**ARTICLE** 

# Voter Sexism and Electoral Penalties for Women Candidates: Evidence from Four Democracies

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#### Abstract

Recent experimental research suggests that when women stand as political candidates, they often enjoy more support amongst voters than men. However, women remain under-represented in politics worldwide, and observational research suggests sexism is prevalent and consequential for voter behaviour. Here, we attempt to bridge these contradictory findings and offer observational evidence of approximately 26,000 voters and 5,346 candidates in Australia, Canada, Britain, and the USA. American voters are slightly more likely to vote for a woman than a man, but we find no evidence of gender preference in the other countries. Interestingly, although sexism is prevalent in all four countries, we find no evidence for an effect of voter sexism on support for women candidates. We do find evidence that abstention, at least in the USA, is an important electoral choice for sexist partisans faced with a woman co-partisan candidate.

Keywords: gender; elections; political behaviour; sexism

# Introduction

National elections in Australia, Britain, Canada, and the USA in 2019–2020 saw a record-breaking number of women elected to public office (Allen 2020; CAWP 2020; Hough 2022; Raman-Wilms 2019). These successes appear to bolster an emerging scholarly consensus that voters will support women candidates: despite well-documented biases, victory rates for female and male candidates in Australia, Canada, Britain, and the USA are near-identical (Burrell 1992; Black and Erickson 2003; Lawless and Pearson 2008; Sevi et al. 2019; Thomsen 2020). Additionally, a slew of experimental research shows that voters support men and women candidates equally (Dahl and Nyrup 2021; Kage et al. 2019; Saha and Weeks 2022), or even prefer female candidates (Clayton et al. 2020; Teele et al. 2018).

However, other evidence suggests that sexism can shape electoral outcomes. This scholarship focuses on voter antipathy towards women, per Glick and Fiske's (1996) concept of hostile sexism, and shows a clear association between sexist attitudes and electoral choices, such as support for Donald Trump (Cassese and Barnes 2019), the British Conservatives (De Geus et al. 2022), and the Australian National Party (Beauregard 2021). Sexist attitudes are also associated with policy preferences (Beauregard et al. 2022; Beauregard and Sheppard 2021). Since women remain underrepresented in legislatures globally, this evidence of sexism's relationship with party preferences suggests some voters might be reluctant to support women candidates, despite empirical evidence on average failing to reveal such bias. However, because research on sexism typically focuses on

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correlations between voters' gender attitudes and *party* rather than *candidate* choice, it is unclear whether sexist attitudes impose electoral penalties on women seeking office.

Conflicting results thus characterize these related literatures: much experimental research suggests voters are not biased toward women candidates, yet sexism studies - typically using observational data - indicate that sexist attitudes are prevalent and consequential for party choice. Here, we bridge this divide and offer novel evidence of how sexism affects candidate choice. We match information on voter choice and attitudes from post-election surveys to candidates' characteristics, using both official and our original candidate data. We focus on four democracies with district-based systems where voters cast a ballot for a specific candidate (Britain, Canada, Australia, and the USA), thus enabling us to analyse the relationship between sexist attitudes and votes cast for female and male candidates. The datasets yield information on approximately 26,000 voters and 5,346 candidates. We analyse candidate choice and abstention to understand how votes are conditioned by voter sexism and candidate gender. In each country we consider, women are under-represented amongst political candidates and constitute just over 1/3 of elected representatives. Moreover, sexist attitudes are held by a significant minority of voters (see, for example, Cassese and Barnes 2019; de Geus et al. 2022; Beauregard 2021). And yet, experimental studies have found that voters either prefer female candidates in Australia (for example, Kang et al. 2021), Canada (Chen et al. 2024), the UK (Carnes and Lupu 2016) and the USA (for example, Saha and Weeks 2022), or evaluate male and female candidates similarly (for example, Campbell and Cowley 2014; De Geus et al. 2021; Teele et al. 2018). Our case study countries therefore provide an ideal context in which to ascertain whether sexist attitudes coexist with support for real female candidates.

After accounting for variation between male and female candidates - especially the performance of their party at the previous election at the district level - we find voters equally likely to choose a woman or a man in Britain, Canada, and Australia. In line with recent experimental work, US voters are more likely to vote for a woman. We find no effect of voter sexism on the likelihood of voting for a woman in any country, once we account for the relationship between sexism and party choice, which is statistically significant in every country, in line with existing findings. We find that in the USA only, sexist partisans faced with a woman copartisan candidate are less likely to vote, suggesting they prefer to abstain rather than vote for an alternative. Our results, then, suggest that partisan preferences matter more than sexist attitudes when it comes to vote choice, in line with some previous findings (for example, Dolan 2014), which may explain why experimental findings do not find an anti-woman bias amongst voters despite the prevalence of sexist attitudes in the electorate. However, there are two caveats to this: first, in light of much experimental evidence which finds a slight preference amongst voters for women candidates (Schwarz and Coppock 2022), it is notable that we do not observe this in our observational study and, second, we also find that abstention may be an important electoral choice for sexist partisans that is often missed by existing observational and especially experimental work.

We offer five key contributions. First, through descriptive analysis of candidate data, we argue that experimental studies do not capture the patterns of gendered candidacies in elections across parties and districts. Second, unlike experimental studies, we have data on real-world votes and find no difference in preferences for male or female candidates in three of four countries. We reflect later on the implications of this in light of recent experimental work. Third, unlike many studies on voter sexism, we measure *candidate* rather than *party* choice. We find little evidence that sexists are less likely to vote for women, but confirm that sexism remains important to voter decision-making. Fourth, we offer a test of *abstention* alongside candidate choice as an important behavioural option for sexist voters, one often ignored in both experimental studies – despite their claims of replicating real-world decision making – and observational studies. We show that, especially in the US, abstention rather than candidate choice might be a better way to understand sexist voters' behaviour when facing a woman candidate. Finally, we offer a comparative study of hostile sexism across four countries. Because much literature on both women candidates and the

relationship between sexism and electoral candidates focuses on the USA, it is unclear to what extent these findings apply elsewhere. We compare levels of sexism in the four countries, analyse the relationship between sexism and candidate choice, and find evidence that Americans, uniquely, are slightly more likely to vote for women.

The paper proceeds as follows. We provide an overview of gender and politics research which focuses on voter bias against *and* towards women, and explain why we think observational studies that combine voter with candidate data can provide valuable insights. Next, we discuss theories and evidence about the role of sexism and gender attitudes in electoral outcomes. We draw on this scholarship to establish hypotheses, then describe our approach to data collection and analysis. We discuss our results and finally identify further areas of research.

# Sexism and Voting for Women Candidates: How Should We Study It?

Women remain significantly under-represented in politics. Around a third of the Australian and Canadian Houses of Representatives and British House of Commons are women; in the US House of Representatives, less than a quarter. Many studies aim to identify the hindrances to women entering public office. One category focuses on structural, supply-side obstacles, such as gender differences in political socialisation, caregiving responsibilities, and under-involvement in pipeline professions that precede political careers (Fox and Lawless 2014; Fulton et al. 2006; Thomsen and King 2020). The other category of scholarship - which our paper contributes to - focuses on demand-side barriers by seeking to identify the factors which cause parties and voters to support women candidates (or not), including party recruitment and selection processes for candidates (Bjarnegard and Kenny 2016; Caul 1999; Teele et al. 2018). Gender stereotypes often provide a theoretical underpinning here, with the literature suggesting that voters do indeed hold stereotypic assumptions about gendered personality traits which inform baseline preferences for male or female candidates, and beliefs about leadership and policy competencies (Sanbonmatsu 2002; Holman et al. 2011; Huddy and Terkildsen 1993; Lawless 2004). However, it is far from clear that gender stereotypes in fact influence political behaviour, with multiple studies suggesting that partisanship is a more important determinant of vote choice (Dolan 2014; Hayes 2011; Hayes and Lawless 2016).

There is little empirical evidence that contemporary voters discriminate against women candidates. The literature points to initial voter bias against women that dissipates over time. In Australia, women candidates in the 1970s faced a voter penalty of up to five percentage points, which shrank to 0.3 per cent by 2004 (King and Leigh 2010). Canadian federal elections in the 1920s produced a gender gap of around 2.5 percentage points, which by 2015 was virtually zero (Sevi et al. 2019). A gap of up to 3 per cent in 1970s Britain was statistically insignificant by 2010 (Kelley and McAllister 1984; Campbell and Heath 2017). US scholarship since the 1970s has contended that candidate sex does not influence election outcomes (Darcy and Schramm 1977); recent studies support this (Thomsen 2020).

However, gender-neutral electoral returns do not mean the absence of bias, and some observational studies suggest lingering voter antipathy towards women. Pearson and McGhee (2013) found that female Democratic and Republican congressional candidates were more experienced than male candidates, and that Democratic (but not Republican) women ran in more politically favourable districts. But women did not have a higher victory rate, so this electoral parity may imply voter discrimination. Fulton (2012) similarly concluded that female congressional candidates of higher quality than their male counterparts were no more likely to win their races, and Fulton and Dhima (2021) show that, when qualifications are held constant, female Democratic candidates are less likely than males to win. Sevi's (2023) analysis of the electoral fortunes of incumbent candidates found that while male incumbents enjoyed a small increase in their vote share, female incumbents experienced a modest reduction. Although these

vote share results are not statistically significant, Sevi (2023) notes that they are consistent with gender bias and may point to women legislators being held to higher standards or experiencing a greater degree of scrutiny than their male counterparts.

A criticism of such studies is that, given their observational nature, a causal relationship between candidate gender and vote choice cannot be identified. In a bid to explicitly identify how candidate gender influences vote share, political scientists have therefore increasingly turned to candidate choice experiments, typically using conjoint designs, which ask participants to rank or choose between candidates who vary across randomly assigned dimensions (gender, party, ideology, marital status) (Ono and Yamada 2020; Winter, 2023; Teele et al. 2018). Although these myriad studies have not always produced consistent results, Schwarz and Coppock's (2022) meta-analysis found that far from unearthing voter bias *against* women, these studies revealed a pattern *in favour* of them across many countries. The authors (2022) suggest that voter behaviour towards women candidates has changed: whilst older studies often showed negative bias, post-2014 studies show voters are more likely, on average, to vote for women. Although Schwarz and Coppock (2022) note that this positive bias towards women candidates is somewhat unexpected theoretically, they nevertheless observe that it is remarkably consistent across studies published after 2014.

However, an absence of hostility towards women candidates in experimental settings does not prove the absence of discrimination. First, survey experiments may not reflect real-world decision-making (McDonald 2020); participants may respond favourably to a hypothetical woman yet reject one at the ballot box (Schwarz and Coppock 2022). Second, conjoint experiments can mislead when seeking to identify proportions of voters who endorse particular candidate characteristics (Abramson et al. 2022); instead of accurately reflecting preference distributions, they can assign too much weight to a minority who intensely prefer a particular option. Third, as observed by Arel-Bundock et al. (2022), many political science tests are underpowered; it is therefore possible that experimental findings which purport to reveal a preference for women voters are in fact reporting an inflated effect.

Perhaps most importantly, experimental studies often omit a crucial behavioural outcome: abstention. Candidate choice experiments are typically conjoint; while this design is hailed for its ability to mimic real-life scenarios by asking respondents to simultaneously consider multiple pieces of information (Hainmueller et al. 2014), they are also usually 'forced choice' and compel participants to select from a series of options. While this approach has been justified on the grounds that it may increase respondent engagement with the task and lead them to more carefully consider candidate profiles (Hainmueller et al. 2015), it also deprives respondents of an option open to many real-life voters, namely, to abstain from voting. Indeed, so rarely is an abstention option given in candidate choice experiments that out of the sixty-seven studies considered by Schwarz and Coppock's (2022) meta-analysis, we could only identify six which provided respondents with the option to abstain or not select any candidate. This is an important omission: Miller and Ziegler's (2024) replication of two forced-choice conjoint experiments found that providing respondents with an abstention option can produce different conclusions. In the context of a candidate choice experiment, it is possible that including an abstention option may mean that a sexist respondent who is offered a choice between a female co-partisan and a male opponent may select neither.

As candidate choice experiments have proliferated, studies relying on surveys and observational data to understand women's electoral fortunes have decreased. This, in our view, is regrettable, because each method has its own strength. Experiments excel at identifying causal mechanisms, while observational research enables political scientists to study voters who have been 'exposed to real-world treatments' by encountering political information in their natural environment (Banducci et al. 2017, 228). We therefore join Dolan and Lawless (2023) in contending that an analysis of real-life vote choice remains an important piece of the gender and elections puzzle.

# Theory and Expectations

Although experimental scholarship gives us little reason to suspect that voters discriminate against women candidates, recent studies focusing on the association between political behaviour and sexism – as captured by the Ambivalent Sexism Inventory (ASI) tool – *do* indicate that gender attitudes have electoral consequences. Developed by psychologists Glick and Fiske (1996), the ASI contains twenty-two items that measure two types of sexism: hostile and benevolent. Hostile sexism is 'antipathy toward women who are viewed as usurping men's power' (Glick and Fiske 2001, 109); benevolent sexism refers to subjectively positive but ultimately disempowering beliefs about women and is characterized by reverence for women in the roles of wives, mothers, and romantic love objects (Glick and Fiske 1996).

Hostile (but not benevolent) sexism has been shown to influence political attitudes and behaviour. Most of this scholarship is from the USA, showing associations between hostile sexism and support for Donald Trump in 2016 (Cassese and Barnes 2019; Schaffner et al. 2018); antipathy towards female congressional candidates in 2016 (Winter, 2023); endorsement of Republican House candidates in the midterm 2018 (Schaffner 2022); and favourable assessment of male gubernatorial candidates (Dolan and Lawless 2023). Research elsewhere has concentrated on the relationship with party choice. In Britain, De Geus et al. (2022) found an association between hostile sexism and the Conservative Party vote in 2019. In Australia, hostile sexism mattered for vote choice in 2019, but only for the National and Green parties, not the major (Labour and Liberal) parties (Beauregard 2021). Some British and Canadian studies have found that voters (especially women) motivated by a desire to see more women in parliament are more likely to support female candidates in legislative elections (Campbell and Heath 2017; Goodyear-Grant and Croskill 2011), indicating that gender attitudes may matter in non-US contexts, but the role of negative attitudes to women - sexism - rather than positive attitudes has largely not been tested. An exception, Gareau-Paquette et al. (2024), finds inconsistent evidence that traditional gender attitudes lowers voter support for women candidates in Canada.<sup>1</sup>

The USA, then, provides the only context where political scientists have found an association between hostile sexism and candidate choice (Cassese and Barnes 2019; Schaffner et al. 2018; Winter, 2023). While these studies indicate that hostile sexists will be less likely than others to vote for women, there is also reason to anticipate that US findings may not be replicated in other countries. First, because gender was unusually salient and politicized during the 2016 US presidential election, it may have exerted an outsize influence (Cassese and Barnes 2019; see also Campbell and Heath 2017). Second, many studies which found an association between hostile sexism and unwillingness to support women focused on presidential and gubernatorial candidates (for example, Cassese and Barnes 2019; Dolan and Lawless 2023). Scholarship suggests that voters prefer candidates with masculine personality traits for executive positions (Huddy and Terkildsen 1993), so findings from these contests may not apply to down-ballot decision-making.

Given that more recent experimental studies have tended to find a pro-woman bias amongst voters (Schwarz and Coppock 2022), and our focus is on recent elections, we should expect that overall voters are more likely to support female than male candidates ('Woman Candidate hypothesis', below). However, the importance of sexist attitudes to some candidate choice decisions in the USA and party choice decisions elsewhere suggests that sexist attitudes might be politically relevant and that some sections of the electorate might be less likely to support women. Particularly, hostile sexists should be more likely to vote for a man, given the choice ('Sexism hypothesis').

Scholarship has also often found that partisan attachment to a party is more important than gender stereotypes or candidate gender to voter decisions (Dolan 2014). But the hostile sexism literature indicates that associations between inegalitarian gender attitudes and vote choice persist

<sup>&</sup>lt;sup>1</sup>They also note in an appendix that there is no association between sexism and voting for women in the Canadian context.

after controlling for partisanship (Cassese and Barnes 2019; Winter, 2023). Sexist attitudes, then, may be relevant even for strong partisans, and their sexism and partisanship may work against each other when faced with a co-partisan woman candidate. We suggest that sexist partisans might be unlikely to switch to another party's male candidate in this scenario, because of their partisan identity, but might be more likely to abstain to avoid voting for a woman ('Abstention hypothesis').

We express our three hypotheses fully below. Based on our arguments above, we test these hypotheses observationally in the next section:

**Woman Candidate hypothesis:** On average, voters are more likely to vote for a woman candidate than a man when faced with a choice in their district.

**Sexism hypothesis:** The likelihood of voting for a woman decreases for those with higher levels of hostile sexism.

**Abstention hypothesis:** Sexist partisans who have a co-partisan woman candidate in their district will be more likely to abstain from voting than partisans with lower levels of sexism.

We remain agnostic about whether we should see differences between Australia, Britain, Canada, and the USA. Although previous studies have established similar levels of sexism and an electoral role for sexist attitudes in Australia, Britain, and the USA (De Geus et al. 2022; Beauregard 2021), there are differences, as sexist attitudes in Australia are associated only with minor-party voting (Beauregard 2021).

There are important between-country differences regarding gender equality and partisanship that might lead to differences in the role of sexism for voter choice. First, gender equality: the World Economic Forum's 2018 Global Gender Gap Index (GGGI) ranks the UK and Canada at 15 and 16, Australia at 39, and the USA at 51. It is unclear what role gender equality may play as a moderating factor in the link between sexism and vote choice. On the one hand, citizens of gender egalitarian countries are more likely to value gender equality in the public sphere (Yu & Lee, 2013); voters in these countries may be less likely to object to women candidates. On the other hand, sexist men in gender-egalitarian countries are less likely than in gender-inegalitarian countries to endorse participating in collective actions to benefit women, such as supporting gender-egalitarian politicians (Kosakowska-Berezecka 2020). If a gender-egalitarian context serves as a reminder of women's encroachment into previously male-dominated spaces, then sexists in relatively equal countries may be particularly confronted by the prospect of women in political office (Kosakowska-Berezecka et al., 2020).

Second, between-country differences exist regarding political polarization. Since the 1980s, the extent to which citizens feel negatively towards parties other than their own – 'affective polarisation' – has increased more rapidly in the USA than any other OECD country (Boxell et al., 2024). Polarization increased relatively little in Canada during this period and declined in Australia and Britain (Boxell et al., 2024). Because out-party aversion is a stronger predictor of voting behaviour than in-party fondness (Finkel et al., 2020), it is therefore possible that sexist partisans in the highly polarized USA will be more likely to support a woman candidate than an equally sexist voter in a less-polarized country.

Third, although voting is voluntary in Canada, the UK, and the USA, it is compulsory in Australia. The impact that compulsory voting may have on women candidates is unclear. One of the few comparative studies to directly address this question is Studlar and McAllister (2002), who found that OECD countries with compulsory voting between 1950 and 2000 had a 3.5 per cent reduction in women's representation, although the authors do not suggest an explanation for this result. On the one hand, compelled voters spend less time seeking out and engaging with political information (Singh and Roy 2018); this could potentially undermine women candidates who fare worse than their male counterparts in certain low-information contexts (McDermott 1997). On the other hand, compulsory voting means Australians will not have the option to abstain from

voting, which could potentially benefit women candidates seeking the support of sexist co-partisan voters. There is also a possibility that compulsory voting could benefit women candidates by increasing the number of female voters (Reeves and Smith 2024). This explanation, though, is premised on 'affinity' effects, whereby voters support candidates who are descriptively similar to themselves; while some studies (for example, Dolan 1998) suggest that women voters support women candidates, this has not been borne out by more recent research (for example, Ono and Burden 2019).

Finally, there are between-country and between-party differences in candidate selection procedures with gendered effects. In particular, the Australian Labour Party, the New Democratic Party (Canada), and the Labour Party (Britain) use party gender quotas. Research suggests that party gender quotas can increase the quality of female candidates by fostering internal party infrastructure that aims to increase women's political skills (Beauregard and Taflaga 2023), and by incentivising parties to closely scrutinize the characteristics of all candidates rather than falling back on traditional male networks (Aldrich and Daniels 2024). Although it is possible that gender quota parties may produce particularly high-calibre female candidates, there is no direct evidence to suggest that this will alter the vote choices of sexists. We reflect in the results section on the possible implications of party quotas.

#### Data

#### Case Selection

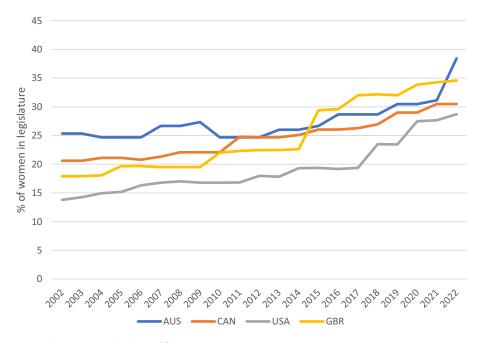
We focus on four democracies: Australia, Britain, Canada, and the USA. Most studies that explore attitudes toward women candidates focus on the US, but those findings do not necessarily translate elsewhere, as we have shown: cross-national research is important (De Geus et al. 2022; Beauregard 2021). The four countries have different histories of women's representation, especially in the executive. Australia, Britain, and Canada have had a female head of government, though the duration differs starkly.<sup>2</sup> The countries score differently on measures like the GGGI. But the countries have several helpful similarities. All four legislatures operate under district-based majoritarian electoral systems. All four electoral systems are based on candidate rather than party choices. And, as Figure 1 shows, the patterns of women's representation in the legislatures are similar. There are small differences in levels – the USA lags behind – but each country shows a slow increase in the female percentage. Importantly, it appears that growth in all four has stagnated at around 35 per cent. This reinforces the need to understand women's persistent underrepresentation in politics in these democracies.

#### Data Collection

#### Candidate Data

We collected data on candidates in the 2019 Australian federal election, the 2019 British general election, the 2019 Canadian federal election and the 2020 US House of Representatives election. For Australia, we used data on candidates, district, party affiliation, and votes received from the Australian Electoral Commission, which we coded to include candidate gender and incumbency status. For Britain, we used House of Commons Library data (2020), which lists name, party affiliation, gender, constituency, incumbency status, and vote share of candidates. For Canada, we drew on Johnson et al.'s (2021) dataset, which lists vote shares, candidate party affiliation, gender and incumbency status. Our US analysis uses a Centre for American Women and Politics (CAWP) (2020) dataset, which focuses on Congressional women candidates and includes district,

<sup>&</sup>lt;sup>2</sup>Kim Campbell was Canada's head of government for only six months. Britain's Margaret Thatcher served three terms (1979-1990); Theresa May, two terms (2016-2019); Liz Truss, 45 days. Julia Gillard remains Australia's only woman head of government (2010-2013).



**Figure 1.** Women's Representation in Legislature, 2002–2022.

Data from World Bank Development Indicators, proportion of seats held by women in national legislatures (per cent).

party affiliation, and race; we also coded incumbency status and vote share and added equivalent information for male candidates. For all countries, we added party performance at the previous election at the district level, measured by the distance a candidate's party was from the previous winning candidate (Australia 2016; Britain 2017; Canada 2015; US 2016). Focusing on the main parties in contention (see Table 2), our four independent candidate datasets comprise 5,346 candidates: Australia, 462; Britain, 2,407; Canada, 1,421; USA, 1,056.

## Individual-level Data

We matched these candidate datasets to existing data on voters, linking survey respondents to candidates who stood in their district. In all countries, we chose datasets that included questions from Glick and Fiske's (1996) ASI. The datasets also needed to contain information on the constituency/district where respondents voted, which we used to map candidates to voters. For Australia, we used the cross-sectional Australian Election Study (McAllister et al. 2019). For Britain, we used the British Election Study Internet Panel (BESIP) Wave 19 (Fieldhouse et al. 2020) from December 2019. For Canada, we used the 2019 Canadian Election Study (CES) Online Survey (Stephenson et al. 2020), including pre-election and post-election waves. For the USA, we used the 2020 Cooperative Election Study (CES) (Schaffner et al. 2021), which includes pre-election and post-election waves. After matching voter data to candidate data, we had complete observations on approximately 26,000 voters deciding on 5,346 candidates across four countries.

## Methods

#### Vote Choice Models

To test the Woman Candidate and Sexism hypotheses, we use conditional logit models. Standard logit regression models are inappropriate here because voters are choosing between several

candidates, and often multiple candidates are women. We therefore transform the data into 'long' format, with as many observations per respondent as candidates in their district. The dependent variable in the first set of models is *vote choice*, which is 1 if the respondent votes for the candidate, 0 if not. The conditional logit model estimates the within-individual effect of candidate-level characteristics on voting for that candidate, analogous to an individual fixed-effects model. Because these are within-individual effects, we do not control for variables that do not vary within an individual (socio-demographics, attitudes) because these would drop out of the analysis. We control for candidate party, which should capture party-based reasons for candidate selection, incumbency status, and party performance at the previous election, which capture potential differences in candidacy types for male and female candidates.

## **Independent Variables**

Our key independent variables in the vote choice models are *candidate gender* and *voter sexism*. *Candidate gender* is a binary variable: female or male. We collected data on non-binary candidates, but there were too few for meaningful analysis, so they are excluded. *Voter sexism* is measured using hostile-sexism items from the ASI, listed below (Table 1). Respondents answered on a Likert scale from (1) Strongly Disagree to (5) Strongly Agree; we then reverse-coded where appropriate so that higher numbers consistently indicated higher levels of sexism. Although this is a slimmed-down list, these statements have been associated with party choice in Britain (De Geus et al. 2022), Australia (Beauregard 2021), and the USA (Cassese and Barnes 2019).<sup>3</sup> All options have been found to load strongly onto the same factor, and, except for the 'interpreting innocent remarks as sexist' item, are recommended for a reduced version of the hostile-sexism scale (Schaffner 2022). We created a scale for hostile sexism and coded it to run from 0–2, where <1 indicates non-sexist responses, >1 sexist, and 1 overall neutral. For our analytical sample, the scales have the following Cronbach's alpha in each country: Britain: 0.75; Australia: 0.83; Canada: 0.68; USA: 0.80.

#### **Control Variables**

Our control variables, measured at the candidate level, are intended to include factors which might impact a respondent's vote choice other than candidate gender or sexist attitudes. They include candidate party, incumbency status, and party performance at the previous election in the district. Table 2 has the full coding. Due to the nature of the conditional logit models, we exclude individual-level control variables (for example, respondent sex, education level), and our estimates should be treated as within-individual effects.

We confine our conditional logit analysis to voters and to a sample with complete answers on all variables listed below. We also restrict our analysis to districts where voters could choose between a man or a woman. Table 3 shows the number of districts in each election and the sample with a mixed-sex race, which we use for our analysis. Because of the USA's high number of menonly races and the exclusion of districts where a candidate ran unopposed (which only applies in the US), we have substantially fewer US districts compared to the total.

After excluding all-male or all-female races, we are left with the following sample sizes of unique voters and total observations (voters by candidates in district) in each country: Australia: 1,467 voters, 4,558 observations; Canada: 3,488 voters, 14,477 observations; Britain: 5,495 voters, 21,387 observations; USA: 15,407 voters, 30,822 observations.<sup>4</sup>

<sup>&</sup>lt;sup>3</sup>We also replicated our analysis with the one item which is consistent across countries ('Women seek to gain power by getting control over men'). Our results are robust to just using this item; see the supplementary information, pp.18–19.

<sup>&</sup>lt;sup>4</sup>For both the British and Canadian, only a subsample of the total election study respondents were asked the hostile sexism question. Don't know responses on these variables are low: around 5% in Britain, 2% in Australia, and 3% in Canada. Respondents in the USA were not given a don't know option.

Table 1. Hostile Sexism Survey Items

	Australia (AES)	Britain (BESIP W19)	Canada (CES19)	US (CES)
Most women fail to appreciate all that men do for them	Χ	X	Χ	
Most women interpret innocent remarks or acts as being sexist	Χ	Χ	Χ	
Women seek to gain power by getting control over men	Χ	Χ	Χ	Х
Women are too easily offended				Х

Table 2. Coding of the Control Variables for Vote Choice Models

	Australia	Britain	Canada	USA			
Candidate Party	Liberal-National	Conservative;	Liberal;	Democrat; Republican			
	Coalition; Labor;	Labour; Liberal	Conservative;				
	Green	Democrat;	New Democratic				
		Green; Scottish	Party (NDP);				
		National Party;	Green; Bloc				
		Plaid Cymru	Quebecois				
Incumbency		0 = not incum	nbent; 1 = incumbent				
Party performance at the previous election	Party distance to winning party in that district in the previous election; 0 if party won. Where the party did not stand, party distance is assigned to the median distance from the winning party at the previous election.						

Table 3. Total and sample districts in each election

	Australia	Canada	Britain	USA
Total districts	151	338	632	435
Men-only	35	32	957	186
Women-only	6	6	16	53
Mixed (Final sample)	110	300	521	196

# **Abstention Models**

To test the Abstention hypothesis, we use standard logit models with a dependent variable: 1 if a respondent abstained, 0 if they voted. For Britain, respondents in the post-election survey were asked if they voted in the 2019 general election: 9.8 per cent said no, a strong under-reporting of abstention rates given the recorded turnout of 67.3 per cent.<sup>5</sup> Similarly, in Canada, we use a post-election survey self-reported turnout question with a reported abstention rate of 7 per cent, again a strong under-reporting given the recorded turnout of 67 per cent.<sup>6</sup> In Australia, we use a combined measure of abstention or an informal (spoiled) ballot, given Australia's compulsory voting. The 5.1 per cent abstention rate is reasonably close to the 91.89 per cent registered turnout.<sup>7</sup> For the USA, we can use a validated turnout measure available in the CES, which records whether there is a valid voting record for a respondent for 2020. Here, there is a chance of slight over-estimation of abstention, given that 'matches are only made with records when there is a high level of confidence that the respondent is being assigned to the correct record'. The measure also

<sup>&</sup>lt;sup>5</sup>https://commonslibrary.parliament.uk/general-election-2019-turnout/.

 $<sup>^6</sup>$ https://www.elections.ca/content.aspx?section = ele&dir = turn&document = index&lang = e.

<sup>&</sup>lt;sup>7</sup>https://www.aec.gov.au/elections/federal\_elections/voter-turnout.htm.

<sup>&</sup>lt;sup>8</sup>CES guidebook, page 19. The specific variable used is CL\_2020gvm..

records whether there is a voting record; it's possible someone voted only for the presidential ticket and abstained from the House ticket, but this cannot be captured by the variable. Nevertheless, the resulting abstention rate for this variable in our models is 35.5 per cent, mapping closely to the reported turnout of 66.8 per cent. This is consistent with previous research, which finds that using vote validation can address the problem of social desirability bias when measuring turnout via surveys, and that levels of self-reported turnout are reduced when using validated vote measures (DeBell et al. 2024). It should be noted that since those who vote are more likely to respond to surveys (DeBell et al. 2020), there is likely systematic bias in our measure of abstention, especially in the three countries for which we do not have validated vote measures. We return to this issue in the conclusion.

We restrict the abstention models to voters with a co-partisan candidate in their district, and thus also restricting the models to partisan voters. This reduces our sample sizes to the following compared to the vote choice analysis described above: Britain: 4,098/5,495; Australia: 1,003/1,467; Canada: 3,209/3,488; USA: 10,595/15,407. This allows us to identify if voters who score high on sexism are more likely to abstain when the candidate from their preferred party is female. To identify co-partisanship between voters and candidates, we use whether respondents identified with or felt closest to the candidate's party. The measure of party identification varied across datasets, and the full question wording can be found in the supplementary information. The main independent variable here is sexism, measured the same way as for the conditional logit models, which we interact with candidate gender. We add several control variables. A recent meta-study of voter turnout across forty-four countries suggests several key factors: 'competitive elections, concurrent elections, economic globalization, inflation, previous turnout, proportional representation, spending decentralization, and some geographical dummies' (Frank & Martínez i Coma 2023, 630; see also Blais 2000). As we run the models separately for each country, we do not control for factors such as the electoral system, which do not vary within countries, but we do include regional dummies. <sup>10</sup> We also use individual-level variables that often impact turnout. Recent studies predominantly point to education and measures of economic hardship or economic circumstances as crucial predictors (Wilford 2020; Kostelka and Blais 2021; Blais 2000). We therefore control for age, education, employment status, union membership, and social class. In Britain, we use social grade; in Canada, the USA, and Australia, we use household income as a proxy for social class. Finally, we control for candidate incumbency status and party performance at the previous election as other potential factors in partisans' abstention decisions.

#### Results

Before running our regression models, we look at the descriptive distribution of our key independent variables – *candidate gender* and *hostile sexism* – across four countries. Table 4 compares levels of sexism in Australia, Britain, Canada, and the USA for respondents in our analytical sample. Nearly one-third fall on the hostile-sexist end of the scale (above 1), with Canada lowest (22 per cent) and Britain highest (33 per cent). Hostile sexists are a significant minority in every country. Canada shows the highest percentage on the not-hostile-sexist end of the scale (63 per cent), compared to Australia (56 per cent), the USA (59 per cent), and Britain (48 per cent). Whilst the differences are not large, Canada shows the lowest levels of hostile sexism and Britain shows the highest.

We also compare women candidates' profiles across the countries. Table 5 shows the percentage of women by party, incumbency, and election outcome – note these are for the main

 $<sup>\</sup>label{eq:localization} $$^{\circ}$ https://www.census.gov/newsroom/press-releases/2021/2020-presidential-election-voting-and-registration-tables-now-available.html$$$:$\sim:text = APRIL$$2029$$2C$$202021$$20$$E2$$80$$94$$20The$$202020,by$$20the$$20U.S.$$20Census$$20Bureau.$ 

<sup>&</sup>lt;sup>10</sup>State in the US; Government Office Region in Britain; Province in Canada. We cannot control for state in Australia due to low abstention levels.

<sup>&</sup>lt;sup>11</sup>Our analytical sample is slightly less sexist than all respondents, but the differences between countries remain the same.

Table 4. Levels of Hostile Sexism in Australia, Britain, Canada, and the USA (per cent)

	Australia	Britain	Canada	USA
Hostile sexist (above 1)	29	33	22	28
Neutral on hostile sexism (1)	15	19	15	13
Not hostile sexist (below 1)	56	48	63	59
N	1,467	5,495	3,488	15,407

Table 5. Profile of Women Candidates in USA (2020), Britain (2019), Canada (2019), and Australia (2019)

	US (per cent women)	Britain (per cent women)	Canada (per cent women)	Australia (women)
All candidates	35% (297)	38% (920)	41% (592)	37% (170)
Incumbents	27% (116)	32% (145)	28% (77)	26% (32)
Non-incumbents	43% (181)	40% (775)	45% (515)	41% (138)
Elected	27% (120)	34% (216)	28% (95)	28% (42)
Defeated	43% (177)	40% (704)	45% (497)	41% (128)
Republicans	22% (93)	, ,	, ,	,
Democrats	47% (204)			
Conservative		31% (194)		
Labour		53% (335)		
Liberal Democrats		30% (186)		
Greens		41% (202)		
Scottish National Party		34% (20)		
Plaid Cymru		25% (9)		
Conservative			31% (104)	
Liberal			39% (133)	
NDP			49% (164)	
Bloc Quebecois			46% (156)	
Green Party			45% (35)	
Liberal-National Coalition				26% (42)
Labor				44% (66)
Greens				41% (62)
Party distance to winner a	t previous election (per	centage-point difference)		
Female candidates	15	30	42	19
Male candidates	12	32	34	18

The figures in parentheses give the number of women candidates in each category.

parties in each country and do not include minor or independent candidates. A higher proportion were women in Canada (41 per cent) than elsewhere (Britain 38 per cent; Australia 37 per cent, the USA 35 per cent). However, the figures suggest that female candidates are standing in different types of seats. In all countries, women make up a smaller share of incumbents than they do candidates overall, with the smallest disparity in Britain and the largest in Canada. Similarly, women are under-represented amongst elected candidates compared to their overall numbers, with the disparity again lowest in Britain and highest in Canada. This may be partly because women are placed in seats where their party struggled more, especially in the USA and Canada. In the USA, the average party distance from the winner was 15 points for women and 12 for men. In Canada, the difference is more striking, with women running in seats where their party had an average distance from the winner of 42 points, compared to 34 for men. This replicates previous findings from Canada that female candidates are placed in less 'winnable' seats (Thomas and Bodet 2013).

In Britain and Australia, women were not placed in less 'winnable' seats in terms of the distance from the winner at the previous election – although there is evidence from previous research that this may vary by party (Curtice et al. 2021). However, women were still elected in lower numbers

than would be expected given their proportion amongst all candidates. This could be because in these countries, the centre-right party (Conservatives in Britain; Liberal/National coalition in Canada) won the election. These parties, as also shown by Table 4, and as previously discussed, do not have gender quotas and field fewer women candidates than other parties, resulting in fewer women elected in these elections. In all countries, left-wing (Labour/NDP/Democrats) and Green parties fielded more women than did right-wing or Conservative parties. This is consistent with previous research (for example, O'Brien 2015).

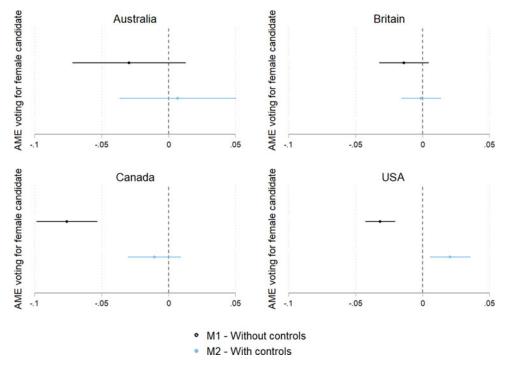
# **Support for Women Candidates**

We now move to the analysis of vote choice. First, we test whether female candidates hold an electoral advantage amongst voters ('Woman Candidate hypothesis'). This is a salient finding from recent experimental literature (Schwarz and Coppock 2022). Table 6 shows the model results, and Figure 2 plots the average marginal effect of voting for a woman over a man in the models with and without the control variables. There is no advantage or disadvantage for women candidates in Britain and Australia, in models with and without the control variables. In Canada, there is a significant disadvantage in the first model without controls (negative and statistically significant marginal effect), but this disappears once we add controls for party, incumbency and previous party performance. In the USA, there is a disadvantage for women candidates in the model without controls, but a small positive advantage (positive and statistically significant marginal effect) when the controls are added. It is therefore only in the USA where voters are more likely to support women, once we take into account systematic differences between male and female candidates. In the other countries, there is no effect of candidate gender on vote choice. This suggests that experimental-study results which find pro-woman bias amongst voters may not travel to all country contexts or to many real-world scenarios.

The variable which makes the difference between uncontrolled and controlled models in the USA and Canada is party performance at the previous election at the district level. Given that women in the USA and Canada are more likely to run in seats where their parties are less competitive, as discussed above, this means contextual factors need to be taken seriously as at least a partial explanation for women's lack of electoral success. This points to explanations which emphasize party-selection procedures (Bjarnegard and Kenny 2016) rather than voter bias as the key reason.<sup>12</sup>

Second, we test the Sexism hypothesis, analysing the effect of voter sexism and its interaction with candidate gender and party in Table 7. In the first column for each country, we see a statistically significant interaction between candidate gender and voter sexism: sexists are less likely to vote for women in Britain and the USA, but not in Canada or Australia. At face value, this seems to confirm that voter sexism negatively affects women's electoral chances, at least in Britain and the USA. In the second set of models, however, we add an interaction between candidate party and voter sexism. Previous studies show that sexism is associated with party choice in these countries (Cassese and Barnes 2019; De Geus et al. 2022; Beauregard 2021), and different parties also field women candidates at very different rates. When we include this interaction, the significant interaction between candidate gender and voter sexism in Britain and the USA disappears, suggesting this initial result was because of the association between voter sexism and party choice. The UK Conservatives and US Republicans are much less likely to field women candidates, so the association between sexism and support for these parties confounded the

 $<sup>^{12}</sup>$ We also ran the models for Quebec, Scotland, and Wales separately, as these regions have parties which only compete in these regions (BQ, SNP, and PC, respectively). The results are consistent with what is presented here, except we find a statistically significant positive effect of women candidates in Wales, even once party, incumbency, and distance from the winner are controlled for. In this region, we have a very small sample – 1,478 observations across thirty-six constituencies, and so we treat this result with caution.



**Figure 2.** Average marginal effect of voting for a female candidate versus a male candidate, calculated from models in Table 6.

Table 6. Regression Models for Voting for Women Candidates in Australia, Britain, Canada, and the USA

	Aust	ralia	Brit	tain	Can	ada	U:	SA
Women candidates	0.890	1.035	0.947	0.994	0.737*	0.946	0.882**	1.089**
Controls	(0.076) No	(0.095) Yes	(0.036) No	(0.046) Yes	(0.035) No	(0.050) Yes	(0.020) No	(0.034) Yes
N	54,558	4,558	21,387	21,387	14,477	14,477	30,822	30,822

<sup>\*</sup> p<0.05; \*\* p<0.01 – Models presented are conditional logit models, coefficients are odds ratios, full models available in supplementary information (pp.2-3).

relationship between sexism and candidate choice by gender. Since the baseline party in Table 7 is the Conservative or Republican Party option, we observe that highly sexist voters are significantly less likely to vote for a candidate who represents more left-of-centre, regional or Green options. We also see this null result when we run the models for men and women separately.

There are reasons to believe partisanship may be an important variable in the relationship between vote choice and candidate gender: bias against women is pronounced amongst voters without a strong partisan attachment (Fulton 2014; Ono and Burden 2019; Winter, 2023), likely because they have no partisan identity to rely on and may use other candidate characteristics. In the supplementary information (pp. 8–11), we run these models for those with and without partisan identification, enabling us to test whether sexist non-partisans might be less likely to vote for a woman because they do not have a partisan tie to a party and can thus more easily switch their vote. This does not change the results for any country.

We also run the models for those who identify with the main right-wing and left-wing parties (supplementary information, pp. 8–11), to identify if there are differences between party

Table 7. Regression Models for Voting for Women Candidates by Voter Sexism, Candidate Gender and Candidate Party in Australia, Britain, Canada and the USA

_	-							
	Aus	tralia	Bri	tain	Can	ada		US
Women candidates	1.205 (0.204)	0.986 (0.167)	1.390** (0.156)	0.991 (0.116)	1.068 (0.108)	0.944 (0.096)	2.284** (0.099)	1.174** (0.071)
Sexism * Women candidates	0.827 (0.147)	1.129 (0.212)	0.694** (0.079)	1.023 (0.132)	0.860 (0.097)	0.989 (0.115)	0.380** (0.017)	0.951 (0.069)
Party candidate								
Liberal/Labour/Democrats	0.822* (0.091)	2.208** (0.439)	0.775** (0.037)	3.193** (0.395)	0.828** (0.048)	1.736** (0.189)	1.022 (0.035)	4.953** (0.286)
NDP/Lib Dem			0.745** (0.059)	2.308** (0.336)	0.706** (0.050)	1.677** (0.233)		
Bloc Québécois/SNP			1.407** (0.152)	6.609** (1.581)	2.805** (0.216)	2.690** (0.744)		
Green Party	1.209 (0.152)	2.970** (0.627)	0.258** (0.035)	0.702 (0.229)	0.219*** (0.021)	0.471** (0.080)		
Plaid Cymru	, ,	, ,	0.601* (0.145)	1.764 (0.814)	, ,	, ,		
Sexism # Political Party Candidate			, ,	, ,				0.130** (0.010)
#Lib/Lab/Democrat		0.281** (0.063)		0.212** (0.029)		0.407** (0.049)		, ,
#NDP/LibDem		, ,		0.304** (0.043)		0.347** (0.058)		
#BQ/SNP				0.194** (0.048)		0.622 (0.184)		
#Green Party		0.309** (0.068)		0.358** (0.122)		0.391** (0.084)		
#Plaid Cymru		, ,		0.319** (0.139)		, ,		
Controls included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	4,558	4,558	21,387	21,387	14,477	14,477	30,822	30,822

<sup>\*</sup> p < 0.05; \*\* p < 0.01 - Models are conditional logit models, coefficients are odds ratios, full models available in supplementary information (pp.4-7). Base category political parties are Australia = Liberal-National Coalition; Canada = Conservative; UK = Conservative; USA = Republicans. In our final set of models (Table 8), we measure sexism's effect on abstention when partisan voters face a female co-partisan candidate. The Abstention hypothesis proposed that partisan sexist voters will abstain rather than vote for a woman from their party or a man from another. Because here we are interested in the decision to vote or not, rather than party choice, we exclude the party candidate and the sexism interaction. We instead focus on the interaction between sexism and candidate gender to test our hypothesis. Importantly, abstention rates are under-reported in the British and Canadian surveys, especially; the variable in the USA is likely most accurate in capturing non-voting. Again, we restrict our sample to races where voters face a male and female candidate. Table 8 shows a significant main effect of sexism on abstention in Australia, Britain, and Canada. This suggests that here, (partisan) sexists are more likely to abstain in general than (partisan) non-sexists. We also see descriptively that abstainers (both partisan and non-partisan) have higher levels of sexism than voters in all countries. In the USA, where we have the most reliable measure of abstention, 32 per cent of abstancers are hostile sexists versus 26 per cent of voters. The equivalent figures for the other countries are Britain: 42 per cent/33 per cent; Australia: 40 per cent/29 per cent; Canada 30 per cent/22 per cent. It is notable that we see the same pattern in Australia. albeit with much lower levels of reported abstention, even with compulsory voting.

	Australia	Britain	Canada	USA
Sexism	6.216**	2.312**	1.855*	1.172
	(13.885)	(0.584)	(0.577)	(0.102)
Women candidate	1.461	1.271	1.559	0.720**
	(1.708)	(0.482)	(0.623)	(0.090)
Sexism * Women candidates	0.588	0.749	0.499	1.595**
	(1.516)	(0.265)	(0.206)	(0.199)
Controls included	Yes	Yes	Yes	Yes
N	1,003	4,098	3,209	10,595

Table 8. Regression Model for Abstention in Australia, Canada, Britain and the USA

supporters in how sexism affects their likelihood to vote for women. We see no difference between these groups in any country except Canada. In Canada, once we disaggregate our sample based on party, we see that Conservative party identifiers *are* less likely to vote for women if they score higher on hostile sexism, with a statistically significant interaction at p<0.05. This is the only subsample across the countries that supports our hypothesis that sexists will be less likely to vote for women. We therefore interpret this with caution, but suggest that further research is warranted on how sexism affects support for women candidates in Canada (such as recent work by Chen et al. 2023; Mansell et al. 2022).

In our final set of models (Table 8), we measure sexism's effect on abstention when partisan voters face a female co-partisan candidate. The Abstention hypothesis proposed that partisan sexist voters will abstain rather than vote for a woman from their party or a man from another. Because here we are interested in the decision to vote or not, rather than party choice, we exclude the party candidate and the sexism interaction. We instead focus on the interaction between sexism and candidate gender to test our hypothesis. Importantly, abstention rates are underreported in the British and Canadian surveys, especially; the variable in the USA is likely most accurate in capturing non-voting. Again, we restrict our sample to races where voters face a male and female candidate. Table 8 shows a significant main effect of sexism on abstention in Australia, Britain, and Canada. This suggests that here, (partisan) sexists are more likely to abstain in general than (partisan) non-sexists. We also see descriptively that abstainers (both partisan and nonpartisan) have higher levels of sexism than voters in all countries. In the USA, where we have the most reliable measure of abstention, 32 per cent of abstainers are hostile sexists versus 26 per cent of voters. The equivalent figures for the other countries are Britain: 42 per cent/33 per cent; Australia: 40per cent/29 per cent; Canada 30 per cent/22 per cent. It is notable that we see the same pattern in Australia, albeit with much lower levels of reported abstention, even with compulsory voting.

However, only in the USA do we see a statistically significant interaction between sexism and having a woman co-partisan candidate, where sexist partisans are more likely to abstain. Either the hypothesized relationship exists only in the USA, or this finding is because we have a much more accurate measure of abstention there. We also plot the predicted probability of abstaining in each country for those faced with a co-partisan male or female candidate (Figure 3). In Australia, Britain, and Canada, we see that those at the sexist end of the scale (>1) are about 10 percentage points more likely to abstain than those at the lower end (<1), but this is not statistically significantly different between male and female candidates. In the USA, the probability of voting for a man remains the same across different levels of sexism, but sexists are about 20 percentage points more likely to abstain when faced with a co-partisan woman than non-sexists are.

<sup>\*</sup> p < 0.05; \*\* p < 0.01 - Models are logistic regression models, full models available in supplementary information (pp.12-16). Coefficients are odds ratios, Abstention is coded as 1 = Abstention, 0 = Voted.

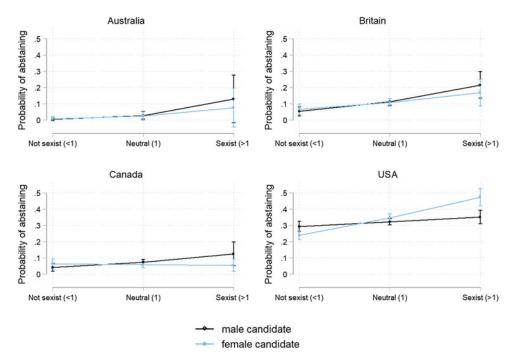


Figure 3. Predicted probability of abstaining for those with co-partisan female versus co-partisan male candidates.

## Conclusion

Experimental studies on gender bias increasingly suggest that women candidates do not face electoral penalties and may even enjoy an advantage amongst voters. However, sexist attitudes have been important when understanding party choice in recent elections. Missing from the literature is a focus on *candidate choice*, using real-world data on women candidates and voter sexism. Relying on four nationally representative voter surveys and four candidate datasets, we provide evidence on whether voters support men and women candidates at different rates, and the extent to which sexist attitudes are associated with willingness to vote for women.

First, we find that political context structures electoral choice in important ways often not captured by experiments. Political parties differ substantively in the number of women they run; US voters are especially likely to face only male candidates, while women often run in harder-to-win seats in Canada and the USA. Thus, conjoint or vignette experiments offering equal choices between male and female candidates fail to capture important real-world features of elections where women are under-represented amongst candidates, run predominantly for left-wing parties, and contest more difficult seats. We should therefore observationally analyse voter willingness to support women candidates, to further illuminate how candidate gender conditions vote choice in real-world scenarios.

Second, after analysis of real-world candidate choice, we find no electoral penalty toward women – but also no electoral bonus, as some meta-analyses suggest (Schwarz and Coppock 2022), except in the USA, where women enjoy a slight favour. This is perhaps consistent with evidence that US women candidates appear to be more qualified than men (for example, Fulton 2012). Evidence on gender differences in candidate qualifications or experience in our other countries is limited, although Allen et al. (2016), using All-Women Shortlists in Britain, find no evidence of difference in candidate quality between those elected and other MPs (male and female), perhaps suggesting limited differences between men and women generally in this context.

Future research could usefully understand how much men and women differ in qualifications, experience and expertise outside the USA, to contextualize the finding that voters are equally likely to support women at the ballot box on average.

Our findings could be taken positively: voters are not biased against women candidates, so parties should have no concerns about putting forward women in elections where voters vote for a specific candidate. But there is evidence, at least from Britain and Australia, that survey respondents sometimes report a higher likelihood to vote for women in experimental studies (Schwarz and Coppock 2022; Vivyan and Wagner 2015). This suggests voters may be biased somehow against women – their hypothetical preference does not extend to 'real-world' women. This shows the need to use observational studies along with experimental ones to appreciate how much external validity experimental studies have. Our results suggest the external validity of candidate choice experiments, which investigate gender, might be limited here, or at least reveal little about voter propensity to support women in actual elections.

Third, our results confirm the importance of sexism for understanding elections in the countries we study, although differently from expected. We examine, novelly, the impact of sexist attitudes on *candidate* rather than *party* support. However, we found sexism much more relevant for party support than for candidate choice, and we found little evidence that sexists are less likely than non-sexists to vote for women. This is interesting given the above discussion; if our findings indicate voter bias against women in real-world elections, this suggests this bias is exhibited by sexist *and* non-sexist voters – perhaps stemming from more engrained gender stereotyping rather than voter sexism.

We find evidence across all countries that sexists are more likely to vote right-wing. This is consistent with research using models which control for other values and attitudes (Beauregard 2021; Cassese and Barnes 2019; De Geus et al. 2022). Right-wing voters are thus more likely to hold sexist attitudes. However, right-wing parties would be wrong to infer that these voters do not support women candidates. Our evidence suggests they are just as willing to do so as their non-sexist counterparts (except perhaps in Canada), likely because party considerations are more important, and they assume that a woman in their preferred party shares their values. This raises interesting questions about what happens to women candidates on the right who make feminist claims or attempt to represent women substantively. Future research could explore whether right-wing or sexist voters are less likely to vote for such candidates.

Fourth, we show that abstaining is a potential option for voters who might be 'cross-pressured' by their values and partisanship (De Geus 2019). Partisan sexists in the USA faced with a woman co-partisan candidate are more likely to abstain than partisan non-sexists, even when controlling for other determinants. So, although women in the USA enjoy a slight electoral advantage, their candidacy might still depress turnout amongst some voters, even if those voters do not go as far as switching parties. We find no evidence of this elsewhere, but note that abstention is measured more robustly in US data, and compulsory voting in Australia may make this question less relevant. Though observational studies should be used more in this area, perhaps experimental studies should include abstention to understand its extent in other contexts, since abstention rates are difficult to measure. Future studies may also want to further probe this US paradox - where women candidates seemingly face both an electoral advantage and turnout disadvantage - via an intersectional analysis which highlights how candidate race interacts with candidate gender (see Van Oosten et al. 2024). Race is highly salient to US politics (Stephens-Dougan 2021), and a record-breaking number of women of colour stood in the 2020 congressional elections (Dittmar 2021). Existing experimental studies which focus on evaluations of minoritized women candidates vis-à-vis their white counterparts have produced mixed results (Gershon and Monforti 2019; Schwarz and Coppock 2022), thereby underscoring the need for further research in this area.

We also add a comparative element to work examining sexism and voting behaviour, which has so far focused on single-country case studies. We show that whilst levels of sexism vary across the four countries, they are roughly comparable, with around one-third of voters on the hostile-sexist

end in each. Our results do not clearly show any differences according to the level of gender equality in each country, nor do we see partisanship exerting more influence on candidate choice in the USA, as we might have expected. Instead, we see US exceptionalism: the only country with an advantage for women candidates overall. This may be because much fewer races there feature women candidates as a proportion of the whole compared to the other countries, where most districts have at least one. Previous research has identified that women in the USA run in more 'women-friendly' districts in terms of their demographics (for example, Ondercin and Welch 2009), and so voter characteristics in places where women stand could be driving the positive result we observe. We note that we only focus on a single election for our four cases, and further research on the extent to which these patterns persist in subsequent elections would be useful.

We have shown that the extent to which voters support women candidates is more complicated than experimental studies show. Experimental studies do not capture the real-world variation in women candidates across parties and districts. Nor is the positive advantage women candidates enjoy in many experimental studies replicated in three of our four countries, perhaps indicating voters' greater willingness to support women hypothetically but not in reality. We find little evidence that sexism conditions how much voters support male over female candidates, indicating that any bias is rooted in other attitudes or psychological processes. Future research should work towards integrating findings from experimental and observational studies to fully understand the extent to which women candidates face bias at the ballot box.

Supplementary Material. Supplementary material for this article can be found at https://doi.org/10.1017/S0007123425000390.

Data Availability Statement. This study's datasets are available from the following repositories:

#### Britain

Fieldhouse E, Green J, Evans G, Mellon J and Prosser C (2020) British Election Study Internet Panel Wave 19. V1.0-2 https://doi.org/10.5255/UKDA-SN-8810-1. https://www.britishelectionstudy.com/data-objects/panel-study-data/

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House of Commons Library (2017). Data File: Detailed Results by Constituency. https://commonslibrary.parliament.uk/research-briefings/cbp-7979/

## Canada

Stephenson L, Harell A, Rubenson D and Loewen PJ (2020) 2019 Canadian Election Study - Online Survey. V1 https://doi.org/10.7910/DVN/DUS88V. http://www.ces-eec.ca/2019-canadian-election-study/

**Johnson A, Tolley E, Thomas M and Bodet MA** (2021) A new dataset on the demographics of Canadian federal election candidates. *Canadian Journal of Political Science* **54**(3), 717–725. V1. https://doi.org/10.1017/S0008423921000391. https://dataverse.harvard.edu/dataset.xhtml?persistentId = doi:10.7910/DVN/MI5XQ6

 $Results \ for \ 2015 \ from \ Elections \ Canada: \ https://www.elections.ca/content.aspx?section = res\&dir = rep/off/42 gedata\&do \ cument = summary\&lang = e$ 

#### Australia

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