Elite Legislators and Unequal Representation in the UK

Zachary P. Dickson[§]

[§]*London School of Economics* z.dickson@lse.ac.uk

Abstract

Studies identifying inequality in political representation in Western democracies have become increasingly common. Yet, the extent to which this deficit is driven by the social class of elected representatives remains unclear. In this article, I study the effects of social class on legislative responsiveness in the United Kingdom by utilizing MPs' attendance at one of the two Oxbridge universities – Oxford and Cambridge – as an encompassing proxy for social class. After combining 284 repeated public opinion surveys and classifying the universe of MPs' questions and motions in the House of Commons from 2015-2023, I present evidence from multiple designs and estimation strategies that suggests that social class indeed constrains responsiveness. Findings contribute to the literature on inequality in political representation.

Keywords: *Unequal Representation, Responsiveness, Social Class, Elites, political behavior*

1 Introduction

Since the seminal work of Gilens (2005) and Bartels (2008), both of whom similarly concluded that policy tends to favor the preferences of higher class individuals with much less regard for the preference of the poor, scholars have drawn similar conclusions in democracies around the world (Traber et al. 2022; Elkjaer and Klitgaard 2021; Schakel, Burgoon, and Hakhverdian 2020; Elsässer, Hense, and Schäfer 2018; Flavin and Franko 2017). While many of these studies touch on some of the various potential mechanisms that drive differential responsiveness, there is still a lack of agreement on the factors that lead to differential responsiveness to the public.

One compelling answer suggests that certain voters are disregarded because of a lack of descriptive representation (Carnes and Lupu 2015; Elsässer and Schäfer 2022; O'Grady 2019; Alexiadou 2022). As representatives increasingly come from higher social classes than the members they represent, there is a growing disconnect between the issues taken up in legislatures and the issues that matter to the public. The logic is that an MP's social class plays a key role in how that MP then navigates her representational duties once elected. Many of these studies focus on the occupational backgrounds of MPs, arguing that MPs from certain occupations associated with higher social classes are less likely to represent the interests of working class voters (Carnes 2013; O'Grady 2019; Alexiadou 2022; Carnes and Lupu 2023).

Yet, a focus on MPs' occupational backgrounds may only capture part of the story when examining the ways in which social class shapes legislative behavior. In the UK in particular, class cleavages are deeply entrenched in the social fabric

of society (Heath 2015, 2018; Evans and Tilley 2017), and one strong marker of membership in the highest social strata is attendance at one of the two "Oxbridge" universities – Oxford and Cambridge. Oxbridge graduates are not only overrepresented in many of the most sought after positions in British society, they are also overrepresented in the House of Commons, with more than 1 in 5 sharing an Oxbridge background compared to fewer than 1% of the general population (The Sutton Trust 2019). I argue that three class sorting mechanisms – self-selection, socialization, and value signalling – make Oxbridge attendance a useful proxy for social class in the UK. I then build on existing research that points to the role of MPs' social class as a driver of unequal representation (Alexiadou 2022; Carnes and Lupu 2015; Borwein 2020) by showing that social class – proxied by attendance at one of the two Oxbridge universities – constrains the degree to which MPs represent and respond to the issue priorities of the public.

Throughout the article, I rely on a newly created dataset that includes the universe of parliamentary questions and early day motions put forward by MPs in the House of Commons from 2015–2023. After classifying each item according to the issue domain it addresses with machine learning, I pair the longitudinal data with 284 repeated public opinion surveys that ask the national public what they believe to be the most important issue facing the nation. Using a close elections regression discontinuity design (Lee 2008), I first identify a local average "Oxbridge effect" on parliamentary responsiveness to public salience. I then consider the full sample of MPs in the House of Commons to empirically describe the differences in how Oxbridge MPs perform in relation to their parliamentary peers.

The results of Bayesian and frequentist estimation strategies lend strong support for the idea that social class – proxied by an Oxbridge education – con-

tributes to unequal representation of public preferences. In close elections, successful Oxbridge MPs lag their successful non-Oxbridge peers in parliament by nearly 61 percent when it comes to responsiveness to an increase in public salience for a given issue. The responsiveness gap is smaller in magnitude but still present when considering the full sample of MPs in the House of Commons in a secondary analysis. Taken in combination, the results of the article thus shed light on the extent to which social class shapes legislative behavior, contributing to literature on descriptive representation in the United Kingdom in several ways.

Building on existing studies that highlight the role of social class as an influence on legislative behavior (Alexiadou 2022; Carnes and Lupu 2015; Borwein 2020), the article also takes an important step in the direction of causality by exploiting a source of random variation in the selection of MPs to parliament. The close elections design effectively creates a scenario in which selection of MPs is close to as "as-good-as-random", allowing for more credible claims to be made about the ways in which social class influences representation. The article additionally contributes empirically by taking into consideration a wide range of issues, multiple outcomes and hundreds of repeated public opinion surveys. When combined, the data used throughout the analysis provide a dynamic understanding of the ways in which parliamentarians respond to the issue priorities of the electorate, allowing for a nuanced portrait of dynamic representation.

The rest of the article proceeds as follows. The next section reviews current understandings of unequal responsiveness and highlights the suggested underlying mechanisms. I then describe the UK case and outline theoretical expectations for the ways in which social class conditions representation. The third section provides the research design and methods, and is followed by the results section. The final

section offers a discussion and concludes.

2 Unequal Responsiveness

Legislative responsiveness to the interests of the public is a hallmark of representative democracy. The representation relationship includes voters, treated as political equals, who select individuals to act on their interests in government. Because it is the public that ultimately decides on the electoral fate of representatives, legislators are incentivized to respond to and represent the dynamic interests of their constituents (Powell Jr. 2000; Dahl 1971; Stimson, MacKuen, and Erikson 1995). Though responsiveness between representatives and the public is not perfect, a number of studies conclude that representatives are indeed responsive to the public's concerns to at least some extent (Gilens 2012; Enns 2015). Within many studies, it is often assumed that the main recipient of legislative responsiveness is the median voter, as representatives in two-party systems seeking to benefit electorally from responding to the electorate aim to target the greatest number of voters (Downs 1957).

Yet, a growing number of studies investigating representation have shown that responsiveness depends on voters' affluence or wealth (Gilens 2005; Bartels 2008). This research was first highlighted by Gilens (2005), who used nearly 2,000 survey responses from American voters spanning two decades to show that the likelihood that government enacts specific policies is greatest when the policies are preferred by the wealthy. Gilens highlighted a strong status quo bias and admitted that preferences between the wealthy and the poor were rarely at odds, but he concluded that in the case that differences in preferences did indeed exist, government policy

appeared to respond to the wealthy while lacking any meaningful association with the desires of the poor.

Although Gilens' 2005 findings were limited to the United States, similar patterns of unequal representation have since been identified in other wealthy democracies (Lupu and Tirado Castro 2022; Mathisen et al. 2021). For example, Traber et al. (2022) examine the impact of public issue priorities on bill proposals in the United Kingdom, Germany and Spain, and find that higher status voters have a greater impact than lower status voters. Focusing on the Netherlands, Schakel (2021) finds that policy representation is much stronger for higher income earners in relation to middle and lower income earners. Moreover, not even the notoriously egalitarian Scandinavian democracies are free from representation asymmetries; Elkjær (2020) observes greater policy responsiveness to the preferences of the affluent in Denmark as well.[1]

Despite several studies presenting strong evidence for unequal responsiveness, the mechanisms remain elusive. Of the existent explanations, there are supply and demand side propositions. One of the popular demand-side explanations in the US is the idea that economic inequality begets participatory inequality (Bartels 2008; Gilens 2012; Schlozman, Verba, and Brady 2012). This hypothesis follows the idea that the concerns of the wealthy gain more attention from government because of the political influence associated with wealth and the ability to donate large sums of money to parties, candidates and interest organizations. In the US, congressional elections are multi-million dollar ventures (Center for Responsive Politics 2018). Consequently, the vast majority of legislators are themselves

1. To be clear, Elkjær (2020) argues that differential representation is coincidental and the result of information asymmetries rather that representational inequality.

wealthy and are disproportionately funded by other wealthy individuals in society (Gilens 2015). It is through such outsized campaign contributions, as well as donations to pro-business lobby groups, that affluent individuals effectively "buy" increased attention to their problems (Traber et al. 2022; Gilens 2015).

Yet, while money undoubtedly plays a role in electoral politics in the US where campaign donations are equated with 'speech' and campaigns cost millions, campaign finance laws are more restrictive in many other western democracies and average campaign costs often pale in comparison. In the same vein, the level of economic inequality in the US stands in stark contrast to other western democracies as well, leaving the question of why similar patterns of unequal representation exist in more equal societies such as the Netherlands (Schakel 2021), Denmark (Elsässer, Hense, and Schäfer 2018) and Spain (Lupu and Tirado Castro 2022). One alternative explanation for unequal representation highlights the composition of the parliament itself. Specifically, descriptive representation – or the lack thereof – of specific segments of the electorate such as the working class can play a crucial role in the degree to which representatives take up and respond to the public's preferences (Elsässer and Schäfer 2022; Carnes and Lupu 2023; Alexiadou 2022).

Central to explanations that focus on the composition of parliament is the idea that the backgrounds of representatives shape the extent to which they equally represent the varied preferences of different groups in society. At the heart of such explanations is social class, which is often proxied by occupation prior to entering politics (Carnes 2013; Elsässer and Schäfer 2022; O'Grady 2019; Alexiadou 2022). For example, Alexiadou (2022) points to the class composition of government cabinet ministers and shows that responsiveness to working class preferences varies by the professional background of cabinet ministers. Cabinets with a

greater proportion of ministers with working class backgrounds are associated with an increase in welfare generosity, while cabinet ministers from liberal professional occupations are consistently associated with cuts in welfare spending. Similarly, O'Grady (2019) highlights the role of MPs' backgrounds while arguing that career politicians face incentives that distinguish them from representatives with working class backgrounds. Whereas career politicians are motivated by winning elections and furthering their careers in politics, working class representatives enter politics with the ambition of improving things for the populations with which they share a common background.

2.1 Oxbridge and the UK Case

In the United Kingdom, one of the pinnacles of elite status and social class is symbolically portrayed through attendance at one of the two "Oxbridge" institutions: Oxford and Cambridge. Warikoo and Fuhr (2014, p. 700) argue that "[T]he notion of an Oxbridge graduate's intellectual qualities and qualifications for leadership in society extend well beyond the campus walls to the larger society, and hence matriculation symbolically endows students with membership in that high status group." Consequently, with an Oxbridge education often comes an exclusive invitation into some of the highest strata of society, as Oxbridge graduates often go on to disproportionately dominate in some of the most sought-after roles as FTSE CEOs, national politicians and media executives (The Sutton Trust 2019).

There are several aspects of an Oxbridge education that position attendees as more likely to be members of a higher social strata and therefore make Oxbridge

attendance a multifaceted proxy for social class. An initial class sorting mechanism is selection into Oxbridge. The selection process is highly competitive, with only about 1 in 6 applicants receiving an offer of admission.[2] The selection process is also skewed toward applicants from higher social classes. For example, as of 2019, 39% of Oxbridge students had attended private schools, which represents more than five times the population of private school attendees in the UK population (The Sutton Trust 2019). Moreover, student applicants are conscious of the class sorting that occurs during the selection process, and therefore may be less likely to apply to Oxbridge if they are from a lower social class. Several studies find that "self-exclusion" plays a role in whether students from working class or other minority backgrounds apply to Oxbridge in the first place (Shiner and Noden 2015; Stubbs and Murphy 2020; Warikoo and Fuhr 2014). Consequently, selection into Oxbridge serves as a first stage class sorting mechanism by narrowing the pool of potential future Oxbridge graduates to those who are more likely to be privately educated, academically endowed and already possessing some sense of belonging with a higher social strata.

The role of education as a socialization process is well documented (Bourdieu and Passeron 1977; Nie, Junn, and Stehlik-Barry 1996; Lipset and Bendix 1991). For example, Nie, Junn, and Stehlik-Barry (1996, p. 2) go as far as arguing that one of the most formative socialization processes occurs in the classroom through formal education, which the authors describe as "the strongest factor influencing what citizens do in politics and how they think about politics." Beyond the quality of education, however, socialization *at* Oxbridge serves as a second stage class

2. Author's calculation based on information from each of the University websites in 2022. Cambridge gives the estimate of "1 in 6" and Oxford admitted 9,300 of 61,000 applicants.

sorting mechanism by acclimating students to the norms and values of members from higher social classes. In addition to the curriculum itself and education more generally, Oxbridge students are socialized through social rituals and institutional traditions within the colleges. Studies focusing specifically on the Oxbridge experience point to customs and protocols such as formal dining traditions and other organizational rituals that serve as important socializing experiences for students at Oxbridge colleges (Di Domenico and Phillips 2009; Dacin, Munir, and Tracey 2010). For example, ethnographic work from Di Domenico and Phillips (2009) highlights the ways in which "formal hall" dining rituals at Oxford and Cambridge colleges perpetuate social hierarchy and maintain social status divisions. These rituals are important because they serve to create a shared understanding and class consciousness among students at Oxbridge. They also serve to reinforce the idea that Oxbridge students are part of an elite group that is set apart from the rest of society (Reay, David, and Ball 2005).

A third mechanism of class sorting occurs beyond both the classroom and the college campus. With a degree from one of the two Oxbridge academies, graduates signal that they possess the skills and abilities that are valued by prestigious institutions around the world. This signalling value is important because it is the basis for the social and economic returns that Oxbridge graduates receive from their degree. At nearly every stage of the life course, Oxbridge graduates are rewarded for their elite status. According to a 2019 study by *The Sutton Trust*, Oxbridge graduates are overrepresented in the highest paying professions, such as law, tech, medicine, and finance. Compared to fewer than 1% of the UK population that graduates from an Oxbridge university, 71% of the UK's top judges, 56% of Permanent Secretaries in Whitehall, 51% of Diplomats and 40% of Public Body

Chairs are Oxbridge graduates. In elected politics, over half of the current Cabinet and a third of junior ministers are Oxbridge educated (The Sutton Trust 2022). The House of Lords also has a disproportionate number of Oxbridge graduates, with more than one in three Lords having attended Oxbridge (The Sutton Trust 2019). And since WWII, only a single Prime Minister – Gordon Brown – did *not* attend Oxford specifically. Consequently, it is therefore perhaps an understatement to say that Oxbridge graduates are overrepresented in elite positions in the UK.

Each of the three mechanisms of class sorting – self-selection, socialization, and value signalling – work together to reinforce a class system in which an Oxbridge education epitomizes the highest social strata in Britain. This class system is self-perpetuating because Oxbridge graduates go on to serve as elected parliamentarians, judges, and other high-status occupations. In turn, these Oxbridge graduates are responsible for making decisions that affect the rest of society. Despite potential normative considerations, Oxbridge makes for an ideal proxy for social class in the UK because attendance encompasses so many characteristics of social class that are not likely to be captured by occupation or income alone.

2.2 Social Class and Political Representation

Does it matter if representatives are of a higher social class than the individuals they represent? Extant research on the relationship between social class and political representation suggests that it does (Carnes 2012; O'Grady 2019; Alexiadou 2022; Borwein 2020). For example, Carnes (2012) finds that members of the US Congress are disproportionately drawn from the upper class, and that this class bias leads to a lack of substantive representation of the interests of the working

class. Similarly, Alexiadou (2022) shows that parliamentary cabinets consisting of individuals from higher social classes results in lower welfare generosity. The author finds that responsiveness to lower class voters varies according to the class associations of MPs, with cabinets comprised of members from higher social class backgrounds less responsive.

There are three ways a class gap between representatives and the represented may contribute to unequal representation. First, elites may be unfamiliar with—or at least lack an adequate understanding of—public preferences in aggregate. This may be because elites are less likely to share similar experiences with individuals of a lower social classes, and therefore may be less likely to understand the issues that matter to these groups. Previous research suggests that perceptions of the world are shaped by social class (Easterbrook, Kuppens, and Manstead 2016; Manstead 2018). For example, Manstead (2018) argues that working class individuals tend to score higher on measures of empathy and demonstrate a greater willingness to help others in need. In contrast, individuals from higher social classes tend to be more individualistic and less empathetic. Therefore, even well-intentioned elites from higher social class backgrounds may be constrained in their ability to represent the interests of the public because they lack the necessary information to do so.

Second, elites may simply hold different preferences from members of lower social class groups when they enter parliament, and therefore may pursue policies that reflect these preferences regardless of public opinion. For example, political economy models suggest that preferences for redistributive welfare policies are associated with income (Meltzer and Richard 1981). Given strong associations between social class and income, representatives from higher social classes may

be less supportive of specific policies such as redistributive policies that tend to be more popular with members of a lower social class (Guillaud 2013). Unequal representation in this scenario therefore can be the result of MPs pursuing certain policies irrespective of the preferences of the public.

Third, social class may contribute to unequal representation when elites discount the opinions of constituents from lower social classes. A number of studies show that representatives are more likely to respond to the preferences of constituents with whom they agree (Walgrave et al. 2022; Broockman and Skovron 2018; Pereira and Öhberg 2020). One reason for this is that representatives are more likely to believe that constituents with whom they agree are better informed on political issues (Broockman and Skovron 2018). With this in mind, elites from higher social classes may to be less responsive because they attribute less weight to the preferences of lower class voters. A similar logic is articulated by Pereira and Öhberg (2020), who show that elites are less responsive when they perceive higher personal expertise than their constituents. The authors find that inducing perceptions of expertise further increases elites' self-confidence, which in turn makes them more resistent to the idea that the public may hold preferences that differ from their own. Consequently, to the extent that elites from higher social classes believe that they are more competent than the public – a belief that may be more common in elites from higher social class backgrounds and among Oxbridge graduates in particular – they may discount the preferences of the public in exchange for either their personal preferences or the preferences of individuals with whom they share a common class background.

Whether not knowing, not caring or not believing, elites from a higher social class are likely to lag their parliamentary peers as a result of their class back-

grounds. Each of three mechanisms may act individually or combine to constrain the degree to which elites from higher social classes represent the interests of the public. This expectation is formalized in the following hypothesis:

Hypothesis 1: Oxbridge MPs are less responsive to public preferences.

3 Research Design

Isolating the influence of politicians' personal characteristics is a challenging task given that many attributes as encompassing as education and class are endogenous to many other aspects of legislative behavior. The ideal experiment to test whether Oxbridge MPs respond to public preferences differently would be to randomize the assignment of Oxbridge and non-Oxbridge MPs to parliament and observe their behavior. This is obviously not possible, but an alternative includes similarly exploiting a source of exogenous variation in the selection of MPs to parliament. One way this can be accomplished is through a close-election regression discontinuity design (Imbens and Lemieux 2008; Cattaneo and Titiunik 2022; Lee 2008). The design, also commonly referred to as a politician characteristic regression discontinuity (PCRD) design (Marshall 2022), exploits close elections as an instrument in order to identify the effects of candidates' personal characteristics once elected. The intuition behind this strategy is that extremely close elections effectively create a scenario in which the outcome is close to as-good-as random (Lee 2008; Cattaneo and Titiunik 2022). Therefore, when comparing only elections in which an Oxbridge MP faces off with a non-Oxbridge MP in a close election, the non-Oxbridge winners create a counterfactual outcome against which the behavior of the electorally successful Oxbridge candidates can be compared.

Similar designs have been used to study the effects of other personal characteristics of politicians such as gender (Nzabonimpa 2023; Broockman 2014; Daniele, Dipoppa, and Pulejo 2023), college education levels (Sørensen 2023) and public sector employment (Geys, Murdoch, and Sørensen 2023).

PCRD designs are particularly well-suited for studying the effects of personal characteristics on legislative behavior because they allow for the recovery of a local average effect. However, PCRD designs are not without their limitations. Despite high levels of internal validity (Lee 2008), PCRD designs are only able to identify the effects of personal characteristics on legislative behavior for politicians who are elected by a close margin, which narrows the possible sample size of the analysis and limits the generalizability of the results. One way I address this concern is by adopting two separate estimation strategies, with one relying on a subset of the data that only includes close elections and the other relying on regressions using the full sample of MPs in the House of Commons.

An additional concern with PCRD designs arises when a personal characteristic is correlated with the margin of victory (Marshall 2022). In this case, the design identifies a compound treatment effect (e.g. the effect of the characteristic as a *condition* of being elected) rather than a local average treatment effect (LATE). This concern is warranted in cases in which characteristics such as gender or party affiliation are the focus; however, there is reason to believe that where an MP receives her degree is not as likely to be as salient of a factor for voters. Previous studies suggest that voter evaluations are driven by candidates' issue positions more than by identity concerns or social characteristics (Arnesen, Duell, and Johannesson 2019; Costa 2021).[3] Furthermore, I show that Oxbridge-educated members do not

3. Although see Heath (2015) for an alternative perspective.

differ in other observable characteristics such as party affiliation and gender from other members elected in close elections. Balance between the two groups using the PCRD design is presented in Appendix D.

The key assumption that must be met in order to identify a local average effect of Oxbridge education on legislative behavior is that at the cutoff point, winners of close elections are as-good-as random (Cattaneo and Titiunik 2022). This requires that candidates in close elections must not be able to control the electoral outcome. This assumption is likely to be met barring electoral fraud or other forms of strategic manipulation, and winners of close elections are commonly used in similar designs (Dinas and Foos 2017; Valentim and Dinas 2020; Abou-Chadi and Krause 2020).

3.1 Dynamic Issue Responsiveness

Throughout the analysis, I focus on a specific element of substantive representation: dynamic responsiveness to public issue salience. I focus on dynamic responsiveness for two reasons. First, voters place a high value on responsiveness, and previous studies find that voters associate politicians' emphasis of their issue priorities with satisfaction with democracy (Reher 2016). Second, responsiveness to shifts in public salience is often the first indication that representatives are acting on the behalf of their constituents (Baumgartner and Jones 2010). As previous findings suggest that representational inequality may be "infused earlier in the policymaking process at the agenda-setting stage" (Flavin and Franko 2017, p. 659), focusing on the degree to which representatives shift their attention in line with the public's issue priorities may provide an early indication of representational

inequality.

To understand dynamic responsiveness to public issue salience, data on both the issues prioritized by the public and the issue attention of representatives are required. To capture issue salience, I rely on repeated surveys from YouGov (2021) asking respondents to identify the most important issue facing the country. Although "most important issue" surveys are not without their limitations (Wlezien 2005; Dennison 2019), they are widely used to measure issue salience in the literature on public opinion and political behavior (Soroka and Wlezien 2010; Klüver and Spoon 2016; Yildirim 2022; Traber et al. 2022). Moreover, given that the surveys are fielded nearly once a week, combining the surveys ensures that the analysis captures changes in public salience rather than absolute levels of salience at a given point in time.

Past studies have assessed the representation quality of MPs by examining individual parliamentary contributions such as questions (Saalfeld 2014). I therefore considered two separate but similarly individual level outcomes to assess responsiveness to public salience. First, I consider questions delivered in the House of Commons. Written and oral questions are a common form of parliamentary scrutiny in which MPs ask the government for information on a specific issue. MPs can ask questions to any government department and the government is required to respond within a certain time frame. Questions are a useful measure of parliamentary behavior because they are a common form of scrutiny that is available to all MPs – government MPs and opposition MPs alike. Whereas opposition MPs may use questions to raise the government's attention to certain issues, government MPs can use questions to share information on the government's actions with the public and with other members of the House, both of which indicate an

MP's attention to a given issue.

Second, I consider Early Day Motions (EDMs). EDMs are used to put on-record a member's views on a particular issue. Members raise EDMs in order to raise attention to a given issue and to propose further debate on the issue. Although only a small number of EDMs are taken up for formal debate, members often propose hundreds of EDMs and sign on to many more. Moreover, even in the case that EDMs are not taken up for debate, they are a useful measure of parliamentary behavior because they are a common means by which members demonstrate their interests and priorities, and can often receive further media and public attention (Hansard 2021).

Importantly, both questions and motions are dynamic and organic. MPs can raise questions and motions on any issue at any time, and the issues that MPs choose to raise are therefore a reflection of their own priorities. Moreover, the issues that MPs choose to raise are not limited to the issues that are currently being debated in the House of Commons. Consequently, questions and motions are a useful measure of the issues that MPs prioritize in their parliamentary duties.

3.2 Data Collection and Measurement

The analysis focuses on the House of Commons, which is the primary legislative body in the United Kingdom. The House of Commons is comprised of 650 members elected from single-member districts using a first-past-the-post electoral system. In both estimation strategies, the time period includes 2015–2023. This time period includes three UK General Elections – 2015, 2017 and 2019 – and these elections present the most recent UK elections while allowing for three occasions on which

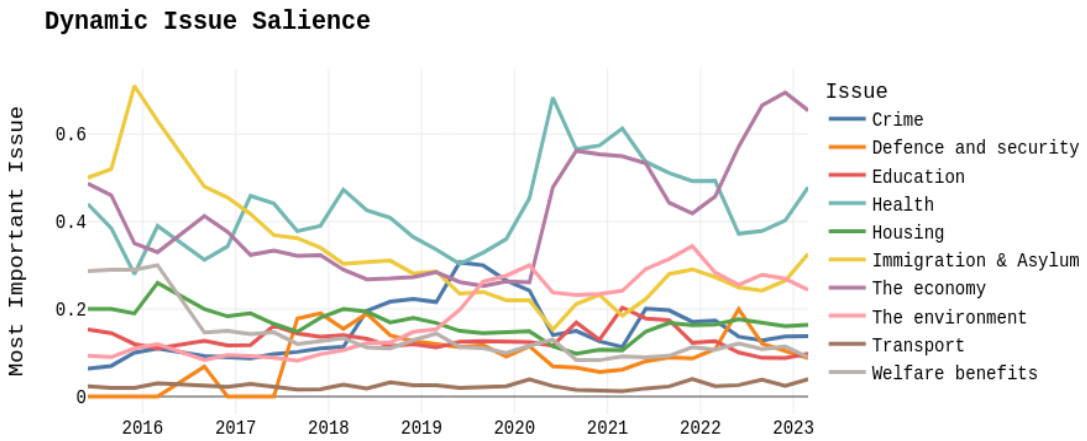
the PRCD design can be applied.

3.2.1 Measuring Public Issue Salience

To measure public salience, I rely on repeated surveys asking the national public what they believe to be the most important issue facing the nation. These nationally representative, high-quality surveys are available approximately every week from 2015–current from YouGov (2021). In the surveys, respondents select up to three issues out of 14 that they perceive to be a top political priority.

From the time of the 2015 General Election until the end of 2022, YouGov fielded 284 separate surveys asking respondents to identify the most important issue facing the country. I combined each separate survey to measure the salience of a different issues using the percentage of the population that selected an issue as the most important issue facing the country. For example, if 18% of respondents identify immigration as the most important issue, then the level of salience for immigration at the point of that survey is 18%. This measurement is similarly used in other studies of responsiveness using similar surveys (Traber et al. 2022; Klüver and Spoon 2016). Figure 1 presents the results of combining each of the surveys from 2015-2023 to each issue using the 3-month moving average.

Figure 1: Dynamic Public Issue Salience



Note: Values are presented as a three-month moving average. Respondents select up to three different issues so issue total do not sum to 1. Descriptive statistics are provided in Appendix C. Data source: YouGov (2021).

3.2.2 Measuring Parliamentary Behavior

To measure the levels of attention MPs devote to different issues in the House of Commons, I rely on two separate measures of parliamentary behavior: questions and Early Day Motions (EDMs). All parliamentary data were collected from the UK Parliament API, which includes all questions and EDMs raised in the House of Commons from 2015–2023 by all elected MPs, as well as election statistics.

Each of the questions and EDMs address a specific issue and therefore signals the MP's attention to that issue. For example, the following question from Steve Baker in 2021 addresses the issue of health:

> To ask the Secretary of State for Health and Social Care, with reference to the Royal College of Physicians' position statement, NHS Workforce Planning: the case for transparency and accountability, what steps he is taking to increase the number of places.

Although taking a different form, EDMs similarly address a specific issue. The title of the motions is often just a single sentence. For example, Karen Buck raised a motion titled as follows in 2018 that addresses immigration:

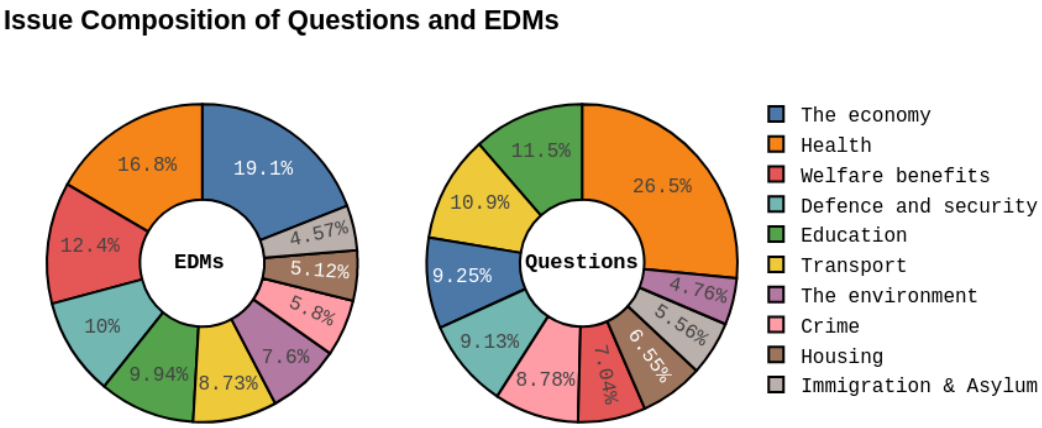
> *Independent Review of Home Office Immigration Policy and Practice*

For classification of each of the questions and EDMs, I relied on a large language model trained to predict the issues of political text (Dickson 2023). The language model is based on the BERT transformers architecture (Devlin et al. 2018) and trained on a large corpus of over 100,000 political texts in various languages that have been annotated with policy issues by the Comparative Agendas Project (CAP 2023). I validated the model's accuracy for the task at hand by comparing the model's predictions to an annotated sample of 1,000 questions and 1,000 EDMs. The model achieves a weighted F1 score of 0.78 for the questions data and 0.69 for the EDM data, placing it in line with other similar methods (Gilardi et al. 2022). Full results of the validation, including multi-label confusion matrices, are presented in Appendix E and Appendix F.

Data from the Questions and EDMs are combined with the public issue salience data by merging on date and issue for each MP. Because the questions and issues data are coded according to the Comparative Agendas Codebook, I match only on issues for which public opinion data are available. The exception to this is on the issue of the economy. CAP identifies both "macroeconomics" and "domestic

commerce", which I combine and map to "The economy" given the similarity. The final full dataset includes 621 MPs[4] with 182,838 questions and 74,072 EDMs. The issue composition of questions and EDMs is presented below in Figure 2, and descriptive statistics for the data are presented in Appendix A and Appendix B.

Figure 2: Issue Composition of Questions and EDMs



Note: Issue composition figures include only questions and EDMs that address policies for which public opinion data are available.

3.2.3 MPs' Social Class Backgrounds

As argued throughout, Oxbridge captures many aspects of social class. I use attendance at one of the two Oxbridge universities – Cambridge and Oxford – as

4. MPs who did not ask a single question or put forward a single motion are not included in the analysis.

a proxy for MPs' social class background. Data on MPs' education backgrounds were collected primarily from three sources: the Wikidata API (Vrandečić and Krötzsch 2014), the LinkedIn API (*LinkedIn API*) and MPs' personal websites.

3.2.4 Estimation Strategy

Responsiveness is conceptualized as a change in the level of prioritization the public places on an issue that is followed by a change in the level of attention parliamentarians devote to that issue via questions or motions. Therefore, responsiveness is measured as the statistical "effect" of public issue salience on corresponding parliamentary behavior. I rely on two separate estimation strategies to examine the degree to which MPs use motions or questions to respond to public issue salience.

In the first strategy, I estimate the effect of public issue salience on parliamentary behavior using the PCRD design. In these estimations, I focus only on elections in which one of the top-two candidates in a given constituency received their degree from Oxford or Cambridge and the other did not. As with other PCRD designs, I do not include elections in which both candidates are Oxbridge educated or neither candidate was Oxbridge educated. I consider close elections as elections in which the top-two candidates' total number of votes places each candidate within the 40–60 percent margin. For example, if the top-two candidates receive a combined total of 10,000 votes, each of the two candidates must receive between 4,000 and 6,000 votes in order for the election to be considered close. This narrows the dataset to 148 separate elections,[5] which is a limitation of the analysis. However, I also consider the full sample of MPs during the same time period as a secondary strategy.

5. Balance statistics for the MPs of these elections are presented in Appendix D.

Because there are multiple observations for each MP and according to each issue domain, fixed effects regressions would not be the most appropriate. Therefore, for estimation, I rely on a Bayesian hierarchical model with random intercepts for MP and issue domain. This follows the logic that each individual observation – either a question or an EDM – pertains to a specific issue, and each of the ten separate issues within which observations are nested correspond to a specific representative. Using a Poisson likelihood, I estimate the following model:

$$Y_{i,j,t} \sim \text{Poisson}(\lambda_n)$$

$$\begin{aligned} \log(\lambda_n) =& \alpha_{MP[i]} + \alpha_{IssueDomain[j]} + \\ & Oxbridge_{[i]} + PublicIssueSalience_{[j,t]} + f(ElectoralMargin_{[i,t]}) \\ & \theta Oxbridge_{[i]} \times PublicIssueSalience_{[j,t]} \end{aligned} \quad (1)$$

Where $Y_{i,j,t}$ is the number of questions or motions for MP i about issue j at time t. $\alpha_{MP[i]}$ is the MP specific intercept and $\alpha_{IssueDomain[j]}$ is the issue specific intercept. *Oxbridge* is a binary variable that is one in the case that the MP attended Oxford or Cambridge and zero in all other cases. $PublicIssueSalience$ is the level of salience attributed to each issue by the public. $f(ElectoralMargin)$ is electoral margin, which is the difference in vote share between the top two candidates in a given election. The function is a quadratic piecewise polynomial, which is common in PCRD designs (Lee 2008). The coefficient of interest is θ, which captures the interaction between Oxbridge education and public issue salience. Theta (θ) can be interpreted as the marginal effect of Oxbridge on the logs of the expected

number of questions/motions in response to a 1 percentage point increase in the salience of an issue according to the public.

For all estimations, I use minimally informative priors (see Appendix H). All models are estimated using the `PyMC3` library in Python (Salvatier, Wiecki, and Fonnesbeck 2016), which relies on No-U-Turn Sampling (NUTS) (Hoffman and Gelman 2014). Full details of the model and its assumptions are provided in Appendix H.[6]

4 Results

I first consider the degree to which MPs are responsive to public issue salience in a general sense. Specifically, I estimate regressions without the interaction between MPs' education background and public salience in order to provide a sense of the overall relationship between public issue salience and parliamentary behavior. Figure 3 displays the posterior estimates with 94% credible intervals for the effect of public issue salience on MPs' issue attention in parliament. In the models, there is a random intercept for issue domain. Each of the two sets of coefficient estimates are from two respective models, and each of the four separate coefficient estimates for each model are derived for an MCMC chain. The full table results for the models are available in Appendix G.[7]

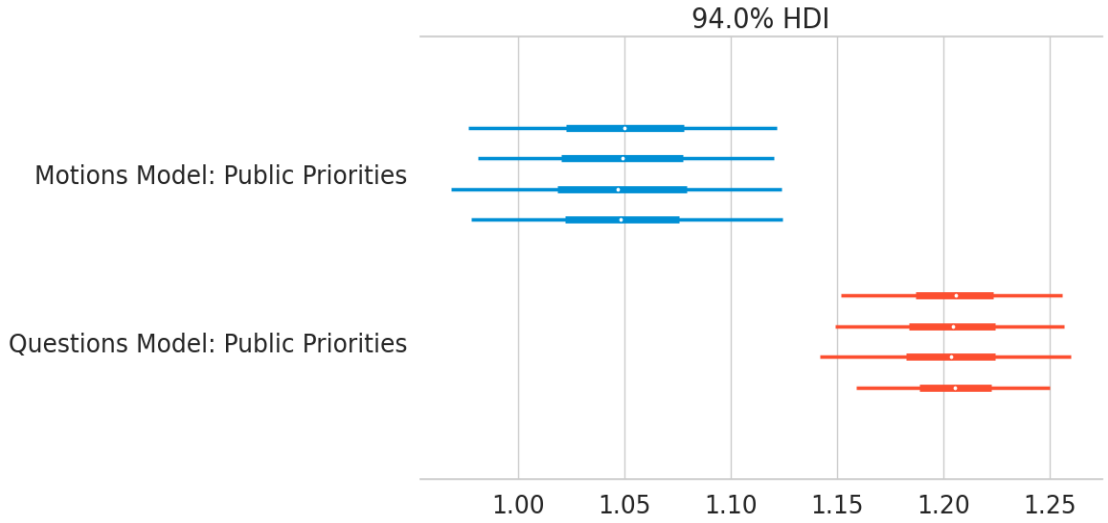
The estimates indicate that changes in public salience explain variation in the issues that MPs raise via parliamentary questions and early day motions. In other words, MPs are responsive to public issue salience in a broad sense. There is some

6. I also provide estimates for all models using frequentist methods in the appendices for comparison. The point estimates and substantive results are very similar and are available in the appendix sections highlighted throughout the results section within the text.

7. Frequentist estimates are provided in Appendix K.

indication that MPs are more responsive to public issue salience via questions than via EDMs, but the difference is small.

Figure 3: Parliamentary Responsiveness to Public Issue Salience



Note: 94% Highest Density Interval for the effect of public salience on motions and questions. Models use random intercepts for issue domain. Each model uses 1,000 samples from the posterior distributions in addition to tuning with the first 500 samples. Full results in table form are available in Appendix G.

To interpret the estimates in substantive terms, we have to reverse the log transformation. This is done by exponentiating the coefficients and then multiplying the result by the mean of the outcome variable. For example, the mean number of questions and motions for all issues per time period is about 0.43 and 0.17, respectively (see Appendix B). Therefore, the expected value of questions and motions in response to a one percentage point change in salience is approximately 1.42 questions ($e^{1.2} \times 0.43$) and 0.49 motions ($e^{1.05} \times 0.17$). Taken together, the estimates provide a strong indication that the issues that are important to the

public similarly receive attention by MPs in parliament.

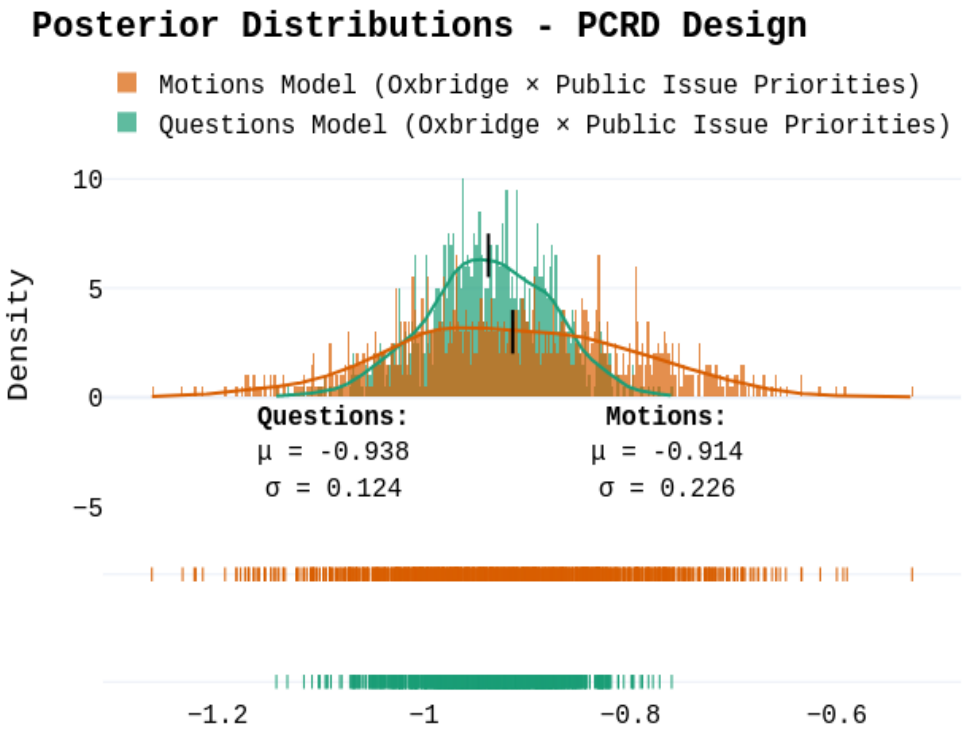
4.1 Responsiveness in Close Elections

Using the PCRD design that uses a narrow subset of MPs who were elected by a close margin in one of the three UK General Elections, I estimate two hierarchical models: one for each of the two outcomes. I present the results in several ways. Figure 4 presents the posterior distributions of the coefficients of interest: the interaction between Oxbridge and public issue salience. The figure contains the results from both models, and includes the estimated samples from the posterior, as well as the mean and standard deviation. I additionally present the results in table format in Appendix I. MCMC chains and plot traces are also available in Appendix I.

From the posterior distributions in Figure 4, we can see that the coefficient of interest – the interaction between Oxbridge and public issue salience – is negative in both models. Interestingly, the point estimates from the two models are very similar, however, there is more variation in responsiveness via motions in relation to questions. The estimates indicate a marginal difference between Oxbridge and non-Oxbridge MPs of nearly 1 in the rate ratio for both questions and motions in response to a one percentage point change in the importance of an issue according to the public.

To understand the marginal effect in substantive terms, the estimates have to be exponentiated and multiplied by the mean of the outcome variable. The mean number of questions per MP in the PCRD dataset is about 0.40 and about 0.09 motions (Appendix A). Therefore, the marginal effect of Oxbridge on responsiveness

Figure 4: Close Elections: Responsiveness from Oxbridge MPs



Note: Posterior sampling distribution for responsiveness to public salience by Oxbridge MPs (e.g., interaction between Oxbridge MP and public issue salience). Full results in table form are available in Appendix I.

to a one percentage point increase in the salience of an issue is approximately 0.25 fewer questions and about 0.05 fewer motions. In other words, the expected value of questions and motions from Oxbridge MPs is 0.15 ($e^{-0.93}$) and 0.04 ($e^{-0.91}$). This difference is not trivial, and suggests that the expected number of questions and motions from an Oxbridge MP is approximately 60% lower ($e^{\theta} = 0.4$) than

the expected number of questions or motions from a non-Oxbridge MP.[8] Taken together, the estimates suggest that Oxbridge MPs are less responsive compared to non-Oxbridge MPs.

4.2 Responsiveness by all MPs

The results thus far suggest that Oxbridge MPs lag their peers in Parliament when it comes to responding to the public via EDMs and Questions. Yet, these findings are specific to MPs in close elections, which may cast too narrow of a net when examining differential responsiveness more broadly. Consequently, I now consider the degree to which differences between the two groups occur across all MPs in Parliament rather than just in close elections. Although the results of these models cannot be interpreted causally, they provide descriptive evidence of the differences between the two groups of MPs when considering the entire House of Commons.

I use a similar model specification to estimate responsiveness for the entire sample. The model differs in that the polynomial functions for the margin of victory are no longer included, and I also condition on party affiliation, incumbency and gender as control variables. Following the same format as the close elections results, Figure 5 presents the posterior samples from the interaction between Oxbridge MPs and public issue salience. The full results are similarly presented in Appendix J.

In the questions model, the interaction estimate suggests that Oxbridge MPs lag their peers by nearly 49 percent in responding to the electorate's issue salience.

8. Marginal effect calculation in percentage terms includes subtracting 1 from the exponentiated coefficient and multiplying it by 100 (i.e. $(e^{\theta} - 1) \times 100$). The credible interval indicates that 94% of the samples fall between -1.32 and -0.46 in the motions model. In the questions models, the credible interval indicates a range of -1.17 and -0.69 (see Appendix I for full results).

All samples fall below -0.5, and the credible interval indicates that posterior samples within two standard deviations of the point estimate fall between -0.7 and -0.6.

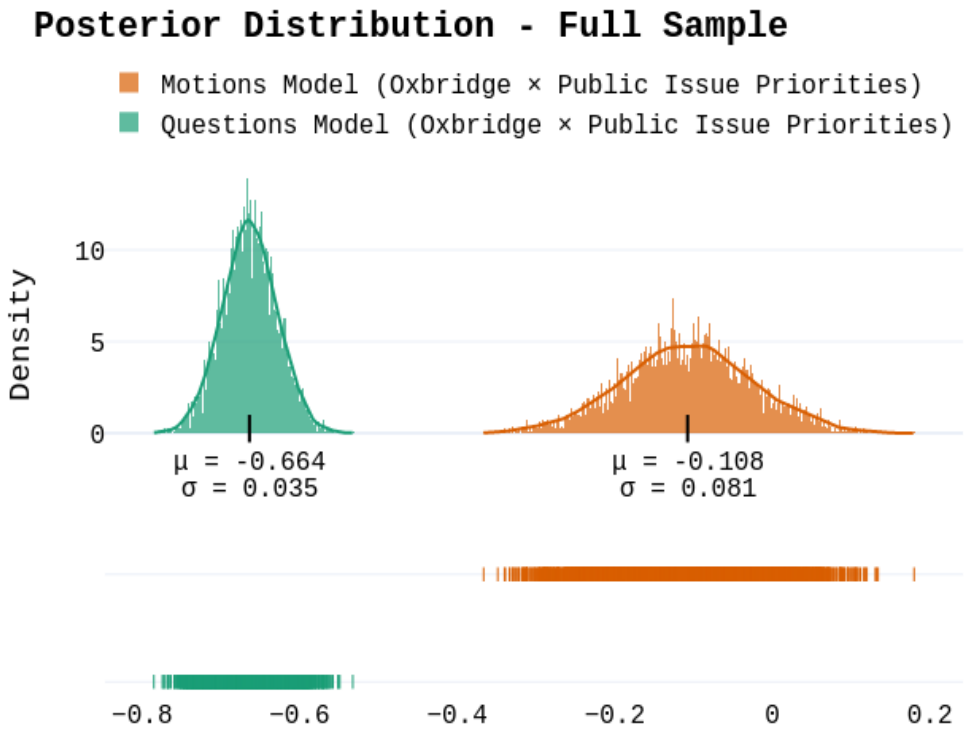
In the motions model, the interaction estimate suggests that Oxbridge MPs lag their peers by approximately 10% in questions for a one percentage point change in the importance of an issue according to the public. Yet, differing from the questions estimates, all samples *do not* fall below zero, indicating that the difference between the two groups is not differentiable from zero at conventional levels (94% credible interval: -0.260–0.047). Nonetheless, the results similarly indicate that a difference exists, but that it is much smaller than the difference in the questions model. The full results for both models, including priors and regression tables, are provided in Appendix J.

In substantive terms, the estimates amount to a difference of approximately 0.22 fewer questions (questions: $\mu_{i,t} = 0.43$) and 0.02 fewer motions (motions: $\mu_{i,t} = 0.17$) from Oxbridge MPs in response to a 1 percentage point increase in public issue salience. This difference may appear small, but is only the marginal effect estimate of Oxbridge on responsiveness to public issue salience. Taken in full, these results lend additional support for the hypothesized expectation that representatives' social class acts as a constraint on responsiveness to the public.

4.3 Alternative Explanations and Robustness Checks

Using both the close elections PCRD design and the full sample of elected MPs in the House of Commons, the results thus far have provided strong evidence that Oxbridge MPs are less responsive to public issue salience than their non-Oxbridge

Figure 5: Full Sample: Responsiveness from Oxbridge MPs



Note: Posterior sampling distribution for responsiveness to public salience by Oxbridge MPs (e.g., interaction between Oxbridge MP and public issue salience). Full results in table form are available in Appendix I.

peers. When observing legislative behavior via oral and written questions, and to a slightly lessor extent, with early day motions, Oxbridge MPs trail their parliamentary colleagues in responding to the public. There are, however, alternative possibilities that might explain these results. In the following section, I consider alternative explanations to reduce the possibility that the results are driven by statistical artifacts or modelling assumptions.

4.3.1 Alternative Model Specifications

The estimation strategies throughout the analysis have relied on Bayesian statistics. However, Bayesian methods are less common and are certainly not the only way to model the data. I therefore consider two additional estimation strategies in order to test the robustness of the results. Both strategies diverge from Bayesian methods and instead use frequentist methods. First, I consider two-way fixed effects regressions. Although these models do not take into account the nested structure of the data, they provide more conservative estimates, which amounts to a hard test for the results presented thus far. In Appendix L, I re-specify all estimations made throughout the analysis using fixed effects regressions. The estimations are made using the `fixest` library in R (Bergé et al. 2018).

In the close elections sample, the fixed effects estimates are very similar. For both questions and EDMs, the estimates indicate that Oxbridge MPs lag their peers in the House of Commons by about 60 percent in the number of questions and motions put forward in response to a one percentage point increase in the importance of an issue according to the public. In the full sample, the estimates are also similar to the Bayesian estimates and indicate that Oxbridge MPs are about 45% less responsive via questions. In the motions estimates, the difference between the two groups is not statistically significant at conventional levels, however, the point estimate is nearly identical to the Bayesian models.

I additionally considered a third estimation strategy that relies on hierarchical mixed effects models. This strategy accommodates the hierarchical nature of the data and makes for a closer comparison to the Bayesian estimates. In Appendix K, I replicate the entire analysis using the hierarchical mixed effects models. For

estimation, I used the `lme4` Library in R (Bates et al. 2014). As with both the fixed effects models and the Bayesian models, all estimates are very similar and confirm the results of the other models.

Taken in combination, the results from the fixed effects models and the hierarchical mixed effects models confirm the results and suggest that they are not driven by modelling decisions made in the primary analysis. Substantively, these results lend additional support for the hypothesized relationship between social class and responsiveness to public issue salience.

4.3.2 Trustee vs. Delegate Models of Representation

One alternative explanation for the results could be that Oxbridge MPs take on different representative role orientations compared to their peers. For example, Oxbridge MPs may be more likely to act as trustee style representatives rather than as delegates. Indeed, existing research has shown that voters have different preferences regarding the degree to which they expect their representatives to follow public preferences (Bowler 2017). Therefore, a potential threat to the finding that Oxbridge MPs lag their colleagues in responding to public preferences could be that Oxbridge MPs may be more likely to act as trustees and pay little attention to changes in public preferences.

Although the data do not allow for a direct test of this hypothesis, I consider the degree to which Oxbridge MPs differ in the number of questions asked and motions put forward regardless of the issue domain. If Oxbridge MPs are indeed more likely to act as trustees, then we would expect them to contribute at similar levels, but independently of public preferences.

I test this proposition by estimating the marginal difference in the number

of questions and motions put forward by Oxbridge and non-Oxbridge MPs. The results, presented in Appendix M, suggest that Oxbridge MPs indeed participate differently than their peers. Oxbridge MPs ask slightly fewer questions (though not statistically significant at conventional levels) and average far fewer motions than their peers. This result indicates that it is unlikely that Oxbridge MPs focus on different issues but with the same levels of participation as non-Oxbridge MPs.

5 Discussion and Conclusion

Legislative responsiveness to public preferences is a central component of democratic representation. Yet, several studies in the past decades have empirically demonstrated that representatives are not equally responsive to the electorate. These findings have been concentrated mainly in the United States (Bartels 2016; Flavin and Franko 2017); however, more recent findings have confirmed a similar result in Western European democracies as well (Elkjær 2020; Mathisen et al. 2021; Traber et al. 2021; Elsässer, Hense, and Schäfer 2021; Lupu and Tirado Castro 2022).

Although there are several potential explanations offered by representation scholars, it has become increasingly clear that representatives' social class plays a role in representation quality. Building on existing studies that use occupation as a proxy for social class (Alexiadou 2022; O'Grady 2019), I argued that Oxbridge education is an comprehensive proxy for social class in the UK. Three aspects of an Oxbridge education – self-selection, socialization, and value signalling – work together to create a class sorting mechanism that results in a disproportionate number of Oxbridge graduates in the highest social classes in the UK.

Focusing on Oxbridge MPs, the findings of the analysis suggest that Oxbridge MPs are less responsive to public issue salience than their peers. This finding is consistent across multiple research designs and estimation strategies. The results also remain similar when examining the ways in which MPs respond to public salience using two different outcomes – questions and motions. In robustness checks, I show that the results are not likely to be driven by modelling decisions or different role orientations between the two groups of MPs. Taken together, the results suggest that Oxbridge MPs are indeed less responsive to public issue salience than their peers, highlighting the role of social class in shaping representation.

This article thus contributes to the literature on unequal representation in several ways. First, it moves in the direction of causality by exploiting a source of exogenous variation in the election of Oxbridge MPs. Social class is a notoriously difficult factor to identify due to endogeneity concerns. However, by comparing only close elections in which one of the top-two candidates is Oxbridge educated and the other is not, the design identifies a credible counterfactual in narrow winners who are not Oxbridge educated. Although the design is not without its limitations, the analysis provides a strong test of the effects of Oxbridge education on legislative behavior.

Second, this article makes several empirical contributions to the representation literature. First, the analysis relies on high interval data to examine dynamic responsiveness to dynamic public salience. Where previous studies have examined responsiveness to public opinion, the public opinion data used is often static or is only measured at infrequent intervals, raising the potential of missing important variation in how voters shift their attention to different issue domains and therefore the ways in which representatives respond. By considering nearly 300 separate,

repeated surveys asking the British public about their issue priorities, the findings of the article offer an authoritative assessment of dynamic responsiveness by capturing temporal variation in public preferences *and* parliamentary behavior. In a similar vein, this article contributes to the empirical literature by considering multiple issues and outcomes. Building on the work of previous studies that examine only one or a few issues and look at speeches or collective policy outcomes, this current study contributes by considering responsiveness to 10 separate issues and two separate behavioral outcomes measured at the level of the individual MP.

Despite the efforts made at identifying the causal effect of Oxbridge education on legislative responsiveness, the analysis is not without its limitations. First, the analysis relies on a relatively small sample of Oxbridge MPs. Although the sample in the PCRD design is large enough to estimate marginal differences between two different groups (e.g. Oxbridge vs. non-Oxbridge MPs), the small sample size raises questions about the extent to which credible causal claims can be made. Moreover, given the small sample, I was unable to examine extremely close elections (e.g. elections within only a few percentage points) which are often common practice in similar designs. I tried to address this shortcoming by including results that considered the entire sample of MPs, but the results were not as strong as those presented in the close elections analysis. Consequently, future research should consider other methods of identifying an "Oxbridge effect" that can be applied to a larger sample of MPs.

Second, the analysis relies on a single measure of social class – Oxbridge education. Although Oxbridge education is a strong proxy for social class in the UK, it is not without its limitations. Future research should consider other measures of social class to further test the effects of social class on representation.

There are also limitations in the degree to which the analysis can speak to differences in responsiveness to the *preferences* of voters. Although the analysis considers responsiveness to public issue salience, the ways in which representatives speak to the issues that are important to voters is only one aspect of representation and may be less important to some voters who prefer their representatives take on alternative role orientations (Bowler 2017). Future research should consider other measures of responsiveness to further study the effects of social class on representation.

A final limitation of the analysis is on external validity. Although PCRD designs have high levels of internal validity (Lee 2008), the extent to which we can generalize the findings in this article to another context is reduced by the fact that the analysis focuses on two specific universities and their social class associations within the UK. Future research should continue to consider additional contexts and empirical strategies to further examine the extent to which social class acts as a constraint on the quality of representation parliamentarians provide.

References

Abou-Chadi, Tarik, and Werner Krause. 2020. "The causal effect of radical right success on mainstream parties' policy positions: A regression discontinuity approach." *British Journal of Political Science* 50 (3): 829–847.

Alexiadou, Despina. 2022. "Cabinet Ministers and Inequality." *European Journal of Political Research* 61 (2): 326–350.

Arnesen, Sveinung, Dominik Duell, and Mikael Poul Johannesson. 2019. "Do citizens make inferences from political candidate characteristics when aiming for substantive representation?" *Electoral Studies* 57:46–60.

Bartels, Larry M. 2008. *Unequal Democracy: The Political Economy of the New Gilded Age.* Russell Sage Foundation.

———. 2016. *Unequal Democracy.* Second. Russell Sage Foundation Co-pub.

Bates, Douglas, Martin Mächler, Ben Bolker, and Steve Walker. 2014. "Fitting Linear Mixed-Effects Models Using Lme4." *Arxiv Preprint Arxiv:1406.5823.*

Baumgartner, Frank R., and Bryan D. Jones. 2010. *Agendas and Instability in American Politics.* Second. University of Chicago Press.

Bergé, Laurent, et al. 2018. *Efficient Estimation of Maximum Likelihood Models With Multiple Fixed-Effects: The R Package Fenmlm.* Technical report. Department of Economics at the University of Luxembourg.

Borwein, Sophie. 2020. "Do ministers' occupational and social class backgrounds influence social spending?" *Politics, Groups, and Identities* 10 (4): 1–23.

Bourdieu, P., and J. C. Passeron. 1977. *Reproduction in Education, Society and Culture.* London: Sage Publications.

Bowler, Shaun. 2017. "Trustees, delegates, and responsiveness in comparative perspective." *Comparative Political Studies* 50 (6): 766–793.

Broockman, David E. 2014. "Do female politicians empower women to vote or run for office? A regression discontinuity approach." *Electoral Studies* 34:190–204.

Broockman, David E, and Christopher Skovron. 2018. "Bias in Perceptions of Public Opinion Among Political Elites." *American Political Science Review* 112 (3): 542–563.

CAP, The Comparative Agendas Project: 2023. *Comparative Agendas Project.* https://www.comparativeagendas.net/.

Carnes, Nicholas. 2012. "Does the Numerical Underrepresentation of the Working Class in Congress Matter?" *Legislative Studies Quarterly* 37 (1): 5–34.

———. 2013. *White-Collar Government: The Hidden Role of Class in Economic Policy Making.* Chicago: University of Chicago Press.

Carnes, Nicholas, and Noam Lupu. 2015. "Rethinking the Comparative Perspective on Class and Representation: Evidence From Latin America." *American Journal of Political Science* 59 (1): 1–18.

———. 2023. "The economic backgrounds of politicians." *Annual Review of Political Science* 26.

Cattaneo, Matias D, and Rocio Titiunik. 2022. "Regression Discontinuity Designs." *Annual Review of Economics* 14:821–851.

Center for Responsive Politics. 2018. "Legislators' Net Worth - 2018 - Personal Finances." Accessed: 2022-01-27. Accessed January 27, 2022. https://www.opensecrets.org/personal-finances/top-net-worth.

Costa, Mia. 2021. "Ideology, not affect: What Americans want from political representation." *American Journal of Political Science* 65 (2): 342–358.

Dacin, M Tina, Kamal Munir, and Paul Tracey. 2010. "Formal dining at Cambridge colleges: Linking ritual performance and institutional maintenance." *Academy of Management Journal* 53 (6): 1393–1418.

Dahl, Robert A. 1971. *Polyarchy: Participation and opposition.* Yale University Press.

Daniele, Gianmarco, Gemma Dipoppa, and Massimo Pulejo. 2023. "Attacking Women or their Policies? Understanding Violence against Women in Politics." *SSRN,* .

Dennison, James. 2019. "A review of public issue salience: Concepts, determinants and effects on voting." *Political Studies Review* 17 (4): 436–446.

Devlin, Jacob, Ming-Wei Chang, Kenton Lee, and Kristina Toutanova. 2018. "Bert: Pre-Training of Deep Bidirectional Transformers for Language Understanding." *Arxiv Preprint Arxiv:1810.04805.*

Di Domenico, MariaLaura, and Nelson Phillips. 2009. "Sustaining the ivory tower: Oxbridge formal dining as organizational ritual." *Journal of Management Inquiry* 18 (4): 326–343.

Dickson, Zachary P. 2023. "CAP Multilingual Classification Model." Accessed January 27, 2022. .

Dinas, Elias, and Florian Foos. 2017. "The national effects of subnational representation: access to regional parliaments and national electoral performance." *Quarterly Journal of Political Science* 12 (1): 1–35.

Downs, Anthony. 1957. "An Economic Theory of Political Action in a Democracy." *Journal of Political Economy* 65 (2): 135–150.

Easterbrook, Matthew J, Toon Kuppens, and Antony SR Manstead. 2016. "The education effect: Higher educational qualifications are robustly associated with beneficial personal and socio-political outcomes." *Social Indicators Research* 126:1261–1298.

Elkjær, Mads Andreas. 2020. "What Drives Unequal Policy Responsiveness? Assessing the Role of Informational Asymmetries in Economic Policy-Making." *Comparative Political Studies* 53 (14): 2213–2245.

Elkjaer, Mads Andreas, and Michael Baggesen Klitgaard. 2021. "Economic Inequality and Political Responsiveness: A Systematic Review." *Perspectives on Politics* Forthcoming:1–20.

Elsässer, Lea, Svenja Hense, and Armin Schäfer. 2018. "Government of the People, by the Elite, for the Rich Unequal Responsiveness in an Unlikely Case." *MpIfG Discussion Paper 18/5,* MPIfG Discussion Paper.

———. 2021. "Not Just Money: Unequal Responsiveness in Egalitarian Democracies." *Journal of European Public Policy* 28 (12): 1890–1908.

Elsässer, Lea, and Armin Schäfer. 2022. "(N) one of us? The case for descriptive representation of the contemporary working class." *West European Politics* 45 (6): 1361–1384.

Enns, Peter K. 2015. "Relative Policy Support and Coincidental Representation." *Perspectives on Politics* 13 (4): 1053–1064.

Evans, Geoffrey, and James Tilley. 2017. *The New Politics of Class: The Political Exclusion of the British Working Class.* Oxford University Press, February.

Flavin, Patrick, and William W Franko. 2017. "Government'S Unequal Attentiveness to Citizens' Political Priorities." *The Policy Studies Journal* 45 (4): 659–687.

Geys, Benny, Z Murdoch, and RJ Sørensen. 2023. "Public Employees as Elected Politicians: Assessing Direct and Indirect Substantive Effects of Passive Representation." *Journal of Politics* Forthcoming.

Gilardi, Fabrizio, Theresa Gessler, Mael Kubli, and Stefan Muller. 2022. "Social media and political agenda setting." *Political Communication* 39 (1): 39–60.

Gilens, Martin. 2005. "Inequality and Democratic Responsiveness." *Public Opinion Quarterly* 69 (5): 778–796.

———. 2012. *Affluence and Influence: Economic Inequality and Political Power in America.* Princeton University Press: Princeton, NJ.

———. 2015. "Descriptive Representation, Money, and Political Inequality in the United States." *Swiss Political Science Review* 21 (2): 222–228.

Guillaud, Elvire. 2013. "Preferences for redistribution: an empirical analysis over 33 countries." *The Journal of Economic Inequality* 11:57–78.

Hansard. 2021. "Hansard - Official Reports of Debates in Parliament." https://hansard.parliament.uk/.

Heath, Oliver. 2015. "Policy representation, social representation and class voting in Britain." *British Journal of Political Science* 45 (1): 173–193.

———. 2018. "Policy alienation, social alienation and working-class abstention in Britain, 1964–2010." *British Journal of Political Science* 48 (4): 1053–1073.

Hoffman, Matthew D, and Andrew Gelman. 2014. "The No-U-Turn Sampler: Adaptively Setting Path Lengths in Hamiltonian Monte Carlo." *Journal of Machine Learning Research* 15 (1): 1593–1623.

Imbens, Guido W, and Thomas Lemieux. 2008. "Regression discontinuity designs: A guide to practice." *Journal of Econometrics* 142 (2): 615–635.

Klüver, Heike, and Jae-Jae Spoon. 2016. "Who Responds? Voters, Parties and Issue Attention." *British Journal of Political Science* 46 (3): 633–654.

Lee, David S. 2008. "Randomized experiments from non-random selection in U.S. House elections." The regression discontinuity design: Theory and applications, *Journal of Econometrics* 142 (2): 675–697. https://www.sciencedirect.com/science/article/pii/S0304407607001121.

LinkedIn API. https://www.linkedin.com. Accessed: October 17, 2023.

Lipset, Seymour Martin, and Reinhard Bendix. 1991. *Social mobility in industrial society.* Transaction Publishers.

Lupu, Noam, and Alejandro Tirado Castro. 2022. "Unequal policy responsiveness in Spain." *Socio-Economic Review.*

Manstead, Antony SR. 2018. "The psychology of social class: How socioeconomic status impacts thought, feelings, and behaviour." *British Journal of Social Psychology* 57 (2): 267–291.

Marshall, John. 2022. "Can close election regression discontinuity designs identify effects of winning politician characteristics?" *American Journal of Political Science* Forthcoming.

Mathisen, Ruben Berge, Wouter Schakel, Svenja Hense, Lea Elsässer, Mikael Persson, and Jonas Pontusson. 2021. "Unequal responsiveness and government partisanship in northwest Europe." *Université de Genève.*

Meltzer, Allan H, and Scott F Richard. 1981. "A Rational Theory of the Size of Government." *Journal of Political Economy* 89 (5): 914–927.

Nie, Norman H., Jane Junn, and Kenneth Stehlik-Barry. 1996. *Education and Democratic Citizenship in America.* Chicago: University of Chicago Press.

Nzabonimpa, Mélyne. 2023. "Gender differences in politician persistence and incumbency advantage." *European Journal of Political Economy* 79:102404. https://www.sciencedirect.com/science/article/pii/S0176268023000484.

O'Grady, Tom. 2019. "Careerists Versus Coalminers: Welfare Reforms and the Substantive Representation of Social Groups in the British Labour Party." *Comparative Political Studies* 52 (4): 544–578.

Pereira, Miguel M, and Patrik Öhberg. 2020. "The Expertise Curse: How Policy Expertise Can Hinder Responsiveness." Available at: osf.io/74kma, *OSF Preprints* (October).

Powell Jr., G Bingham. 2000. *Elections as Instruments of Democracy: Majoritarian and Proportional Visions.* Yale University Press.

Reay, Diane, Miriam E David, and Stephen J Ball. 2005. *Degrees of choice: Class, race, gender and higher education.* Trentham books.

Reher, Stefanie. 2016. "The effects of congruence in policy priorities on satisfaction with democracy." *Journal of elections, public opinion and parties* 26 (1): 40–57.

Saalfeld, Thomas. 2014. "Parliamentary questions as instruments of substantive representation: Visible minorities in the UK House of Commons, 2005–10." In *The roles and function of parliamentary questions,* 13–31. Routledge.

Salvatier, John, Thomas V Wiecki, and Christopher Fonnesbeck. 2016. "Probabilistic Programming in Python Using Pymc3." *Peerj Computer Science* 2.

Schakel, Wouter. 2021. "Unequal Policy Responsiveness in the Netherlands." *Socio-Economic Review* 19 (1): 37–57.

Schakel, Wouter, Brian Burgoon, and Armen Hakhverdian. 2020. "Real but Unequal Representation in Welfare State Reform." *Politics & Society* 48 (1): 131–163.

Schlozman, Kay Lehman, Sidney Verba, and Henry E Brady. 2012. *The Unheavenly Chorus.* Princeton University Press.

Shiner, Michael, and Philip Noden. 2015. "'Why are you applying there?':'race', class and the construction of higher education 'choice'in the United Kingdom." *British Journal of Sociology of Education* 36 (8): 1170–1191.

Sørensen, Rune J. 2023. "Educated politicians and government efficiency: Evidence from Norwegian local government." *Journal of Economic Behavior & Organization* 210:163–179. https://www.sciencedirect.com/science/article/pii/S0167268123001117.

Soroka, Stuart N, and Christopher Wlezien. 2010. *Degrees of Democracy: Politics, Public Opinion, and Policy.* Cambridge University Press.

Stimson, James A, Michael B MacKuen, and Robert S Erikson. 1995. "Dynamic Representation." *American Political Science Review* 89 (3): 543–565.

Stubbs, Joshua E, and Emily C Murphy. 2020. "'You got into Oxbridge?'Underrepresented students' experiences of an elite university in the south of England." *Higher Education Quarterly* 74 (4): 516–530.

The Sutton Trust. 2019. "Elitist Britain 2019." %7Bhttps://www.suttontrust.com/our-research/elitist-britain-2019/%7D.

———. 2022. "Nearly Two-Thirds of new Cabinet Attended Independent Schools and almost Half Attended Oxbridge," October. Accessed October 26, 2022. https://www.suttontrust.com/news-opinion/all-news-opinion/nearly-two-thirds-of-new-cabinet-attended-independent-schools-and-almost-half-attended-oxbridge/.

Traber, Denise, Miriam Hänni, Nathalie Giger, and Christian Breunig. 2021. "Social Status, Political Priorities and Unequal Representation." *European Journal of Political Research.*

———. 2022. "Social Status, Political Priorities and Unequal Representation." *European Journal of Political Research* 61 (2): 351–373.

Valentim, Vicente, and Elias Dinas. 2020. "Does Party-System Fragmentation Affect the Quality of Democracy?" *SSRN,*

.

Vrandečić, Denny, and Markus Krötzsch. 2014. "Wikidata: A Free Collaborative Knowledgebase." *Communications of the Acm* 57 (10): 78–85.

Walgrave, Stefaan, Stuart Soroka, Peter Loewen, Tamir Sheafer, and Karolin Soontjens. 2022. "Revisiting Elite Perceptions as Mediator of Elite Responsiveness to Public Opinion." *Political Studies* Forthcoming.

Warikoo, Natasha Kumar, and Christina Fuhr. 2014. "Legitimating Status: Perceptions of Meritocracy and Inequality Among Undergraduates at an Elite British University." *British Educational Research Journal* 40 (4): 699–717.

Wlezien, Christopher. 2005. "On the Salience of Political Issues: The Problem With 'Most Important Problem'." *Electoral Studies* 24 (4): 555–579.

Yildirim, Tevfik Murat. 2022. "Rethinking Women'S Interests: An Inductive and Intersectional Approach to Defining Women'S Policy Priorities." *British Journal of Political Science* 52 (3): 1240–1257.

YouGov. 2021. *The Most Important Issues Facing the Country.* https://yougov.co.uk/topics/education/trackers/the-most-important-issues-facing-the-country. Accessed: 2021-04-05.

Part I
Appendix

Table of Contents

A Descriptive Statistics for PCRD Dataset

Descriptive statistics for MP data for the PCRD close elections dataset. Unit of analysis is MP per issue per date.

	Issue Salience				Motions					Questions				
	mean	std	min	max	sum	mean	std	min	max	sum	mean	std	min	max
Issue														
Crime	0.16	0.06	0.06	0.33	166.0	0.06	0.34	0.0	6.0	594.0	0.22	0.91	0.0	19.0
Defence and security	0.10	0.06	0.00	0.32	210.0	0.08	0.40	0.0	5.0	1899.0	0.70	8.20	0.0	234.0
Education	0.13	0.03	0.08	0.26	218.0	0.08	0.37	0.0	4.0	1578.0	0.58	4.57	0.0	199.0
Health	0.46	0.10	0.28	0.74	478.0	0.18	0.78	0.0	10.0	2542.0	0.94	2.92	0.0	58.0
Housing	0.16	0.03	0.09	0.26	115.0	0.04	0.25	0.0	3.0	687.0	0.25	1.08	0.0	19.0
Immigration & Asylum	0.28	0.09	0.13	0.71	146.0	0.05	0.29	0.0	4.0	438.0	0.16	0.80	0.0	16.0
The economy	0.44	0.14	0.24	0.71	380.0	0.14	0.72	0.0	13.0	789.0	0.29	1.15	0.0	28.0
The environment	0.22	0.08	0.07	0.37	282.0	0.10	0.49	0.0	8.0	463.0	0.17	0.77	0.0	12.0
Transport	0.02	0.01	0.01	0.05	215.0	0.08	0.40	0.0	6.0	1288.0	0.48	1.60	0.0	25.0
Welfare benefits	0.12	0.04	0.08	0.30	293.0	0.11	0.49	0.0	6.0	519.0	0.19	0.72	0.0	10.0
Mean	0.21					0.09					0.40			

B Descriptive Statistics for Full Sample Dataset

	Issue salience				Motions					Questions				
	mean	std	min	max	sum	mean	std	min	max	sum	mean	std	min	max
Crime	0.16	0.06	0.06	0.33	4296.0	0.10	0.44	0.0	7.0	16061.0	0.38	2.38	0.0	137.0
Defence and security	0.10	0.06	0.00	0.32	7415.0	0.17	0.89	0.0	29.0	16693.0	0.39	3.05	0.0	234.0
Education	0.13	0.03	0.08	0.26	7365.0	0.17	0.75	0.0	16.0	21110.0	0.50	2.43	0.0	199.0
Health	0.45	0.10	0.28	0.74	12410.0	0.29	1.06	0.0	22.0	48464.0	1.14	3.97	0.0	134.0
Housing	0.16	0.03	0.09	0.26	3795.0	0.09	0.46	0.0	9.0	11985.0	0.28	1.36	0.0	51.0
Immigration & Asylum	0.29	0.10	0.13	0.71	3385.0	0.08	0.37	0.0	6.0	10169.0	0.24	1.18	0.0	74.0
The economy	0.42	0.14	0.24	0.71	14162.0	0.33	1.30	0.0	22.0	16913.0	0.40	1.39	0.0	47.0
The environment	0.21	0.08	0.07	0.37	5626.0	0.13	0.53	0.0	12.0	8700.0	0.20	1.08	0.0	55.0
Transport	0.02	0.01	0.01	0.05	6465.0	0.15	0.63	0.0	12.0	19880.0	0.47	1.83	0.0	57.0
Welfare benefits	0.12	0.04	0.08	0.30	9153.0	0.22	0.80	0.0	13.0	12863.0	0.30	1.29	0.0	74.0
Mean	0.21					0.17					0.43			

C Descriptive Statistics for Public Opinion Data

Table A1: Descriptive statistics for survey responses to "What is the most important problem facing the country?"

Issue	Count	Mean	Std.	Min	25%	50%	75%	Max
Crime	284.0	0.166549	0.064326	0.06	0.1175	0.15	0.2100	0.37
Defense and security	284.0	0.096972	0.061328	0.00	0.0600	0.09	0.1300	0.33
Education	284.0	0.132324	0.034388	0.07	0.1100	0.13	0.1425	0.27
Health	284.0	0.453803	0.102896	0.28	0.3700	0.44	0.5225	0.75
Housing	284.0	0.157500	0.032706	0.08	0.1400	0.16	0.1800	0.26
Immigration & Asylum	284.0	0.279683	0.089187	0.11	0.2200	0.26	0.3100	0.71
The economy	284.0	0.426725	0.144375	0.22	0.2800	0.42	0.5500	0.74
The environment	284.0	0.216549	0.084482	0.07	0.1200	0.24	0.2800	0.40
Transport	284.0	0.024683	0.010308	0.01	0.0200	0.02	0.0300	0.08
Welfare benefits	284.0	0.117007	0.036205	0.06	0.1000	0.11	0.1300	0.31

D Close Election Balance – PRCD Design

The following table presents balance statistics for Oxbridge and non-Oxbridge candidates in close elections.

		Non-Oxbridge		Oxbridge			
		Mean	Std. Dev.	Mean	Std. Dev.	Diff. in Means	Std. Error
Votes received		20196.9	4549.9	21055.6	4587.3	858.8	531.1
Vote share		0.4	0.1	0.4	0.1	0.0	0.0
		N	Pct.	N	Pct.		
Party	Conservative	70	47.3	69	46.6		
	Democratic Unionist Party	0	0.0	3	2.0		
	Green	1	0.7	0	0.0		
	Labour	61	41.2	63	42.6		
	Liberal Democrat	11	7.4	11	7.4		
	Plaid Cymru	1	0.7	1	0.7		
	Sinn Fein	3	2.0	0	0.0		
	UK Independence Party	1	0.7	1	0.7		
Gender	Female	45	30.4	44	29.7		
	Male	103	69.6	104	70.3		

E Classification Validation: Questions

For classification of all questions and EDMs, I use a large language model trained on over 100k annotated political texts to predict the corresponding issue of the text (Dickson 2023). For validation, I annotated a random sample of 1000 texts and then compared the model's predictions to the annotated labels. The results of the validation are presented in Figure A1 as a confusion matrix and in Table A2 as a multi-label classification report.

Figure A1: Confusion Matrix: Predicted vs. Annotated Issue Issue

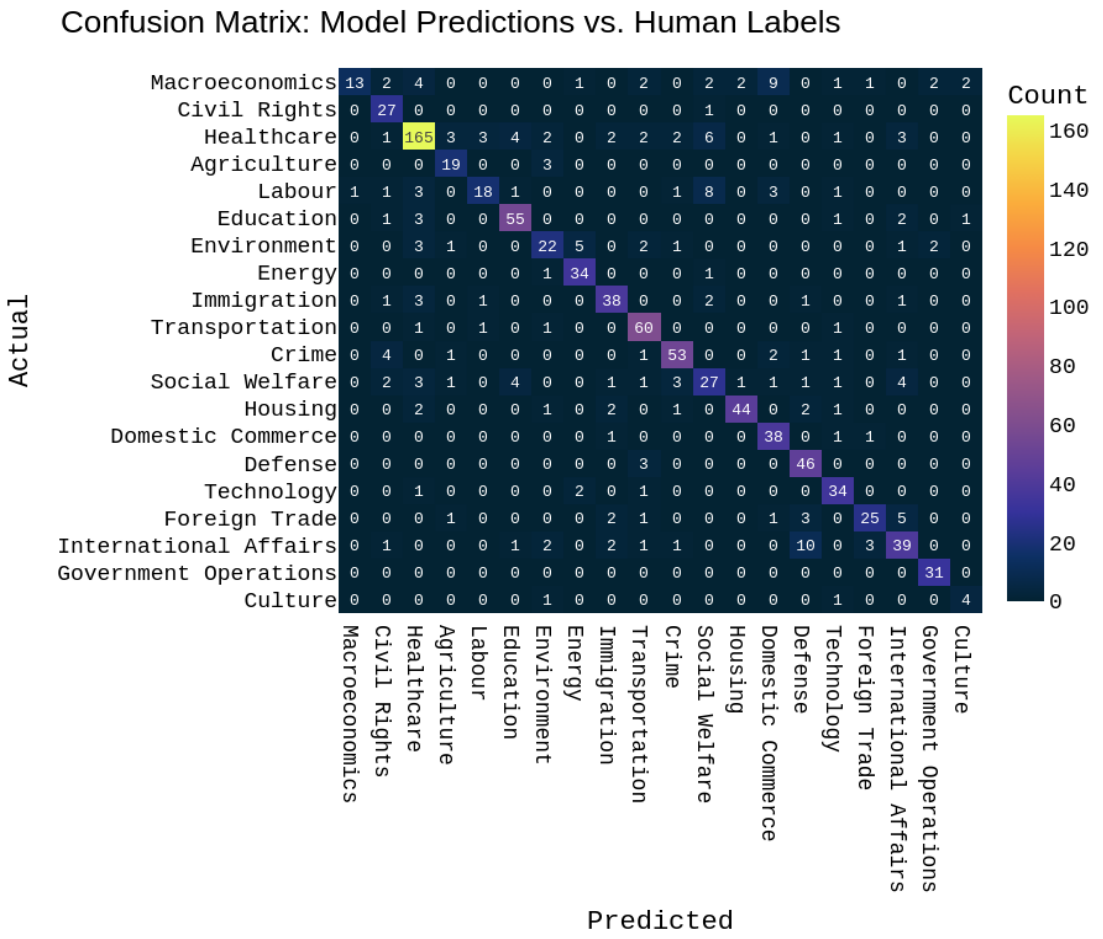


Table A2: Classification Results: Questions

Label	Precision (%)	Recall (%)	F1-Score (%)	Support
Macroeconomics	0.93	0.32	0.47	41
Civil Rights	0.68	0.96	0.79	28
Healthcare	0.88	0.85	0.86	195
Agriculture	0.73	0.86	0.79	22
Labour	0.78	0.49	0.60	37
Education	0.85	0.87	0.86	63
Environment	0.67	0.59	0.63	37
Energy	0.81	0.94	0.87	36
Immigration	0.79	0.81	0.80	47
Transportation	0.81	0.94	0.87	64
Crime	0.85	0.83	0.84	64
Social Welfare	0.57	0.54	0.56	50
Housing	0.94	0.83	0.88	53
Domestic Commerce	0.69	0.93	0.79	41
Defense	0.72	0.94	0.81	49
Technology	0.77	0.89	0.83	38
Foreign Trade	0.83	0.66	0.74	38
International Affairs	0.70	0.65	0.67	60
Government Operations	0.89	1.00	0.94	31
Culture	0.57	0.67	0.62	6
Accuracy				0.79
Macro avg	0.77	0.78	0.76	1000
Weighted avg	0.80	0.79	0.78	1000

F Classification Validation: Motions

The same procedure was followed to classify all motions. I annotated a random sample of 1,000 motions and then compared the model's predictions to the annotated motions. The results of the validation are presented in Figure A2 as a confusion matrix and in Table A3 as a multi-label classification report.

Figure A2: Confusion Matrix: Predicted vs. Annotated Issue

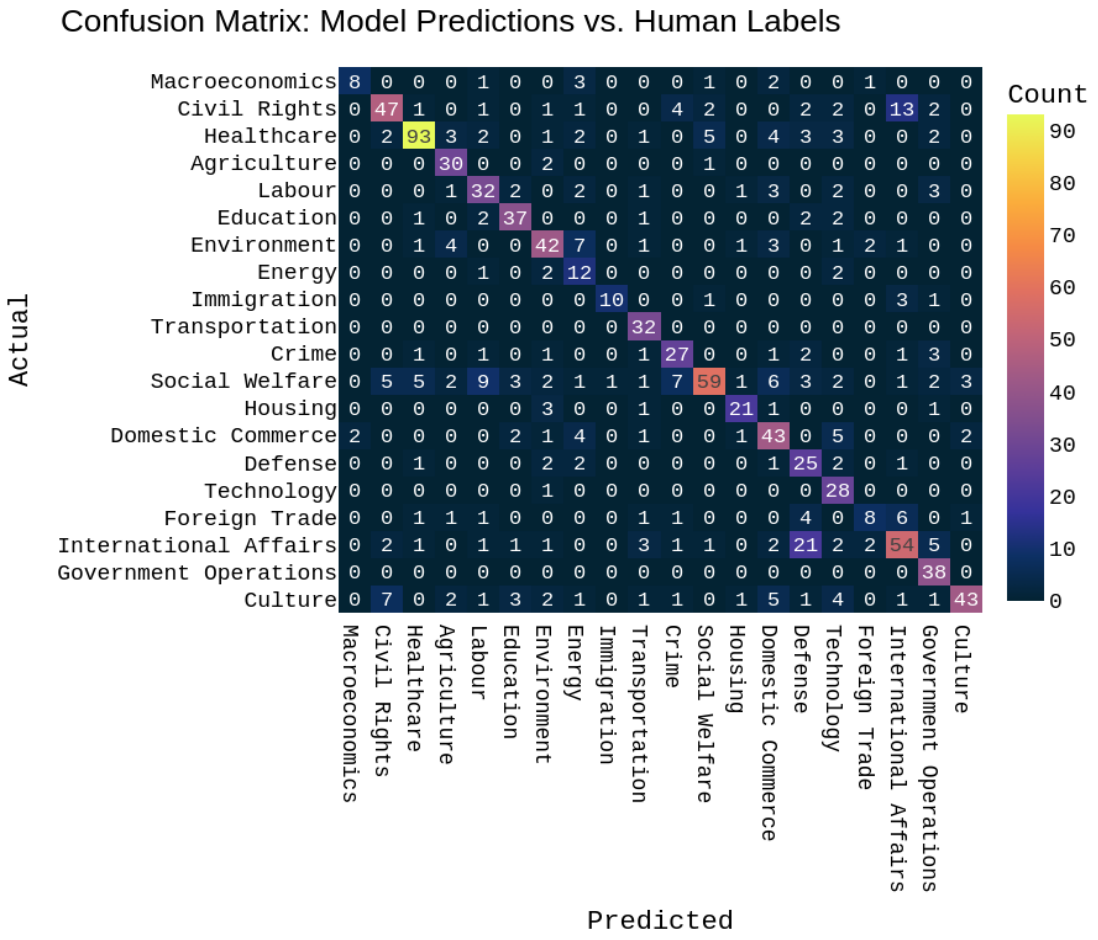


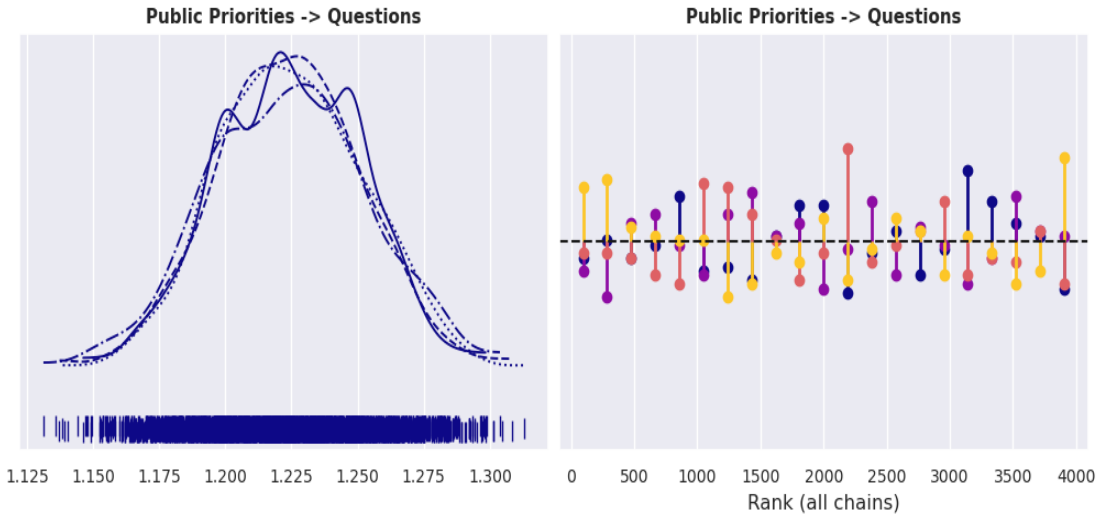
Table A3: Classification Results: Motions

Label	Precision (%)	Recall (%)	F1-Score (%)	Support
Macroeconomics	0.80	0.50	0.62	16
Civil Rights	0.75	0.62	0.68	76
Healthcare	0.89	0.77	0.82	121
Agriculture	0.70	0.91	0.79	33
Labour	0.62	0.68	0.65	47
Education	0.77	0.82	0.80	45
Environment	0.69	0.67	0.68	63
Energy	0.34	0.71	0.46	17
Immigration	0.91	0.67	0.77	15
Transportation	0.71	1.00	0.83	32
Crime	0.66	0.71	0.68	38
Social Welfare	0.84	0.52	0.64	113
Housing	0.81	0.78	0.79	27
Domestic Commerce	0.61	0.70	0.65	61
Defense	0.40	0.74	0.52	34
Technology	0.51	0.97	0.67	29
Foreign Trade	0.62	0.33	0.43	24
International Affairs	0.67	0.56	0.61	97
Government Operations	0.66	1.00	0.79	38
Culture	0.88	0.58	0.70	74
Accuracy				0.69
Macro avg	0.69	0.71	0.68	1000
Weighted avg	0.73	0.69	0.69	1000

G Results for Parliamentary Responsiveness

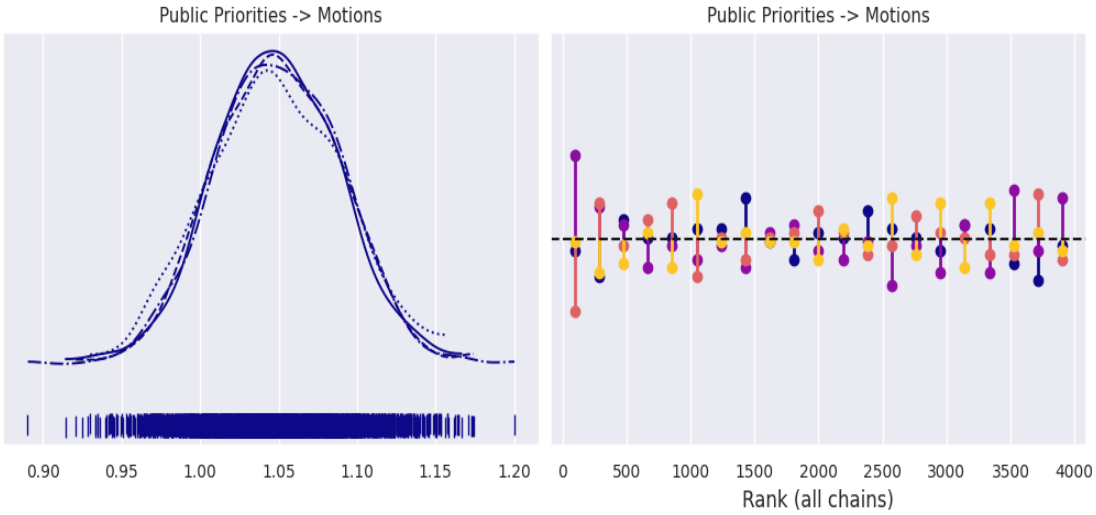
The following results are from the first regressions in which I estimate responsiveness to public priorities without the interaction between Oxbridge and public priorities. The posterior plot traces are followed by the results in table form.

Figure A3: Aggregate Parliamentary Responsiveness to Public Issue Priorities via Questions in the House of Commons



Note: Posterior plot trace for the effect of public priorities on parliamentary responsiveness via Early Day Motions.

Figure A4: Aggregate Parliamentary Responsiveness to Public Issue Priorities via Motions in the House of Commons



Note: Posterior plot trace for the effect of public priorities on parliamentary responsiveness via Early Day Motions.

Table A4: Parliamentary Responsiveness via Questions – Bayesian Hierarchical Models

	Mean	Std.	HDI 3%	HDI 97%	MCSE μ	MCSE σ	ESS bulk	ESS tail	$\hat{r}$
Intercept	-3.257	0.229	-3.683	-2.839	0.021	0.015	121.0	369.0	1.04
Public Priorities	1.205	0.028	1.146	1.253	0.000	0.000	6046.0	2458.0	1.01
Oxbridge	-0.090	0.143	-0.333	0.188	0.025	0.018	33.0	34.0	1.09
MP Party	0.224	0.027	0.177	0.272	0.005	0.003	34.0	129.0	1.09
MP Gender (Male)	-0.111	0.116	-0.328	0.086	0.026	0.018	21.0	58.0	1.14
Time	0.005	0.000	0.005	0.005	0.000	0.000	3450.0	3363.0	1.00
Incumbency (first-time MP)	-0.210	0.010	-0.228	-0.191	0.000	0.000	3430.0	3520.0	1.00
Issue σ	0.532	0.157	0.289	0.814	0.005	0.004	788.0	1556.0	1.01
MP σ	1.442	0.046	1.351	1.525	0.004	0.003	125.0	297.0	1.01

Table A5: Parliamentary Responsiveness via Motions – Bayesian Hierarchical Models

	Mean	Std.	HDI 3%	HDI 97%	MCSE μ	MCSE σ	ESS bulk	ESS tail	$\hat{r}$
Intercept	-8.739	0.378	-9.411	-8.026	0.031	0.022	148.0	488.0	1.03
Public Priorities	1.049	0.040	0.972	1.122	0.000	0.000	6739.0	2915.0	1.00
Oxbridge	-1.124	0.300	-1.660	-0.554	0.028	0.020	120.0	357.0	1.06
MP Party	0.922	0.048	0.831	1.008	0.004	0.003	138.0	387.0	1.04
MP Gender (Male)	0.173	0.266	-0.318	0.651	0.047	0.033	33.0	133.0	1.10
Time	-0.010	0.000	-0.011	-0.010	0.000	0.000	4580.0	2574.0	1.00
Incumbency (first-time MP)	0.164	0.013	0.140	0.189	0.000	0.000	5252.0	2625.0	1.00
Issue σ	0.531	0.150	0.298	0.805	0.005	0.004	647.0	1232.0	1.01
MP σ	2.606	0.111	2.409	2.826	0.009	0.006	169.0	350.0	1.03

H Model Priors for Bayesian Models

The following provides model details and prior assumptions for the Bayesian hierarchical models. The models are estimated using the `PyMC3` library in Python (Salvatier, Wiecki, and Fonnesbeck 2016). The models are estimated using the No-U-Turn Sampling (NUTS) (Hoffman and Gelman 2014). The priors are minimally informative.

H.1 Priors for Full Close Elections Model

Formula:	$\text{Questions/Motions} \sim 1 + \text{Oxbridge} + \text{PublicIssuePriorities}$
	$+ \text{Oxbridge} \times \text{PublicIssuePriorities} +$
	$\text{ElectoralMargin}^4 + \gamma_{00}\text{MP} + \gamma_{01}\text{IssueDomain}$
Family:	Poisson
Link:	$\mu = \log$
Observations:	$26,990$
Priors:	
	$\text{Target} = \mu$
Common-level effects:	
	$\text{Intercept} \sim \text{Normal}(\mu : 0.0, \sigma : 10.0)$
	$\text{PublicIssuePriorities} \sim \text{Normal}(\mu : 0.0, \sigma : 20.0)$
	$\text{Oxbridge} \sim \text{Normal}(\mu : 0.0, \sigma : 10.0)$
	$\text{PublicIssuePriorities} : \text{Oxbridge} \sim \text{Normal}(\mu : 0.0, \sigma : 20.0)$
	$\text{ElectoralMargin}^4 \sim \text{Normal}(\mu : 0.0, \sigma : 20.0)$
Group-level effects:	
	$\text{Intercept}\|\text{IssueDomain} \sim \text{Normal}(\mu : 0.0, \sigma : \text{HalfNormal}(\sigma : 10.0))$
	$\text{Intercept}\|\text{MP} \sim \text{Normal}(\mu : 0.0, \sigma : \text{HalfNormal}(\sigma : 10.0))$

H.2 Priors for Full Sample Model

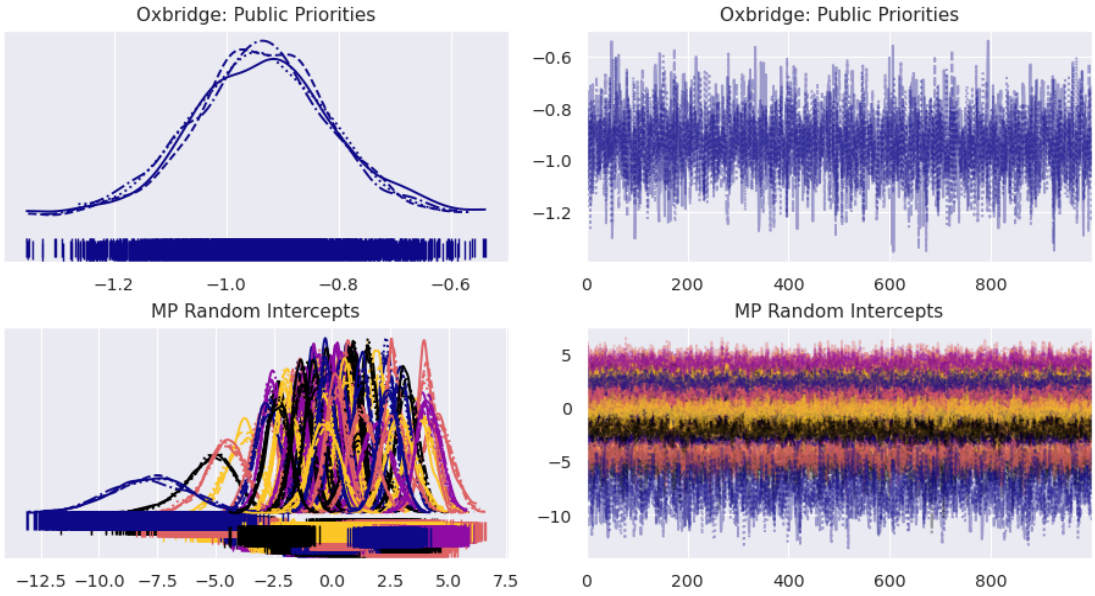
Formula:	Questions/Motions $\sim 1 +$ Oxbridge
	$+$ PublicIssuePriorities $+$ PublicIssuePriorities$\times$
	Oxbridge $+$ Party $+$ Gender $+$ Incumbent $+$ Time
	$+ \gamma_{00}$MP $+ \gamma_{01}$IssueDomain
Family:	Poisson
Link:	$\mu = \log$
Observations:	$424,840$
Priors:	
	Target $= \mu$
Common-level effects	
	Intercept $\sim$ Normal$(\mu : 0.0, \sigma : 10.0)$
	PublicIssuePriorities $\sim$ Normal$(\mu : 0.0, \sigma : 20.0)$
	Oxbridge $\sim$ Normal$(\mu : 0.0, \sigma : 10.0)$
	PublicIssuePriorities : Oxbridge $\sim$ Normal$(\mu : 0.0, \sigma : 30.0)$
	Party $\sim$ Normal$(\mu : 0.0, \sigma : 10.0)$
	Gender $\sim$ Normal$(\mu : 0.0, \sigma : 10.0)$
	Incumbent $\sim$ Normal$(\mu : 0.0, \sigma : 10.0)$
Group-level effects	
	Intercept|IssueDomain $\sim$ Normal$(\mu : 0.0, \sigma :$ HalfNormal$(\sigma : 10.0))$
	Intercept|MP $\sim$ Normal$(\mu : 0.0, \sigma :$ HalfNormal$(\sigma : 10.0))$

I Bayesian Results from Close Elections

The following results are from the Bayesian hierarchical models estimated on the close elections sample. Priors for the models are presented in Appendix H. The models are estimated using the No-U-Turn Sampling (NUTS) (Hoffman and Gelman 2014). The priors are minimally informative.

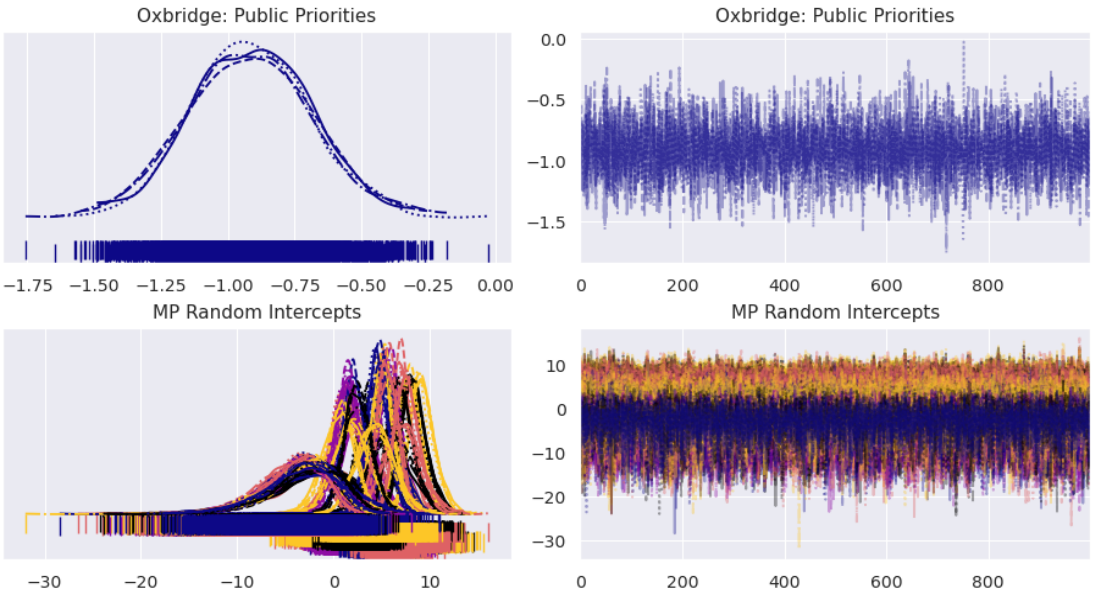
Note: The exact point estimates may differ slightly from the point estimates presented in the main results. This is the result of estimating the same models multiple times.

Figure A5: Close Elections: Parliamentary Responsiveness to Public Issue Priorities via Questions



Note: Posterior plot trace for the effect of public priorities on Oxbridge MPs' responsiveness via Questions. The second row plots the intercepts for each MP. Full results in table form are available in Appendix I.

Figure A6: Close Elections: Parliamentary Responsiveness to Public Issue Priorities via Motions



Note: Posterior plot trace for the effect of public priorities on Oxbridge MPs' responsiveness via Early Day Motions. The second row plots the intercepts for each MP. Full results in table form are available in Appendix I.

Table A6: Parliamentary Responsiveness in Close Elections via Questions – Bayesian Hierarchical Models

	Mean	Std.	HDI 3%	HDI 97%	MCSE μ	MCSE σ
Intercept	5.208000	1.771000	1.910000	8.497000	0.049000	0.035000
Public Priorities	1.444000	0.165000	1.124000	1.748000	0.003000	0.002000
Oxbridge	0.100000	0.560000	-0.956000	1.170000	0.021000	0.016000
Oxbridge × Public Priorities	-0.938000	0.124000	-1.174000	-0.696000	0.002000	0.001000
$f(Electoralmargin = 1)$	-17.471000	2.146000	-21.555000	-13.566000	0.056000	0.040000
$f(Electoralmargin = 2)$	-2.887000	1.696000	-5.949000	0.431000	0.053000	0.037000
$f(Electoralmargin = 3)$	-7.385000	1.782000	-10.744000	-4.111000	0.053000	0.038000
$f(Electoralmargin = 4)$	-7.055000	1.734000	-10.257000	-3.771000	0.053000	0.037000
Issue sigma	0.749000	0.215000	0.415000	1.126000	0.006000	0.004000
MP sigma	2.329000	0.230000	1.907000	2.764000	0.008000	0.006000

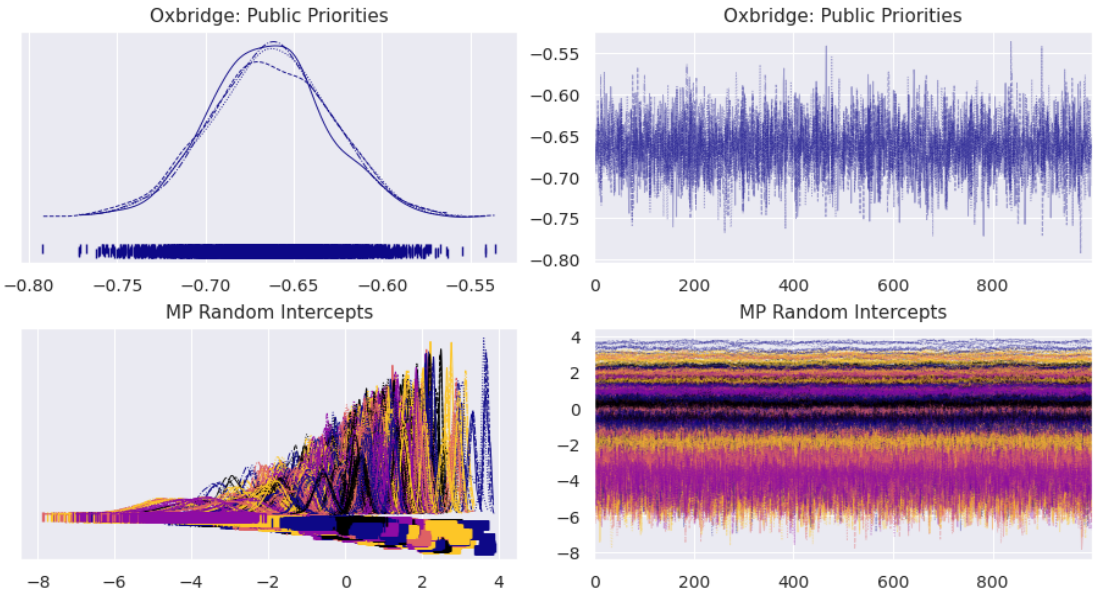
Table A7: Parliamentary Responsiveness in Close Elections via Motions – Bayesian Hierarchical Models

	Mean	Std.	HDI 3%	HDI 97%	MCSE μ	MCSE σ
Intercept	-9.156000	4.377000	-17.561000	-1.201000	0.131000	0.093000
Public Priorities	2.283000	0.262000	1.811000	2.793000	0.004000	0.003000
Oxbridge	-1.311000	1.488000	-4.185000	1.472000	0.070000	0.050000
Oxbridge × Public Priorities	-0.914000	0.226000	-1.320000	-0.462000	0.003000	0.002000
$f(Electoralmargin = 1)$	3.473000	7.226000	-10.850000	16.487000	0.193000	0.136000
$f(Electoralmargin = 2)$	3.248000	4.096000	-4.716000	10.686000	0.126000	0.089000
$f(Electoralmargin = 3)$	-1.454000	4.622000	-10.150000	7.311000	0.130000	0.092000
$f(Electoralmargin = 4)$	2.608000	4.203000	-5.456000	10.477000	0.122000	0.086000
Issue sigma	0.414000	0.123000	0.234000	0.636000	0.003000	0.002000
MP sigma	5.246000	0.855000	3.635000	6.749000	0.029000	0.021000

J Bayesian Results from Full Sample

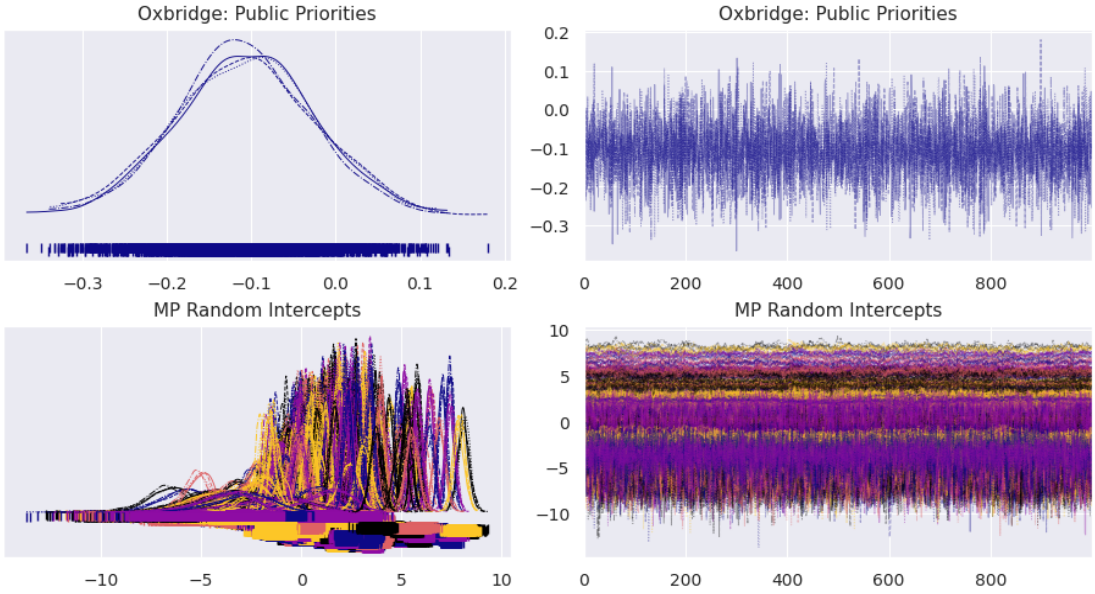
The following results include the full regression results from the full sample models. The results are also presented in table format below the plot traces. Priors for the models are presented in Appendix H. The models are estimated using the No-U-Turn Sampling (NUTS) (Hoffman and Gelman 2014). The priors are minimally informative.

Figure A7: Parliamentary Responsiveness to Public Issue Priorities via Questions in the House of Commons



Note: Posterior plot trace for the effect of public priorities on Oxbridge MPs' responsiveness via Early Day Motions. The second row plots the intercepts for each MP. Models include party affiliation, incumbency and gender of MP. Full results in table form are available in Appendix J.

Figure A8: Parliamentary Responsiveness to Public Issue Priorities via Motions in the House of Commons



Note: Posterior plot trace for the effect of public priorities on Oxbridge MPs' responsiveness via Early Day Motions. The second row plots the intercepts for each MP. Models include party affiliation, incumbency and gender of MP. Full results in table form are available in Appendix J.

Table A8: Parliamentary Responsiveness via Motions – Bayesian Hierarchical Questions – Full Sample

	Mean	Std.	HDI 3%	HDI 97%	MCSE μ	MCSE σ
Intercept	-3.092	0.242	-3.544	-2.623	0.064	0.047
Public Priorities	1.577	0.028	1.527	1.630	0.000	0.000
Oxbridge	0.016	0.135	-0.231	0.274	0.034	0.024
Oxbridge × Public Priorities	-0.663	0.034	-0.724	-0.598	0.000	0.000
Party	0.216	0.028	0.167	0.267	0.010	0.008
Gender: Male	-0.166	0.119	-0.365	0.085	0.033	0.024
Incumbency (first-time MP)	-0.209	0.010	-0.227	-0.189	0.000	0.000
Issue Domain sigma	0.544	0.163	0.303	0.848	0.007	0.005
MP sigma	1.433	0.043	1.354	1.518	0.005	0.003

Table A9: Parliamentary Responsiveness via Questions – Bayesian Hierarchical Models – Full Sample

	Mean	Std.	HDI 3%	HDI 97%	MCSE μ	MCSE σ
Intercept	-9.003	0.421	-9.781	-8.182	0.101	0.073
Public Priorities	0.461	0.042	0.379	0.539	0.001	0.000
Oxbridge	-1.135	0.285	-1.668	-0.612	0.024	0.017
Oxbridge × Public Priorities	-0.108	0.081	-0.260	0.047	0.001	0.001
Party	0.909	0.052	0.800	1.002	0.011	0.008
Gender: Male	0.112	0.277	-0.374	0.634	0.081	0.059
Incumbency (first-time MP)	0.164	0.013	0.138	0.188	0.000	0.000
Issue Domain sigma	0.544	0.161	0.299	0.841	0.005	0.004
MP sigma	2.595	0.107	2.411	2.810	0.009	0.006

K Frequentist MLE Hierarchical Models

This section replicates each of the analyses using frequentist maximum likelihood estimation with hierarchical models. These models use the same specifications as the Bayesian hierarchical models. Table A10 presents estimates of aggregate parliamentary responsiveness. The model includes random intercepts for issue domain and MP. Table A11 presents estimates for the close elections data. The model includes random intercepts for issue domain and MP. The models are labelled accordingly.

Table A10: Frequentist MLE Hierarchical Models – Without Interaction

	Questions	Motions
	(1)	(2)
(Intercept)	-0.805	-0.631
	(1.396)	(0.258)
Public Priorities	1.206***	1.055***
	(0.028)	(0.040)
Oxbridge	-0.143	-0.814***
	(0.141)	(0.296)
Incumbency (first-time MP)	-0.211***	0.163***
	(0.010)	(0.012)
Time	0.005***	-0.010***
	(0.000)	(0.000)
Party: Birkenhead Social Justice Party	-0.417	0.788
	(1.956)	(0.597)
Party: Conservative	-1.933	−6.415***
	(1.386)	(0.262)
Party: Democratic Unionist Party	-0.019	−0.616
	(1.467)	(0.571)
Party: Green	1.050	1.376**
	(1.955)	(0.563)
Party: Independent	-2.367	−11.217***
	(1.711)	(1.472)
Party: Labour	-0.547	−2.548***
	(1.386)	(0.257)
Party: Liberal Democrat	-0.436	−1.104**
	(1.440)	(0.440)
Party: Plaid Cymru	-0.018	−0.762
	(1.547)	(0.498)
Party: Scottish National Party	-1.119	0.128
	(1.401)	(0.364)
Party: Sinn Fein	-1.460	−0.128
	(1.958)	(0.583)
Party: Ulster Unionist Party	-0.734	0.672
	(1.956)	(0.583)
MP sigma	1.381822	2.3745
Issue sigma.	0.588196	0.3915
Issue Domain groups	10	10
MP groups	617	617
Estimator	MLM	MLM
Likelihood	Poisson	Poisson
Observations	424840	424840
Log Likelihood	-395314.7	-130193.1
AIC	634659.9	260422.3
BIC	790665.5	260619.5

Table A11: Frequentist MLE Hierarchical Models – Close Elections

	Questions	Motions
	(1)	(2)
(Intercept)	−3.499***	−7.574***
	(0.411)	(0.976)
Oxbridge × Public Priorities	−1.015***	−0.917***
	(0.123)	(0.229)
Oxbridge	0.054	−1.475
	(0.488)	(1.439)
Public Priorities	1.699***	2.264***
	(0.165)	(0.257)
$f(margin, degree = 1)$	30.124	−118.451
	(27.525)	(90.682)
$f(margin, degree = 3)$	−8.861	32.450
	(25.535)	(91.207)
$f(margin, degree = 3)$	−127.874***	103.184
	(19.993)	(114.183)
$f(margin, degree = 4)$	120.991***	7.049
	(15.534)	(90.956)
Time	0.022***	−0.010***
	(0.001)	(0.002)
MP sigma	2.018	4.856
Issue sigma	0.626	0.342
Num.Obs.	26 990	26 990
R2 Marg.	0.182	0.052
R2 Cond.	0.733	0.714
AIC	48 992.8	9234.3
BIC	49 083.0	9324.5
ICC	0.7	0.7
RMSE	3.06	0.37

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Table A12: Frequentist MLE Hierarchical Models – Full Sample

	Questions (1)	Motions (2)
(Intercept)	−1.142***	−0.517
	(0.338)	(2.437)
Oxbridge × Public Priorities	−0.606***	−0.114
	(0.035)	(0.087)
Oxbridge	0.020	−0.954**
	(0.144)	(0.291)
Public Priorities	1.402***	1.121***
	(0.030)	(0.046)
Party: Birkenhead Social Justice Party	−0.401	0.163
	(1.038)	(3.425)
Party: Conservative	−2.133***	−6.691**
	(0.312)	(2.430)
Party: Democratic Unionist Party	−0.720	−0.711
	(0.556)	(2.572)
Party: Green	1.324+	0.997
	(0.715)	(3.433)
Party: Independent	−2.795***	−15.110
	(0.576)	(150.301)
Party: Labour	−0.819**	−2.676
	(0.316)	(2.431)
Party: Liberal Democrat	−0.768+	−1.103
	(0.454)	(2.529)
Party: Plaid Cymru	0.247	−0.705
	(0.414)	(2.720)
Party: Scottish National Party	−1.200***	−0.067
	(0.360)	(2.454)
Party: Sinn Fein	−1.283	−0.167
	(1.316)	(3.434)
Party: Ulster Unionist Party	−0.723	0.253
	(0.734)	(3.425)
Gender: Male	0.011	0.207
	(0.125)	(0.241)
Incumbency (first-time MP)	-0.210***	0.169***
	(0.010)	(0.013)
Time	0.007***	−0.011***
	(0.000)	(0.000)
MP sigma	1.411	2.421
Issue sigma	0.429	0.382
Estimator	MLM	MLM
Num.Obs.	391 360	391 360
R2 Marg.	0.109	0.359
R2 Cond.	0.563	0.696
AIC	727 809.4	233 356.0
BIC	728 016.1	233 562.7
ICC	0.5	0.5
RMSE	2.06	0.60

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Note: Models use random intercepts for issue domain and MP. Observations are dropped in the case that they cannot be estimated. This is due to zero values in the outcome variable due to the fact that some MPs do not put forward any motions or questions on a given issue or for a given time period.

L Fixed Effects Estimates

In this section, I replicate the main analysis using fixed effects regressions. For the first strategy using the PCRD design, I estimate the following regression using the MPs who were elected by a close margin in one of the three UK General Elections:

$$\begin{aligned} \mathrm{Y}_{i,j,t} = \tau_t + \phi_c + \zeta_j + \beta \mathrm{Oxbridge}_i \times \mathrm{PublicIssuePriorities}'_{j,t} + \gamma f(\mathrm{OxbridgeMargin})_{i,t} \\ + \lambda[(\mathrm{Oxbridge} \times \mathrm{PublicIssuePriorities}'_j) \times \mathrm{OxbridgeMargin}]_{i,t} + \epsilon_{i,j,t} \end{aligned}$$

Where Y is the number of either questions or EDMs for MP i that address issue j at time t. $\mathrm{Oxbridge}_{it}$ is a binary variable that equals 1 if MP i attended Oxford or Cambridge and 0 otherwise, Margin_{it} is the margin of victory, with a cutoff of 0, and $(\mathrm{Oxbridge} \times \mathrm{PublicIssuePriorities}'_j \times \mathrm{OxbridgeMargin})_{i,t}$ is the interaction between public issue priorities, Oxbridge attendance, and the margin of victory. τ, ϕ and ζ are fixed effects for time, constituency and issue, respectively.

The parameter of interest is β, which captures the effect of electing an Oxbridge MP in a close election on responsiveness to public issue priorities. In other words, β estimates the difference between an Oxbridge MP and a non-Oxbridge MP in close elections, which amounts to the average difference in responsiveness to dynamic public issue priorities across each of the 10 issues.

For the full sample estimations, I rely on fixed-effects regressions using the full sample of MPs in the House of Commons. The effect of education is not identified in these models, but the estimates serve to describe the difference in responsiveness between Oxbridge-educated MPs and MPs educated elsewhere. The regressions are formalized in the following:

$$\mathrm{Y}_{i,j,t} = \tau_t + \phi_c + \zeta_j + \mathrm{Oxbridge}_i + \mathrm{PublicIssuePriorities}'_{j,t} + \beta \mathrm{Oxbridge}_i \times \mathrm{PublicIssuePriorities}'_{j,t} + \theta X'_{i,j,t} + \epsilon_{i,t}$$

Where Y is the number of questions or early day motions put forward for issue j at time t. β captures responsiveness to issue j by interacting MPs' education background ($Oxbridge = 1$) with a repeated vector of public issue priorities that is matched by issue and time with the outcome variable. τ, ϕ and ζ are fixed effects for time, constituency and issue, respectively.

L.1 Fixed Effects Results

Following the same format as the main analysis, the first set of results (Table A13) display aggregate parliamentary responsiveness. The second estimations include the close elections sample (Table A14). The third estimations include the full sample of MPs (Table A15). In all fixed effects models, observations are lost in the case that no outcomes are observed for parameters with fixed effects. In the aggregate data models, I also include OLS models with logged outcomes and inverse hyperbolic sine transformations. The results are consistent across all models. This approach is not taken for the other models given the frequency of zero values.

Table A13: Parliamentary Responsiveness to Public Issue Priorities Without Interaction – Fixed Effects Models

	EDMs Count Poisson	EDMs Log+1 OLS	EDMs InvHSin OLS	Questions Count Poisson	Questions Log+1 OLS	Questions InvHSin OLS
Public Issue Priorities	0.732***	0.047***	0.062***	0.988***	0.171***	0.218***
	(0.085)	(0.006)	(0.008)	(0.086)	(0.009)	(0.011)
FE: Issue domain	X	X	X	X	X	X
FE: Time	X	X	X	X	X	X
Num.Obs.	390 050	424 840	424 840	413 270	424 840	424 840
R2	0.067	0.032	0.032	0.087	0.046	0.046
R2 Adj.	0.067	0.032	0.032	0.087	0.046	0.046
R2 Within	0.001	0.000	0.000	0.002	0.001	0.001
R2 Within Adj.	0.001	0.000	0.000	0.002	0.001	0.001
AIC	445 909.1	182 380.3	398 750.9	979 105.7	522 487.8	727 369.2
BIC	446 931.2	183 498.1	399 868.8	980 187.9	523 605.7	728 487.0
RMSE	0.80	0.30	0.39	2.21	0.45	0.57

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Note: Standard errors are clustered by time and are presented in parentheses. Observations are removed in the case that no outcomes are observed for fixed effects estimations. Time-invariant factors (gender, party etc.) are not included.

Table A14: Responsiveness to Issue Priorities in Close Elections – Fixed Effects Models

	Questions (1)	Motions (2)
Oxbridge × Public Priorities	−0.950**	−0.979***
	(0.315)	(0.216)
Public Priorities	1.567***	2.158***
	(0.405)	(0.441)
$f(margin, degree = 1)$	−2858.878**	−4977.408**
	(1009.456)	(1627.194)
$f(margin, degree = 2)$	2766.829**	3769.406**
	(976.203)	(1255.486)
$f(margin, degree = 3)$	−1692.787**	
	(552.405)	
$f(margin, degree = 4)$	681.674**	
	(198.492)	
FE: Constituency	X	X
FE: Issue	X	X
FE: Time	X	X
Num.Obs.	23 380	9000
R2	0.350	0.430
R2 Adj.	0.346	0.412
R2 Within	0.427	0.008
R2 Within Adj.	0.427	0.007
AIC	43 532.0	7736.0
BIC	44 821.5	8567.3
RMSE	3.20	0.56

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Note: Standard errors are clustered by time and are presented in parentheses. Observations are removed in the case that no outcomes are observed for fixed effects estimations. All models include fixed effects for Constituency, Issue, and Time. Models use a Poisson likelihood.

Table A15: Responsiveness to Issue Priorities in Full Sample – Fixed Effects Models

	Questions (1)	Motions (2)
Public Priorities	1.201***	0.778***
	(0.163)	(0.069)
Oxbridge × Public Priorities	−0.601+	−0.129
	(0.344)	(0.251)
FE: Constituency	X	X
FE: Issue	X	X
FE: Time	X	X
Num.Obs.	373 860	246 850
R2	0.314	0.440
R2 Adj.	0.313	0.438
R2 Within	0.002	0.002
R2 Within Adj.	0.002	0.002
AIC	680 778.4	209 917.5
BIC	688 393.0	214 854.9
RMSE	2.08	0.70

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Note: Standard errors are clustered by time and are presented in parentheses. Observations are removed in the case that no outcomes are observed for fixed effects estimations. All models include fixed effects for Constituency, Issue, and Time. Models use a Poisson likelihood.

M Participation Differences by Oxbridge MPs

The following results do not take into consideration public policy priorities and are only meant to show differences in participation (e.g. the number of questions/motions raised) from MPs in House of Commons.

Table A16: Participation Differences by Oxbridge MPs

	Questions (1)	Motions (2)
(Intercept)	1.591	2.049
	(1.208)	(2.407)
Oxbridge	−0.103	−0.719**
	(0.159)	(0.265)
Gender: Male	0.133	0.387+
	(0.140)	(0.230)
Party: Birkenhead Social Justice Party	−0.670	0.548
	(2.237)	(3.406)
Party: Conservative	−2.016	−5.380*
	(1.588)	(2.419)
Party: Democratic Unionist Party	−0.157	0.145
	(1.680)	(2.562)
Party: Green	1.978	2.356
	(2.241)	(3.414)
Party: Independent	−3.266+	−6.871*
	(1.953)	(3.249)
Party: Labour	−0.526	−1.660
	(1.590)	(2.422)
Party: Liberal Democrat	−0.506	−0.561
	(1.651)	(2.518)
Party: Plaid Cymru	0.797	0.248
	(1.771)	(2.710)
Party: Scottish National Party	−0.497	1.176
	(1.605)	(2.444)
Party: Sinn Fein	−1.214	−0.006
	(2.243)	(3.414)
Party: Ulster Unionist Party	−0.409	0.941
	(2.237)	(3.406)
MP sigma	1.578	2.401
Num.Obs.	621	621
AIC	8534.9	5746.4
BIC	8601.4	5812.9
RMSE	0.62	0.37

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Note: Models use random intercepts for MPs. The outcome variable is the number of questions or motions put forward by an MP, regardless of the issue domain it falls under.