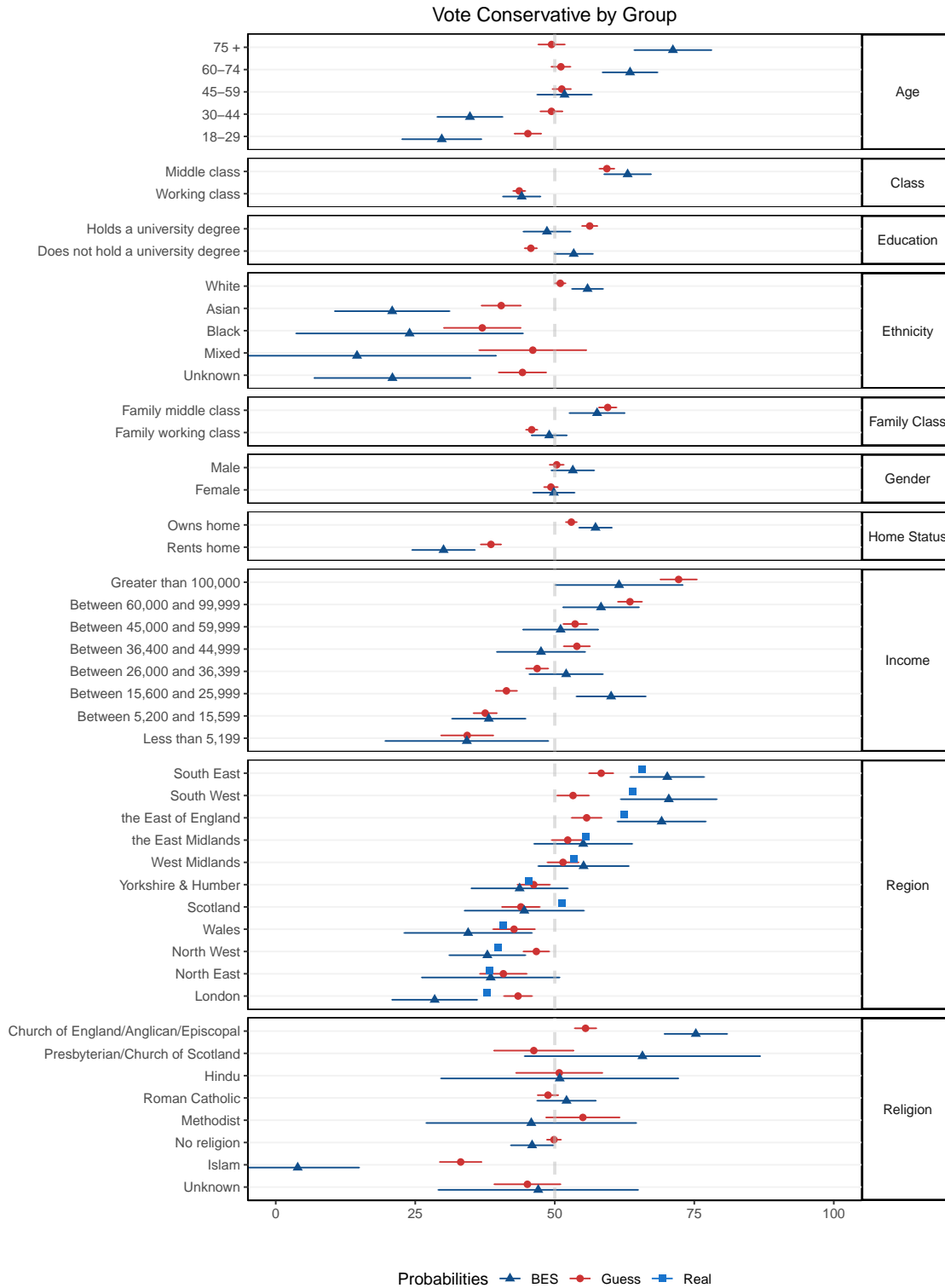


Figure 3.4: Average guess of vote versus BES estimates and known results by profile attribute for party experiment.

In general, Figures 3.3 and 3.4 show that respondents' guesses are responsive to differences between groups. While on average guessed Leave vote is slightly too high, the differences between class groups, regions, income groups, home ownership status, gender, ethnicity, education and age are all in the right direction and are close to the correct magnitude for many attributes. Respondents appear to be substantially under-responsive to differences by age, income and ethnicity. In the party experiment, nearly all of the differences between groups are once again in the correct direction, with the sole exception of education. Respondents thought that profiles with university degrees were more likely to be Conservatives than those without, when in the BES the relationship goes the other way. Here, there is a substantial underestimation of age and regional differences, while the association with income is very close to correct.

3.3.3 Regression Analysis of Guesses by Attributes

These one-attribute-at-a-time analyses tell us about the general tendency of respondents to hold accurate perceptions of profiles with different attributes. But because profile attributes are correlated in the UK population, and therefore also in our experimental treatment distribution, the one-at-time analysis does not tell us the extent to which respondents are changing their responses due to particular profile attributes. It could be that respondents only perceive the importance of some of these attributes, change their responses in response only to those attributes, but nonetheless appear responsive to other attributes which are correlated with the ones that they know about. While our design's non-independent randomisation sacrifices experimental balance of profile attribute effects, the experimental design still rules out omitted variables and we can identify the causal effects of attributes subject to modelling assumptions (De la Cuesta et al., 2019), which are in our analysis the assumption of additivity of the attribute effects on a logit scale. The possibility of attribute confounding motivates moving to a multiple regression analysis of responses, to attempt to distinguish which

of the profile attributes are influencing respondents.

The relevant benchmark for a regression model predicting respondent guesses as a function of profile attributes is the equivalent regression model predicting vote choice among BES profiles. In the analysis below, we use as modelling assumptions a (fractional) logistic regression for the guess (rescaled to the $[0, 1]$ interval) and a logistic regression for the binary vote choice, so that the coefficients are directly comparable.⁷

⁷We obtain very similar results using a linear probability model for both the guesses and the BES vote data. However, this model does lead to invalid predictions for the binary vote choice for some profiles.

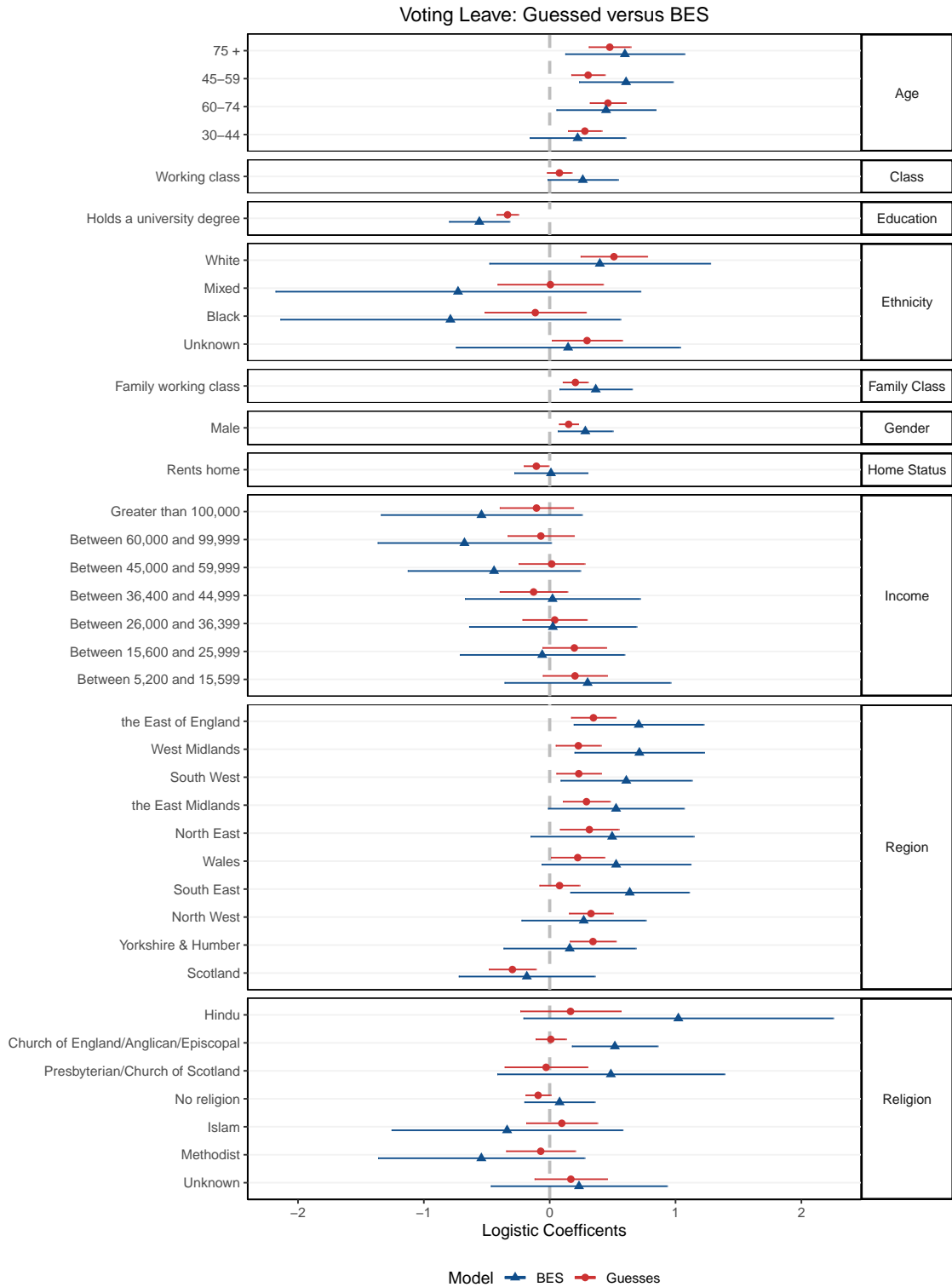


Figure 3.5: Regression coefficients for guess of vote versus BES estimates by profile attribute for Brexit experiment.

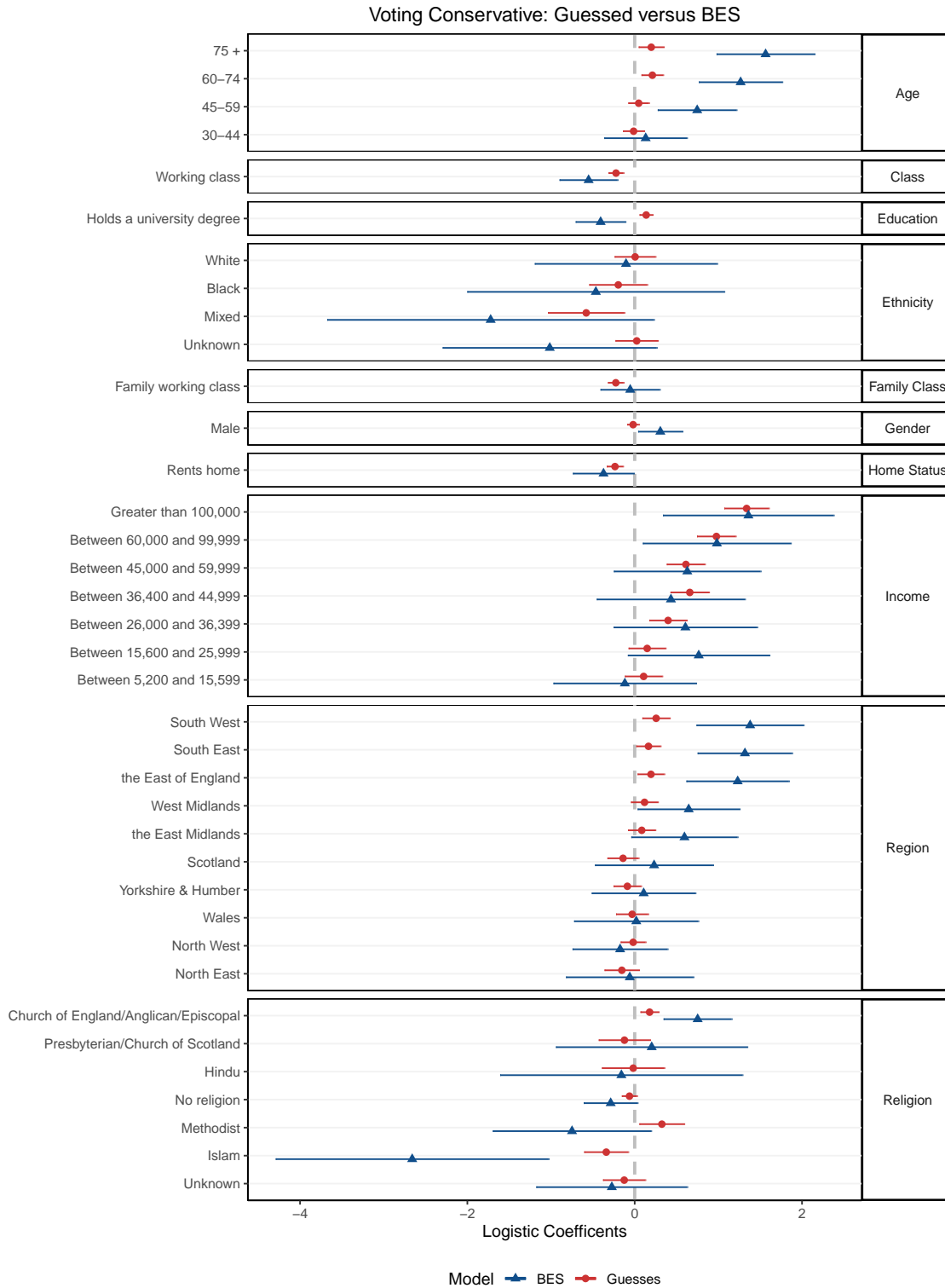


Figure 3.6: Regression coefficients for guess of vote versus BES estimates by profile attribute for party experiment.

The individual coefficients shown in Figures 3.5 and 3.6 can be interpreted in a causal way. In other words, they represent the expected change in the odds of guessing a probability, by an average respondent, brought upon by a change in the presented profile from the base category to the measured category, averaged over the distribution of the other attributes. For example, the coefficient for “male” represents the expected change in odds of a guessed probabilities, for the average respondent, of being presented a random male profile rather than a random female profile, holding all other attributes constant. Our findings follow largely similar patterns to the single attribute analysis from before. There are some exceptions: we see responses tracking regional differences in the single attribute analyses in Figures 3.3 and 3.4, but Figures 3.5 and 3.6 suggest that this is mostly because of demographic variation by region as opposed to direct effects of the region label. Overall, the magnitudes of the partial associations are either close to correct or underestimated, but only in the case of education in the party experiment is the association significantly in the wrong direction. Respondents are, on average, responsive to most of the attributes provided in the experiment, holding constant all of the others.

3.3.4 Comparison of Predicted Probabilities

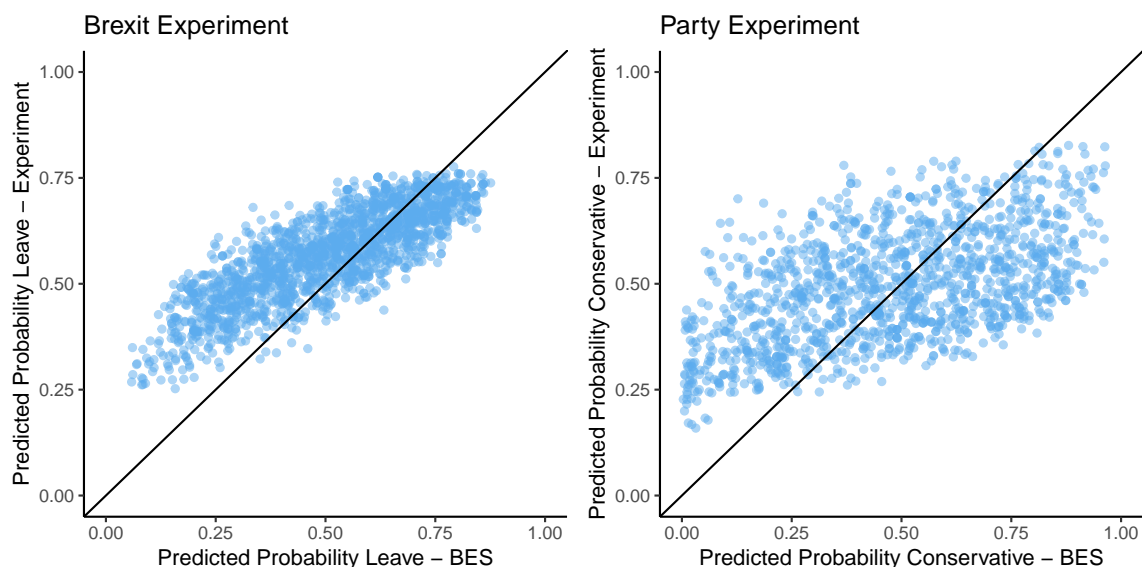


Figure 3.7: Predicted probabilities based on experimental responses as a function of predicted probabilities based on BES vote choice.

If we use both of these models to construct predicted probabilities for the BES profiles, we see that the predicted probabilities are correlated to a substantial degree. For the Brexit experiment, the predicted probabilities constructed using the BES vote data and using the experimental guesses are correlated at 0.82. For the party experiment, the equivalent correlation is 0.54. The fact that the coefficients from the model fit to the guesses tend to be attenuated relative to the model fit on the BES vote choice data means that the predicted probabilities from the former are also attenuated with respect to the predicted probabilities from the latter (see Figure 3.7).

3.4 Determinants of Respondent Accuracy

Thus far, we have focused on whether respondents' guesses vary in the right ways given variation in the profiles, on average. But average variation in the profiles is not the only variation of interest. Is the good average performance the result of high

quality individual-level guesses, or simply a lot of idiosyncratic error that cancels out? Figure 3.8, by comparison to Figure 3.7, shows that there is a great deal of idiosyncratic error. Which respondents to our experiment are more or less able to provide accurate responses? There are many ways to answer these questions, but here we use two measures of the accuracy of guesses, one which assesses the quality of the percentages reported by respondents as probabilistic forecasts, and one which assess only the direction of the guess.

First, we use the Brier Score, a tool from forecast evaluation, to assess respondents' guesses as probabilistic predictions (Brier, 1950). If N is the total number of predictions, f_i is the probability reported by a respondent and o_i is the true vote of the profile shown to that respondent (which may take the values of 1 or 0):

$$\text{Brier Score} = \frac{1}{N} \sum_{i=1}^n (f_i - o_i)^2$$

Smaller Brier scores imply better predictions. Here, the measure enables us to assess the accuracy of respondents' guesses about the referendum and election vote by comparing their prediction to the actual votes associated with the voter profile that they observed. A convenient feature of the score is that it is simply an average of a quantity that we can calculate for each response. This means that in addition to calculating the score overall, we can fit regression models for $Y_i = (f_i - o_i)^2$ to model how the Brier score, which is to say predictive accuracy, varies as a function of respondent characteristics. Note that this depends on only the guess and the true value for each response to our survey experiment, so we can model this quantity as a function of profile characteristics, respondent characteristics, or both.

Second, we use "correct dichotomised guesses" to assess respondents' guesses in a way that reduces sensitivity to their ability to use a probability scale effectively. Here, if the profile is actually a Leave voter, we count any guess from 51% Leave to 100% Leave as correct, a guess of 50% as half correct, and any guess from 0% to 49% Leave

as incorrect. This approximates the assessment that we could have done if we had asked respondents simply for their best guess, rather than for a probability. Merely assessing whether the respondent's guess was in the correct direction makes sense if one is concerned that respondents understand that probabilities above 50% imply that an option is more likely than the alternative, but find it difficult to express the degree of confidence using a probability scale.

The overall Brier score for all responses (using survey weights) is 0.302 for the Brexit experiment and 0.291 for the party experiment. In both cases this is worse (higher) than the score of 0.25 that results from simply guessing 50% for every profile in both experiments. This is not surprising given that many respondents provide 0% and 100% responses, which are always overly confident probabilistic assessments given the limited predictive power of the profile attributes that respondents saw in the experiment. To generate a benchmark for what good guesses would look like in this task, we can compare the guessed results to the Brier score obtained by using the BES predicted probabilities as f_i . Any remaining difference can be attributed to either the respondents' lack of knowledge or their difficulty at communicating it as a probability. These benchmark Brier scores are 0.088 and 0.102 for the Brexit and party experiments respectively. These values are far better (lower) than the respondents achieved as well as being substantially better than what would result from guessing 50% on all profiles, because the profile variables are moderately predictive of vote choices in both experiments.

We can assess the extent to which poor reporting of probabilities is the problem by analysing the proportion of correct guesses when we dichotomise the guesses as described earlier. We find that, under this criterion, 56.3% (95% interval 54.6-58) of respondents in the Brexit experiment correctly guessed the vote of the respective profile. Similarly, 56.4% (95% interval 54.7-58.1) of respondents in the party experiment guessed correctly. If we similarly dichotomize the fitted probabilities from the

benchmark model fit to the BES data, we find that 63.4% (95% interval 61.7-65.1) of profiles in the Brexit experiment and 59.7% (95% interval 58.1-61.4) in the party experiment could have been guessed correctly based on the dichotomised probabilities from the logistic regression fit on the BES data. By this standard, respondents perform reasonably, given the limits of what was possible using a basic demographic model with the data that they were presented with. The fact that the guesses look so much better when assessed dichotomously reinforces the point that the poor predictive performance by Brier score derives in large part from the fact that people struggle to think probabilistically or to report their beliefs in this way (Atanasov et al., 2017; Baron et al., 2014; e.g. Kahneman, 2011).

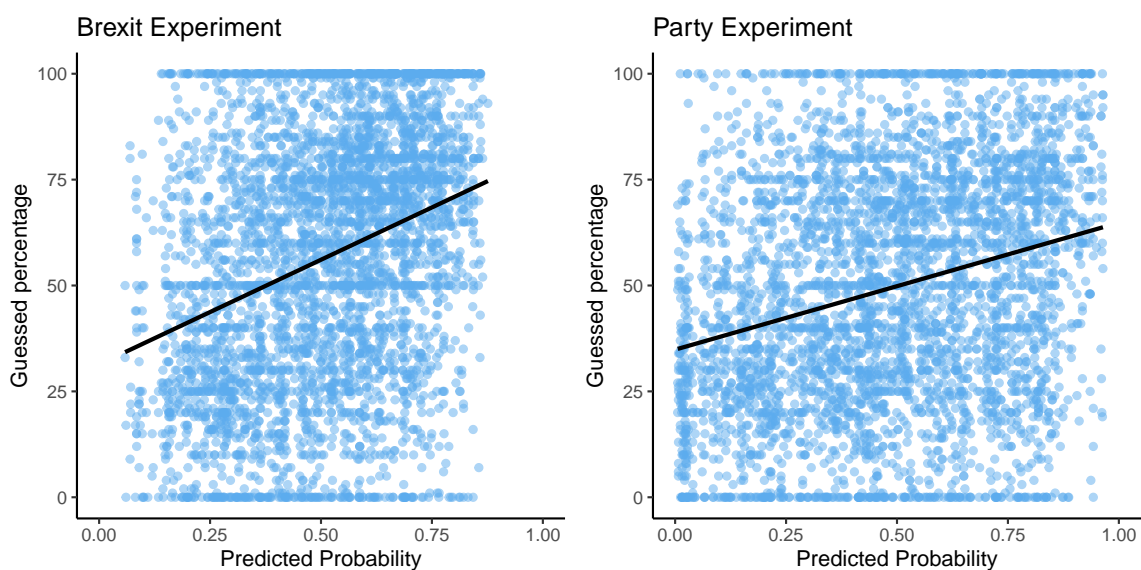


Figure 3.8: Gussed percentages for each response in the experiment as a function of the predicted probability for the experimentally provided profile using the BES vote regression model.

3.4.1 Respondent-level Predictors of Accuracy

In Table 3.1 we report the results of a regression predicting Brier scores and correct dichotomous guess proportions, for both experiments. The strongest source of respondent-level heterogeneity across the two experiments is that respondents who pay

more attention to politics tend to do a much better job at guessing the probabilities of someone voting in a given way. Going from the lowest (0) to the highest (10) level of attention is associated with an increase of 7.5 and 12.4 percentage points in the proportion of profiles with the correct dichotomised guess in the Brexit and party experiments, respectively and all else equal. The fact that we see this association in both Brier scores and correct dichotomised guess tells us that it is primarily an association with knowledge, rather than with the ability to accurately report probabilities.

Political attention is the only respondent attribute that is consistently and strongly predictive of Brier scores as well as correct dichotomised guesses across both experiments. Higher educational attainment is associated with better (lower) Brier scores on the Brexit experiment, but not the party experiment. In both experiments, the region where respondents make the worst guesses by Brier score, all else equal, is London. This difference is only marginally significant from other regions, and is not present in the party experiment when assessed by dichotomised guess, but it is plausible that people in London might have a poorer understanding of how people around the UK vote than do respondents elsewhere, simply because London is a bit of a political outlier among UK regions.

	Brier Score		Correct Dichotomized Guess	
	Brexit Exp.	Party Exp.	Brexit Exp.	Party Exp.
Intercept	0.414*** (0.045)	0.342*** (0.048)	0.453*** (0.073)	0.522*** (0.080)
Political Attention	-0.008*** (0.002)	-0.009*** (0.002)	0.008* (0.004)	0.012*** (0.004)
Party Vote: Labour	-0.003 (0.013)	-0.001 (0.013)	0.024 (0.021)	0.002 (0.021)
Party Vote: Liberal Democrat	-0.033 (0.022)	0.026 (0.021)	0.052 (0.036)	-0.014 (0.035)
Party Vote: SNP	0.030 (0.038)	-0.025 (0.036)	-0.060 (0.061)	0.061 (0.062)
Party Vote: Plaid Cymru	-0.109 (0.107)	0.026 (0.068)	0.105 (0.172)	-0.192* (0.115)
Party Vote: UKIP	0.086** (0.039)	0.055 (0.040)	-0.041 (0.062)	-0.058 (0.068)
Party Vote: Green	-0.016	-0.029	0.026	0.036

	Brier Score		Correct Dichotomized Guess	
	Brexit Exp.	Party Exp.	Brexit Exp.	Party Exp.
	(0.042)	(0.037)	(0.067)	(0.062)
Party Vote: Other	0.074	0.006	-0.158	-0.013
	(0.071)	(0.062)	(0.115)	(0.105)
Party Vote: Don't Know	-0.009	-0.017	0.024	0.031
	(0.037)	(0.035)	(0.060)	(0.059)
EU Ref Vote: Leave	0.013	0.023*	0.001	-0.021
	(0.013)	(0.012)	(0.020)	(0.020)
EU Ref Vote: Did not vote	0.029	0.027	0.008	-0.012
	(0.028)	(0.024)	(0.045)	(0.040)
Age	-0.000	-0.000	0.000	-0.000
	(0.000)	(0.000)	(0.001)	(0.001)
Education Level: 1	-0.118***	-0.051	0.187***	0.017
	(0.034)	(0.038)	(0.056)	(0.064)
Education Level: 2	-0.040	0.005	0.050	-0.029
	(0.025)	(0.027)	(0.041)	(0.045)
Education Level: 3	-0.100***	-0.019	0.120***	0.006
	(0.026)	(0.028)	(0.042)	(0.047)
Education Level: 4	-0.111***	0.017	0.149***	-0.064
	(0.030)	(0.030)	(0.048)	(0.050)
Education Level: 5 and above	-0.089***	-0.003	0.114***	-0.030
	(0.025)	(0.027)	(0.041)	(0.046)
Education Level: Other	-0.094***	-0.004	0.138***	-0.048
	(0.026)	(0.028)	(0.042)	(0.047)
Female	0.002	-0.013	-0.008	0.004
	(0.011)	(0.010)	(0.017)	(0.018)
Region: North West	0.046	0.028	-0.113**	0.026
	(0.031)	(0.031)	(0.049)	(0.053)
Region: Yorkshire and the Humber	0.020	0.023	-0.069	0.050
	(0.032)	(0.032)	(0.051)	(0.055)
Region: East Midlands	-0.008	0.025	-0.030	0.002
	(0.033)	(0.033)	(0.053)	(0.055)
Region: West Midlands	0.042	0.005	-0.106**	0.047
	(0.032)	(0.033)	(0.052)	(0.055)
Region: East of England	0.004	0.033	-0.057	-0.041
	(0.031)	(0.032)	(0.050)	(0.054)
Region: London	0.058*	0.056*	-0.111**	-0.018
	(0.031)	(0.031)	(0.049)	(0.053)
Region: South East	0.039	0.013	-0.094*	0.029
	(0.030)	(0.031)	(0.048)	(0.052)
Region: South West	0.031	0.015	-0.077	0.042
	(0.032)	(0.032)	(0.052)	(0.054)
Region: Wales	0.009	0.004	-0.118**	0.048
	(0.037)	(0.037)	(0.060)	(0.062)
Region: Scotland	0.021	0.042	-0.014	-0.026
	(0.035)	(0.034)	(0.057)	(0.058)
R ²	0.025	0.013	0.017	0.011
Adj. R ²	0.016	0.005	0.008	0.002
Num. obs.	3308	3394	3308	3394

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table 3.1: Coefficient Estimates for a Regression Model for Brier Score and Correct Dichotomized Guess by Respondent Characteristics

Finally, we also assessed whether accuracy was related to aggregate similarity between the respondent and the evaluated profile, summarizing the difference between the respondent and the treatment profile using the Mahalanobis distance (Mahalanobis, 1936). Table 3.2 in the appendix shows the result of this analysis. We find no evidence that respondents are more or less accurate in guessing the votes of profiles that are more or less similar to their own profile.⁸

The association between political attention and accuracy in guesses is not linear across the eleven categories of the 0-10 self-report, but is largely explained by the poor (high) scores of the lowest two groups in the political attention scale. As Figure 3.9 shows, despite the different sets of respondents in the two experiments, there is a distinctive non-monotonic pattern to the predictive performance of respondents across the difference levels of the attention measure, with those giving the “1” response on the 0-10 scale performing worst and those giving the “9” response performing best. The non-monotonicity likely reflects a non-monotonicity in how people respond to the self-assessment of political attention as a function of their real awareness of politics rather than non-monotonicity in the relationship between political attention and performance in this experiment. While it is clear that the 0s and 1s perform substantially worse than individuals expressing greater attention to politics, there is no clear trend above the two lowest levels: there is little difference between those who report a political attention of 2 and those who report a 10.

We note here the echo of Converse’s conclusion that both the middle and higher strata of political sophistication can recognize the group alignment of political divides. In contrast, the lowest strata of political sophistication pays “too little attention to either the parties or the current candidates to be able to say anything about

⁸The Mahalanobis distance was measured using six attributes with available information on respondents. These attributes were: gender, region of residence, ethnicity, income, age, and education level.

them” (Converse, 1964, p.16). Specifically, Converse claimed, the lack of linking information between the parties or policies and social groups’ interests explain this lack of connection, which is consistent with our findings here.

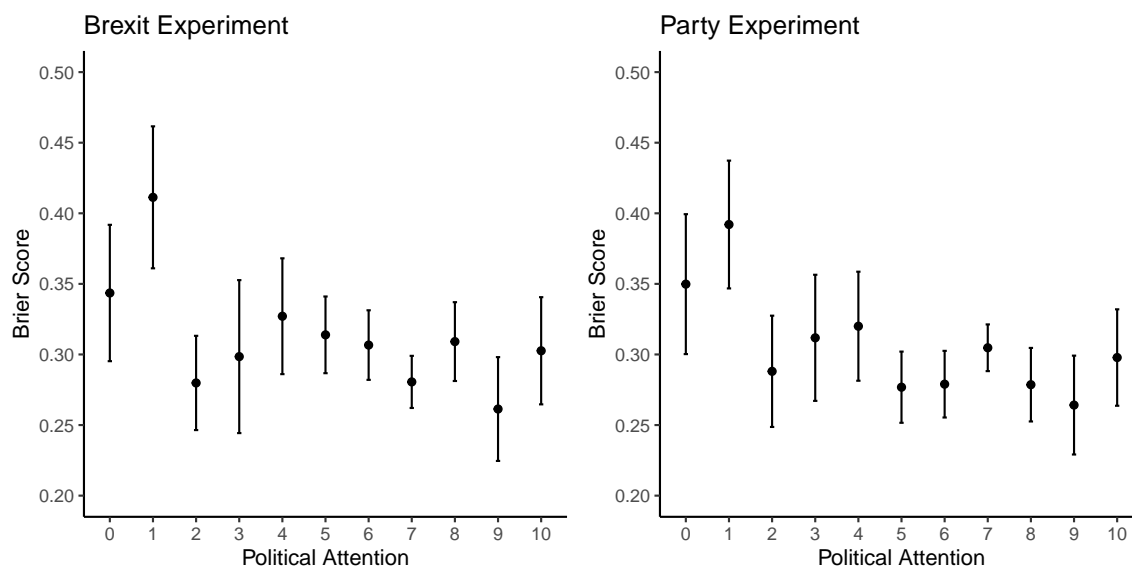


Figure 3.9: Brier score by respondent self-reported attention to politics.

3.5 Discussion and Conclusion

Our analysis examines both individual-level and aggregate-level accuracy, because both are important features of public understanding of how different social groups vote. It is important to know if there are systematic biases that show up in the aggregate, but also whether individuals tend to have much usable information about these questions. If individual citizens have wildly divergent beliefs about the likely voter behaviour of their fellow citizens, that is important to know even if these divergent beliefs average out to something close to reality. There is a long “wisdom of crowds” tradition of observing that while individuals may be inaccurate, they may nonetheless be accurate on average (Surowiecki, 2005; Wallsten & Diederich, 2001). This is often explained as resulting from individuals each having only a few pieces of relevant information, for

example their social networks (e.g. Leiter et al., 2018), with the process of averaging cancelling out the resulting idiosyncratic errors. This pattern of individual level imprecision combined with aggregate-level accuracy is clearly evident in our data, not only because different individuals may know about the political associations of different attributes, but also because of errors in probability reporting. Individual citizens are poor at guessing how other specific citizens vote but the average guesses broadly reflect how major political cleavages relate to a variety of demographic characteristics.

The novelty of the Brexit divide means that respondents must have paid recent attention to these political cleavages, a finding further confirmed by the role of political attention in predicting accuracy, both for the older cleavage of party and the newer cleavage of Brexit. However, at the same time that we see evidence of very recent information intake in the Brexit experiment, there are some attributes which suggest that party stereotypes are “sticky” (D. P. Green et al., 2004; Lupu, 2013). In the party experiment education and age are strongly predictive of the actual distribution of voters, while class and economic attributes are less so. Respondents underestimate the age relationship, which makes sense in that it is newly strong; the education association with voting *used* to be that holding a degree predicted voting Tory (Ball, 2013; A. Heath, 2016), but that is no longer true. With respect to the “old” cleavage of party, some of respondents’ errors may be because they have not updated in response to political realignments.

We find some egotistic bias, where respondents overestimate the probabilities that others have voted as they did. However, we do not find that $p(\text{vote}|X)$ accuracy is worse when respondents are asked about profiles that are more dissimilar to them, the egotistic bias applies across similar and dissimilar profiles. Thus, it seems that performance in this task is less dependent on respondent’s immediate social environment and more on general political knowledge. It remains to be studied if guesses on $p(X)$ might be more dependent on immediate social environment. This

contrasts with Carlson & Hill (2021) findings that respondents' guesses become more accurate (less biased) for profiles that are more similar to the respondents' own profile. They explain this association as a manifestation of different-trait bias, as individuals are likely to assume that out-group members are more homogeneous than in-group members. This could be a relationship that is present for the political attitudes included in Carlson and Hill's experiment but not for demographic characteristics.

The different political contexts of the US and UK make comparisons to many of the studies we cite difficult. While our results are broadly consistent with the US study which asks the most similar questions (Carlson & Hill, 2021), we cannot rule out the possibility that US and UK citizens simply respond very differently to these kinds of survey prompts. While both countries have relatively strong two party systems, there is no shortage of political differences that could be relevant to how citizens perceive one another. We do not know whether UK studies asking questions similar to those of Ahler & Sood (2018) would find similar results to those that they find.

Regardless, our findings present an interesting puzzle in light of recent work by Ahler & Sood (2018) and Claassen et al. (2019). Those papers indicate that when asked *compositional* questions, about the demographic distributions of party supporters, respondents tend to stereotype or caricature, overstating the demographic distinctiveness of parties. The accuracy of perceptions is lower for citizens with greater interest in politics (Ahler & Sood, 2018, p. p969). Our paper asks a *behavioural* question about the voting of individuals with a given set of characteristics, $p(\text{vote}|X)$ rather than $p(X|\text{vote})$, and finds no tendency of respondents to overstate the relevance of any particular attributes to guessing the vote choice of an individual. The accuracy of guesses is higher for those paying more attention to politics. Aside from the differing political context, one possible reconciliation of these results is that respondents' inability to report percentages/proportions accurately simply manifests itself in different ways in the different experimental designs. Another possible reconciliation

is that people are just inconsistent, giving answers to one kind of question that are mathematically inconsistent with the answers they would give to the other kind of question, for example, because of the representativeness heuristic that Ahler & Sood (2020) propose.

Another way of phrasing these key outstanding puzzles, which goes to the heart of the concerns raised by Ahler & Sood (2018), is to ask whether citizens *really* believe their overconfident guesses. Is the problem with reporting or with their beliefs? Ahler & Sood (2018) are unable to substantially improve the accuracy of party compositions by providing incentives to reduce expressive misreporting or by providing population base rates, which they take to suggest that citizens' beliefs are meaningfully erroneous (p969-971). Ahler & Sood (2018) further demonstrate through a series of experiments (p976-978) that the effect of correcting misperceptions about party composition is small, but non-zero, for perceptions about the extremity of opposing partisans.

For our experiment, the corresponding question is whether, for example, when someone reports 100% probability of a particular profile voting Leave, that level of certainty really guides how they would interact with and think about someone with those characteristics. Are citizens going through the world making *extremely strong* snap judgements about the political alignments of those around them, at least when given occasion to think about the politics of those people at all? Our finding that there is no one dominant pattern of such snap judgements in the aggregate does not mean that individuals are not doing this. Indeed, the implication of their numerical responses taken literally is that they are. The extent to which this is a reporting problem, as opposed to a belief problem, is less amenable to the kinds of tests used by Ahler and Sood, since the objects of evaluation in our experiments are unknown individuals rather than parties about which respondents already have other views that might be influenced by a corrective treatment.

The most compelling way forward would be to ask a much richer set of questions

to individual respondents, including questions about $p(\text{vote}|X)$ and $p(X|\text{vote})$ as well as the base rates $p(\text{vote})$ and $p(X)$, in order to better establish which responses are consistent with one another and with reality, and which are not. While past studies have now analysed all of these quantities, they have done so in different contexts and individually rather than all in the same survey. A study of this type would be a useful next step in clarifying the complicated pattern of findings across this study and those that have been published previously.

3.6 Appendix: Additional Tables and Figures

3.6.1 Descriptive statistics for Respondents in Brexit Experiment (not weighted)

Brexit

Dimensions: 5082 x 8

479

Table 3.2: Descriptive statistics for Respondents in Brexit Experiment (not weighted)

Variable	Stats / Values	Freqs (% of Valid)
Gender	1. Male	2256 (44.4%)
[factor]	2. Female	2826 (55.6%)
Age	Mean (sd) : 49.1 (16.5)	73 distinct values
[numeric]	min < med < max: 18 < 48.5 < 119 IQR (CV) : 28 (0.3)	
Education	1. None	279 (5.5%)
[factor]	2. Level 1	198 (3.9%)
	3. Level 2	996 (19.6%)
	4. Level 3	930 (18.3%)
	5. Level 4	393 (7.7%)
	6. Level 5 and above	1425 (28.0%)
	7. Other	861 (16.9%)

Variable	Stats / Values	Freqs (% of Valid)
Annual Income [factor]	1. Don't know	258 (5.4%)
	2. Prefer not to answer	936 (19.6%)
	3. Between 15,600 and 25,999	690 (14.5%)
	4. Between 26,000 and 44,999	1170 (24.5%)
	5. Between 45,000 and 99,999	906 (19.0%)
	6. Greater than 100,000	195 (4.1%)
	7. Less than 15,599	615 (12.9%)
Occupation [factor]	1. Professional or higher te	909 (17.9%)
	2. Manager or Senior Adminis	795 (15.6%)
	3. Clerical/junior manageria	1344 (26.4%)
	4. Sales or Services (e.g. c	408 (8.0%)
	5. Foreman or Supervisor of	120 (2.4%)
	6. Skilled Manual Work (e.g.	318 (6.3%)
	7. Semi-Skilled or Unskilled	528 (10.4%)
	8. Other	543 (10.7%)
	9. Have never worked	117 (2.3%)

Variable	Stats / Values	Freqs (% of Valid)
Political Attention	Mean (sd) : 6.1 (2.2)	0 : 123 (2.4%)
[numeric]	min < med < max:	1 : 108 (2.1%)
	0 < 7 < 10	2 : 219 (4.3%)
	IQR (CV) : 2 (0.4)	3 : 243 (4.8%)
		4 : 276 (5.4%)
		5 : 771 (15.2%)
		6 : 798 (15.7%)
		7 : 1413 (27.8%)
		8 : 534 (10.5%)
		9 : 309 (6.1%)
		10 : 288 (5.7%)
Region	1. London	514 (10.1%)
[character]	2. North East	201 (4.0%)
	3. North West	535 (10.5%)
	4. Scotland	418 (8.2%)
	5. South East	779 (15.3%)
	6. South West	525 (10.3%)
	7. the East Midlands	387 (7.6%)
	8. the East of England	512 (10.1%)
	9. Wales	263 (5.2%)
	10. West Midlands	512 (10.1%)
	11. Yorkshire & Humber	436 (8.6%)

Variable	Stats / Values	Freqs (% of Valid)
Ethnicity	1. Asian	153 (3.0%)
[character]	2. Black	48 (0.9%)
	3. Mixed	69 (1.4%)
	4. Other	18 (0.4%)
	5. Unknown	33 (0.6%)
	6. White	4761 (93.7%)

3.6.2 Descriptive statistics for Respondents in Parties Experiment (not weighted)

Parties

Dimensions: 5064 x 8

508

Table 3.3: Descriptive statistics for Respondents in Parties Experiment (not weighted)

Variable	Stats / Values	Freqs (% of Valid)
Gender	1. Male	2244 (44.3%)
[factor]	2. Female	2820 (55.7%)
Age	Mean (sd) : 49.4 (16.9)	72 distinct values
[numeric]	min < med < max: 18 < 49 < 119 IQR (CV) : 28 (0.3)	
Education	1. None	246 (4.9%)
[factor]	2. Level 1	192 (3.8%)
	3. Level 2	954 (18.8%)
	4. Level 3	960 (19.0%)
	5. Level 4	447 (8.8%)
	6. Level 5 and above	1419 (28.0%)
	7. Other	846 (16.7%)

Variable	Stats / Values	Freqs (% of Valid)
Annual Income [factor]	1. Don't know	255 (5.4%)
	2. Prefer not to answer	750 (15.8%)
	3. Between 15,600 and 25,999	750 (15.8%)
	4. Between 26,000 and 44,999	1290 (27.2%)
	5. Between 45,000 and 99,999	957 (20.2%)
	6. Greater than 100,000	126 (2.7%)
	7. Less than 15,599	618 (13.0%)
Occupation [factor]	1. Professional or higher te	1062 (21.0%)
	2. Manager or Senior Adminis	810 (16.0%)
	3. Clerical/junior manageria	1221 (24.1%)
	4. Sales or Services (e.g. c	390 (7.7%)
	5. Foreman or Supervisor of	111 (2.2%)
	6. Skilled Manual Work (e.g.	279 (5.5%)
	7. Semi-Skilled or Unskilled	552 (10.9%)
	8. Other	522 (10.3%)
	9. Have never worked	117 (2.3%)

Variable	Stats / Values	Freqs (% of Valid)
Political Attention	Mean (sd) : 6.1 (2.3)	0 : 144 (2.8%)
[numeric]	min < med < max:	1 : 132 (2.6%)
	0 < 7 < 10	2 : 192 (3.8%)
	IQR (CV) : 2 (0.4)	3 : 240 (4.7%)
		4 : 285 (5.6%)
		5 : 717 (14.2%)
		6 : 768 (15.2%)
		7 : 1377 (27.2%)
		8 : 555 (11.0%)
		9 : 327 (6.5%)
		10 : 327 (6.5%)
Region	1. London	553 (10.9%)
[character]	2. North East	207 (4.1%)
	3. North West	698 (13.8%)
	4. Scotland	306 (6.0%)
	5. South East	750 (14.8%)
	6. South West	461 (9.1%)
	7. the East Midlands	436 (8.6%)
	8. the East of England	504 (10.0%)
	9. Wales	258 (5.1%)
	10. West Midlands	469 (9.3%)
	11. Yorkshire & Humber	422 (8.3%)

Variable	Stats / Values	Freqs (% of Valid)
Ethnicity [character]	1. Asian	135 (2.7%)
	2. Black	15 (0.3%)
	3. Mixed	51 (1.0%)
	4. Other	15 (0.3%)
	5. Unknown	27 (0.5%)
	6. White	4821 (95.2%)

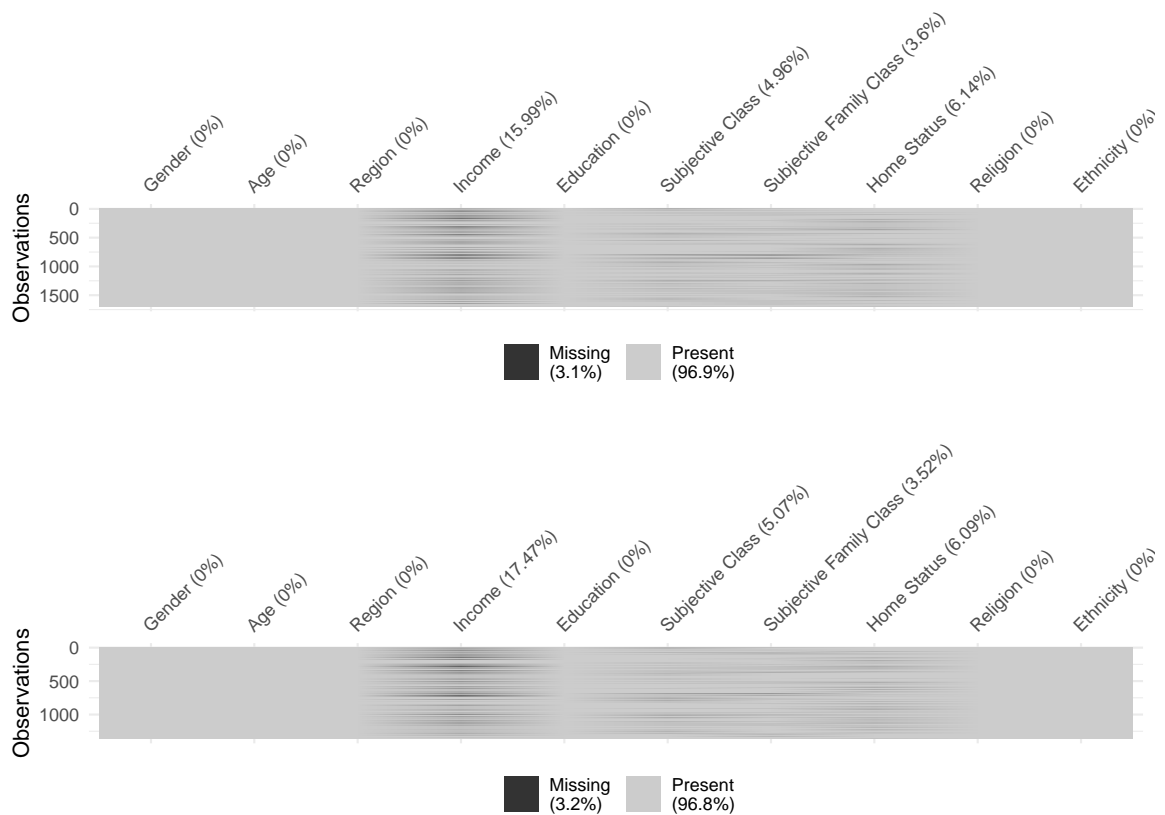


Figure 3.10: Missing values in profiles before imputation for Brexit experiment (top) and Parties experiment (bottom).

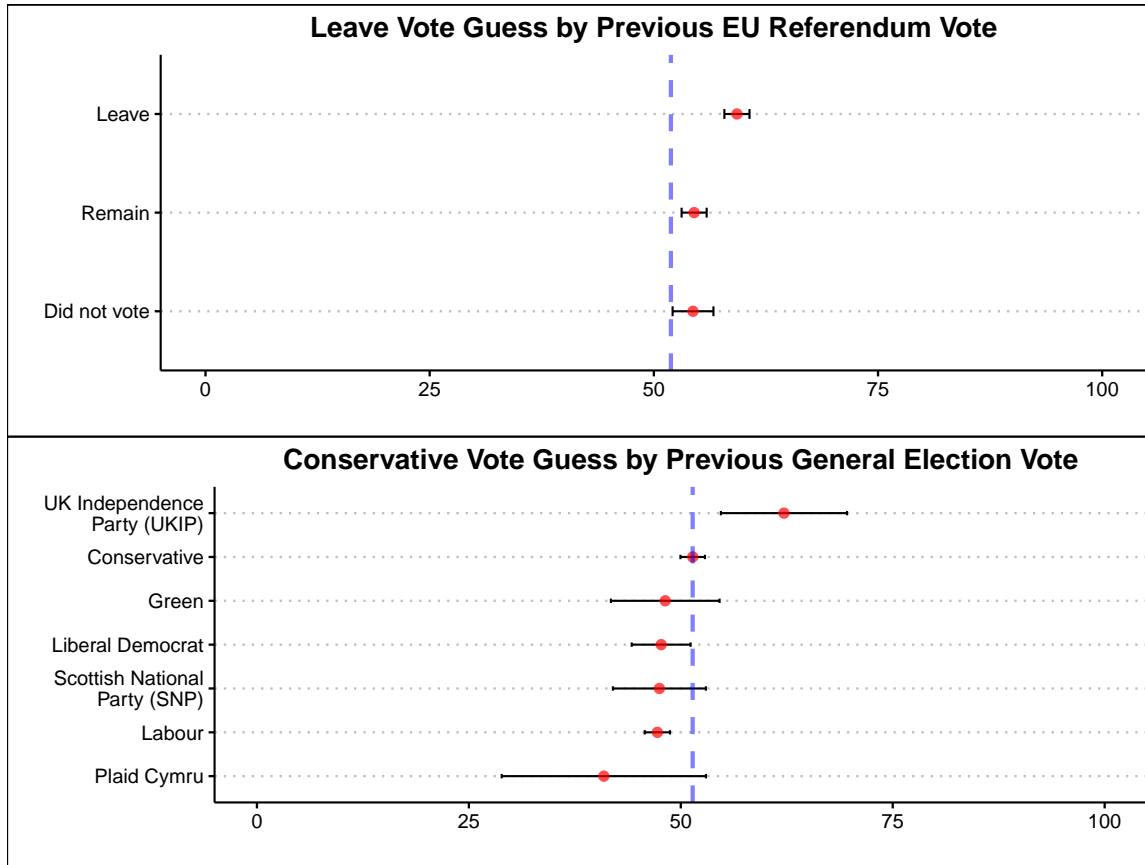


Figure 3.11: Average guessed percentages for respondents grouped by their own referendum vote (top) and general election vote (bottom).

	Brier Score		Correct Dichotomized Guess	
	Brexit Exp.	Party Exp.	Brexit Exp.	Party Exp.
Intercept	0.252*** (0.036)	0.325*** (0.032)	0.602*** (0.058)	0.523*** (0.055)
Mahalanobis Distance	0.010 (0.007)	-0.006 (0.007)	-0.008 (0.012)	0.009 (0.011)
R ²	0.000	0.000	0.000	0.000
Adj. R ²	0.000	-0.000	-0.000	-0.000
Num. obs.	3717	3749	3717	3749

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table 3.4: Coefficient Estimates for a Regression Model for Brier Score and Correct Dichotomized Guess by Mahalanobis Distance

Chapter 4

Class, ethnicity, age, or education.

What characteristics determine

citizens' sense of political

commonality? ¹

We know from election studies which demographic characteristics best predict vote choice, but we know far less about how citizens perceive their similarity to one another in terms of these characteristics. Previous research suggests such perceptions may be crucial for the politicization of social identities and the emergence of political identities. I present results from a novel measurement strategy where respondents are presented with profiles of two fellow citizens, including several demographic attributes. Respondents are asked which of the two they perceive themselves to have more in common, in terms of politics. Respondents' implicit trade-off of different demographic similarities allows me to measure the relative strength of their perceived political similarities. I find an important role for shared ethnicity, noticeably surpassing shared social class, age, and education. Finally, I find that shared ethnicity receives substantially more weight among 2017 Conservative and 2016 Leave voters than

¹Single-authored. Conditionally approved in the *British Journal of Political Science*

among Labour and Remain voters.

Electoral results are often analysed in terms of the demographic attributes of each party's electorate. Frequently, these analyses seek to show more than mere descriptive associations. One mechanism by which these associations could arise is through the politicization of social identities (e.g. A. Campbell et al., 1960; Huddy, 2001). Social identity theory (Tajfel, 1974; Tajfel et al., 1979) argues that a person's demographic attributes and the feelings that person has towards these categories may provide an essential part of that individual's identity. However, analysing the associations between demographic groups and voting does not reveal the relative importance of the corresponding social identities to politics. How can we determine which social identities are more important for how people perceive political commonality between themselves and other citizens?

This research study makes novel contributions to our understanding of social identities in politics and to the methodology with which we study them. Respondents for this study were taken from the pool of regular respondents in the British Election Study (BES) on-line panel. All demographic variables for the respondents to the experiment were thus measured in surveys completed before the experiment. The experiment consisted in presenting two profiles with 10 demographic attributes. Respondents were then asked to choose, in terms of politics, with which of the two they perceived they had more in common. These two profiles were themselves sampled from the British Election Study, ensuring that the two citizen profiles which respondents were assessing for relative political commonality are representative of the actual characteristics of British citizens across the full experiment. This method relates to traditional conjoint experiments, but instead of a distribution where profile attributes are independently randomised I have randomly selected complete profiles following their actual distribution in the population.

The study introduces a new approach to the measurement of social identities and

their politicization. The previous reliance on the association between demographic attributes and electoral results to assess the relevance of social identities confounds the fact that group membership is different from social identity and some social identities may be relevant for the population's perception on political commonalities even if they are not being mobilized by the political parties, while other social identities may predict voting behaviour well without playing an important role in individuals' perceptions of politics. This approach re-orientates analysis of social identity in politics away from asking which demographic characteristics most strongly predict shared behaviour (e.g. voting) towards asking which social identities cause people to see that their fellow citizens as potential allies in politics.

4.1 Social and Political Identity

The tradition of social identity theory and inter group relations was established by Tajfel (1974) and further developed in Tajfel et al. (1979). This theory argues that a person's social category (such as class, religion, or ethnicity) and the feelings that person has towards that category provide a "self-definition that is a part of the self- concept. People have a repertoire of such discrete category memberships that vary in relative overall importance in the self- concept" (Hogg et al., 1995, p. 259). This original perspective of social identity is complemented by the notion of "self-categorization" (Turner et al., 1987). The self-categorization element of social identity is the cognitive process by which a person highlights differences from out-group individuals and similarities to in-group individuals. In other words, group identity emerges as a feeling of similarity to the "typical member" or prototypical group member (Huddy, 2013).

Membership in a social group is a necessary but not sufficient condition for the emergence of social identity, and social identity is a necessary but not sufficient condi-

tion for political identity. Huddy (2013) defines political identity as “a social identity with political relevance” (p. 739). Following this definition, for group membership to become a political identity two elements must be present. First, the presence of salient social identity is required (Huddy, 2001, 2013) and, second, this identity must rest on “political content” (Huddy, 2013, p. 739).

One implication of this definition is that, as Egan (2020) has argued, these identities are not merely antecedent to political attitudes. Rather political contexts can affect them, especially through social sorting (Mason, 2015, 2018b). The aim of this study is to operationalize an analysis of this phenomenon by identifying which social identities are more relevant in terms of perceived political commonalities.

When social identities are measured directly comparisons of the relative salience of these identities tend to be difficult. This is partly a methodological issue, as many studies of competing social identities rely on direct one item questions, without measuring relative strength (e.g. Evans & Mellon, 2016). Social identity measurements in nationally representative surveys have been criticized, among other reasons, for not adequately measuring intensity of identification (Huddy, 2013; Wong, 2010), therefore making comparisons between different identities virtually impossible. On the other hand, more complex multi-item measurements, with identity scales, are typically designed for specific social groups, making comparisons across multiple dimensions of identity hard. For example, even the widely used Multigroup Ethnic Identity Measure (MEIM), developed by Phinney (1992) is designed for comparisons only among individuals and groups in ethnic terms.

4.1.1 Social Identities in Britain

A persistent debate about competing social identities in western democracies has revolved around the importance of social class in politics. A long line of research has shown a historical relationship between social class membership and voting behaviour

in the Anglo-American context (e.g. Alford, 1967) and in Europe (e.g. Houtman et al., 2009; Jansen et al., 2013b). Additionally, as several studies have focused their attention on other characteristics of the European population that may explain electoral behaviour, the importance of ethnicity (e.g. Zick et al., 2008), age (e.g. Maggini, 2016) and education (e.g. Ford & Jennings, 2020) in predicting political attitudes and behaviours have become increasingly prominent. Some have claimed that these new demographic patterns are the result of new emerging social cleavages that have replaced the old class divide (Marks et al., 2017; Stubager, 2010).

In this broader context I have focused on the British case because of its interest as an example of the general trend described above. The relevance of class for political outcomes and party identity in the UK has a long tradition (Butler & Stokes, 1969; Butler & Stokes, 1971). However, even if class has maintained its status as an important social identity in Britain (e.g. Evans & Tilley, 2017), several studies have shown it has become less salient in politics. Some see this as owing to changes through which the parties have become less aligned with social class identity without social class identity being less salient to individuals (e.g. Evans & Tilley, 2017; O. Heath, 2015). This study, by focusing on respondents' sense of commonality with other people, sets aside the question of whether the parties are providing a social class salient choice, and focuses on whether citizens feel their social class is important.

Additionally, this study was carried out in the context of the Brexit debates, following the EU referendum of 2016. Specifically, the data for the study was collected shortly after the European Parliament elections of May 2019, in which the Brexit party became the largest party with 29 seats. Brexit and the debates it sparked may have brought upon the emergence of new political identities and "these new identities reflect pre-existing but less politicized social divisions..." (Hobolt et al., 2020, p. 3). For example, Sobolewska & Ford (2020) find ethnocentrism may have played a pivotal role in the Brexit vote. This perspective on the shifting importance of social identities

for political behaviour in Britain is also strengthened by the fact that in the 2017 General Election age replaced class as main predictor of party choice (Sloam & Henn, 2019).

4.2 Data and Methods

This paper presents a novel measurement strategy for assessing the relative salience of social identities for perceived political commonalities. Respondents were presented with two randomly selected profiles of fellow citizens, characterized with 10 demographic categories frequently considered as determinants of voting behaviour. Respondents were then asked to assess, in terms of politics, with which of the two profiles they perceived they had more in common. An example of how this appeared to respondents can be seen in Figure 4.1.

The format of previous studies on the political relevance of social identities encourages respondents to think of demographic characteristics one at a time. In contrast, this design requires respondents to evaluate each attribute in the context of many at once, which means that there is an implicit trade-off between the different attributes. Additionally, because the task requires respondents to evaluate profiles with several attributes simultaneously, there is less risk of social desirability bias or conflating identity with sympathy. The fact that the prompt explicitly asks for political commonalities, rather than general closeness, comes from the definition of political identity as a “social identity with political relevance” (Huddy, 2013, p. 739).

The profiles of characteristics presented to respondents were profiles of real people who were randomly selected from the respondents of the 2017 post-election BES. The randomization was carried out in a probability proportional to size (PPS) manner, with the probability of sampling proportional to the 2017 General Election turnout weights. This meant that the profiles presented to respondents followed the

distribution of British voters. This is important because it ensures that not only the distribution of individual characteristics is realistic, but also the (joint) distribution of combinations of characteristics is realistic. If an arbitrary distribution had been used, the relative magnitude of the coefficients on different similarities could have reflected those arbitrary aspects of how different characteristics were put together in the experiment. The experiment, as designed, asks the question of how people choose which of two people is closer to them politically, where those two people are sampled from the UK voting population rather than from a distribution made up by the experimenter.

This method is closely related to traditional conjoint experiments (Bansak, Hainmueller, Hopkins, Yamamoto, Druckman, et al., 2020), however, instead of a distribution where profile attributes are independently randomised, I have randomly selected complete profiles following their actual distribution in the population. Because the estimates derived from conjoint experiment are obtained averaging over the treatment distribution, using this external benchmark for the distribution helps with external validity of estimates but implies I cannot use non-parametric identification of causal effects of individual attributes, introducing model dependence in the analysis of the data (De la Cuesta et al., 2019).

The profiles' characteristics included in the study were: gender, age, religion, region, home status, education, annual household income, subjective class, and subjective family class. The possible levels for each characteristic are detailed in Table 4.1 in the appendix. The experiment was fielded by *YouGov* between June and August 2019. The prompt was presented five times per respondent with different profiles each time. The order in which the attributes were listed was randomized per respondent. 1656 respondents from Great Britain were recruited for the experiment (8,280 responses). In the analyses, I use sample weights provided by *YouGov* that make the data representative of the British population on standard demographic and past vote

variables².



Please carefully read the following description of two British citizens

PERSON A	PERSON B
Describes her family when growing up as working class	Describes his family when growing up as working class
Does not hold a university degree	Does not hold a university degree
Female	Male
Lives in South East	Lives in South East
Describes herself as Asian/Asian British	Describes himself as White
Household income is between £60,000 and £99,999	Household income is between £5,200 and £15,599
The person's religion is unknown	Describes himself as having no religion
Describes herself as working class	Describes himself as working class
38 years old	46 years old
Owens the home where she lives	Rents the home where he lives

Thinking about politics, with which of these two people do you think you have more in common?

- Person A
- Person B
- Not sure



Figure 4.1: Survey prompt with example profiles.

To analyse the results of the experiment, the information on the respondents' self-categorization is combined with that of the profiles presented to them and their choices. The analysis seeks to assess the probability of a respondent choosing one profile if that profile shares an attribute with the respondent, while the other alternative profile does not.

To perform this analysis, two dummy variables, m_{Aij} and m_{Bij} , are created to reflect whether the respondent's self-categorization on task i , matches profile A on attribute j and whether it matches profile B on the same attribute j (two dummy values per iteration per attribute). The difference between the two dummy variables is the explanatory variable of interest, $d_{ij} = m_{Aij} - m_{Bij}$. If, for task i , the two profiles

²Further details on the levels of each category and their distribution among respondents and experiment profiles, are given in the appendix.

present the same levels as the respondent on attribute j , or neither of them do, d_{ij} will be zero. If the matching attribute is only 1 in the first person (“Person A”), then d_{ij} will have the value of positive 1. If the matching attribute is only 1 in the second person (“Person B”), then d_{ij} will have the negative value of -1. The choice of the respondent for task i , the outcome of interest, c_i , is then coded in an equivalent way, with 1 meaning the respondent chose Person A, -1 meaning that the respondent chose Person B, and 0 meaning the person chose “not sure”. The reason the data is coded this way is that this means that matches with A and B are treated symmetrically, and each coefficient describes the effect of moving from no match to match for a single characteristic, holding the other attributes and the other profile constant.

With these variables, the following subsections will examine how important is every d_{ij} , for every attribute j in explaining the respondents’ choice (c_i). I will then examine if this relative importance of the attributes varies by respondents’ past political behaviour (electoral choice in the 2017 General Election and the EU referendum).

4.3 Relative importance for political commonality of each social category

The results of regressing respondents' choice explained by the relative matching attributes in an ordinal logistic model ³ are presented in Figure 4.2. The coefficients correspond to how strongly a respondent matching a profile on a given attribute predicts the respondent choosing that profile as having more political commonality with herself. All the matching coefficients are statistically significant at the 95% confidence level. This confirms that, on average, people are more likely to feel political commonality with people who share their social identity categories, for all the characteristics in the study.

Because the levels of the different attributes are correlated, both among respondents and among profiles, the matching variables are correlated. Thus, the inclusion of several economic variables could dilute the strength of class matching when compared to ethnicity, due to collinearity. To confirm how robust the estimates a regression model including all attributes and ten regression models including each single attribute are presented in Figure 4.2, which shows that the described trends remain largely unchanged.

Overall, this first analysis points to the importance of ethnicity for political commonality. Age, education, and matching subjective class, while playing some role in perceived political commonality, seem to do so to a lesser extent. The same is true for the different attributes related to class, such as home status, income, and subjective family class.

³The results are largely unchanged with a linear model as can be seen in Figure 4.7 in the appendix.

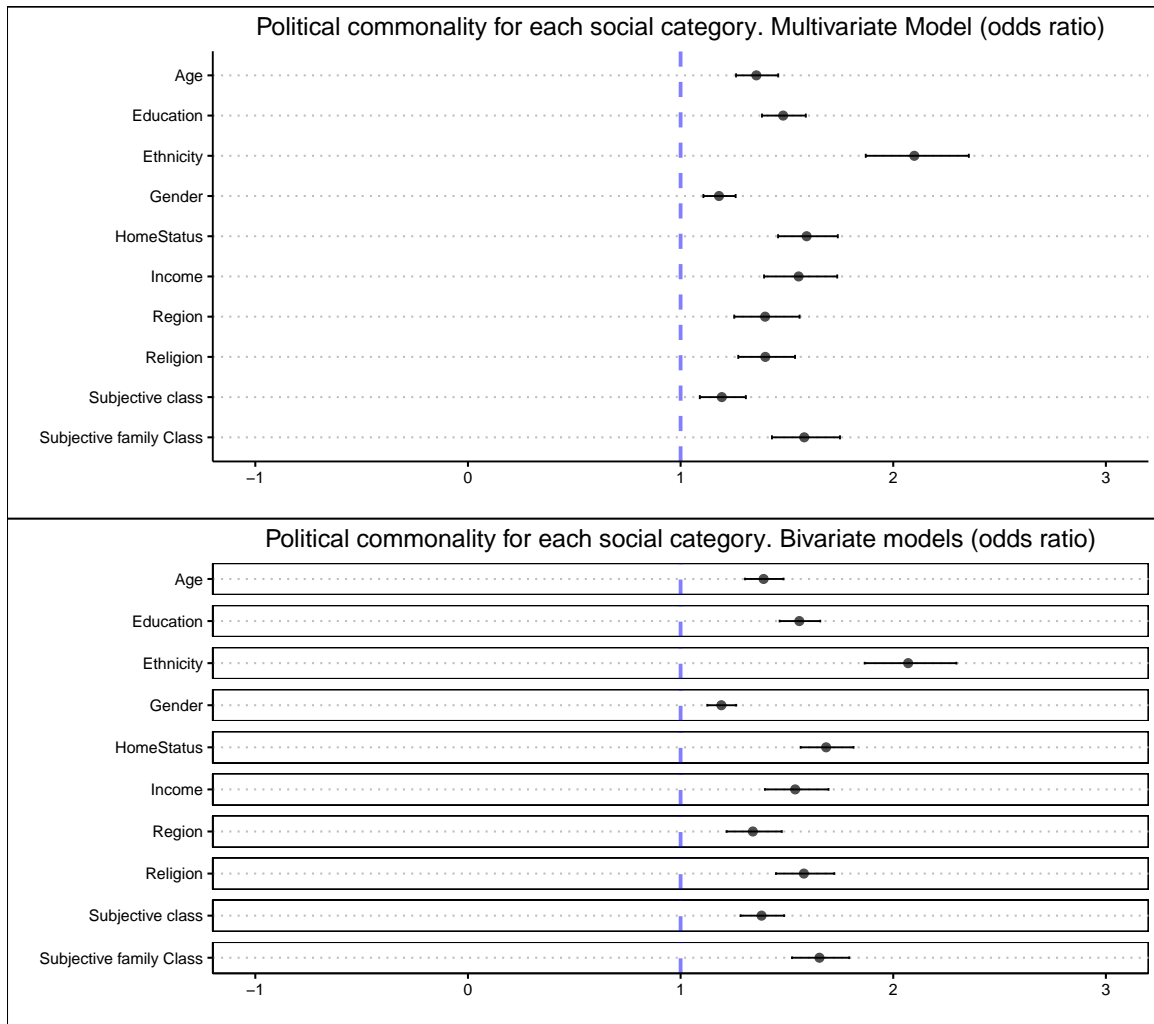


Figure 4.2: Perceived political commonality by social identity. Multi-variate regression (top) and one variable at a time (bottom)

4.4 Social identity, perceived political commonality, and vote choice

Does perceived political commonality depend on different attributes for Conservative versus Labour voters, or Leave versus Remain voters? The relationship between perceived political commonality and vote choice is analysed by including the corresponding interaction effects in the regression model. As Figure 4.3 shows, the importance of ethnicity differs by party and referendum vote to a degree unmatched by any other

attribute. Specifically, Conservative and Leave voters give significantly more weight to this aspect for perceived political commonality, compared to Labour and Remain voters. These findings suggest that ethnicity might have become a politicized social identity, and that the demographic association between the ethnic self-categorization of a respondent and vote choice is not the result of mere policy preferences. In the appendix, Figure 4.6 shows the interactive effect of party vote and EU referendum vote. Labour voters who voted Leave give a similar weight to ethnicity to both Conservative Leave and Remain voters. While the large confidence interval warrants caution, these patterns are consistent with Hobolt et al. (2020) findings of Brexit politicizing social identities, such as ethnicity, that escape the traditional party divisions.

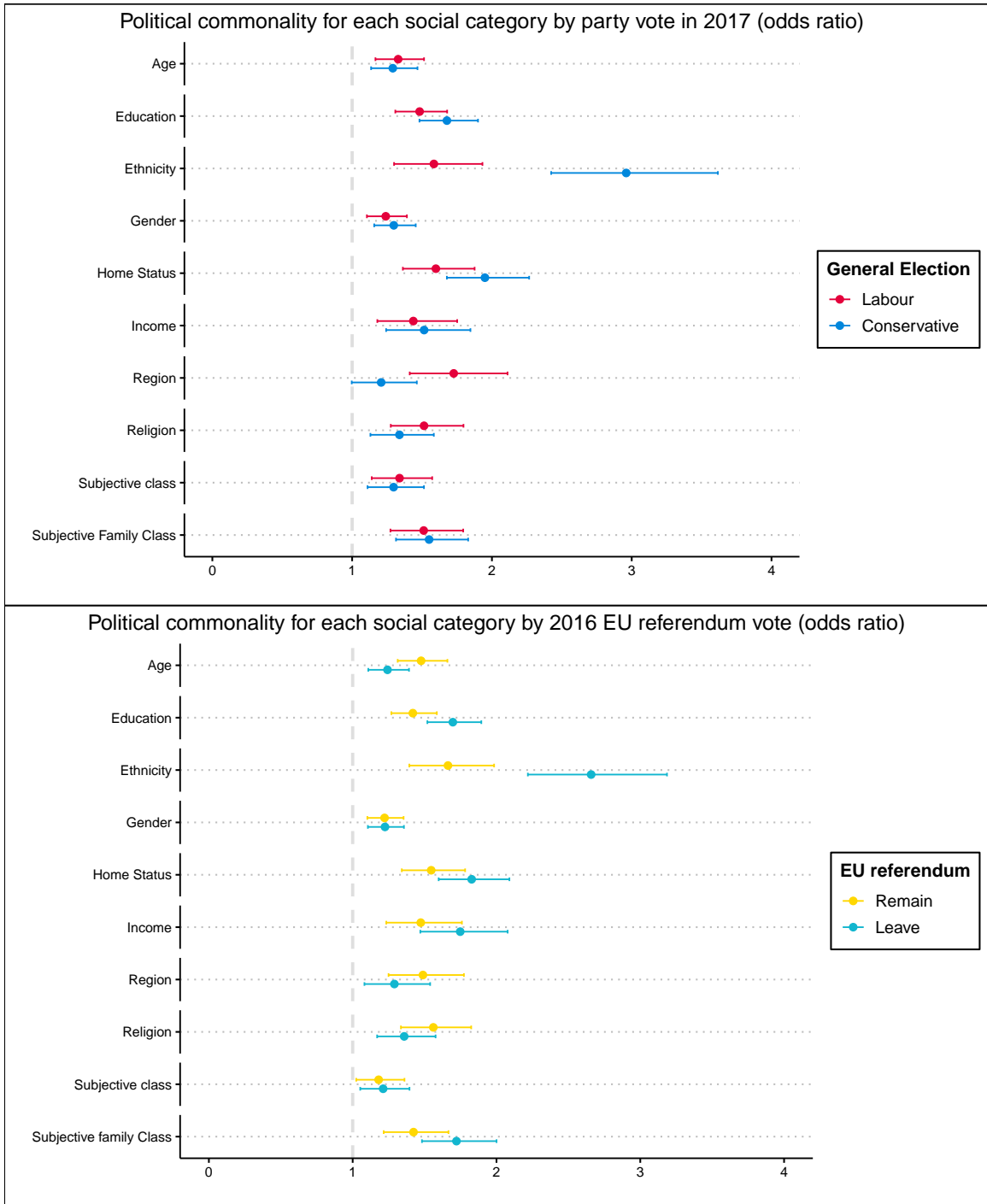


Figure 4.3: Political commonality by Party vote in the 2017 General Election (top) and by 2016 EU referendum vote (bottom). Multivariate ordinal logistic regression

4.5 Conclusion

This study presents a novel measurement strategy of the relationship between social identities, and the perception of political commonalities. By using this measurement strategy, I can compare the relative strength of different social identities in the population from the perspective of how citizens perceive one another politically rather than from their tendency to vote together. Instead of relying on electoral predictors or identity scales designed for one specific social group, this method allows for comparison of the relative importance of several social identities for perceived political similarities, reducing risks of social desirability bias and confounding group membership and policy preferences with social identity.

Using this novel methodology allows me to show the substantive role ethnicity plays in the perception of political commonalities for British citizens. Additionally, there is some evidence that the relative importance of ethnicity is itself associated with electoral behaviour, with Conservative and Leave voters significantly more sensitive to this category. The fact that this attribute is the most salient one for political commonalities may suggest that this social identity has acquired “political content”, and may reflect the emergence of a political identity, as defined by Huddy (2013). Because both the respondents and profiles presented to them are representative of Great Britain, the importance of ethnicity is mainly pushed forth by white respondents. These findings complement the emerging literature showing the political influence of ethnicity among majority white citizens in established democracies (e.g. Abrajano et al., 2015; Nandi & Platt, 2020; Xu et al., 2015). Additionally, the employed methodology allows a more nuanced interpretation of previous evidence that age and education have become relevant predictors for voting behaviour (Sloam & Henn, 2019). Specifically, I find little evidence that they loom large in citizens' perceptions of political commonality. This might suggest that the correlation between these demographics and voting behaviour is more related to policy preferences, rather than

new politicized social identities.

The evidence I present appears to be in line with the opinion-based identity groups argument, as has been proposed by Hobolt et al. (2020), in which the EU referendum and the debates it sparked have brought about the emergence of new political identities. Ethnic social identity might not be a new phenomenon, but its organization around Brexit and the party divide suggests a relevant politicization of this social identity versus others. One question for future research is how much of the relevance of ethnicity in sections of the population comes from in-group preference versus out-group demarcation. In any case, the findings of this study imply important challenges to the way parties translate these social tensions and the need to employ new measurement strategies to disentangle the importance of politicized social identities.

4.6 Appendix: Perceived political commonalities within sub-groups

As an additional analysis, I include an interaction effect for the respondents' level within each sub-group. Overall, the importance of each social category does not show significant variation by level for most sub-groups. While not all of these differences are statistically significant, the data suggest women might be more sensitive to gender similarities than men, those with lower incomes more sensitive to income similarities than those with higher incomes, the non-religious more sensitive to religious similarity than the religious, and the working class more sensitive to class similarity than the middle class. However, caution is needed as some categories are too small to say much about them. That is, the experiment gives little information on the social identities for minority sub-groups. This is the case of less numerous religions and ethnicities. Grouping Muslim, Methodist, and the Church of Scotland (with matching still within each level, and hence grouping only of the interaction effect) still leads to a large confidence interval (and non-significant estimates). This is clearly the case for non-white ethnicity (grouping BAME respondents), as well. In this case, the confidence interval is several times larger than the entire x scale.

The measurement design allows me to also evaluate the way class and ethnicity interact, at least for white respondents. Figure 4.5 shows the difference in relevance of each social category for white respondents that identify as either working class or middle class. While there are some differences in the importance given to some groupings (such as age, education, and region), I find no evidence that the relevance of ethnicity differs by social class.

Finally, Figure 4.6 presents the results of the combined interaction of 2017 General Election vote and EU referendum vote.

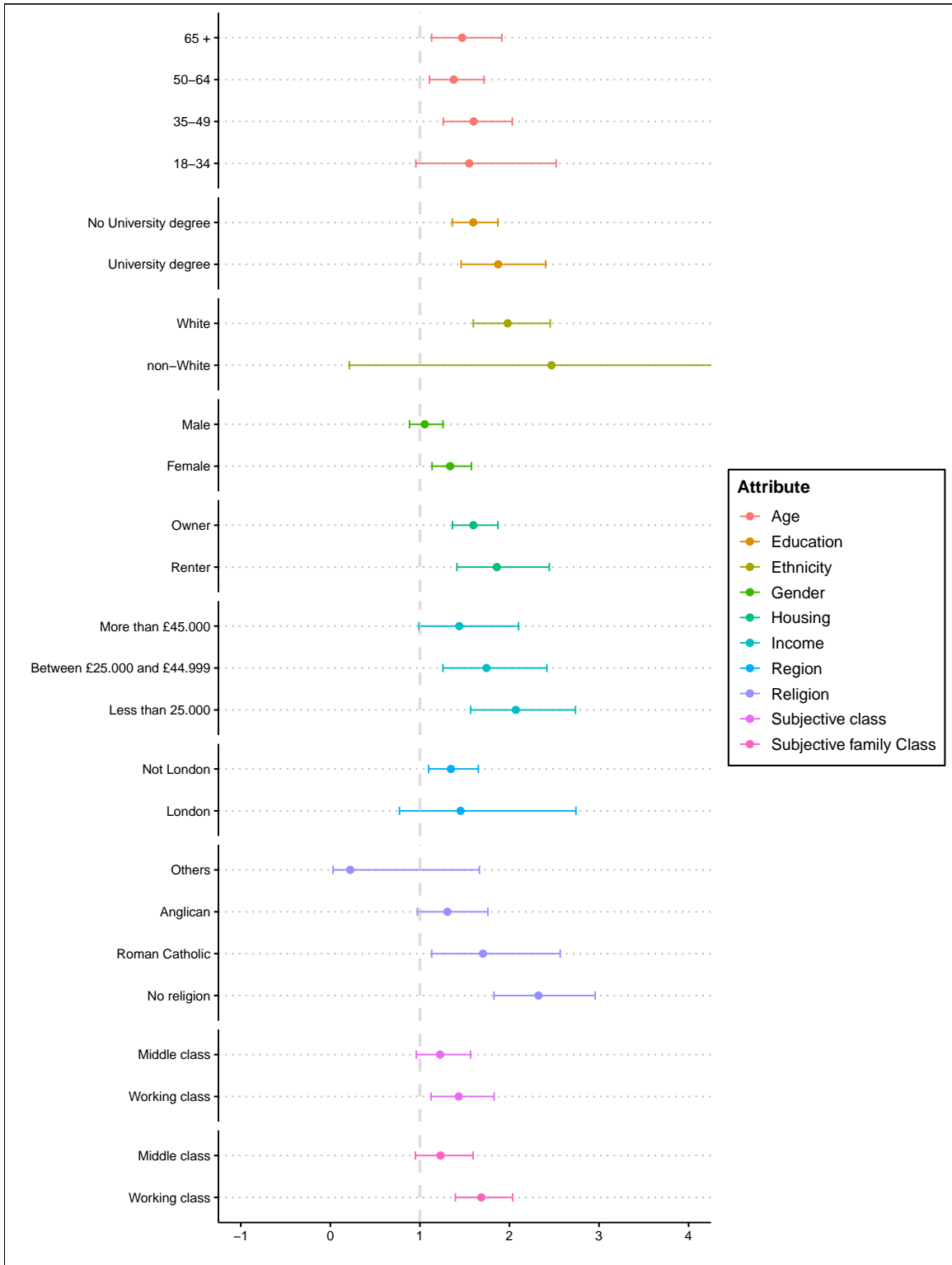


Figure 4.4: Political commonality for each social category by level of each social category. Multivariate ordinal logistic regression

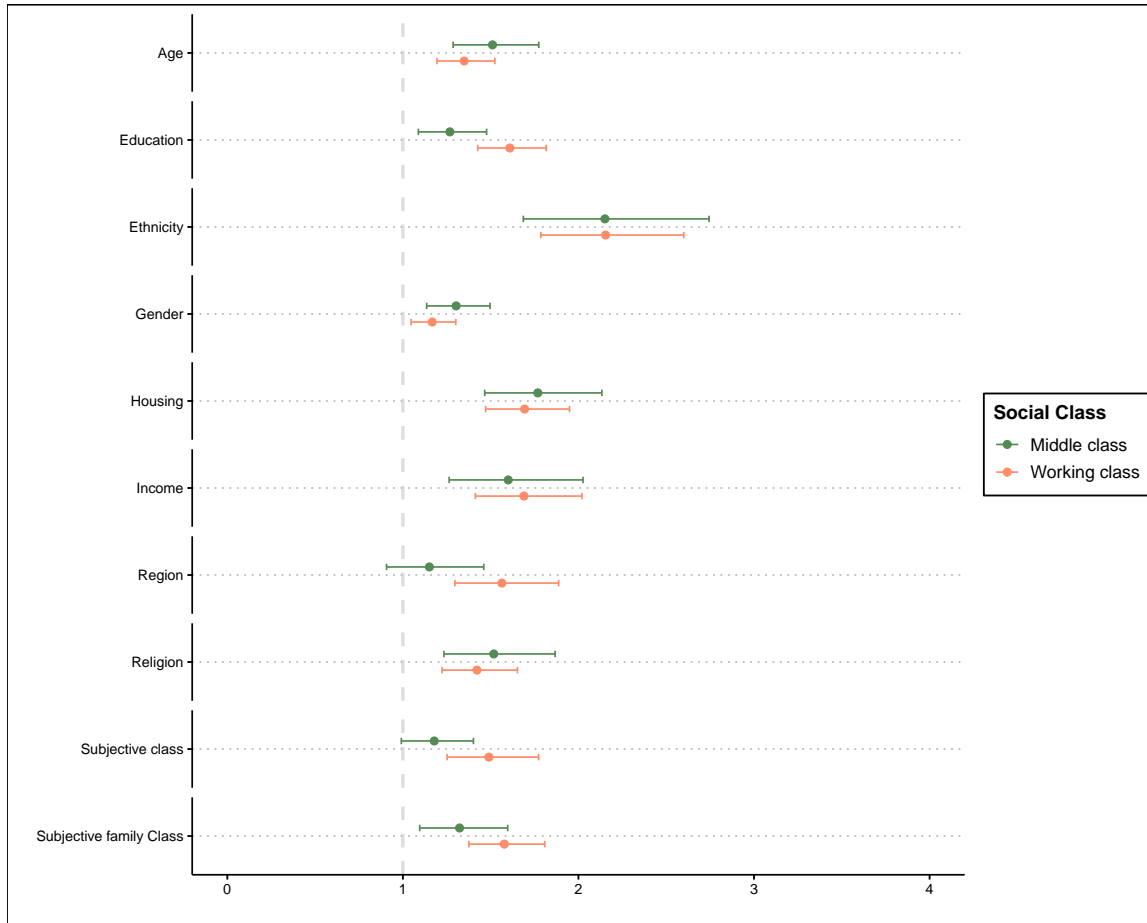


Figure 4.5: Political commonality by social class among white respondents. Multivariate ordinal logistic regression

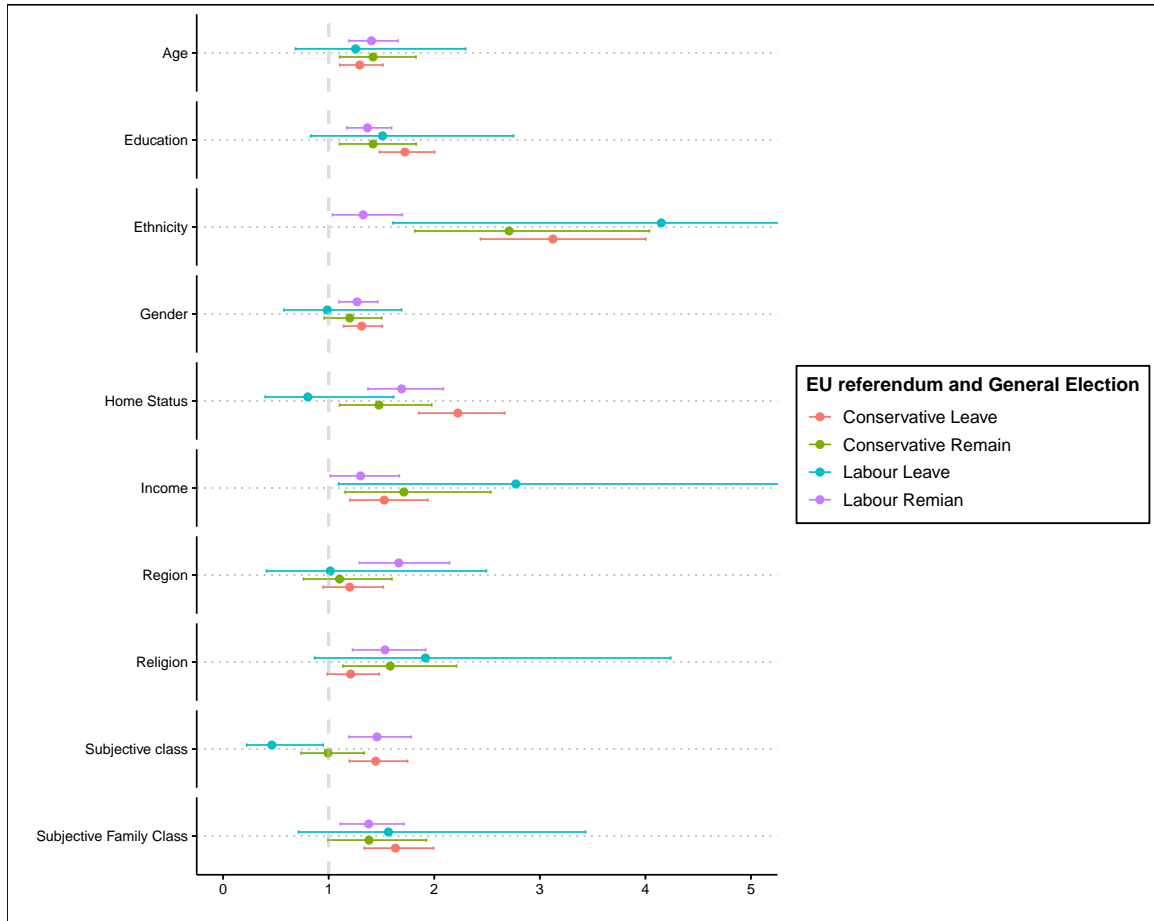


Figure 4.6: Political commonality by both party vote in the 2017 General Election and EU referendum vote

4.7 Appendix: Additional Tables and Figures

Levels for each social category are presented in table 5.3⁴⁵. Descriptive statistics for the presented profiles are presented in table 4.3⁶. Descriptive statistics for respondents

⁴Levels were defined to be as similar as possible between respondents and profiles. They are identical except for income, where respondents' income levels are divided into smaller groups. For the analysis, the respondents' perception of their family's class was not considered.

⁵For Subjective family class, the matching occurs when the family class of the profile matches the self-categorization of the respondent's subjective class. Age matching considered a 10-year threshold. If the difference in ages between respondent and profile was equal or less than 10, then matching would occur.

⁶Gender and region did not present missing values (they are used for the sampling process). To deal with missing attributes of the voters' profiles, due to non-response, two strategies were followed. For all attributes, apart from ethnicity and religion, missing values were randomly imputed using STATA to fill in missing values using a multivariate imputation through chained equations (MICE).

(without weights) are presented in table 4.2.

Table 4.1: Levels used for each attribute of profiles

Social.Identity	Category
Gender	Male
	Female
Ethnicity	He/She is White
	He/She is ethnically mixed
	He/She is Asian/Asian British
	He/She is Black
	The person's ethnicity is unknown
Age	[X] years old
Religion	Describes himself/herself as having no religion
	Describes his/her religion as Christian (no denomination)
	Describes his/her religion as Roman Catholic
	Describes his/her religion as Church of England/Anglican
	Describes his/her religion as Presbyterian/Church of Scotland
	Describes his/her religion as Methodist
	Describes his/her religion as Hindu
	Describes his/her religion as Islam
The person's religion is unknown	
Region	Lives in the East Midlands
	Lives in the East of England

In other words, I imputed multiple variables iteratively via a sequence of univariate imputation models, one for each imputation variable, with fully conditional specifications of prediction equations. Specifically, multiple linear regression was used for age, logistic regression for home status, subjective class, and subjective family class, and ordinal logistic for education and income. Gender, region, and vote (2017 General Election vote) were used as predictors. For ethnicity and religion, an "unknown" category was included in the experiment as a possible level of these attributes.

	Lives in London
	Lives in North East
	Lives in North West
	Lives in Scotland
	Lives in South East
	Lives in South West
	Lives in Wales
	Lives in West Midlands
	Lives in Yorkshire & Humber
Home status	Owns the home where he/she lives
	Rents the home where he/she lives
Education	Does not have a university degree
	Has a university degree
Annual household income	Household Income is less than £5,199 per year
	Household Income is between £5,200 and £15,599 per year
	Household income is between £15,600 and £25,999 per year
	Household income is between £26,000 and £36,399 per year
	Household income is between £36,400 and £44,999 per year
	Household income is between £45,000 and £59,999 per year
	Household income is between £60,000 and £99,999 per year
	Household income is greater than £100,000 per year
Subjective class	Describes himself/herself as Middle class
	Describes himself/herself as Working class
Subjective family class	Describes his/her family when growing up as Middle class
	Describes his/her family when growing up as Working class

4.7.1 Descriptive statistics for respondents (not weighted)

Respondent

Dimensions: 1656 x 9

1

Table 4.2: Descriptive statistics for respondents (not weighted)

Variable	Stats / Values	Freqs (% of Valid)
Age	Mean (sd) : 52.1 (16)	70 distinct values
[numeric]	min < med < max: 20 < 52 < 90 IQR (CV) : 26 (0.3)	
Ethnicity	1. Asian	56 (3.5%)
[factor]	2. Black	9 (0.6%)
	3. Mixed	20 (1.2%)
	4. White	1529 (94.7%)

Variable	Stats / Values	Freqs (% of Valid)
Annual Income [factor]	1. under £5,000	49 (3.3%)
	2. £5,000 to £9,999	86 (5.8%)
	3. £10,000 to £14,999	139 (9.4%)
	4. £15,000 to £19,999	113 (7.6%)
	5. £20,000 to £24,999	120 (8.1%)
	6. £25,000 to £29,999	122 (8.2%)
	7. £30,000 to £34,999	94 (6.4%)
	8. £35,000 to £39,999	81 (5.5%)
	9. £40,000 to £44,999	77 (5.2%)
	10. £45,000 to £49,999	53 (3.6%)
	11. £50,000 to £59,999	61 (4.1%)
	12. £60,000 to £69,999	22 (1.5%)
	13. £70,000 to £99,999	46 (3.1%)
	14. £100,000 to £149,999	17 (1.1%)
	15. £150,000 and over	9 (0.6%)
	16. Don't know	112 (7.6%)
	17. Prefer not to answer	278 (18.8%)
Religion [factor]	1. Church of England/Anglica	379 (31.0%)
	2. Hinduism	11 (0.9%)
	3. Islam	27 (2.2%)
	4. Methodist	26 (2.1%)
	5. No religion	648 (53.0%)
	6. Presbyterian/Church of Sc	35 (2.9%)
	7. Roman Catholic	96 (7.9%)

Variable	Stats / Values	Freqs (% of Valid)
Home Status [factor]	1. Own outright	494 (36.8%)
	2. Own with a mortgage	402 (30.0%)
	3. Own (part-own) through sh	11 (0.8%)
	4. Rent from a private landl	168 (12.5%)
	5. Rent from my local author	55 (4.1%)
	6. Rent from a housing assoc	95 (7.1%)
	7. Neither I live with my pa	42 (3.1%)
	8. Neither I live rent-free	51 (3.8%)
	9. Other	23 (1.7%)
	10. Don't know	0 (0.0%)
Class [factor]	1. No	424 (25.8%)
	2. Yes, middle class	413 (25.1%)
	3. Yes, working class	689 (41.9%)
	4. Yes, other	29 (1.8%)
	5. Skipped	0 (0.0%)
	6. Not Asked	0 (0.0%)
	7. Don't know	91 (5.5%)
Education [factor]	1. None	117 (7.1%)
	2. Level 1	52 (3.1%)
	3. Level 2	333 (20.1%)
	4. Level 3	313 (18.9%)
	5. Level 4	131 (7.9%)
	6. Level 5 and above	459 (27.7%)
	7. Other	251 (15.2%)

Variable	Stats / Values	Freqs (% of Valid)
Gender	1. Male	749 (45.2%)
[factor]	2. Female	907 (54.8%)
Region	1. North East	60 (3.6%)
[factor]	2. North West	191 (11.5%)
	3. Yorkshire and the Humber	154 (9.3%)
	4. East Midlands	117 (7.1%)
	5. West Midlands	148 (8.9%)
	6. East of England	158 (9.5%)
	7. London	183 (11.1%)
	8. South East	251 (15.2%)
	9. South West	163 (9.8%)
	10. Wales	87 (5.3%)
	11. Scotland	144 (8.7%)
	12. Northern Ireland	0 (0.0%)
	13. Non UK & Invalid	0 (0.0%)

4.7.2 Descriptive statistics for profiles

Profile

Dimensions: 16560 x 10

14630

Table 4.3: Descriptive statistics for profiles

Variable	Stats / Values	Freqs (% of Valid)
Age	Mean (sd) : 49.5 (18.6)	80 distinct values
[numeric]	min < med < max: 18 < 49 < 99 IQR (CV) : 30 (0.4)	
Ethnicity	1. Asian/Asian British	1055 (6.4%)
[factor]	2. Black	295 (1.8%)
	3. Mixed	259 (1.6%)
	4. White	13967 (84.3%)
	5. Unknown	984 (5.9%)
Annual_Income	1. between £15,600 and £25,9	3286 (19.8%)
[factor]	2. between £26,000 and £36,3	2876 (17.4%)
	3. between £36,400 and £44,9	1668 (10.1%)
	4. between £45,000 and £59,9	1967 (11.9%)
	5. between £5,200 and £15,59	3053 (18.4%)
	6. between £60,000 and £99,9	2262 (13.7%)
	7. greater than £100,000	694 (4.2%)
	8. less than £5,199	754 (4.6%)

Variable	Stats / Values	Freqs (% of Valid)
Religion	1. Roman Catholic	3734 (22.5%)
[factor]	2. Church of England/Anglica	2629 (15.9%)
	3. Hindu	246 (1.5%)
	4. Islam	912 (5.5%)
	5. Methodist	266 (1.6%)
	6. Presbyterian/Church of Sc	202 (1.2%)
	7. No religion	8016 (48.4%)
	8. Unknown	555 (3.4%)
Home Status	1. Owns home	11522 (69.6%)
[factor]	2. Rents home	5038 (30.4%)
Class	1. Middle class	5699 (34.4%)
[factor]	2. Working class	10861 (65.6%)
Family Class	1. Family middle class	4486 (27.1%)
[factor]	2. Family working class	12074 (72.9%)
Education	1. Not University	10780 (65.1%)
[factor]	2. University	5780 (34.9%)
Gender	1. Male	8111 (49.0%)
[factor]	2. Female	8449 (51.0%)

Variable	Stats / Values	Freqs (% of Valid)
Region	1. Lives in London	1907 (11.5%)
[factor]	2. Lives in North East	825 (5.0%)
	3. Lives in North West	1913 (11.6%)
	4. Lives in Scotland	1508 (9.1%)
	5. Lives in South East	2317 (14.0%)
	6. Lives in South West	1474 (8.9%)
	7. Lives in the East Midland	1229 (7.4%)
	8. Lives in the East of Engl	1543 (9.3%)
	9. Lives in Wales	806 (4.9%)
	10. Lives in West Midlands	1578 (9.5%)
	11. Lives in Yorkshire & Humb	1460 (8.8%)

4.7.3 Testing robustness of operationalization

Figure 4.7 presents the results for the analysis using linear model rather than the logistic ordinal version in the article. Patterns remain largely unchanged.

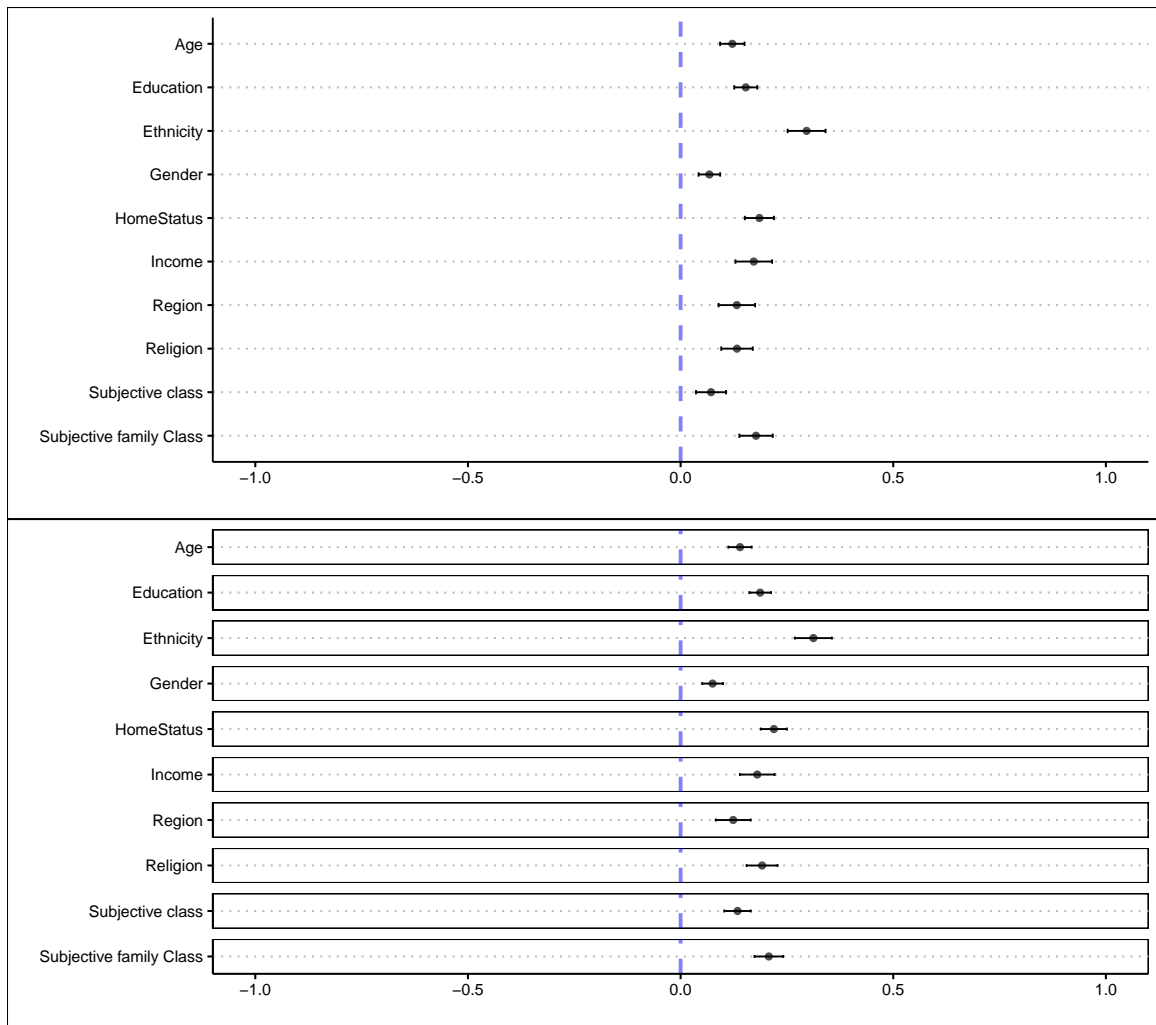


Figure 4.7: Political commonality by social category. Multivariate linear regression (top) and linear model with one variable at a time (bottom)

As a sensitivity test, the coefficients of the main analysis are replicated, separating estimates by the relative position of the task (first, second, third, fourth, or fifth). Figure 4.8 shows that there is no noticeable pattern depending on the number of tasks.

As another robustness check, I plot the obtained coefficients according to how many levels each characteristic has. This is to assess whether the size of the coefficients

is related to the number of levels. I run this analysis for all characteristics, except age (the only characteristic operationalized as continuous). Figure 4.9 shows this comparison. There is no clear pattern which would suggest the size of estimate depends on having more or less levels.

As for age, I replicate the bivariate analysis of age closeness in the paper with different operationalizations. In the original operationalization, respondent and profile are considered to be in the same age category when the difference between the two is less than 10 (years). Figure 4.10 shows the estimate for matching age is largely unaffected by the choosing different thresholds.

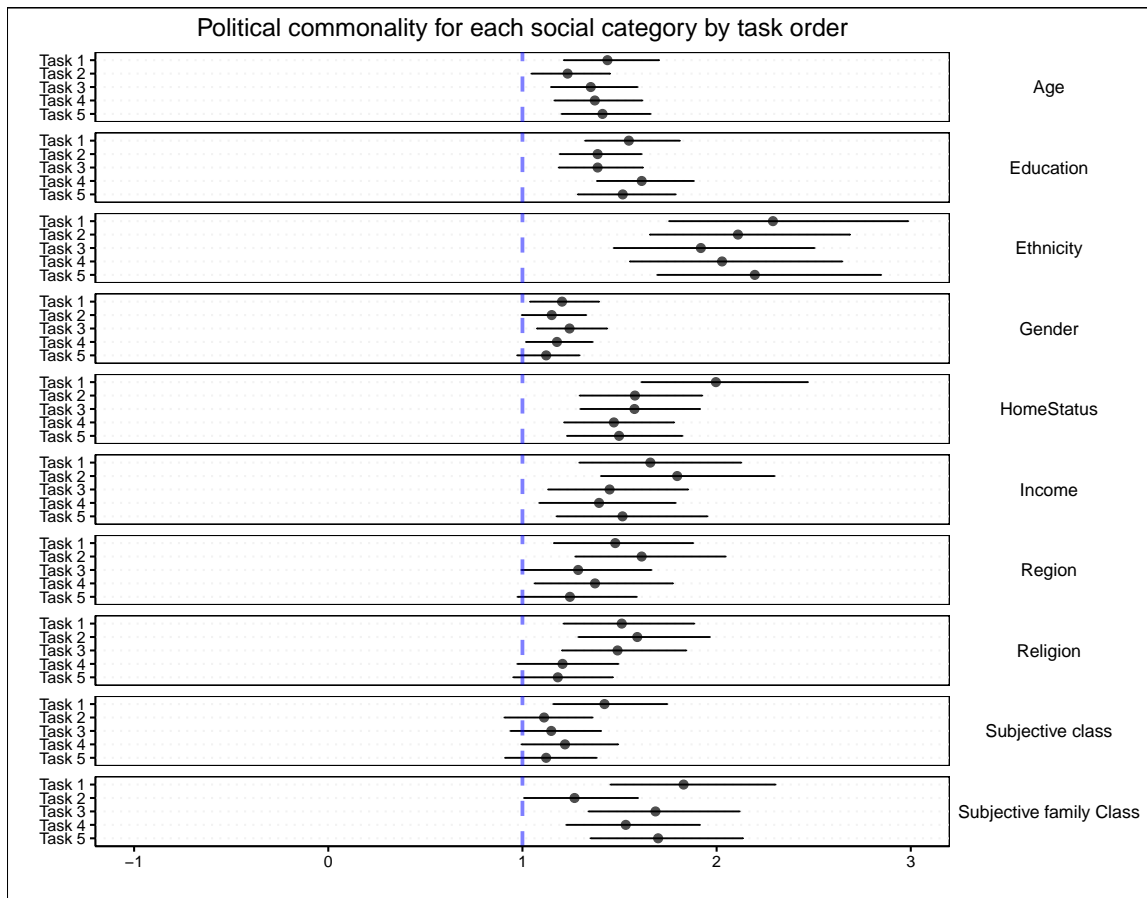


Figure 4.8: Sensitivity test

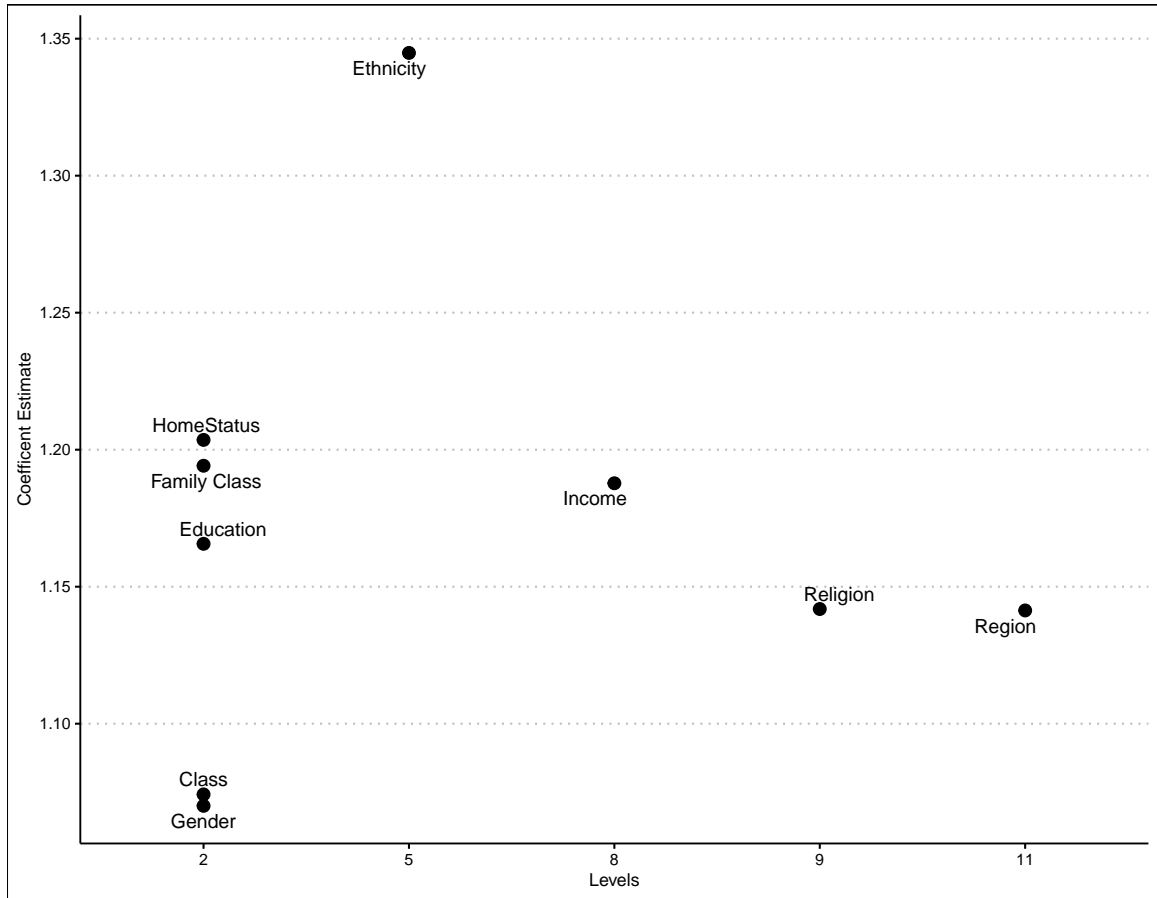


Figure 4.9: Levels versus Estimates of Multivariate Regression (odds ratio)

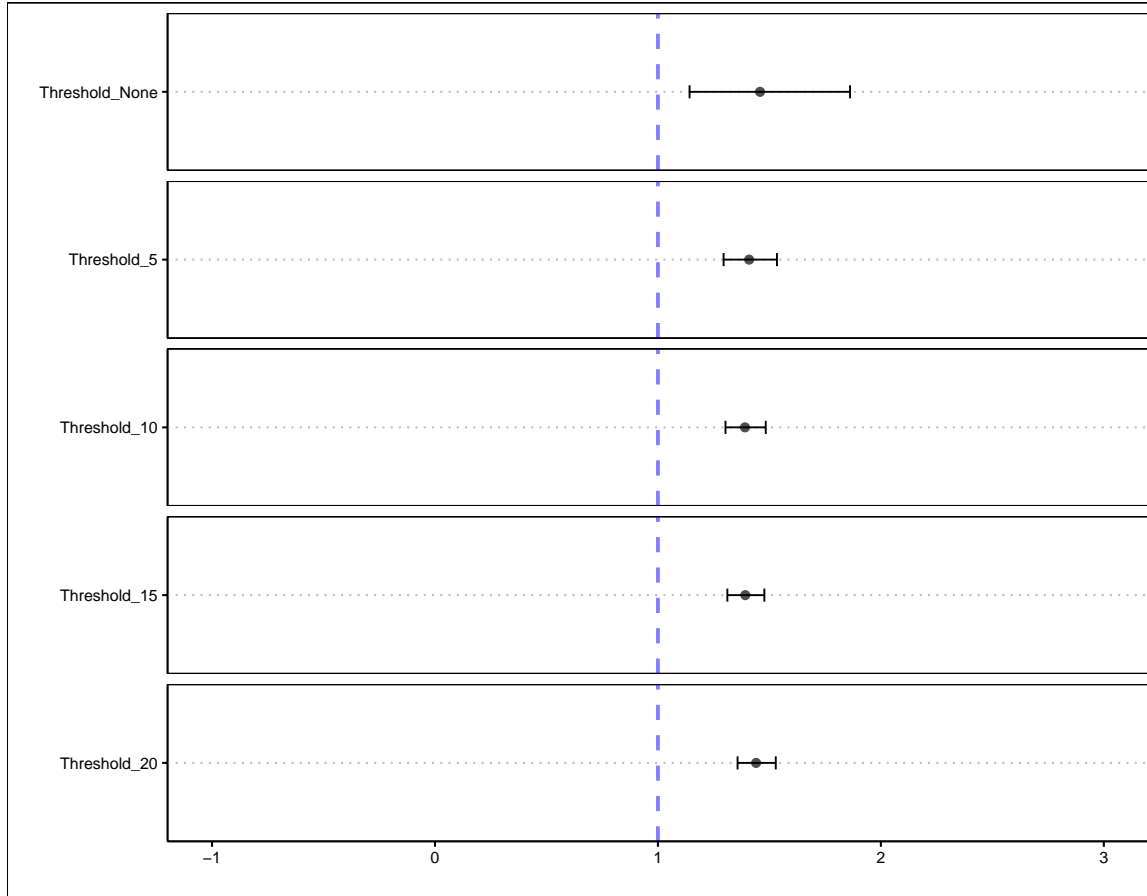


Figure 4.10: Political commonality for different age operationalization Bivariate models (odds ratio)

Chapter 5

Do candidates' positions matter in the presence of party labels? ¹

In this paper we test how much party labels influence vote choices between candidates. We use the Representative Audit of Britain (RAB) and the British Elections Study (BES) to generate realistic distributions of political positions and demographic attributes for Labour and Conservative candidates. We then create electoral matchups between randomly selected Conservative versus Labour candidates, with half of the respondents seeing party labels in addition to candidates' positions and demographics and half not seeing party labels. We find that party cues have a larger effect on the vote choices of past 2019 Conservative voters than on those of past 2019 Labour voters. In fact, there is a negligible effect on past Labour voters' support for the Labour candidate when party labels are present versus when they are not. Additionally, we analyse the relationship between respondents' own positions and characteristics and those of candidates with and without party labels to understand which dimensions of candidate-respondent similarity are most highly weighted in voting decisions. We find that the significance of most (but not all) of the candidates' positions disappears in the presence of party cues.

A party label might be relevant to voters because citizens have an affective attachment to a party (e.g. A. Campbell et al., 1960) or because it works as a heuristic

¹Co-authored with Prof. Benjamin Lauderdale. To be submitted.

that provides a proxy for candidate's policy positions (e.g. Fiorina, 2002). One of the major divides in interpreting the evidence on the role of partisanship on voting has been between viewing party preference as a driving force of vote choice on its own or as a heuristic for a bundle of policy positions and past performance.

Fowler (2020) articulates this debate in terms of a vote motivated by policy versus a “partisan intoxication” vote. The first motivation means voters support candidates according to policy preferences and beliefs about government performance, while the second would imply that voters “blindly support that party in elections, regardless of the candidates' policy positions” (p.142)

These two perspectives for vote choice need not be exhaustive or mutually exclusive. For example, it is easy to imagine that voters have some policy concerns, but can also get caught up in a desire for their “team” to win in a way that means they are not precisely tracking their policy and performance interests in election outcomes, even as they themselves understand them. Nonetheless, the relative weight of these factors has important implications for democratic accountability.

One difficulty in disentangling the relative importance of policy motivations versus affective ties comes from the fact that characteristics of the candidates are potentially endogenous to the preferences of the constituency and to possible competitors. This is why traditional studies that rely on observational data cannot rule out selection mechanisms that might provide alternative explanations for the relationship between candidate policy positions, party affiliations, and citizens' attitudes on policy and party (examples of such studies are A. Campbell et al. (1960); Vivyan & Wagner (2012); Ansolabehere & Jones (2010); Canes-Wrone et al. (2002)).

More recent work in the area has included conjoint experiments to independently vary the presence and/or identity of party labels along with various policy positions and other attributes of candidates (Fowler, 2020; e.g. P. A. Kirkland & Coppock, 2018; Mummolo et al., 2019). However, these experiments typically trade off some external

validity for the gains in internal validity, using fully independent randomization of candidates' attributes that generate unrealistic frequencies and combinations of candidates' attributes and party affiliation. In the real world, candidates may shift their expressed positions for electoral purposes, but typically this shift is constrained by the range of acceptable positions within their party (e.g. Snyder & Ting, 2003). Thus, while it is interesting to test the limits of partisan vote when candidates deviate completely from party platforms, it is also important to understand how citizens respond to realistic levels of variation in positions given party affiliation. This paper attempts to answer the question for the relative importance of party intoxication and policy preferences in a realistic context of policy variations among party candidates.

We design a novel experimental strategy which 1) randomizes the presence versus absence of party labels and 2) randomizes the profiles of positions and characteristics of candidates for each party. The candidate positions and characteristics are not independent of one another, or of the party of the candidate, but rather are benchmarked to the real distributions of positions and characteristics of candidates of the party at the 2017 British general election.

The presence versus absence of party labels is independent of the candidate positions and characteristics, so we can look to the data from the no party labels condition to observe the relative importance of each characteristic in a non-explicit partisan context. We then compare the relevance of the same attributes when party labels are given. Using data on past vote choice, we also compare how consistent respondents are in terms of their previous vote and the choice they make in the experiment. Using data on past positions expressed by our respondents and their demographic characteristics, we can also assess how much the proximity of candidates to the respondents' own positions and characteristics matters for their vote choices, with and without party labels.

We find that "correct voting", in either the Lau & Redlawsk (1997) sense of

matching one's own political positions or in the sense of matching past individual vote, is reasonably high in the condition where respondents do not observe party labels. The presence of party labels does further increase the match between past vote and vote in the experiment. We find that the independent relevance of candidates' positions loses importance in the presence of party labels, but does not disappear. At the moment our experiment was completed, October 2021, we find an asymmetric relationship between policy and partisanship. Labour voters in the 2019 general election are found to consistently choose Labour candidates in our experiments both with and without party labels. Conservative voters in the 2019 general election, on the other hand, are found to be less consistent in their vote for Conservative candidates in our experiment, especially in the absence of party labels. We discuss possible interpretations of this asymmetry, relating to the political moment of the survey and policy sorting.

5.1 Vote choice and party labels

Voters may prefer candidates from certain parties because they feel an affective or identity attachment to the parties (A. Campbell et al., 1960; D. P. Green et al., 2004) or because parties work as cues, aiding in complex decisions on policy platform preferences and past performance (Fiorina, 1981, 2002). Fowler (2020) articulates this debate in terms of a “partisan intoxication” vote versus a vote motivated by policy. Party intoxication would be an explanation for vote choice where voters “blindly support that party in elections, regardless of the candidates' policy positions” (p.142). In other words, in its strongest form, the affective or identity attachment perspective on voting implies candidate choice might take place even without policy considerations. As Mason (2018b) affirms, this view would imply that “citizens do not choose which party to support based on policy opinion”(p.20). Nonetheless, As Fowler (2020) and Rogers et al. (2020) acknowledge, these two explanations for vote choice need not be

exhaustive or mutually exclusive.

Regardless of which perspective one takes, citizens' propensity to vote in a partisan manner is not limitless and generally loyal voters might defect because the candidates they have to choose from in particular elections take on different issue positions (e.g. Mummolo et al., 2019) or policy positions (e.g. Boudreau & MacKenzie, 2014). For example, there is evidence in the US that legislators might be accountable for their voting records, at least under some circumstances (Ansolabehere & Jones, 2010; Canes-Wrone et al., 2002; Nyhan et al., 2012). Much less has been said on the topic outside of the US. The studies available for the UK, in terms of issue accountability, find that candidates' characteristics are minimally relevant in comparison to party labels (e.g. Butler & Stokes, 1971; Hanretty et al., 2021; Vivyan & Wagner, 2012).

Even with policy voting, party labels can still be very influential for vote choice as they implicitly provide a summary of information on policy positions of candidates (Fiorina, 1981). This is a key reason that the affective/identity model and the heuristic/policy summary models of partisanship are difficult to disentangle empirically. The same electoral behaviour, i.e. voting consistently for a party, can usually be interpreted in both manners. Additionally, as Fowler (2020) explains “[d]istinguishing between partisan intoxication and policy voting is difficult because the positions of voters and parties on important issue change infrequently” (p.156)

If we want to measure the relevance of candidates' attributes in the presence of party labels, another difficulty is that observational data is subject to selection bias regarding the characteristics of the candidates who choose to run in different constituencies. For example, Snyder & Ting (2003) describe how party positioning and individual candidates' positions may interact. Candidates may only move across a limited interval of positions that are consistent with being a member of their party. The chosen position depends on the preferences of the districts' populations and their own, and so their (expected) electoral performance in real elections is as much a cause

of, as an effect of, the positions they take on relative to those of their co-partisans.

Some observational studies focus on formally non-partisan matches to determine the relative importance of party affiliation and candidates' characteristics. These studies find that formally non-partisan contests show a smaller degree of partisan alignment in the electorate (e.g. Lim & Snyder Jr, 2015; Schaffner et al., 2001) and a greater importance of the candidates' attributes (e.g. Badas & Stauffer, 2019). However, in elections where party labels are omitted because of regulations another difficulty arises: voters might infer the party affiliation of candidates even in the absence of explicit party labels. For example, Lucas (2020) shows that municipal governments are responsive to the ideological preferences of their constituencies in Canada, even though elections are formally non-partisan. The fact that voters might act in ways that appear to be policy-based in non-partisan elections could potentially arise even if voters were purely party motivated, as they use policy positions as cues to infer the true partisan alignment of the candidates.

Some, but not all, of these issues can be addressed using experimental designs, where candidate positions and party affiliations can be randomized. Recent experiments have enabled researchers to test a number of hypotheses about how party labels and candidate positions may jointly generate vote choices which follow from the different theoretical models of the relationship between party and voting. For example, Fowler (2020) reanalyses data from Hainmueller et al. (2014) conjoint experiment for candidates in the US. He theorizes that in the presence of policy voting, including more information on candidates would reduce the effect of party labels. He finds that “the presence of additional, randomly assigned information about candidates is enough to induce most respondents to deviate from their party some of the time” (p.166).

At the same time, experiments have shown that in the presence of party labels other aspects, such as gender or ethnicity, may become less relevant (Burnett & Tiede, 2015; P. A. Kirkland & Coppock, 2018; Lavine et al., 2012; Rahn, 1993). Conversely,

in the absence of party labels, candidates' attributes may become more relevant. For example, P. A. Kirkland & Coppock (2018) find that when choosing a candidate in competitions with no party labels, Republican voters give more importance to job experience, while Democrat voters assign more importance to political experience. However, these studies are not exempt from the risk that respondents infer partisan affiliations, even in the absence of such labels. For example, P. A. Kirkland & Coppock (2018) present experimental evidence that voters exhibit preference for local candidates that signal partisan or ideological affiliation without using labels. As Fowler (2020) points out “[b]ecause respondents will make inferences about many things in response to a given piece of information, survey experiments may never allow us to definitively demonstrate or rule out partisan intoxication” (p.164). Even so, while adjudicating which theoretical model of political behaviour is a closer match to reality is difficult, such experiments give us new evidence about how voters respond to variations in their political choices that is useful for making progress on our understanding of voters' behaviour.

5.1.1 The British context

In the British context, the relevance of candidates' positions has been studied less than in the US. In part, this is the result of a strong tradition of viewing the vote as neatly divided between class lines, with working-class citizens voting for Labour and middle-class citizens for the Conservatives (e.g. Butler & Stokes, 1969, 1974). Even vote choice theories less reliant on social and party identity have tended to give little attention to the individual positions of candidates, emphasizing the roles of party manifestos and leaders (Clarke et al., 2004). Strong party discipline in the House of Commons means that individual MP deviations from the party line are rarely visible, and even when they are visible, voters seem to pay little attention. For example, Vivyan & Wagner (2012) find that only voters with negative views on the leadership

reward MPs for rebelling against the leadership and that this gain is small. Similarly, Hanretty et al. (2021) find that even on Brexit, the highest profile cross-cutting issue in British politics in a generation, MPs in the UK were negligibly accountable for their issue positions and that they were aware of this, implying little incentive to take into account the constituencies' positions on issues more generally. The Hanretty et al. (2021) paper is really the best case for a clean observational case and there is still not much evidence of issue voting.

Despite this history, we could imagine that candidates' positions might become relevant in the current political environment in the UK. There has been a process of class and partisan dealignment (Särilvik et al., 1983), which, as SurrIDGE (2020) has pointed out, “gave more ‘space’ for short-term influences on vote choice” (p.5). Following the “funnel of causality” for vote choice, as defined by A. Campbell et al. (1960), these short-term influences include issue opinions and candidate image. In the original model of the “funnel of causality”, party attachment mediates between value orientations and both issue opinions and candidate image. Without this attachment, other elements may become more relevant. The last decade has seen an unprecedented level of weakening of party attachment in Britain, reflected in the fact that only half of the electorate voted for the same party in all three elections in 2010, 2015, and 2017 (Fieldhouse et al., 2021). At the same time, party discipline in the House of Commons has weakened for relevant legislation (Cowley & Stuart, 2012; Kam, 2009; J. H. Kirkland & Slapin, 2018), such as the Brexit Withdrawal Agreement (Aidt et al., 2021), potentially raising the stakes of which kind of candidate is elected beyond their party label.

The EU referendum and the Brexit debate have brought an important level of realignment with “Leaver” and “Remainer” identities playing a role that may be as important as traditional party identities (Hobolt et al., 2020). This might reinforce the relevance of candidates' positions on Brexit, and push voters in directions different

from a simple party vote. In the 2019 general election Brexit was a defining issue for many voters and this was partly the result of shifts in voter behaviour which come from longer-term trends, that reflect “the growing importance of value divides in the electorate” (Ford et al., 2021, p. 541). Specifically, voters with more socially conservative views have swung behind the Conservatives (e.g. SurrIDGE, 2020).

Values have often been described as dividing the political spectrum in two axes. The left-right axis, linked to traditional economic positions, and the social values axis, linked to positions on authoritarianism and liberalism (Lipset, 1959). While the party divide and its class counterpart are typically summarized in the left-right spectrum, the Brexit vote is mainly explained by the authoritarian-liberal axis (e.g. Crewe, 2020; Norris & Inglehart, 2019; Zmigrod et al., 2018). How relevant are signals given by the candidates on these value scales? Do they matter when party affiliation is known?

5.2 Data and Methods

To test the way party signalling affects vote choice, in the context of candidates with realistic attributes and positions, we first create a data set of candidate profiles. For this we combine information from the Representative Audit of Britain (RAB) (R. Campbell et al., 2017), and the British Elections Study (BES) to create a data set of nationally representative profiles for both Labour and Conservative candidates in the 2017 general elections. The BES includes complete information on candidates’ gender by party and constituency, as well as whether the candidate was elected (632 Labour and 632 Conservative candidates). The RAB includes information on a sub-sample of candidates (385 Labour and 148 Conservative candidates) on their positions for several policy related questions, as well as information on their past participation in local councils, the EU referendum vote, left right positions, and many other characteristics. This information was combined and missing values were imputed using multivariate

imputation by chained equations (MICE). Specifically, this was done using random forest imputation for continuous data and predictive mean matching for all other kinds of data. The imputation was carried out for Labour and Conservative candidates separately to ensure that the distribution of characteristics within each party conserves the correlations between the different variables. For the imputations, whether a candidate was successful or not was also included as a variable.

We present respondents with two randomly selected candidates characterized by their gender, age, left right positioning, EU referendum vote, experience in local council, whether the candidate was born in the constituency, and positions over four broad policy issues, and ask them to choose which of the two profiles they would vote for. One candidate is selected from the pool of Labour candidates and the other one from the pool of Conservative candidates. A random half of the respondents see party labels and the other half does not.

Examples of the task with and without party labels can be seen in Figure 5.1. The order of the characteristics was randomized within 4 blocks. The first block consisted of the candidate's age and sex. The second block consisted of whether the candidate is from the constituency he/she is running for, whether the candidate has experience in local council, their position on the left-right spectrum, and their vote in the 2016 EU referendum. Finally, the fourth block consisted of the candidates' positions on 4 broad policy issues: spending cuts to local services, measures to protect the environment, redistribution of income, and the economic effects of immigration. We also randomize which candidate (Labour and Conservative) is visually on the left and on the right.

This method is closely related to traditional conjoint experiments; however, instead of a distribution where profile attributes are independently randomised, we have randomly selected complete profiles following their estimated distribution in the population of candidates. Relative to a conjoint experiment with independent randomisation of all elements of the candidate profiles, using this external benchmark

for the distribution helps with external validity of estimates, but implies we cannot use non-parametric identification of causal effects of individual attributes (AMCEs), introducing model dependence for these estimates (De la Cuesta et al., 2019).

This experiment allows us to estimate some design-based causal estimates and some model-based estimates. First, we can calculate a design-based estimate for the effect of full profiles. Specifically, we can calculate the effect of party labels on respondents' choice. Because this element of the experiment is assigned randomly and independently of any other attribute, we do not need to model it. We can simply compare averages of the two conditions of the experiment (with and without party labels). Furthermore, these estimates are the result of realistic electoral matches (benchmarked on the distribution of candidates) and therefore conserve the external validity of a realistic treatment distribution of the candidates' profiles. As Hainmueller et al. (2014) explain, together with the AMCEs, conjoint experiments allow for the estimation of the average effect of complete profiles. This quantity is “[t]he expected difference in responses for two different sets of profiles” (p.10). This quantity is rarely of interest, because complete profiles are usually not substantively meaningful. This is the reason it is hardly ever mentioned when conjoint experiments are used. However, following Hainmueller et al. (2014), this quantity might be relevant if “the treatments correspond to two alternative scenarios that might happen in an actual election” (p.10). This is the case in our experiment because we have benchmarked our treatment in the real distribution of candidates. While we are not interested in the causal effect of any specific profile of a candidate, we are interested in presenting the effect of a realistic set of electoral matches, with and without party labels, on respondents' choice.

Second, the cost of randomising the attributes at the full profile level, rather than the individual attribute level, is that comparing differences in mean responses for particular attribute levels loses its causal interpretation (it is no longer an unbiased estimator of the AMCE). We can, nonetheless, form model-based rather than design-

based estimates of the causal effects of respondents seeing particular attribute levels, through the use of regression. We can assess the causal effects of different attributes appearing in the treatment candidates, subject to modelling assumptions about how the effects of different attributes aggregate and heterogeneity in the population. For the purposes of this experiment, it makes sense to sacrifice having simple experimental comparisons for all attributes in exchange for having a meaningful external benchmark.

YouGov

Candidate Choice 1

In recent UK elections, candidates for Parliament have been surveyed anonymously to understand their views on a range of issues.

Below, we provide the profiles of two candidates standing for office:

Question	Candidate A	Candidate B
Sex	Male	Male
Age	34 years old	66 years old
How did you vote in the referendum on Britain's membership of the European Union on 23 June 2016?	Voted to remain	Voted to remain
Were you born in the constituency	Not born in constituency	Not born in constituency
Have you ever been elected a local councillor?	Has never been elected a local councillor	Has never been elected a local councillor
In politics people sometimes talk of left and right. In a scale from 0 to 10, Where would you place yourself on the following scale? (smaller values more left, larger values more right)	Centre left (4)	Centre (5)
In a scale from 1 to 5, cuts to local services in my area have not gone far enough (1) or too far (5)	Says that cuts to local services have gone too far	Says that cuts to local services have been about right
In a scale from 1 to 5, measures to protect the environment have not gone far enough (1) or too far (5)	Says that measures to protect the environment have not gone nearly far enough	Says that measures to protect the environment have not gone far enough
In a scale from 1 (disagree) to 5 (agree), how much do you agree with the statement "Government should redistribute income from the better off to those who are less well-off"	Strongly agrees with the statement that government should redistribute income	Disagrees with the statement that government should redistribute income
In a scale from 1 to 7, do you think immigration is good (7) or bad (1) for Britain's economy?	Says that immigration is a little good for the economy	Says that immigration is good for the economy

If these were the only two candidates standing for Parliament in your constituency, which would you vote for?

- Candidate A
- Candidate B
- I am not sure
- I would not vote

YouGov

Candidate Choice 1

In recent UK elections, candidates for Parliament have been surveyed anonymously to understand their views on a range of issues.

Below, we provide the profiles of two candidates standing for office:

Question	Candidate A	Candidate B
Party	Conservative Party	Labour Party
Age	28 years old	45 years old
Sex	Male	Female
In politics people sometimes talk of left and right. In a scale from 0 to 10, Where would you place yourself on the following scale? (smaller values more left, larger values more right)	Centre right (6)	Left (2)
How did you vote in the referendum on Britain's membership of the European Union on 23 June 2016?	Voted to remain	Voted to remain
Have you ever been elected a local councillor?	Has been elected a local councillor	Has never been elected a local councillor
Were you born in the constituency	Not born in constituency	Not born in constituency
In a scale from 1 to 7, do you think immigration is good (7) or bad (1) for Britain's economy?	Says that immigration is neither good nor bad for the economy	Says that immigration is somewhat good for the economy
In a scale from 1 to 5, cuts to local services in my area have not gone far enough (1) or too far (5)	Says that cuts to local services have not gone far enough	Says that cuts to local services have gone much too far
In a scale from 1 to 5, measures to protect the environment have not gone far enough (1) or too far (5)	Says that measures to protect the environment have not gone far enough	Says that measures to protect the environment have not gone nearly far enough
In a scale from 1 (disagree) to 5 (agree), how much do you agree with the statement "Government should redistribute income from the better off to those who are less well-off"	Disagrees with the statement that government should redistribute income	Strongly agrees with the statement that government should redistribute income

If these were the only two candidates standing for Parliament in your constituency, which would you vote for?

- Candidate A
- Candidate B
- I am not sure
- I would not vote

Figure 5.1: Survey prompts for experiment with example profiles. Without party labels (top) and with party labels (bottom)

There were 808 respondents in the experiment version with visible party affiliation and 828 in the version of the experiment without visible party affiliation. The survey was fielded by *YouGov* in October 2021. Each respondent faced five iterations of the experiment with the same party visibility condition. The respondents came from the British Elections Study online panel, which means that the information on respondents (demographic characteristics, issue positions, and past votes) were obtained months or years before the experiment was implemented.

To model the absolute effect of candidates' attributes and positions, a variable, f_{ij} , is created to reflect the difference between candidate A and candidate B on attribute j for task i , where candidate A is arbitrarily the candidate on the left, and candidate B is the candidate on the right (we have randomized for each iteration whether the Labour or the Conservative candidates is on the left or on the right)

A second analysis seeks to assess the probability of a respondent choosing one candidate if that profile is closer to the respondent on a given issue, compared to the other alternative profile. To perform this analysis, two variables, m_{Aij} and m_{Bij} , are created to reflect each respondent's closeness on attribute j for task i , with candidate A and candidate B that the respondent saw in that task (two closeness values per iteration per attribute). The difference between the two variables is the explanatory variable of interest, $d_{ij} = m_{Aij} - m_{Bij}$. If, for task i , the two profiles are equally close to the respondent on attribute j , then d_{ij} will be zero. If the closeness variable is larger for the first person ("Person A"), then d_{ij} will be positive. If the opposite is true, then d_{ij} will have a negative value.

The choice of the respondent for task i , the outcome of interest, c_i , is then coded in an equivalent way, with 1 meaning the respondent chose Person A, -1 meaning that the respondent chose Person B, and 0 meaning the person chose "not sure" or "would not vote". The reason the data is coded this way is that this means that closeness with A and B are treated symmetrically, and each coefficient describes the effect of

moving closer to the chosen candidate for a single characteristic, holding the other attributes and the other profile constant. Additionally, candidates' experience as local councillor and whether the candidate was born in the constituency are taken as "valence" variables that either help or hurt candidates, assuming that all respondents prefer the characteristic to not having the characteristic.

With these variables, the following subsections will examine how important is every f_{ij} and d_{ij} , for every policy position j in explaining the respondents' choice (c_i) and how this relationship changes with the inclusion and exclusion of party labels.

5.3 Findings

5.3.1 Consistency with past party vote in the 2019 general election

Our experiment allows us to causally assess how much the provision of party labels increases the consistency of candidate choice in the experiment with past vote choice. We can do this without detailing the effect each individual attribute had, and, therefore, without requiring modelling assumptions. Figure 5.2 shows the proportion of respondents that chose each candidate by their vote in the 2019 general election². The results suggest that, without party labels, 2019 Labour and Conservative voters maintained their 2019 vote choices at different rates. 44.2% of respondents that previously voted for Conservative chose the Conservative profile, in the absence of party label. The remaining 2019 Conservative voters either chose a Labour candidate (17.4%) or the "not sure" and "not vote" options (38.4%). The percentage of 2019 Conservative voters choosing the Conservative candidate in the experiment increases to 58.1% when party labels are given, thanks to fewer 2019 Conservative voters choosing

²The same analysis is carried out in Figure 5.12 in the appendix with voters in the 2017 general elections. The patterns observed for Labour and Conservative voters remain largely the same.

a Labour Candidate (11.2%) and fewer choosing “not sure” and “not vote” options (30.6%).³

By comparison, 76.7% of respondents that voted for Labour in 2019 chose the Labour profile in the absence of party label. The fact that this is higher than for 2019 Conservatives voting Conservative in our experiment is not itself notable, as it reflects a shift in overall support for the parties versus the 2019 election at the time of the experiment. What is more notable is that this percentage is not significantly lower than the 77.7% who chose the Labour profile when party labels are given. Only 9.7% Labour voters chose the Conservative profile when labels were not given, and this proportion decreased to 5.5% when party affiliation of profiles were made explicit. The percentage of past Labour voters that chose either the “not sure” or “not vote” options changed not significantly from 13.6%, when labels were not given, to 16.8% with party labels.

While Conservative voters are significantly affected by the presence of party labels, Labour voters are less sensitive to explicit party cues. This might suggest that 2019 Labour voters are more aligned with Labour candidates' positions and attributes than are 2019 Conservative voters with Conservative candidates, and therefore making party labels explicit has little effect on them. It is also possible that Labour voters are better at “guessing” the party affiliation of candidates. In any case, the relevance of party labels while stronger for Conservative candidates, is still relatively small (especially when compared to its effect on past Brexit Party voters).

³The effect of party labels for choosing a Conservative candidate is especially noticeable for Brexit party voters. When labels were not given, only 14.6% of these respondents chose a Conservative candidate, and 63.9% when party labels were made available.

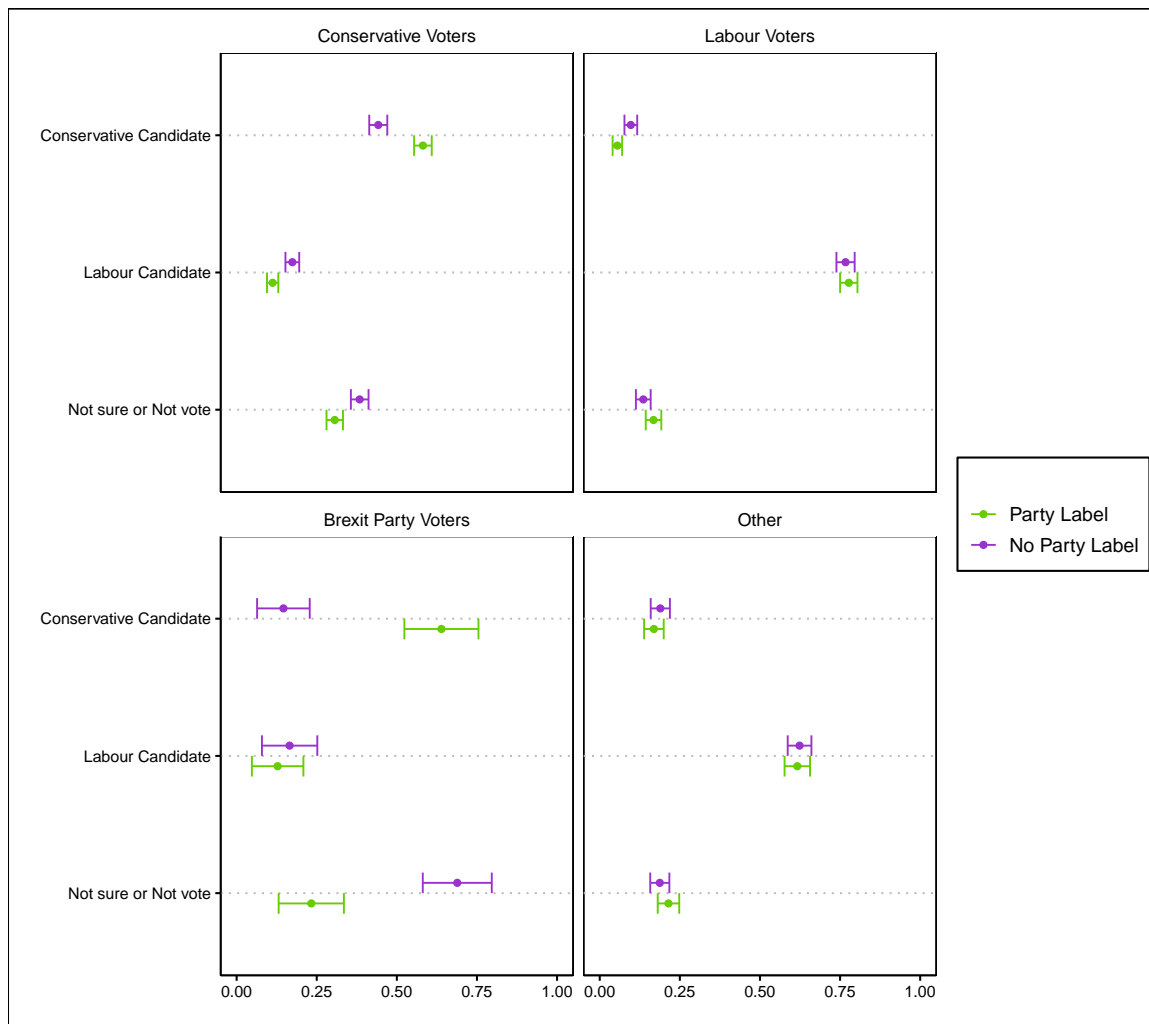


Figure 5.2: Proportion of respondents that chose each candidate in the experiment by their vote in the 2019 general election

5.3.2 Is the small effect of party labels a result of policy sorting?

We find that overall party labels have a small effect on the kind of candidates respondents choose. One possible explanation for that is that respondents are choosing candidates because of their similarities and that, because of partisan sorting, this coincides with party affiliation. Therefore, including or excluding party labels makes little difference. How close are respondents to the candidates that share their party

Table 5.1: Conservative voters

	Conservative candidate	Labour candidate
Brexit	41.9%	10.7%
CutsSpending	38%	25.4%
Environment	42.6%	21.7%
Immigration	45.6%	23.9%
LR	67.5%	10%
Redistribution	39.7%	37.9%

affiliation?

Table 5.1 shows, for every policy position, the proportion of Conservative voters that was faced with a Conservative candidate closer to their positions and the proportion that was faced with a Labour candidate closer to their positions (the remaining proportion chose between candidates equally distant to their positions). While it is true that, for every policy, the proportion of respondents that was closer to the Conservative candidate was larger, only for positions on the Left-Right spectrum did this proportion surpass 50%. The position on which 2019 Conservatives voters were closest to Labour candidates was on redistribution. 39.7% were closer to the Conservative candidate and 37.9% were closer to the Labour candidate.

Similarly, in the case of Labour voters, Table 5.2 shows that the proportion of respondents closer to Labour candidates also is above 50% for the left-right spectrum. However, in this case Redistribution has an even higher proportion of respondents closer to Labour candidates, with 65%. The position on which 2019 Labour voters differed the most from Labour candidates was on their position on immigration. 33.1% were closer to the Labour candidate and 33.2% were closer to the Conservative candidate. Figure 5.3 shows the distribution of Labour and Conservative voters on the left-right spectrum, together with the average position of Labour and Conservative candidates. Overall, voters of each party are concentrated around the average position of their respective candidates. This explains why 60.4% of Labour voters were nearer

Table 5.2: Labour voters

	Conservative candidate	Labour candidate
Brexit	8.9%	43.2%
CutsSpending	16.8%	42.7%
Environment	25.8%	35.8%
Immigration	33.2%	33.1%
LR	15.2%	60.4%
Redistribution	12.5%	65%

Proportion of Conservative (top) and Labour (bottom) past voters that hold positions closer to Conservative and Labour candidates across all tasks

to Labour candidates, while 67.5% of Conservative voters were nearer to Conservative candidates on this issue.

Overall, while there is some partisan sorting on policy issues, with the exception of positions on the Left-Right spectrum, this does not appear to be very extended across all attributes and positions. Some policies, such as redistribution in the case of Conservative voters and immigration in the case of Labour voter, might even push several respondents towards candidates from a different party affiliation. This suggests that, at least partly, the reason party labels have little effect is due to respondents guessing the party affiliation of candidates in the no-labels condition.

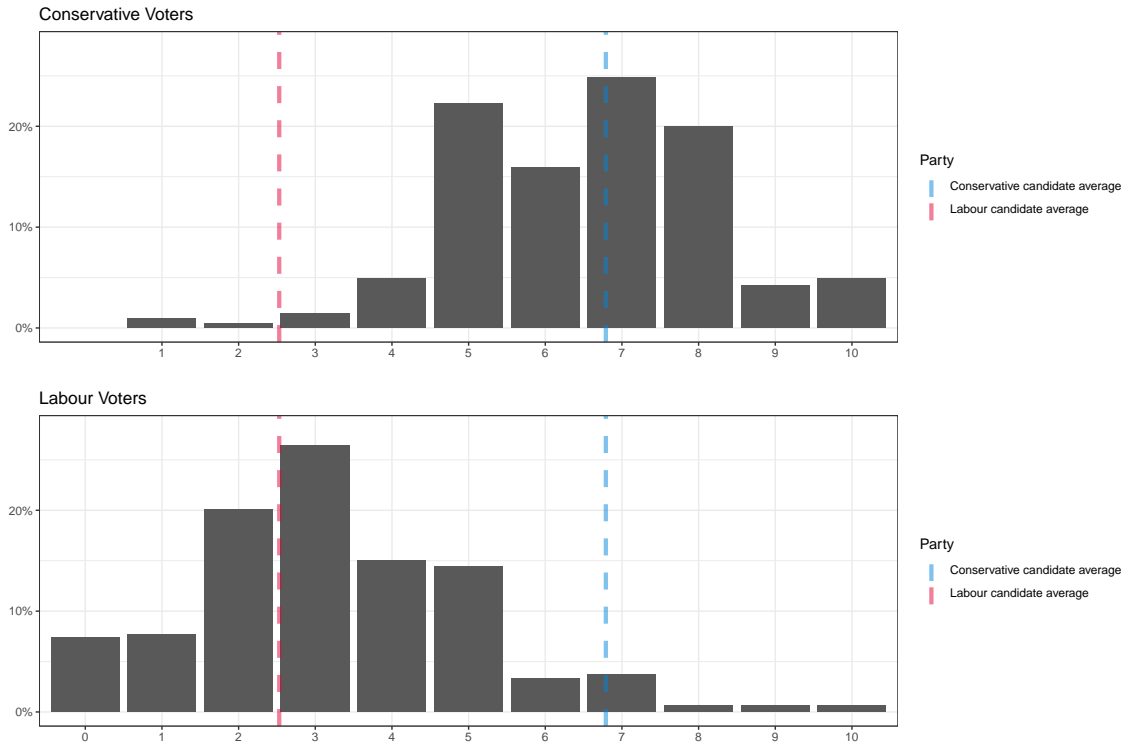


Figure 5.3: Distribution of Conservative (above) and Labour (below) voters for position on Left-Right Spectrum

5.3.3 Candidates' attributes' effect

First, we test whether candidates' positions directly affect respondents' choice. If the effect of this information is solely to help respondents infer which of the candidates is from which party, we would expect that candidates' position, particularly the differences between the positions of two competing profiles, would have an impact on respondents' choice, regardless of their own positions. For example, respondents could use the information on candidates' position on the left-right spectrum to guess which candidate is Conservative (the one more on the right) and which one is Labour (the one more on the left).

The results of such analysis are shown in Figure 5.4. Overall, we find that candidates' positions, without considering respondents' positions, do not significantly predict respondents' choice. This suggests that, at least to some degree, the information

on candidates is not merely being used as a way of inferring a candidate's party affiliation. In other words, this evidence seems to discard an extreme version of "partisan intoxication" either.

A noticeable feature of Figure 5.4 is that, while candidates' positions do not predict respondents' choices, candidates' party affiliation does, even without party labels. We estimate the value of this coefficient to be 0.579 for voters that voted Conservative in 2019, and -0.815 for voters that did so for Labour. In other words, respondents (or at least some of them) are choosing the candidates affiliated to the party for which they voted for in 2019 without party labels. This suggests that the information on candidates is being used in some way different from direct inference of party affiliation. For example, it is possible that, following the "policy vote" perspective, respondents are choosing candidates with positions closer to theirs and that, because of partisan sorting on these issues, this coincides with past vote.

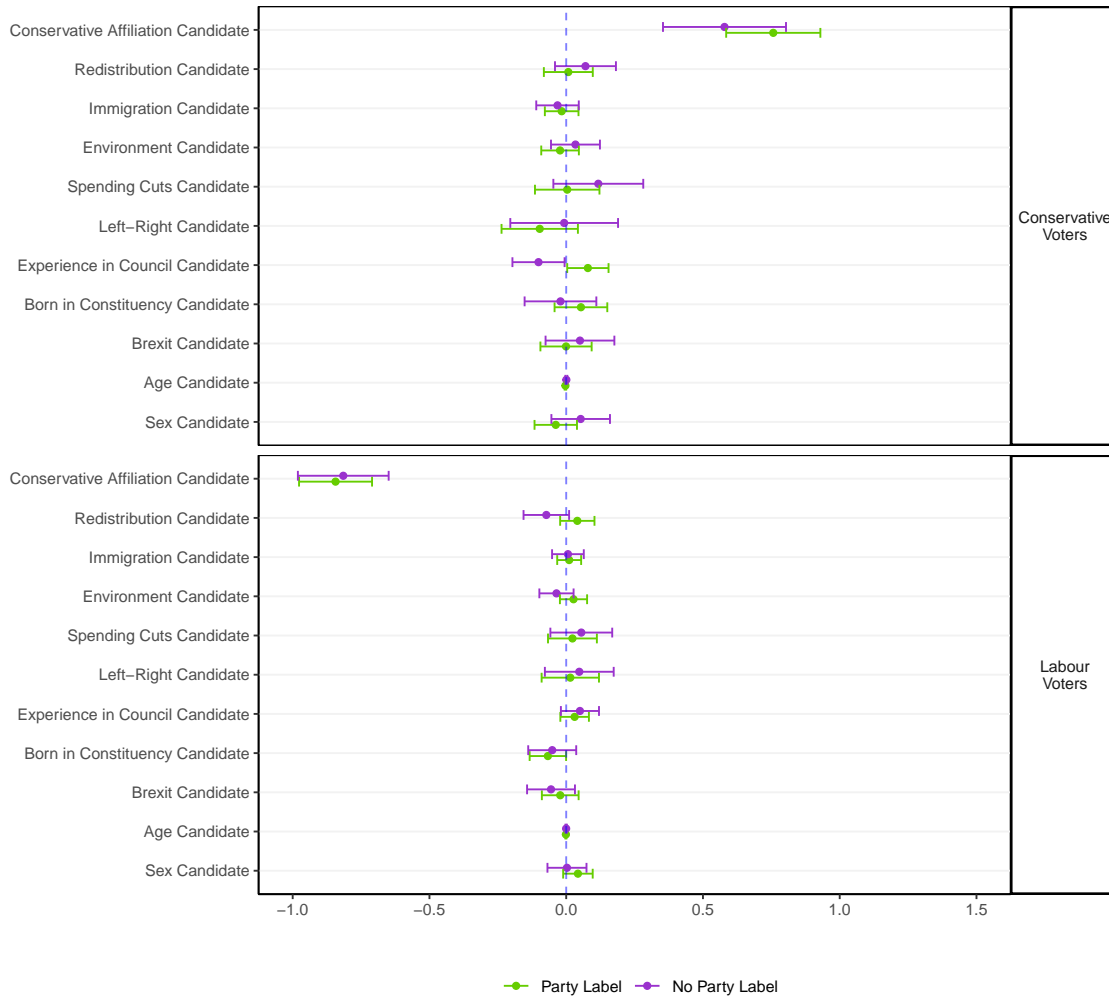


Figure 5.4: Respondents' choice predicted by candidates' difference on each attribute or position

Figure 5.5 shows how the proximity of candidates' positions and characteristics to those of respondents predict the choices of respondents with and without party labels⁴.

We see that, without party labels, closeness on all issue positions is significant for respondents' choice (the four broad policies, Brexit, and the left-right positions), while the more descriptive characteristics of candidates are not (to be born in constituency, council experience, age, and sex). Including party labels in this model renders closer

⁴The same analysis is carried out in Figure 5.9 in the appendix with voters in the 2017 general elections. The patterns observed remain largely the same.

positions on immigration, environment, and Brexit non-significant. However, positions on the left-right spectrum, redistribution, and spending cuts remain significant. This analysis could suggest that, in the presence of party labels, only “economic” issue positions of candidates remain relevant for British voters, and may bring voters of the 2019 general election to “defect” from their previous vote.

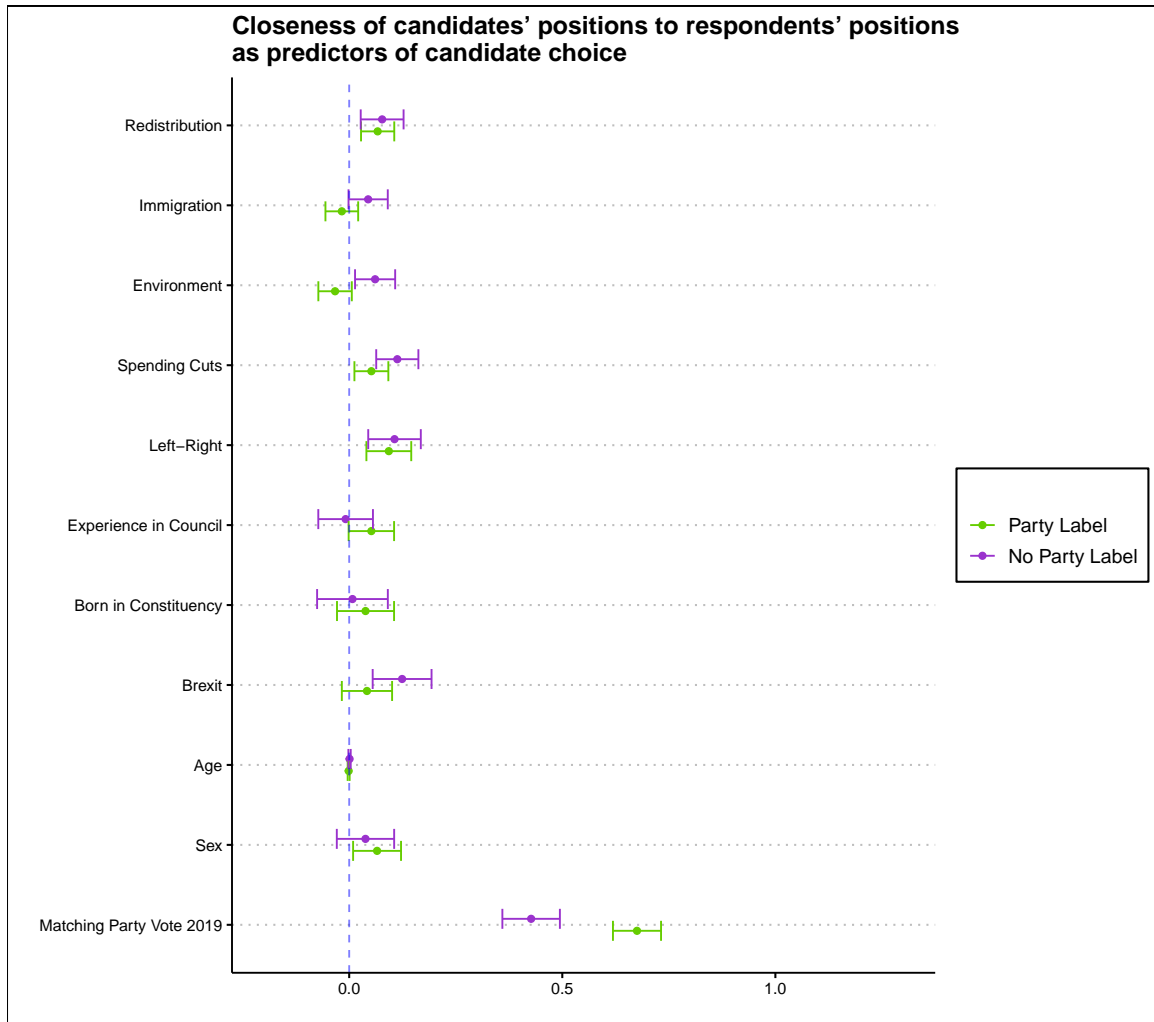


Figure 5.5: Closeness of candidates' positions to respondents' positions with and without party labels as predictors of candidate choice. Redistribution, Immigration, Environment, Spending cuts, Left-Right positions have been standardized to have mean 0 and standard deviation of 1. Note: only Conservative and Labour voters in the 2019 general election included.

However, comparing the party label and no party label results in Figure 5.6, we

can see a more nuanced picture, where the weight given to different policies varies according to past vote. We present four sets of results across the two panels of Figure 5.6: we fit the model separately for past Labour and Conservative voters and to the two subsets of the data (with and without party label). We see that, in the no labels condition, past Labour voters give significantly less weight than past Conservative voters to positions on immigration, and, in the party labels condition, 2019 Labour voters give less weight to positions on the left-right spectrum.

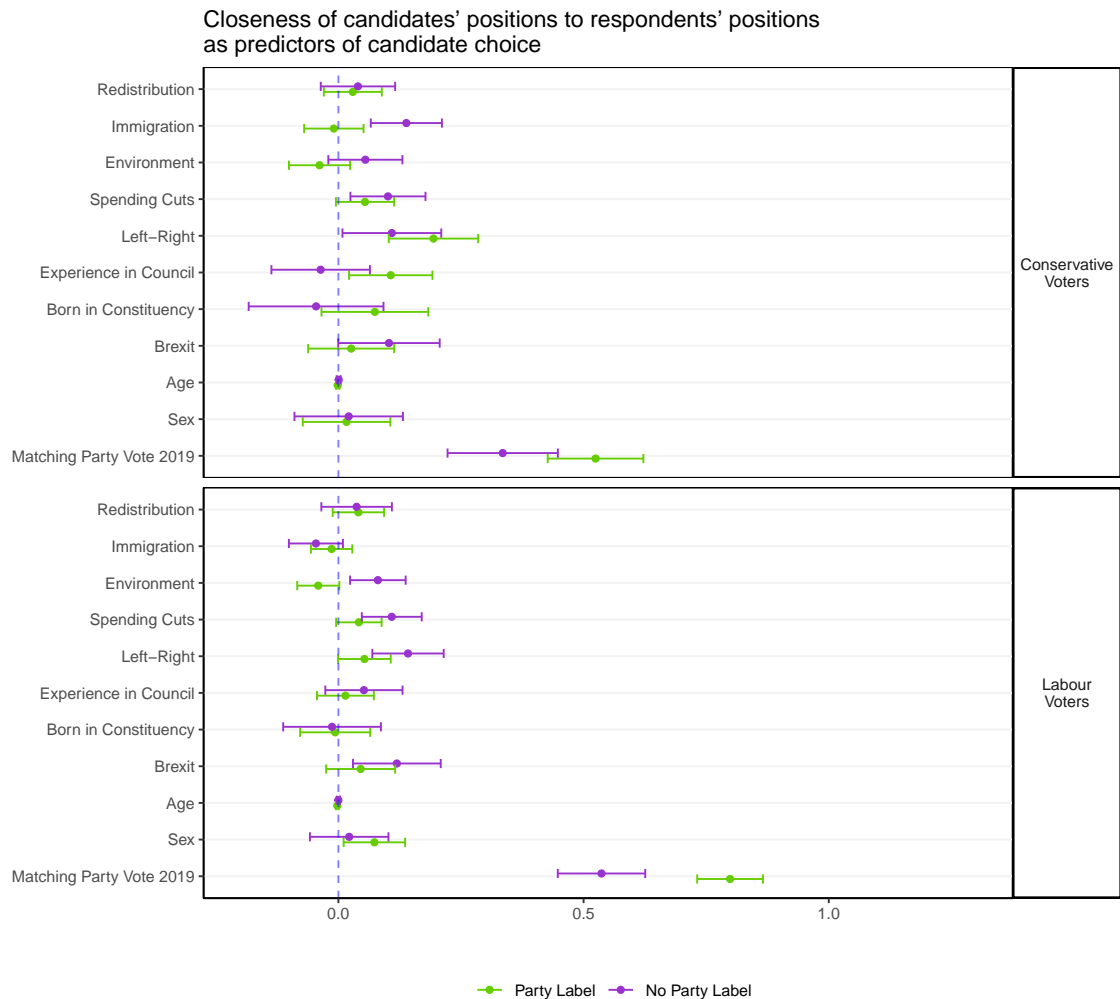


Figure 5.6: Closeness of candidates' positions to respondents' positions with and without party labels as predictors of candidate choice. For 2019 Conservative voters (top) and for 2019 Labour voters (bottom). Redistribution, Immigration, Environment, Spending cuts, Left-Right positions have been standardized to have mean 0 and standard deviation of 1. Note: only Conservative and Labour voters in the 2019 general election included.

Even in the no party label condition, the match between respondents' past vote and a candidate's party is the strongest predictor of choice in our experiment. With 0.335 for past Conservative voters and 0.537 for past Labour voters, the coefficients of party vote are smaller (in absolute terms) than those in Figure 5.4, but still considerable. Furthermore, we can see from Figure 5.6, that the match between respondent past

vote and candidate party is an even stronger predictor for past Labour voters than it is for past Conservative voters.

One noticeable finding from these analyses is that it confirms that making party labels explicit has an overall small impact. The distances of respondents with chosen candidates on the different issues do not appear to greatly change when party labels are made explicit. Figure 5.7 shows the simple average distance between respondents who voted Labour and Conservative in the 2019 general election, and their selected candidates, with and without party labels. While there are some changes between the two conditions of the experiment, these changes are all small in magnitude. With party labels, respondents' positions are slightly closer to their selected candidates on left-right positions and Brexit preference and slightly more distant in redistribution positions. This might suggest that without party labels respondents are doing a relatively good job in selecting the candidates that match their political affiliation, either because they are guessing the party affiliation of candidates, and, therefore, not much additional information is given to them through party labels, or because they are choosing candidates according to their positions, and because of policy sorting, this pushes respondents to choose candidates affiliated to the party they voted for, regardless of party labels.

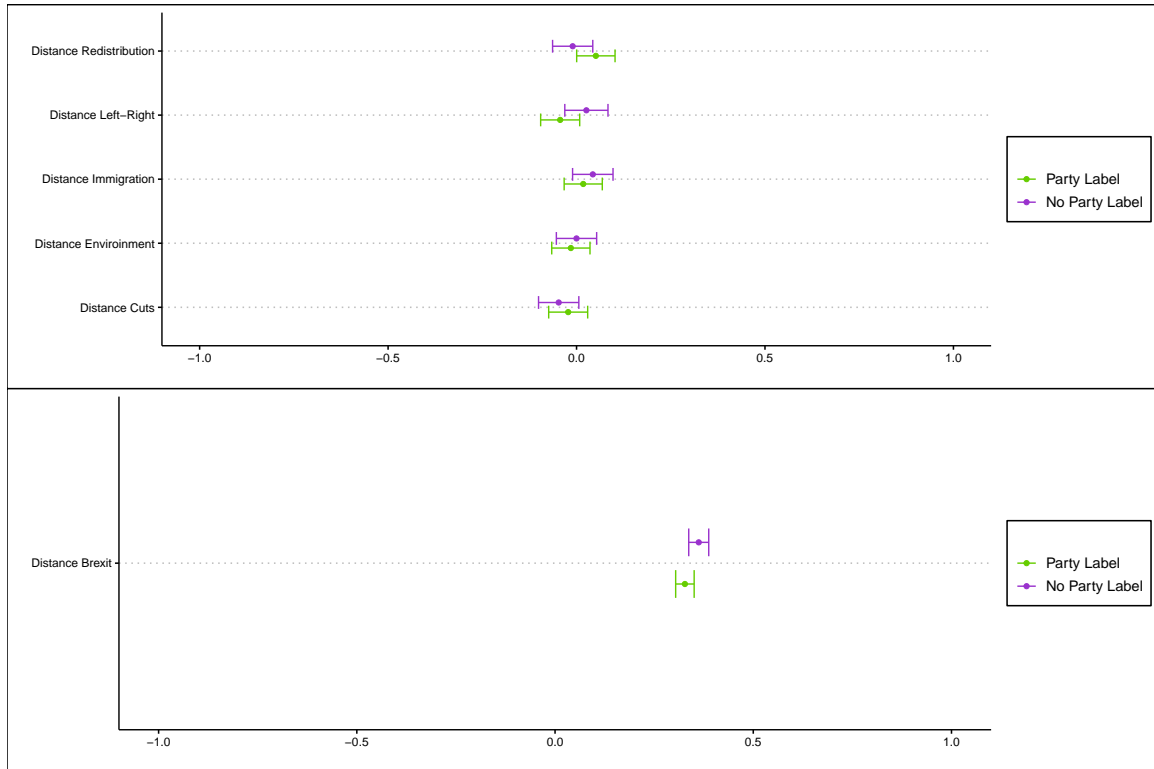


Figure 5.7: Average distance between the position of respondent and its selected candidate. The distance for Spending cuts, Immigration, Environment, Redistribution, Left-Right positions have been scaled to mean 0 and standard deviation of 1

5.3.4 Why is party affiliation predicting choices in the no-labels condition?

Even in the labels-free version of the experiment, past vote is a significant predictor of the chosen candidate, and this is true for both the model with only candidates' characteristics and in the models based on similarity between respondent and candidates. If all the information available to the respondent is the one presented in the experiment, and the way this information is processed is modelled correctly, then previous vote should not predict choice when party labels are absent. One possible explanation for this finding is that a model assumption is being violated.

As mentioned before, the fact that the profiles of candidates presented to re-

spondents follow the distribution obtained from real candidates to the 2017 election means that the levels of each attribute are correlated with one another. This also implies that causal inference for these attributes is model-dependent. Specifically, the way the relation is modelled in this analysis assumes interactions between attributes are not significant. We test this assumption by running a similar model with first level interactions among all attributes. The results are shown in Figure 5.10 in the appendix. We find little evidence of any first-degree interaction with a significant effect on respondents' choice. While the fact that the interaction coefficients are non-significant should be interpreted with caution due to reduced statistical power, the fact that past vote remains a strong predictor of candidate choice suggests that interaction between attributes is not the main factor driving candidate choice. We similarly do not find evidence supporting a quadratic relationship in the model, as can be observed in Figure 5.11 in the appendix. Again, all quadratic coefficients are small (only redistribution is marginally significant), and matching past vote is still the strongest predictor of choice.

Another possible explanation for the predictive power of party affiliation in the absence of party labels is that the weights given by respondents to the information on candidates varies for different sections of the electorate. We already know that this is true for past vote, but could also be true for other segments of the electorate, observed or unobserved. In other words, respondents might know something we do not, and consistently use this information when choosing a candidate. This would imply a missing variable bias, that if included would change the weights given to different candidate characteristics and render party affiliation in the no-labels condition not significant. To disentangle these elements, we run a model that takes into account the three possible elements discussed so far:

- Characteristics of candidates that directly affect vote choice (either through inference of party affiliation or because of absolute preferences).

- Characteristics of candidates that only increase the odds of choosing said candidate if these positions are closer to those held by respondents (policy vote or homophilic preferences).
- Differences in the electorate, not captured by the model, that are visible through the respondents' ability to choose the candidate affiliated to the party they voted for, controlling for everything else and in the no-labels condition.

Figure 5.8 shows the results of an analysis that incorporates the effects of candidates' position, respondents' positions, and the interaction of said positions. In this model, we can see that Conservative voters prefer older candidates on the right, with and without party labels and regardless of their own positions. When party labels are absent, Conservative voters also prefer candidates with more negative views on immigration. Finally, Conservative voters prefer candidates with closer positions on immigration and the left-right spectrum. As for Labour voters, these only show absolute preferences for candidates when party labels are absent. When this is the case, Labour voters prefer candidates that oppose spending cuts, that believe measures to protect the environment have not gone far enough, and candidates that voted against Brexit. Similarly, closeness to candidates is only relevant when party labels are absent. When this is the case, Labour voters prefer candidates with closer positions on spending cuts, the environment, and Brexit.

Nonetheless, these associations should be taken with caution. We see that past Brexit vote predicts respondents' choice in the no-labels condition. This might suggest some respondents are using satisficing strategies (avoiding the cognitive effort of reading through the characteristics) and might have systematically chosen the candidate on right of the screen (perhaps assuming that their location was a hint of political affiliation). This might pose a problem for our analysis if respondents with different positions on Brexit had different probabilities of satisficing and choosing a Labour/Conservative candidate.

The fact that candidates' party affiliation is a strong predictor of choice in this model, in the absence of party labels, suggest the existence of a missing variable to account for differences within the electorates' weighting of the policies and attributes. Even in this flexible model, that includes both absolute and homophilic preferences, respondents are "outperforming" the model, which suggests that this unmeasured heterogeneity is potentially explaining a non-trivial amount of how people decide their vote.

The findings suggest that respondents' preferences and positions play a role in choosing a candidate. Respondents' choice does not appear to be merely the result of "guessing" which candidate belongs to which party. However, the analysis shows that the exact way in which these bits of information are processed cannot be determined due to an unobserved variable. Calculating the causal effect of an attribute or policy position is not possible without a model that captures the relative weight given by different sections of the electorate. Nonetheless, while the levels of each attribute are correlated, the complete profiles were randomly and independently selected (with a probability benchmarked on the real probability of 2017 candidates), and the two experimental conditions were also randomly and independently assigned. It is therefore still possible to claim causal relationship of the profiles to respondents' choice, just not the individual impact of each attribute, for which we can, at best, show suggestive predictive evidence.

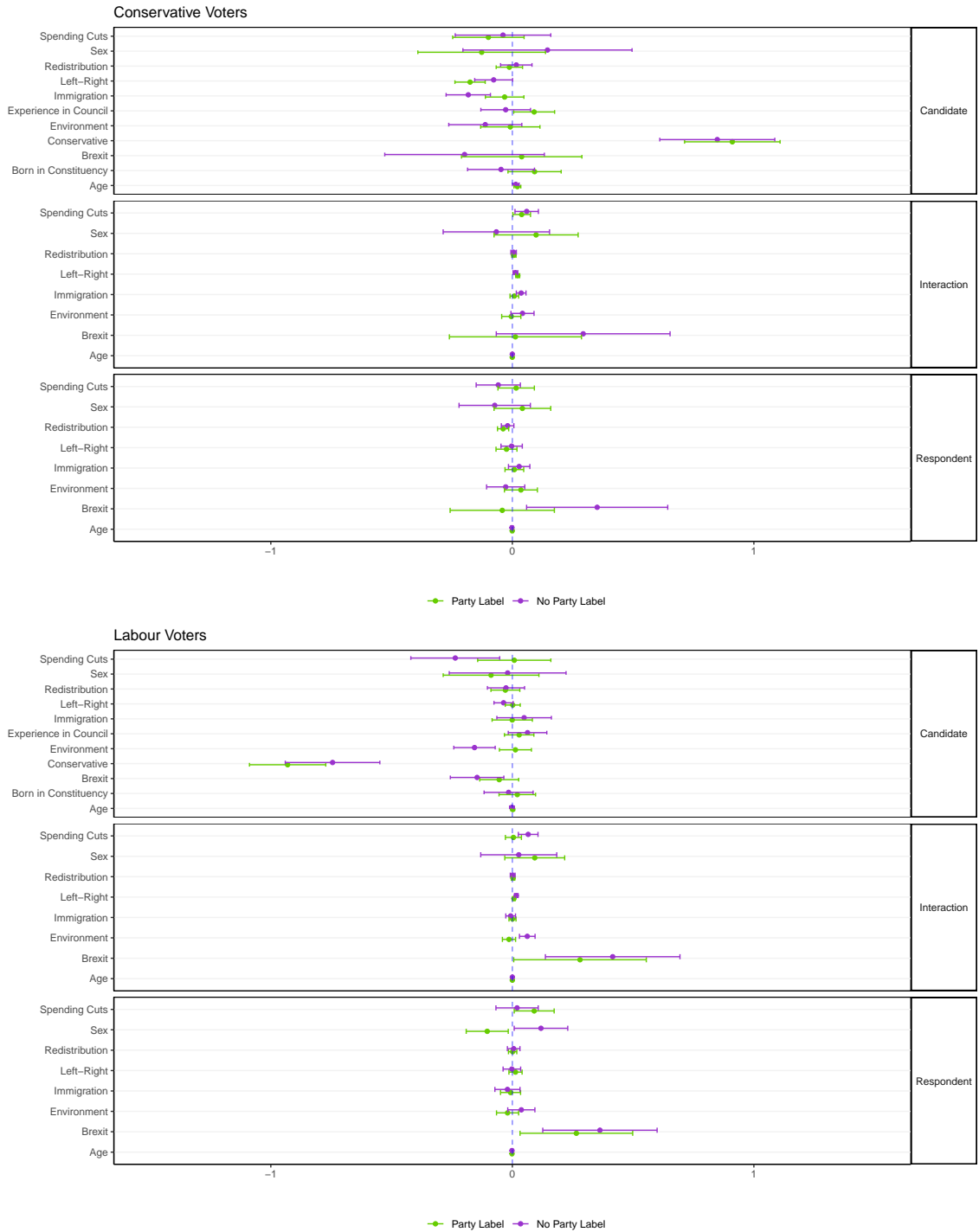


Figure 5.8: Candidates’ characteristics and interaction with respondents’ characteristics as predictors of candidate choice

5.4 Conclusion

Our experiment addresses a long-standing discussion on the relevance of candidates' positions and characteristics in the presence of party competition and established party systems, such as in British democracy. It also illustrates the use of a novel measurement strategy building on previous work with conjoint experiments. The novel contribution of this study is that we anchor the treatment distribution (the candidates characteristics) of our experiment on a real distribution, the estimated characteristics of the 2017 general elections candidates, for both Labour and Conservative. By doing this, we aim to answer the question of whether candidates' positions matter in the presence of party competition, as well as the extent to which the availability of the party cue suppresses voters' response to candidate positions, given the actual distribution of policy positions of candidates in each party. This experimental design implies we sacrifice design-based causal inference for the impact of each individual attribute o policy position. However, we maintain design-based causal inference for complete profiles and, model-based causal inference for individual attributes and policy positions.

We show that, in the absence of party labels, policy positions of candidates and respondents' preferences appear to play a significant role. We also show that this role and its interaction with party labels is different across the two main parties of the British party system. While 2019 Labour voters are found to prefer Labour candidates regardless of party labels, Conservative voters, in the absence of explicit party competition, are more likely not to choose a Conservative candidate in our experiment.

While including party labels does have a significant effect, increasing the consistency of Conservative voters with their past behaviour, the effect is overall modest (and not significant for past Labour voters) and does not seem to fit the extreme version of the "party intoxication" narrative. This might be because of policy voting combined with

preference sorting or because people are actually quite good at guessing the party affiliation of candidates (and tend to do so). We are faced with the same difficulty described by Fowler (2020), as we are unable to discard party intoxication arising from respondents using pieces of information in the experiment to infer party affiliation even in the no party label condition.

We find some partisan sorting, especially on the left-right spectrum, and positions on redistribution for Labour voters. However, for most issues we find that voters differ markedly from the positions of their candidates. This seems to point against an extreme version of the “policy vote” perspective.

We find that our model for the effect of individual attributes cannot rule out the existence of omitted variable bias, for example because sections of the population give different weights to different policies. Therefore, the correlations between specific policies and respondents’ choices should be interpreted as predictive estimates, rather than causally. While this is a clear disadvantage of this strategy, it is important to notice that traditional conjoint experiments would face a similar challenge if their results were taken to be representative of the general population. The need to disentangle the differential effects of the treatment in the population when seeking external validity is not a result of our measurement strategy, but rather our strategy makes the difficulties of achieving external validity explicit.

Our findings do not support an extreme version of “partisan intoxication”. If respondents were blindly choosing candidates for their party affiliation, we would expect them to choose these candidates regardless of their own positions. We find that respondents’ preferences and positions play an important role in predicting the chosen candidates in the labels-free condition of our experiment, suggesting respondents are not choosing candidates based solely on guesses of which candidate is affiliated to which party.

Overall, our findings can be interpreted in two different ways. One possibility is

that partisanship simply reflects an affective attachment that trumps policy preferences, with some exceptions. The fact that party labels have an asymmetric effect might come from a stronger policy sorting and alignment between Labour voters and candidates. The other possibility is that when respondents are presented with candidates whose party affiliation is omitted, respondents use other attributes as a way of inferring the candidates' party affiliation (Schaffner & Streb, 2002). This might overestimate the effect of some attributes as they mask (Bansak et al., 2021) the importance of partisanship and this masking effect dissipates once labels are included. The asymmetric effect of labels would come, under this explanation, from the fact that Labour voters might be better at “guessing” the party affiliation of candidates. However, the fact that even with party labels 2019 Labour voters still outperform 2019 Conservative voters in choosing “their” candidate suggests that at least some of the Conservative voters are choosing a non-Conservative candidate or not choosing at all because of policy preferences, rather than masked party preferences. Our analysis does suggest, in line with Rogers et al. (2020), little evidence for the extreme versions of these interpretations and point towards a combination of the two forces behind voters' choice.

Future research might further examine this remaining puzzle by including and excluding other policies to confirm or reject the finding that some policy positions might trump party labels in some contexts and improve the model assumptions to describe the effect of individual attributes and policies on vote preferences.

5.5 Appendix: Additional figures and tables

Table 5.3: Levels used for each characteristic of candidates: first part

Characteristic	Level
In a scale from 1 to 5, cuts to local services in your area have not gone far enough or too far?	Says that cuts to local services have not gone nearly far enough
	Says that cuts to local services have not gone far enough
	Says that cuts to local services have been about right
	Says that cuts to local services have gone too far
	Says that cuts to local services have gone much too far
In a scale from 1 to 5, measures to protect the environment have not gone far enough or too far	Says that measures to protect the environment have not gone nearly far enough
	Says that measures to protect the environment have not gone far enough
	Says that measures to protect the environment have been about right
	Says that measures to protect the environment have gone too far
	Says that measures to protect the environment have gone much too far
In a scale from 1 to 5, how much do you agree with the statement “Government should redistribute income from the better off to those who are less well-off	Strongly disagrees with the statement that government should redistribute income
	Disagrees with the statement that government should redistribute income
	Neither agrees nor disagrees with the statement that government should redistribute income
	Agrees with the statement that government should redistribute income
	Strongly agrees with the statement that government should redistribute income
In a scale from 1 to 7, do you think immigration is good or bad for Britain’s economy?	Says that immigration is bad for the economy
	Says that immigration is somewhat bad for the economy
	Says that immigration is a little bad for the economy
	Says that immigration is neither good nor bad for the economy
	Says that immigration is a little good for the economy
	Says that immigration is somewhat good for the economy
	Says that immigration is good for the economy

Table 5.4: Levels used for each characteristic of candidates: second part

Characteristic	Level
Party	Conservative Party Labour Party
Gender	Male Female
Age	[N] years old
Were you born in the constituency?	Born in constituency Not born in constituency
Have you ever been elected a local councillor?	Has been elected a local councillor Has never been elected a local councillor
How did you vote in the referendum on Britain's membership of the European Union on 23 June 2016?	Voted to leave Voted to remain
In politics people sometimes talk of left and right. In a scale from 0 to 10, where would you place yourself on the following scale? (smaller values more left, larger values more right)	Left Centre left Centre Centre right Right

5.5.1 Descriptive statistics for respondents (not weighted)

Respondents

Dimensions: 8180 x 9

6550

Table 5.5: Descriptive statistics for respondents (no weights)

Variable	Stats / Values	Freqs (% of Valid)
age_respondent [integer]	Mean (sd) : 52.1 (16.2) min < med < max: 21 < 51 < 89 IQR (CV) : 26 (0.3)	68 distinct values
Brexit [factor]	1. Remain 2. Leave	3745 (53.0%) 3325 (47.0%)
Gender [factor]	1. Male 2. Female	3645 (44.6%) 4525 (55.4%)
LR [integer]	Mean (sd) : 5 (2.2) min < med < max: 0 < 5 < 10 IQR (CV) : 4 (0.4)	0 : 160 (2.6%) 1 : 180 (2.9%) 2 : 510 (8.3%) 3 : 780 (12.7%) 4 : 665 (10.8%) 5 : 1405 (22.8%) 6 : 785 (12.7%) 7 : 785 (12.7%) 8 : 590 (9.6%) 9 : 135 (2.2%) 10 : 165 (2.7%)

Variable	Stats / Values	Freqs (% of Valid)
Immigration [integer]	Mean (sd) : 4.4 (1.7)	1 : 690 (9.4%)
	min < med < max:	2 : 505 (6.9%)
	1 < 5 < 7	3 : 650 (8.9%)
	IQR (CV) : 3 (0.4)	4 : 1615 (22.1%)
		5 : 1780 (24.3%)
		6 : 1310 (17.9%)
		7 : 765 (10.5%)
Redistribution [integer]	Mean (sd) : 5.3 (3.1)	0 : 735 (10.8%)
	min < med < max:	1 : 125 (1.8%)
	0 < 5 < 10	2 : 390 (5.7%)
	IQR (CV) : 5 (0.6)	3 : 770 (11.3%)
		4 : 620 (9.1%)
		5 : 1125 (16.6%)
		6 : 505 (7.4%)
		7 : 710 (10.4%)
		8 : 530 (7.8%)
		9 : 375 (5.5%)
	10 : 910 (13.4%)	
CutsSpending [integer]	Mean (sd) : 3.9 (0.8)	1 : 40 (0.6%)
	min < med < max:	2 : 205 (3.1%)
	1 < 4 < 5	3 : 1785 (26.6%)
	IQR (CV) : 1 (0.2)	4 : 3120 (46.5%)
		5 : 1560 (23.2%)

Variable	Stats / Values	Freqs (% of Valid)
Environment	Mean (sd) : 2.5 (1.1)	1 : 1285 (18.5%)
[integer]	min < med < max:	2 : 2210 (31.8%)
	1 < 2 < 5	3 : 2295 (33.1%)
	IQR (CV) : 1 (0.4)	4 : 750 (10.8%)
		5 : 400 (5.8%)
education_Respondent	Mean (sd) : 3 (1.3)	0 : 575 (7.6%)
[integer]	min < med < max:	1 : 240 (3.2%)
	0 < 3 < 5	2 : 1565 (20.7%)
	IQR (CV) : 2 (0.4)	3 : 1805 (23.9%)
		4 : 2760 (36.5%)
		5 : 615 (8.1%)

5.5.2 Descriptive statistics for Conservative candidates

Conservative

Dimensions: 8180 x 11

7554

Table 5.6: Descriptive statistics for Conservative candidates

Variable	Stats / Values	Freqs (% of Valid)
Gender	1. Male	5861 (71.7%)
[factor]	2. Female	2319 (28.3%)
Brexit	1. Remain	3624 (44.3%)
[factor]	2. Leave	4556 (55.7%)

Variable	Stats / Values	Freqs (% of Valid)
LR	Mean (sd) : 6.8 (1.1)	4 : 115 (1.4%)
[integer]	min < med < max:	5 : 741 (9.1%)
	4 < 7 < 10	6 : 2561 (31.3%)
	IQR (CV) : 2 (0.2)	7 : 2633 (32.2%)
		8 : 1793 (21.9%)
		9 : 173 (2.1%)
		10 : 164 (2.0%)
Age	Mean (sd) : 43.3 (12.5)	41 distinct values
[integer]	min < med < max:	
	20 < 41 < 71	
	IQR (CV) : 18 (0.3)	
CutsSpending	Mean (sd) : 3 (0.7)	1 : 305 (3.7%)
[integer]	min < med < max:	2 : 1046 (12.8%)
	1 < 3 < 5	3 : 5496 (67.2%)
	IQR (CV) : 0 (0.2)	4 : 1171 (14.3%)
		5 : 162 (2.0%)
Environment	Mean (sd) : 2.7 (0.9)	1 : 971 (11.9%)
[integer]	min < med < max:	2 : 2126 (26.0%)
	1 < 3 < 5	3 : 3844 (47.0%)
	IQR (CV) : 1 (0.4)	4 : 975 (11.9%)
		5 : 264 (3.2%)

Variable	Stats / Values	Freqs (% of Valid)
Redistribution	Mean (sd) : 2.7 (1.1)	1 : 1264 (15.5%)
[integer]	min < med < max:	2 : 2656 (32.5%)
	1 < 3 < 5	3 : 1574 (19.2%)
	IQR (CV) : 2 (0.4)	4 : 2524 (30.9%)
		5 : 162 (2.0%)
Immigration	Mean (sd) : 4.9 (1.4)	1 : 128 (1.6%)
[integer]	min < med < max:	2 : 487 (6.0%)
	1 < 5 < 7	3 : 575 (7.0%)
	IQR (CV) : 2 (0.3)	4 : 1774 (21.7%)
		5 : 2024 (24.7%)
		6 : 2231 (27.3%)
		7 : 961 (11.7%)
Council_experience	Min : 0	0 : 2898 (35.4%)
[integer]	Mean : 0.6	1 : 5282 (64.6%)
	Max : 1	
Born in constituency	1. No	7046 (86.1%)
[factor]	2. Yes	1134 (13.9%)
Council experience	1. No	2898 (35.4%)
[factor]	2. Yes	5282 (64.6%)

5.5.3 Descriptive statistics for Labour candidates

Labour

Dimensions: 8180 x 11

7578

Table 5.7: Descriptive statistics for Labour candidates

Variable	Stats / Values	Freqs (% of Valid)
Gender	1. Male	4971 (60.8%)
[factor]	2. Female	3209 (39.2%)
Brexit	1. Remain	7941 (97.1%)
[factor]	2. Leave	239 (2.9%)
LR	Mean (sd) : 2.5 (1.3)	0 : 694 (8.5%)
[integer]	min < med < max:	1 : 756 (9.2%)
	0 < 3 < 8	2 : 2427 (29.7%)
	IQR (CV) : 1 (0.5)	3 : 2704 (33.1%)
		4 : 1158 (14.2%)
		5 : 330 (4.0%)
		6 : 55 (0.7%)
		7 : 37 (0.5%)
		8 : 19 (0.2%)
Age	Mean (sd) : 48.3 (12.8)	53 distinct values
[integer]	min < med < max:	
	20 < 50 < 74	
	IQR (CV) : 20 (0.3)	
CutsSpending	Mean (sd) : 4.8 (0.4)	2 : 14 (0.2%)
[integer]	min < med < max:	3 : 37 (0.5%)
	2 < 5 < 5	4 : 1633 (20.0%)
	IQR (CV) : 0 (0.1)	5 : 6496 (79.4%)

Variable	Stats / Values	Freqs (% of Valid)
Environment	Mean (sd) : 1.7 (0.9)	1 : 3708 (45.3%)
[integer]	min < med < max:	2 : 3340 (40.8%)
	1 < 2 < 5	3 : 806 (9.9%)
	IQR (CV) : 1 (0.5)	4 : 138 (1.7%)
		5 : 188 (2.3%)
Redistribution	Mean (sd) : 4.6 (0.8)	1 : 232 (2.8%)
[integer]	min < med < max:	3 : 137 (1.7%)
	1 < 5 < 5	4 : 2184 (26.7%)
	IQR (CV) : 1 (0.2)	5 : 5627 (68.8%)
Immigration	Mean (sd) : 6 (1)	1 : 23 (0.3%)
[integer]	min < med < max:	2 : 57 (0.7%)
	1 < 6 < 7	3 : 157 (1.9%)
	IQR (CV) : 2 (0.2)	4 : 407 (5.0%)
		5 : 1457 (17.8%)
		6 : 3089 (37.8%)
		7 : 2990 (36.6%)
Council_experience	Min : 0	0 : 3702 (45.3%)
[integer]	Mean : 0.5	1 : 4478 (54.7%)
	Max : 1	
Born in constituency	1. No	6534 (79.9%)
[factor]	2. Yes	1646 (20.1%)
Council experience	1. No	3702 (45.3%)
[factor]	2. Yes	4478 (54.7%)

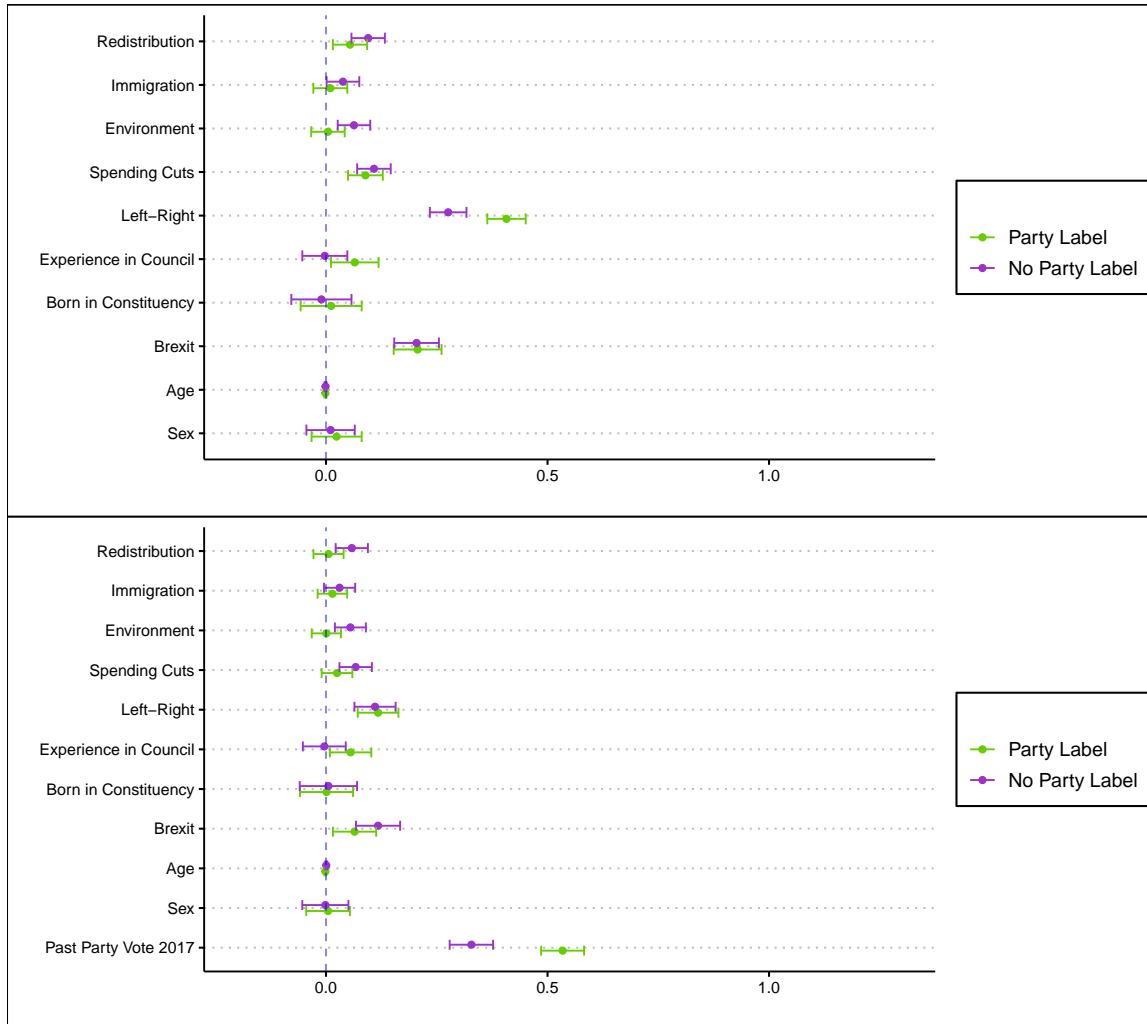


Figure 5.9: Closeness of candidates' positions to respondents' positions with and without party labels as predictors of candidate choice. Controlling for matching party affiliation (bottom) and not controlling for matching party affiliation (top). Note: only Conservative and Labour voters in the 2017 general election included.

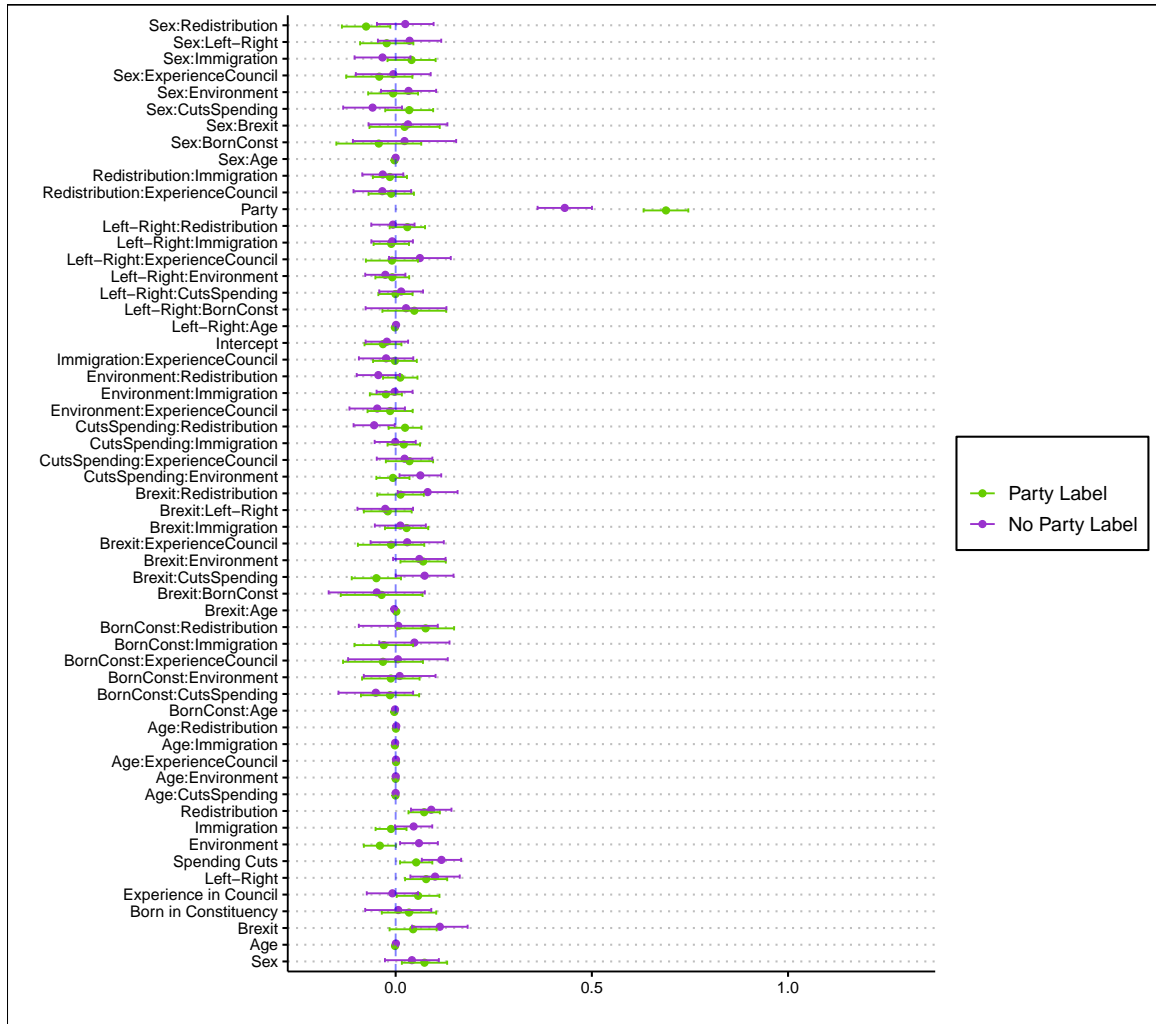


Figure 5.10: Closness as predictor of vote choice with first-degree interactions

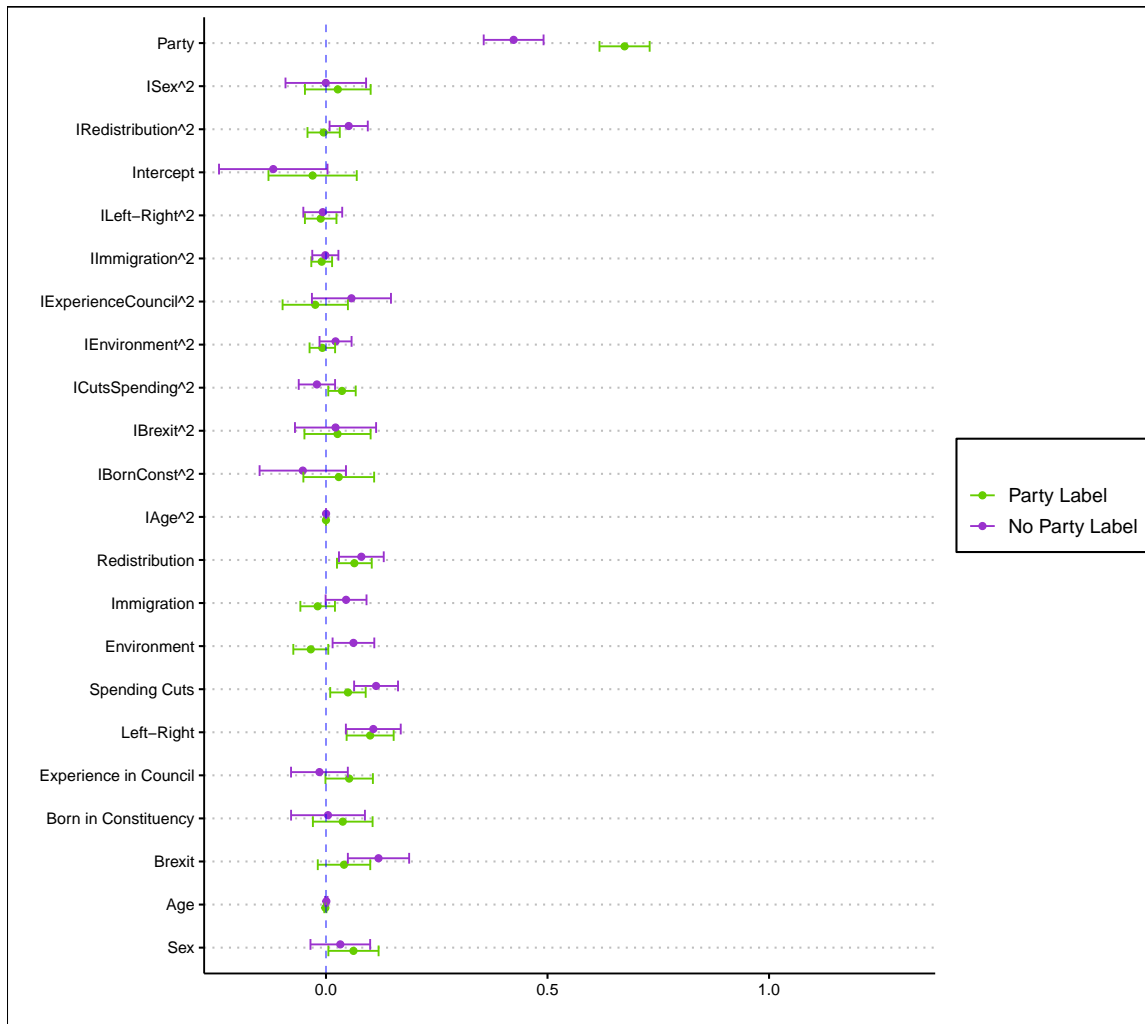


Figure 5.11: Closness as predictor of vote choice with quadratic model

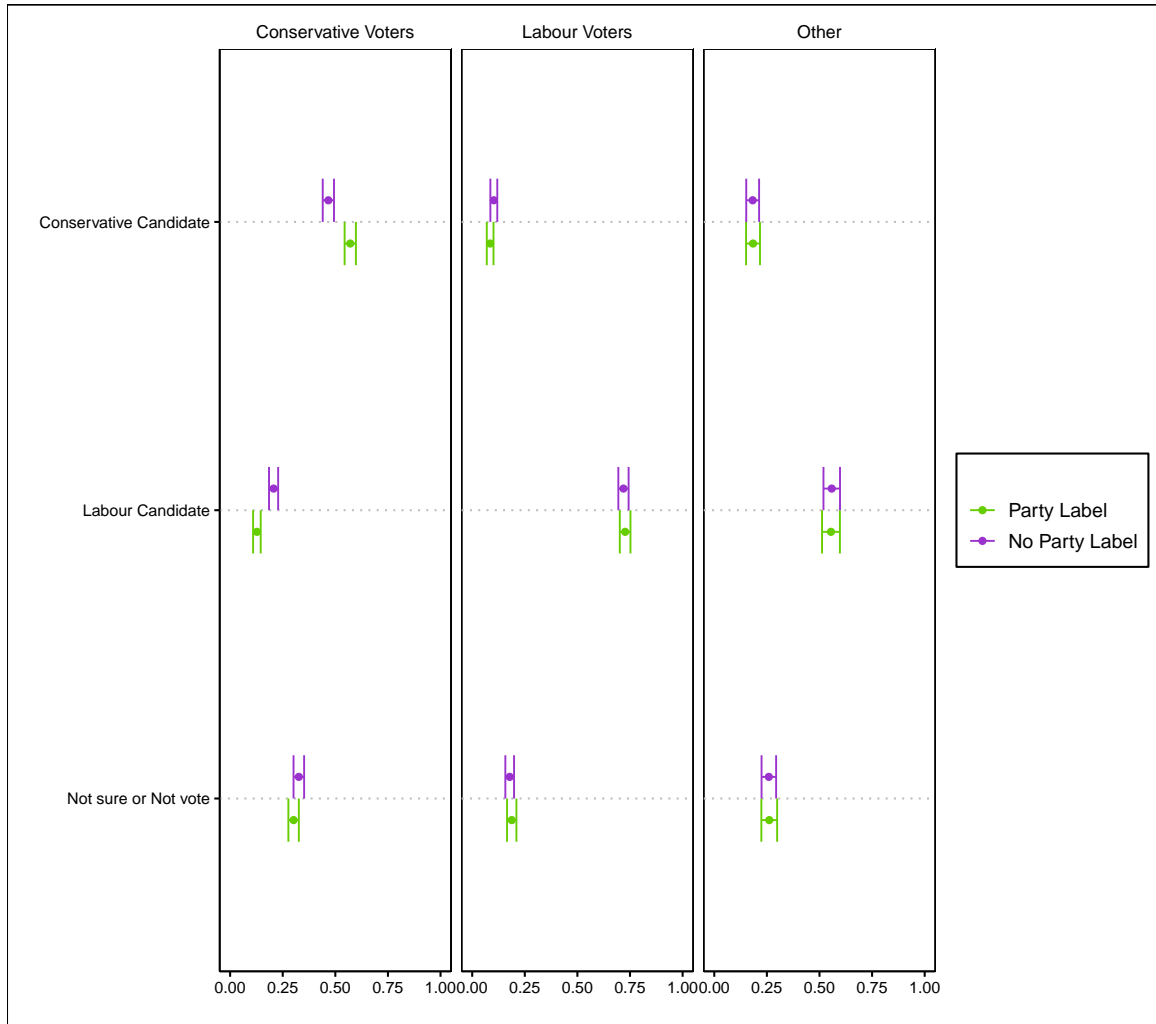


Figure 5.12: Proportion of respondents that chose each candidate in the experiment by their vote in the 2017 general election

Chapter 6

Conclusion

In this final chapter, I will summarise the contributions of the three empirical papers presented in the thesis and discuss what they imply for the theoretical puzzle described in the introduction. I also will discuss the benefits and challenges of the method used in the three papers (conjoint with benchmarked treatment distribution), some of the limitations of the findings, and further avenues for future research

6.1 The dissertation's contributions to conceptual and empirical debates

The three empirical papers in this dissertation tackle different aspects of the conceptual and empirical debate presented. Rather than adjudicating among the competing explanations for party identification and its relationship with vote choice, the papers help us understand how these different aspects can interact and how to measure these relationships.

The first paper measures the capacity of citizens to guess the vote of individuals both in general elections and the EU referendum. The profiles of voters supporting parties and referendum alternatives presented to respondents are obtained from

previous surveys, and are therefore representative of the British electorate. This allows a direct comparison between respondents' guesses and the actual composition of party support in different social groups, as well as the support for "leave" and "remain" in the referendum. In this paper I find that, in contrast to what some theoretical assumptions would imply, the relationship between party images and social groups is, on average, fairly accurate, and, if anything, underestimated by citizens. Furthermore, I find that this is also true for the more recent political groupings surrounding the EU referendum. This would imply that the population, on average, updates its images of parties and their support among social groups, and these images are less "sticky" than some have assumed (e.g. D. P. Green et al., 2004; Lupu, 2013). I find some egotistic bias, where respondents overestimate the probabilities that others have voted as they did. However, there is little evidence that this bias takes the form of overestimating the relationship between social grouping and vote choice. However, I also find that there is a significant amount of individual level variation in the precision of these images and that low levels of attention to politics are associated with less accuracy. With respect to the "old" cleavage of party, some of the respondents' errors may be because they have not updated in response to political realignments, providing some evidence of "stickiness".

The second paper measures the perception of political commonality across a variety of social demographic attributes. I use a conjoint-type experiment, again following a population benchmark for the distribution of treatment profiles. This allows me to measure the relevance of the different social identities when British citizens are faced with realistic combinations of socio demographic attributes. In this paper I find evidence of the importance of ethnicity for perceived political commonality and I find that this salience is a result of the importance given to shared ethnicity among Conservative and Leave voters. For these voters, ethnicity is more relevant for perceived political commonality than social class.

The third paper tests the relevance of policy vote when party labels are present and when they are absent. In this experiment I randomise respondents into two variants of an experimental setting for vote choice. In the first setting I present respondents with two candidates, characterized by their policy positions and personal attributes. In the second version of the experiment, I present respondent with profiles that contain the same information, plus party labels. The presented candidates' characteristics and policy positions, in both the settings, are randomly selected from a distribution bench-marked to the real-world distribution of candidates to the 2017 general election. In this paper, I find that, while party labels have a significant effect for sections of the electorate, many voters behave in similar ways with or without party labels. This might imply policy voting combined with partisan sorting or that people infer the party affiliation of candidates. I find evidence that respondents are not merely using the information on candidates to infer the party affiliation of candidates, which implies that respondents are not choosing out of "partisan intoxication". Specifically, in the labels-free setting, respondents choose candidates that hold positions closer to their own. The fact that even with labels some positions of candidates affect respondents' choice further suggests that at least not all of the observed electoral behaviour can be explained by an extreme version of "partisan intoxication", and that some voters consider other aspects as well, when choosing a candidate.

The three papers taken together point to the fact that citizens' attitudes connecting social identity, policy preferences, parties, and vote choice are the result of rather complex and nuanced cognitive processes. Simplistic heuristic style explanation, focusing on only one of the components of vote choice, only describes a fraction of the process by which identities and policy preferences interact with parties and party labels to result in vote choice. The three papers also show that this complexity can be addressed by employing more complex measurement strategies that allow us to quantify the different elements in play.

The three papers offer an illustration of the application of modified version of traditional conjoint experiments, namely, the use of a real-world distribution to benchmark the treatment distribution of profiles in a conjoint. In the case of the first paper, this benchmark is needed to be able to compare the guesses of respondents with the “correct” values and produce a measure of accuracy. For the second and third paper, the benchmark allows for stronger external validity. In both cases it would be possible to run the conjoint experiments with the levels of each attribute randomised independently and each level given equal probabilities of occurrence. However, this would bias the estimates when compared to the effects of the profiles’ attributes in the real world. It may be true that in a world where the attributes of citizens and candidates are not correlated, traditional conjoint produce unbiased estimates, but in the real world these attributes are correlated.

These advantages come at a cost. The gained external validity comes with the need to postulate model assumption, to capture the correlations between variables. In other words, there is a trade-off between internal and external validity. This is especially noticeable in the paper of chapter 5, where we find that the exact way respondents process the information on candidates escapes the assumed model. We are, however, still able to conclude several relevant elements of the relationship between candidates’ characteristics, party labels, and respondents’ choice. In other words, there are some circumstances where external validity is clearly too important to use traditional conjoint experiments (such as in chapter 3). There are other instances where the trade-off between external validity and model-dependency should be carefully considered by researchers to decide the more suitable method. In any case, it is important to clearly state the implications of the method employed for the treatment distribution, such as risks to external validity or model assumptions.

6.2 Limitations and further avenues for research

In the first paper, the findings show no tendency of respondents to overstate the relevance of social groupings when guessing the vote choice of an individual. This contrasts with recent work by Ahler & Sood (2018) and Claassen et al. (2019). While this research is conducted in the UK and the two other studies take place in the US, it is likely that the results differ because of the different experimental designs, and not merely geographic differences. People might be better at answering one kind of questions (how many in a given social group vote in a certain way) than other kind of questions (how many who vote in a certain way belong to a social group). These answers might be even mathematically inconsistent, for example, because of the representativeness heuristic that Ahler & Sood (2020) propose. Looking forward, a possible avenue for research is a study that includes the different research designs in the literature to develop an overarching conclusion. Past studies have analysed citizens ability to guess how many members of a political affiliation belong to a social groups and how many members of a social group exist in society. We now include a measure of people's ability to guess how many in a given social group vote in a certain way. What is missing is a survey that includes all of these different measures together in one questionnaire.

In the second paper, one puzzle that remains open for further research is the causal relationship between perceived political commonality and political behaviour. It is possible, as Hobolt et al. (2020) argue for Brexit, that the political context makes some social identities more relevant for political outcome. It is also possible to envision the causality relationship in the other direction, with politicized social identities affecting political behaviour and ultimately affecting the political context. It is also possible that both things happen simultaneously in complex interactions. Further research is necessary to disentangle this phenomenon. Another question is how "political" are the measured similarities. One avenue to research this question is

to repeat a similar experiment modifying the prompts, with a wording that does not include the word “political” when asking for similarities.

In the third paper, the main difficulty remains, as it is not possible to fully adjudicate between the two explanations for how party labels and candidates’ attributes may affect vote choice. While the evidence does not support an extreme “partisan intoxication” view of the forces driving vote choice, it is unclear how much of the respondents’ choice can be attributed to “partisan intoxication” and how much to policy vote. One avenue for further research is to investigate how the inclusion or exclusion of different policy positions may interact with party labels. While this will not be enough to adjudicate between the two possible explanations, it might help to better understand what policies interact with which party labels and develop better models that describe and predict in a more complete way the process by which respondents are choosing their candidates.

Across the three papers, one element that needs to be further explored is the possibility of generalizing the results. While there are good reasons to be interested in the way these phenomena manifest in Great Britain, as explained previously, the question of party identity and its relations to vote choice transcends one country. Furthermore, given that the experiments presented in the papers reflect the attitudes of respondents at a given moment and in a given political environment, there is also the question of how generalizable the findings are beyond the specific moment they were measured. This element is also true for the methodological aspects, where further iterations of the experiments could help calibrate the measurement strategies to different political contexts. In other words, hopefully this thesis helps in pointing towards the necessity of carefully developing measurement strategies for the constructs behind the theories that connect party identification with vote choice, across different national and political contexts.

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