

Do Gender Gaps in Political Knowledge Generalize Across Policy Domains? Evidence from the UK *

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Research note

Abstract

Do gender gaps in political knowledge persist beyond elite-institutional domains? Recent work shows that these gaps can narrow or reverse when political knowledge is measured in alternative domains of governance. However, existing studies typically examine a single domain and employ different question types, making it unclear whether these patterns generalize. Drawing on two original surveys in the United Kingdom, this research note compares multiple domains within a common measurement framework and shows that the male advantage observed on canonical items disappears when the same measurement logic is applied to two policy domains: the welfare state (Universal Credit) and public health care (the National Health Service). Across both surveys, women and men perform equivalently in these domains. These findings indicate that gender gaps in political knowledge are domain-specific rather than general and suggest that canonical measures overstate gender differences by privileging elite-institutional content.

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1 Introduction

Political knowledge remains a central concept in the study of political behavior. One of the most replicated findings in this literature is a gender gap in political knowledge (Delli Carpini and Keeter, 1996; Verba et al., 1997; Mondak and Anderson, 2004; Wolak and McDevitt, 2011; Barabas et al., 2014; Dassonneville and McAllister, 2018; Fraile, 2014). Across decades and countries, women score lower than men on political knowledge batteries. These differences are typically interpreted as evidence of unequal political competence, with implications for democratic participation and representation.

Yet these conclusions rest on a narrow empirical foundation. Canonical measures of political knowledge focus on elite institutions: elected officials, electoral rules, and the structure of political authority. But citizens encounter the state not only through elections and national institutions, but also through domains such as welfare, criminal justice, and public health care. If political knowledge enables citizens to evaluate government and form political judgments, then knowledge of these domains should also count.

In recognition of this insight, scholars show that gender gaps narrow or reverse when political knowledge is measured outside elite institutions (Stolle and Gidengil, 2010; Cohen and Luttig, 2020; Weaver et al., 2019; Jackson, 2025; English, 2025).¹ However, these studies typically examine a *single* alternative domain and do so across different contexts, question formats, and measurement approaches. Because domain and question type (e.g., procedural rules versus event-based facts) vary simultaneously, it remains unclear whether observed shifts reflect features of particular policy areas or differences in the type of knowledge being measured.² By comparing multiple domains within a common measurement framework, this note isolates domain while holding constant survey design and item structure.

Drawing on two original surveys in the United Kingdom, I compare canonical political knowledge to knowledge of two central policy domains: the welfare state (Universal Credit)

¹ Related research shows that these gaps can shrink when canonical batteries incorporate female politicians or gender-relevant issues, though these revisions remain within the elite-institutional domain (Sanbonmatsu, 2003; Barabas et al., 2014; Dolan, 2011; Kraft and Dolan, 2023; Dolan and Hansen, 2020).

² Stolle and Gidengil (2010), for instance, measure procedural knowledge of how to access welfare, while Cohen and Luttig (2020) measures recall of specific instances of police violence.

and the public health care system (the National Health Service), using parallel question formats across domains. The canonical battery reproduces the familiar gender gap, with men scoring higher than women. In contrast, women and men perform equivalently on both welfare and health care knowledge. These results show that the gender gap observed in canonical batteries disappears when the same measurement logic is applied to welfare and health care domains. Because the format and evaluative logic of questions are held constant across batteries, these differences can be attributed to domain rather than to variation in question type.

Taken together, these findings support the argument that gender gaps in political knowledge are a feature of elite-institutional content rather than a general property of political knowledge. Crucially, this inference rests on a within-design comparison: the same respondents (within each survey), item structure, and scaling are held constant while the domain varies. The replication of this pattern across two independent surveys and two distinct governance domains provides evidence that it is not confined to a single policy area. This consistency suggests that canonical measures overstate gender differences by privileging an elite-centered slice of the state. More broadly, the results underscore the importance of domain in measuring political knowledge: if knowledge varies across governance arenas, then inferences about political competence based on canonical batteries alone are incomplete.

2 Domain-Specific Measurement of Political Knowledge

Political knowledge is typically measured using canonical batteries that assess knowledge of elite institutions and actors, including elected officials, party control, and electoral rules (Delli Carpini and Keeter, 1996). The longstanding finding that women consistently score lower than men (e.g., Mondak and Anderson, 2004; Wolak and McDevitt, 2011; Jerit and Barabas, 2017) is therefore often interpreted as evidence of unequal political competence.

However, many scholars argue that these conclusions depend on measurement. Gender gaps narrow when we account for differential guessing (Lizotte and Sidman, 2009; Ferrín et al., 2018) and when batteries incorporate female politicians or gender-relevant issues (e.g., Sanbonmatsu, 2003; Dolan, 2011). A related literature moves beyond elite institutions entirely,

showing that gender and racial gaps narrow or reverse when knowledge is measured in domains like welfare and criminal justice (Stolle and Gidengil, 2010; Cohen and Luttig, 2020).

Importantly, these latter studies examine a *single* alternative domain and do so across different samples, contexts, and item formats. For example, Stolle and Gidengil (2010) measure procedural knowledge of how to access welfare programs, whereas Cohen and Luttig (2020) measure recall of specific instances of police violence. Because domain and item format (e.g., procedural knowledge versus recall of events) vary simultaneously, these designs cannot distinguish whether observed shifts in gender knowledge gaps reflect features of particular policy areas or differences in the type of knowledge being measured.

This note addresses this limitation by comparing political knowledge across multiple domains within a common context and measurement framework. This approach provides leverage beyond single-domain studies by isolating domain while holding constant survey design and question format. Replication of this pattern across distinct domains would indicate that the attenuation of gender gaps is not confined to a particular policy area.

To assess whether these patterns generalize, I examine two central areas of governance in the United Kingdom: the welfare state (Universal Credit) and public health care (the National Health Service). The UK provides a useful setting because it combines a means-tested, stigmatized welfare program (UC) with a universal, high-salience health system (NHS), allowing comparison across substantively distinct domains within a single institutional context. Universal Credit (UC) is a means-tested income support program, while the NHS provides universal health care free at the point of use. Both are major sites of state interaction and central to evaluations of government performance. At the same time, they differ in visibility, stigma, and structure: UC is less publicly salient, stigmatized, and often involves greater exposure among women through caregiving and benefit management, whereas the NHS is universal and widely used, with near-equal exposure across gender. If gender gaps in political knowledge reflect differential exposure rather than underlying differences in competence, they should narrow or disappear in both domains.

3 Data and Measurement

This paper draws on two original surveys of British adults fielded in summer 2025.³ The first survey (N = 1,158) measures canonical political knowledge, welfare knowledge, and demographic characteristics; the second (N = 1,112) measures canonical knowledge, public health care (National Health Service) knowledge, and demographics. Respondents who failed an attention check were excluded (84 in the welfare survey and 79 in the NHS survey).⁴ To improve representativeness, I combine front-end quota sampling with post-stratification weights aligning the sample to population benchmarks on gender, age, ethnicity, and political affiliation using 2024 data from the UK Office for National Statistics. After weighting, complete cases yield final analytic samples of 1,148 (welfare survey) and 1,108 (NHS survey).

Table 1 presents the questions and correct answers for the canonical, welfare, and public health measures. Each consists of a five-question multiple-choice battery. Consistent with standard practice, respondents were offered “I don’t know” (DK) options for each item (Delli Carpini and Keeter, 1993; Luskin and Bullock, 2011). Results are substantively unchanged when DK responses are coded as missing rather than incorrect (Appendix S7). Within each knowledge measure, responses are coded as correct (1) or incorrect (0), then summed and rescaled from 0 to 1. Respondents received questions in each battery in random order.

To measure canonical political knowledge, I use Delli Carpini and Keeter (1993) as a starting point for selecting and wording questions adapted to the UK context. These items assess respondents’ understanding of party control, ideological positioning, institutional authority, officeholders, and formal constraints (e.g., electoral timing). In line with prior work, the battery therefore emphasizes generalizable knowledge of elite institutions.

The welfare measure captures institutional knowledge of Universal Credit. Mirroring the canonical measure, items focus on institutional structure: who the program serves, what it covers, and eligibility and benefit levels. These items shape public debate over welfare and

³ I conducted the surveys outside a national election cycle, limiting the influence of short-term campaign dynamics. Because the analysis focuses on within-respondent differences across domains, the key comparisons are unlikely to be driven by period-specific shocks.

⁴ Appendix S1 reports descriptive statistics, Appendix S2 presents survey instruments, and Appendix S8 details compliance with APSA human subjects guidelines.

reflect the kinds of information that citizens use to evaluate welfare and government performance. The public health care measure captures knowledge of the structure, governance, and scope of the NHS. These features are central to how citizens evaluate government performance amid debates over funding and service provision.

Item-level diagnostics and scale properties (Appendices S3–S4) indicate that all three batteries function as reasonably coherent measures. The canonical items are moderately difficult but heterogeneous, with weaker discrimination, while the welfare and NHS items display consistently positive discrimination and well-calibrated difficulty. Reliability is comparable across measures (alphas around 0.33–0.55), consistent with other short factual political knowledge scales (e.g., Mondak and Anderson, 2004). Correlational and factor-analytic evidence further shows that the batteries do not reduce to a single dimension: cross-domain correlations are modest, and exploratory factor analyses reveal distinct latent dimensions separating canonical from welfare and NHS knowledge. Together, these results suggest that the welfare and NHS batteries are at least as reliable as the canonical measure and capture empirically distinct domains of political knowledge, rather than reflecting a single hierarchy of “more” and “less” informed citizens.

4 Gender Differences Across Knowledge Domains

This section evaluates whether gender gaps in political knowledge persist when applied across domains. Table 2 reports weighted mean differences by gender for the canonical and welfare items (Panel A) and the canonical and NHS items (Panel B).

Across both surveys, the same pattern emerges. The canonical battery reproduces the familiar gender gap: women score significantly lower than men. In contrast, gender differences are substantively small and statistically indistinguishable from zero in both the welfare and NHS batteries. On the welfare survey, women score 0.1 points lower (0.7 vs. 0.8, $p < 0.001$), while welfare knowledge is identical across gender (0.89 vs. 0.89). On the NHS survey, the gender gap is 0.08 points (women: 0.7 vs. men: 0.78, $p < 0.001$), while the NHS gap is small and not statistically significant (0.72 vs. 0.74).

Table 1: Political Knowledge Items

Panel A. Canonical Political Knowledge

Canonical Political Knowledge Items

Which party currently has a majority of seats in the House of Commons? *Labour Party*

What is the maximum length of time Parliament can last before a general election must be held? *5 years*

Which party is generally considered more to the right at the national level? *Conservative Party*

Who is responsible for making the final decision on whether a law passes in the UK? *House of Commons*

What office is currently held by Rachel Reeves? *Chancellor of the Exchequer*

Panel B. Welfare State Political Knowledge

Universal Credit Knowledge Items

Which group receives Universal Credit (UC) at the highest rate? *Households with children*

What expenses is Universal Credit intended to cover? *Food, clothing, and basic living costs*

Who sets most eligibility rules and benefit levels for Universal Credit? *UK central government*

What is generally required of most UC claimants who are able to work? *Participating in job-seeking or work-related activities*

Which of the following determines the amount of Universal Credit a claimant receives? *Household income, circumstances, and housing costs*

Panel C. Public Health Care Political Knowledge

National Health Service Knowledge Items

Who is primarily responsible for determining the overall level of public spending on health services in the UK? *The UK Parliament through the national budget*

On what basis do people become eligible to receive NHS services in the UK? *By being lawfully resident in the UK*

Where in the UK do patients pay NHS prescription charges? *England only; prescriptions are free in Scotland, Wales, and Northern Ireland*

What does NHS hospital and GP treatment typically cover? *All medically necessary care, free at point of use*

In the UK, which governments are responsible for organising and overseeing the NHS? *Scotland, Wales, Northern Ireland, and England each run most aspects of their own NHS through devolved governments*

Note: Correct answers in italics. Items were presented in random order within each battery.

Table 2: Gender Differences Across Knowledge Domains

Panel A. Welfare Survey (N = 1,148)				
	Women	Men	Difference	p-value
Canonical Political Knowledge	0.70	0.80	−0.10	< 0.001
Welfare Knowledge	0.89	0.89	−0.01	0.42
Panel B. NHS Survey (N = 1,108)				
	Women	Men	Difference	p-value
Canonical Political Knowledge	0.70	0.78	−0.08	< 0.001
Public Health Care Knowledge	0.72	0.74	−0.02	0.19

Note: Weighted means. Knowledge scaled 0–1. Difference is women minus men. All p-values from weighted two-sample t-tests. Panel A and Panel B from separate surveys.

These effect sizes are substantively large in canonical knowledge—on the order of one-tenth of the 0–1 scale—and consistent with gender gaps documented across decades of research. Their disappearance in the welfare and NHS batteries, however, supports a different conclusion: when the same measurement logic is applied to domains that structure distributive politics and everyday interaction with the state, gender differences shrink to near zero.

The replication of this pattern across two independent surveys and two distinct domains provides additional leverage. Despite differences in samples and item batteries, both surveys reproduce the canonical gender gap and converge to parity in the alternative domains. Moreover, consistency across a means-tested, stigmatized welfare program and a universal, high-salience health care system suggest that the disappearance of gender gaps is not attributable solely to visibility, universality, or program legitimacy. Instead, this consistency points to a more general conclusion: shifting measurement away from elite-institutional knowledge reveals forms of political understanding that women and men possess at similar levels. These results underscore the importance of domain selection: when political knowledge is measured beyond elite institutions, women are not less politically informed.

To formally test whether the gender knowledge gap differs across domains, I estimate pooled interaction models (Table 3). In Panel A, I stack the canonical and welfare indices, code the welfare battery as a domain indicator (1 = welfare, 0 = canonical), and interact this

indicator with gender. The coefficient on Female captures the canonical gender gap (-0.096 , $p < 0.001$). The interaction between Female and Welfare (0.088 , $p < 0.001$) indicates that the gender gap is significantly smaller in the welfare domain. Substantively, this nearly offsets the canonical gap, implying that women and men perform equivalently on welfare items.⁵

Table 3: Pooled Models of Gender Differences Across Knowledge Domains

Panel A. Canonical vs. Welfare Knowledge	
	<i>Knowledge Score</i>
Female	-0.096^{***} (0.017)
Welfare	0.095^{***} (0.019)
Female \times Welfare	0.088^{***} (0.025)
Constant	0.799^{***} (0.012)
Observations	2,296
Log Likelihood	129.241
AIC	-250.481
Panel B. Canonical vs. Public Health Care Knowledge	
	<i>Knowledge Score</i>
Female	-0.082^{***} (0.019)
Health	-0.043^* (0.021)
Female \times Health	0.063^* (0.030)
Constant	0.779^{***} (0.012)
Observations	2,216
Log Likelihood	-228.011
AIC	464.023

Note: Results from pooled survey-weighted linear regressions stacking canonical with welfare (Panel A) or National Health Service (Panel B) knowledge indices. Coefficients show domain differences and domain-conditioned gender gaps. Robust standard errors in parentheses. $*p < 0.05$; $**p < 0.01$; $***p < 0.001$.

The second pooled model (Panel B) similarly stacks the canonical and NHS indices.

⁵ Results are unchanged with demographic covariates and in unweighted models (Tables A17–A20).

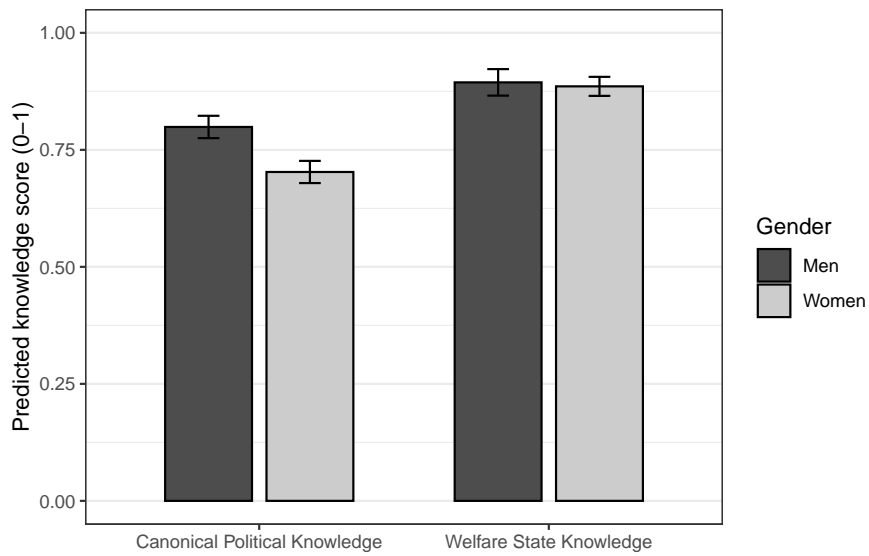
The coefficient on Female (-0.08 , $p < 0.001$) reproduces the canonical gender gap. The interaction between Female and Health (0.06 , $p < 0.05$) shows that this gap is significantly smaller in the NHS domain. Although the difference is not fully eliminated, the knowledge gap is substantially attenuated in the public health care domain.

Figure 1 presents predicted means from the pooled models. In both surveys, men score higher on canonical knowledge, while gender gaps collapse in the welfare and NHS domains. Together, this evidence indicates that the gender gap depends on the governance domain being measured. If canonical batteries continue to anchor such claims, they risk overstating gender inequalities while obscuring other forms of political knowledge and competence.

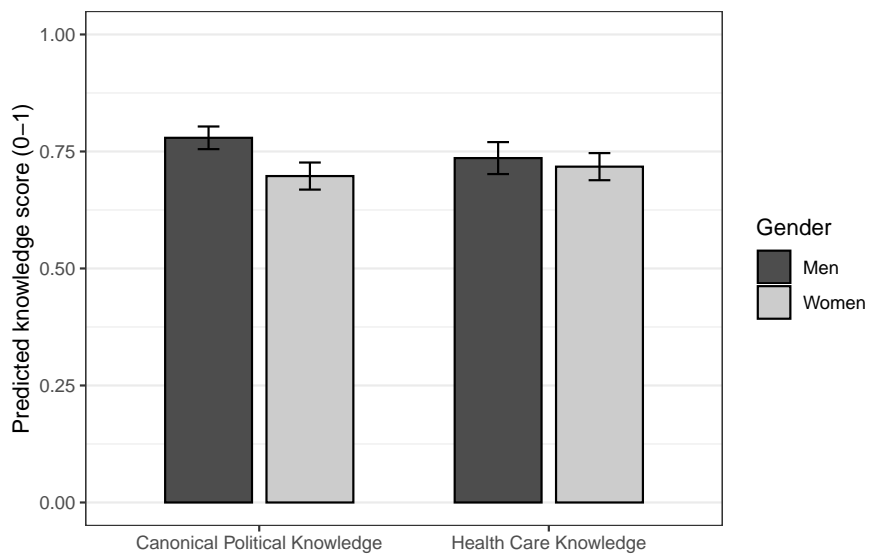
Notably, the attenuation of the welfare gender gap is not explained by differential rates of direct contact with the welfare state. Appendix S6 shows that gender differences are negligible among respondents both with and without direct welfare contact. The main findings are consistent with research on gendered exposure to welfare and public programs (Orloff, 1993; Stolle and Gidengil, 2010), but are not explained by direct experience alone. Alternative mechanisms—such as gendered issue interests or differential attention to policy domains—may also contribute (Campbell and Winters, 2008; Coffé and Bolzendahl, 2010). Taken together, these results suggest that domain-specific knowledge is not reducible to direct contact, but instead reflects multiple pathways of political learning—through families, workplaces, communities, and media—that differ from those associated with elite institutions.⁶

Taken together, the findings in this section reinforce the central claim of this research note: gender gaps in political knowledge are not a general feature of citizen competence but a product of how knowledge is measured. Holding the focus on institutional knowledge constant, the gap is large in elite-institutional knowledge and disappears in welfare and public health care. The replication of this pattern across two distinct policy domains—one means-tested and stigmatized (Universal Credit), the other universal, highly salient, and widely supported (National Health Service)—provides leverage beyond single-domain studies, showing that the disappearance of gender gaps is not confined to a particular policy arena. More broadly, the

⁶ I do not conduct a parallel analysis for the NHS because use is effectively universal.



(a) Canonical and welfare knowledge by gender.



(b) Canonical and public health care knowledge by gender.

Figure 1: Predicted knowledge scores (0–1) by gender across domains. Panel A and Panel B come from separate surveys (welfare and National Health Service). Shown are predicted means with 95% confidence intervals.

results show that conclusions about gendered political competence depend on the institutional content of measurement: when political knowledge is assessed beyond elite institutions, women are not less politically informed.

5 Discussion and Conclusion

This research note shows that the gender gap in political knowledge is domain-specific. Women score lower than men on a canonical knowledge battery focused on elite institutions, but these differences largely disappear when knowledge is measured in two of the most salient institutions in British politics: Universal Credit and the NHS. Across both domains, women and men demonstrate equivalent understanding of institutional features—who programs serve, what they provide, eligibility rules, and how authority is structured. In other words, gender differences in political knowledge do not generalize beyond elite-institutional content. By examining two distinct domains—one means-tested and stigmatized, the other universal and highly salient—this note shows that the attenuation of gender gaps is not confined to a single policy area but generalizes across substantively different areas of governance. Because the comparison holds constant the format and evaluative logic of knowledge questions, this pattern can be attributed to domain rather than differences in question type.

These findings challenge the generality of canonical political knowledge measures as indicators of political competence. Canonical batteries define competence in terms of familiarity with elite actors, institutional rules, and parliamentary procedures. Yet democratic accountability also depends on citizens' understanding of the institutions that deliver public services, allocate resources, and structure everyday encounters with the state. If political knowledge enables citizens to evaluate government and form preferences, it necessarily spans multiple domains of governance. The results therefore indicate that observed gender gaps reflect the institutional content of measurement rather than stable differences in political competence.

Conceptually, these results call for a broader framework for studying political knowledge—one that recognizes that states govern across multiple arenas, including taxation, education, and immigration. If political learning is distributed across these contexts, no single-

domain battery can serve as a general benchmark. Scholars should therefore develop multi-domain measures before drawing conclusions about who is politically informed. Empirically, I move in that direction by incorporating welfare and public health care into the study of political knowledge, thereby broadening a literature long focused on elite institutions. In so doing, the note provides a template for measuring competence across domains: the UC and NHS batteries parallel canonical items in structure, holding constant question format while varying the domain of governance. Psychometric analyses indicate that these measures are reasonably coherent, reliable, and empirically distinct from the canonical battery. Future work can build on this approach to develop multi-domain assessments that better capture how citizens learn about and understand politics.

This note has several limitations that warrant further discussion. First, although the welfare state and public health care are core institutional domains, other governance arenas—taxation, education, housing, immigration enforcement—may reveal further variation. Welfare and public health care are likely emblematic rather than exhaustive examples. Future research should examine group knowledge patterns in areas like taxation, education, immigration enforcement, and local government—domains that differ in visibility, formal complexity, and the social distribution of exposure. Second, this paper does not distinguish between different pathways of political knowledge acquisition. Future research should disentangle how exposure, networks, media systems, and lived experience shape the distribution of domain-specific knowledge to clarify how domain-specific political knowledge develops over time. Finally, scholars should examine how domain-specific knowledge affects political preferences, evaluations, and behavior—key questions for understanding when and how political knowledge matters.

To conclude, the central claim of this research note is that gender gaps in political knowledge depend on the domain of governance being measured. Claims about who is politically informed should therefore account for the diversity of institutional knowledge that citizens possess. When political knowledge is measured beyond elite institutions, women are not less politically informed. More broadly, a multi-domain approach highlights how empirical measures embed normative judgments about which forms of knowledge matter for democratic

citizenship. Reliance on elite-institutional items risks privileging the knowledge associated with groups closer to formal political institutions, while overlooking forms of understanding rooted in policy experience and everyday governance. Expanding measurement across domains therefore yields a more accurate and inclusive account of democratic competence.

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Supplementary Material for ‘Do Gender Gaps in Political Knowledge Generalize Across Policy Domains?’

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1 Descriptive Statistics: Prolific Samples

Table A1. Demographic breakdown, Welfare: Prolific sample.
Means for continuous variables; percentages for binary indicators.

Variable	Respondents
N	1148.0
Women (Percent)	51.9
Men (Percent)	48.1
Age (mean)	47.0
Education (mean, 1–4 scale)	2.7
Income (mean, 1–9 scale)	4.8
Labour (Percent)	34.4
Conservative (Percent)	22.8
Independent/Other (Percent)	42.8
White (Percent)	86.5
Asian (Percent)	7.8
Black (Percent)	3.4
Mixed (Percent)	1.3
Other Race (Percent)	1.0
England – South (Percent)	41.5
England – Midlands (Percent)	17.2
England – North (Percent)	27.4
Scotland (Percent)	7.8
Wales (Percent)	4.1
Northern Ireland (Percent)	2.0

Table A2. Demographic breakdown, Health Care: Prolific sample.
Means for continuous variables; percentages for binary indicators.

Variable	Respondents
N	1108.0
Women (Percent)	52.9
Men (Percent)	47.1
Age (mean)	46.9
Education (mean, 1–4 scale)	2.7
Income (mean, 1–9 scale)	4.9
Labour (Percent)	30.4
Conservative (Percent)	23.6
Independent/Other (Percent)	46.0
White (Percent)	86.1
Asian (Percent)	7.6
Black (Percent)	3.3
Mixed (Percent)	1.9
Other Race (Percent)	0.9
England – South (Percent)	40.2
England – Midlands (Percent)	16.5
England – North (Percent)	29.8
Scotland (Percent)	6.2
Wales (Percent)	5.1
Northern Ireland (Percent)	2.3

2 Survey Items

Welfare State Knowledge Survey

Standard Political Knowledge Items

1. Which party currently has a majority of seats in the House of Commons? *Conservative Party; Labour Party; Liberal Democrats; I don't know*
2. What is the maximum length of time Parliament can last before a general election must be held? *3 years; 4 years; 5 years; 7 years*
3. Which party is generally considered more to the right at the national level? *Labour Party; Conservative Party; They are considered equally right-wing; I don't know*
4. Who is responsible for making the final decision on whether a law passes in the UK? *The Monarch; The Prime Minister; The House of Commons; I don't know*
5. What office is currently held by Rachel Reeves? *Chancellor of the Exchequer; Home Secretary; Speaker of the House of Commons; I don't know*

Welfare State Knowledge Items

1. Which group receives Universal Credit (UC) at the highest rate? *Adults without children; Households with children; Pension-age adults; I don't know*
2. What expenses is Universal Credit intended to cover? *Rent payments only; Childcare costs only; Food, clothing, and basic living costs; I don't know*
3. Who sets most eligibility rules and benefit levels for Universal Credit? *Local councils; UK central government; Devolved governments; I don't know*
4. What is generally required of most UC claimants who are able to work? *Participating in job-seeking or work-related activities; Proving disability; Completing unpaid community work; I don't know*
5. Which of the following determines the amount of Universal Credit a claimant receives? *Length of unemployment; Credit score; Household income, circumstances, and housing costs; I don't know*

Welfare Use

1. Direct receipt: *Universal Credit; Housing Benefit; Child Benefit; Job Seeker's Allowance; Disability benefits; Council Tax Reduction; Other; Never received any.*
2. Household receipt: *Same list as above.*
3. Worked in benefits administration: *Yes/No.*

Covariates

Gender, age, race/ethnicity, education, income, region, party ID.

Health Care State Knowledge Survey

Standard Political Knowledge Items

(Same five canonical items as in the welfare survey)

Public Health Care Knowledge Items

1. Who is primarily responsible for determining the overall level of public spending on health services in the UK? *Each local health board; National health agencies; The UK Parliament; I don't know*
2. On what basis do people become eligible to receive NHS services in the UK? *UK citizenship; Lawful residence in the UK; Paying National Insurance contributions; I don't know*
3. Where in the UK do patients pay NHS prescription charges? *All four nations; Nowhere, all prescriptions are free; England only (free in devolved nations); I don't know*
4. What does NHS hospital and GP treatment typically cover? *All medically necessary care, free at point of use; Only emergency care free; GP care free but hospital co-payments; I don't know*
5. In the UK, which governments are responsible for organising and overseeing the NHS? *Local councils; Entirely UK government; Devolved governments in the four nations; I don't know*

NHS Use Items

1. Personal administrative interaction: *Registered with NHS GP; Used NHS 111; Used NHS App/online system; Challenged an NHS decision; Submitted a complaint; None.*
2. Household administrative interaction: *Managed referrals/approvals; Contacted NHS 111 for someone else; Used NHS systems for someone else; Assisted with appeal; None.*
3. Worked in NHS/public health administration: *Yes/No.*

Covariates

Identical covariates to the welfare survey (gender, age, race/ethnicity, education, income, region, party ID).

3 Item-Level Results: Welfare vs. Canonical

3.1 Item-Level Properties

Tables A3 and A4 report item-level properties for the canonical and welfare batteries. For each item, I present the weighted percent correct, standard error, item difficulty, and item discrimination, calculated as the item–total correlation between each item and the sum of the remaining items in the same battery.

The canonical items cover heterogeneous institutional facts and exhibit correspondingly wide performance variation. Percent correct rates range from 53% (max. Parliament term) to 91% (House majority), yielding difficulty values from 0.09 to 0.47. Item–total correlations are uniformly low (approx. 0.11–0.22), and one item—which body makes most laws—shows minimal discrimination ($r_{it} = -0.03$). This pattern coheres with longstanding findings that canonical batteries are multidimensional and composed of loosely related factual domains.

	Label	Percent correct	SE	Item diff. (1-p)	Item discrim. (r_{it})
1	House majority	0.91	0.01	0.09	0.21
2	Max Parliament term	0.53	0.02	0.47	0.11
3	More right party	0.83	0.02	0.17	0.16
4	Who makes laws	0.63	0.02	0.37	-0.03
5	Chancellor	0.85	0.02	0.15	0.22

Table A3. Item-level properties of canonical items (welfare survey).

Universal Credit items, by contrast, are uniformly easier, with percent correct rates between 82% and 94% and difficulty values ranging from 0.06 to 0.18. Item discrimination values are moderate and consistently positive (r_{it} between 0.17 and 0.39), indicating that the UC items contribute meaningfully to a common underlying construct of welfare state administrative knowledge. Importantly, the UC items exhibit neither uniformly high difficulty nor uniformly low discrimination, suggesting that the gender differences (or lack thereof) observed in the main text are not artifacts of systematic differences in item difficulty or scale quality.

	Label	Percent correct	SE	Item diff. (1-p)	Item discrim. (r_{it})
1	Who gets most UC	0.87	0.02	0.13	0.29
2	UC used for	0.92	0.01	0.08	0.25
3	UC amount	0.94	0.01	0.06	0.39
4	Who sets UC rules	0.82	0.02	0.18	0.17
5	UC requirements	0.90	0.02	0.10	0.35

Table A4. Item-level properties of welfare items (welfare survey).

3.2 Internal Consistency (Cronbach’s Alpha) and Inter-Item Correlations

Cronbach’s alpha is 0.33 for the canonical battery and 0.55 for the welfare state battery, values that fall within the range commonly observed for short factual political knowledge scales. Inter-item correlation matrices (Tables A5 and A6) show the expected pattern: correlations among the canonical items are small and heterogeneous, while the Universal Credit items exhibit moderate and consistently positive associations. These results indicate that the UC battery forms a more coherent construct than the canonical battery and that the two sets of items capture empirically distinct dimensions of political knowledge, consistent with the domain-specific patterns described in the main text.

	House ma- jority	Max Par- liament term	More right party	Who makes laws	Chancellor
House majority	1.00	0.14	0.18	0.04	0.19
Max Parliament term	0.14	1.00	0.18	-0.05	0.26
More right party	0.18	0.18	1.00	-0.03	0.17
Who makes laws	0.04	-0.05	-0.03	1.00	0.05
Chancellor	0.19	0.26	0.17	0.05	1.00

Table A5. Inter-item correlation matrix for canonical items (welfare survey).

	Who gets most UC	UC used for	UC amount	Who sets UC rules	UC require- ments
Who gets most UC	1.00	0.18	0.26	0.11	0.18
UC used for	0.18	1.00	0.27	0.23	0.20
UC amount	0.26	0.27	1.00	0.18	0.36
Who sets UC rules	0.11	0.23	0.18	1.00	0.17
UC requirements	0.18	0.20	0.36	0.17	1.00

Table A6. Inter-item correlation matrix for welfare items (welfare survey).

3.3 Exploratory Factor Analysis

To assess whether the ten UK knowledge items (five canonical, five welfare state) form a single latent dimension or reflect multiple underlying constructs, I conduct exploratory factor analyses (EFA) using the tetrachoric correlation matrix among the dichotomous items. Tetrachoric correlations were computed using `psych::tetrachoric()`, and factor models were estimated using maximum likelihood (ML) with oblimin rotation. As shown in Table A7, the first two eigenvalues exceed 1 (3.48 and 1.64), and there is a clear drop-off after the second factor, suggesting that the items are not well characterized by a unidimensional structure.

	Factor	Eigenvalue
1	1	3.48
2	2	1.64
3	3	1.01
4	4	0.87
5	5	0.74
6	6	0.60
7	7	0.50
8	8	0.46
9	9	0.42
10	10	0.28

Table A7. Eigenvalues from EFA of canonical and welfare items (welfare survey).

A single-factor model (Table A8) provides a poor representation of the data. Canonical items load only weakly on the general factor (0.17–0.48), whereas the welfare state items load substantially (0.52–0.86). This pattern indicates that the dominant factor primarily reflects welfare state knowledge rather than a unified political knowledge dimension.

	Item	Loading
1	pol_house	0.29
2	pol_term	0.22
3	pol_parties	0.38
4	pol_law	0.17
5	pol_chancellor	0.48
6	uc1	0.57
7	uc2	0.65
8	uc3	0.86
9	uc4	0.52
10	uc5	0.73

Table A8. One-factor ML solution for canonical and welfare items (welfare survey).

The two-factor ML solution (Table A9) yields a markedly clearer and more theoretically coherent structure. All five Universal Credit items load strongly on one factor (0.40–0.90), and four of the five canonical items load strongly on the second factor (0.48–0.73). Cross-loadings are minimal, and the two latent dimensions align precisely with the substantive domains: elite-institutional knowledge and welfare state knowledge. One canonical item (legislative

authority) shows weak loadings on both factors, consistent with its low item–total correlation and minimal inter-item associations.

	Item	Factor1	Factor2
pol_house	pol_house	0.02	0.54
pol_term	pol_term	-0.14	0.73
pol_parties	pol_parties	0.13	0.48
pol_law	pol_law	0.20	-0.05
pol_chancellor	pol_chancellor	0.16	0.68
uc1	uc1	0.62	-0.07
uc2	uc2	0.65	-0.01
uc3	uc3	0.90	-0.00
uc4	uc4	0.40	0.22
uc5	uc5	0.71	0.06

Table A9. Two-factor ML solution (oblimin rotation) for canonical and welfare items (welfare survey).

Taken together, the eigenvalues, one-factor loadings, and two-factor solution indicate that the canonical and welfare state knowledge items represent empirically separable constructs rather than a single underlying dimension of political knowledge. This structure provides further support for the argument that political knowledge is domain-dependent, with welfare state knowledge forming a coherent dimension distinct from the canonical measure.

4 Item-Level Results: Health Care vs. Canonical

4.1 Item-Level Properties

Tables A10 and A11 present item-level properties for the canonical and NHS knowledge batteries. As in the welfare survey, the canonical items display substantial variation in difficulty. Percent correct rates range from 52% on the maximum term of Parliament to 87% on the governing party, yielding difficulty values between 0.13 and 0.48. Item–total correlations (r_{it}) are generally small (0.15–0.34), and one item—identifying which body makes most laws—again exhibits essentially no discrimination ($r_{it} = -0.01$). These patterns are consistent with prior research showing that canonical batteries draw on multiple loosely related domains of elite-institutional knowledge.

	Label	Percent correct	SE	Item diff. (1-p)	Item discrim. (r_{it})
1	House majority	0.87	0.02	0.13	0.28
2	Max Parliament term	0.52	0.02	0.48	0.15
3	More right party	0.82	0.02	0.18	0.26
4	Who makes laws	0.63	0.02	0.37	-0.01
5	Chancellor	0.85	0.02	0.15	0.34

Table A10. Item-level properties of canonical items (NHS survey).

The NHS items similarly vary in difficulty but exhibit a more uniform pattern of positive discrimination. Percent correct levels range from 58% (eligibility for NHS services) to 95% (scope of services covered), reflecting both well-known features of the NHS and areas where public understanding is more limited. Difficulty values span from 0.05 to 0.42. Item–total correlations range from 0.12 to 0.35, indicating that each NHS item contributes modestly but positively to a common underlying construct of health-service administrative knowledge. In contrast to the canonical battery, all NHS items discriminate in the expected direction, suggesting a more coherent domain structure.

	Label	Percent correct	SE	Item diff. (1-p)	Item discrim. (r_{it})
1	Who funds NHS	0.82	0.02	0.18	0.12
2	Who is eligible	0.58	0.02	0.42	0.19
3	Prescription costs	0.63	0.02	0.37	0.27
4	Services covered	0.95	0.01	0.05	0.20
5	Control across UK	0.64	0.02	0.36	0.35

Table A11. Item-level properties of health care items (NHS survey).

4.2 Internal Consistency (Cronbach’s Alpha) and Inter-Item Correlations

Cronbach’s alpha is 0.37 for the canonical battery and 0.37 for the NHS battery, values that fall within the range typically observed for short political knowledge scales. As in the welfare survey, the canonical items exhibit small and heterogeneous inter-item correlations (Table A12), with pairwise associations ranging from $r = -0.07$ to $r = 0.27$. The legislative authority item again shows the weakest associations with the other canonical items, consistent with its low discrimination and reflecting the multidimensional nature of elite-institutional knowledge.

	House ma- jority	Max Par- liament term	More right party	Who makes laws	Chancellor
House majority	1.00	0.15	0.22	0.07	0.27
Max Parliament term	0.15	1.00	0.17	-0.07	0.23
More right party	0.22	0.17	1.00	0.04	0.19
Who makes laws	0.07	-0.07	0.04	1.00	0.08
Chancellor	0.27	0.23	0.19	0.08	1.00

Table A12. Inter-item correlation matrix for canonical items (NHS survey).

The NHS items display modest but consistently positive inter-item correlations (Table A13), although these correlations are generally smaller than those observed for the UC battery. Pairwise associations among the NHS items range from $r = 0.03$ to $r = 0.30$, with the strongest correlations appearing between items capturing prescription rules and the devolved control of NHS services. While the NHS battery is not highly internally consistent, the uniformly positive correlations indicate a coherent, if diffuse, domain of public health knowledge. Together, these results suggest that both the canonical and NHS batteries function as low-length factual scales that capture empirically distinct dimensions of political knowledge.

	Who funds NHS	Who is el- igible	Prescription costs	Services covered	Control across UK
Who funds NHS	1.00	0.08	0.03	0.08	0.09
Who is eligible	0.08	1.00	0.10	0.08	0.14
Prescription costs	0.03	0.10	1.00	0.14	0.30
Services covered	0.08	0.08	0.14	1.00	0.04
Control across UK	0.09	0.14	0.30	0.04	1.00

Table A13. Inter-item correlation matrix for health care items (NHS survey).

4.3 Exploratory Factor Analysis

To assess whether the canonical and NHS knowledge items form a single latent construct or reflect multiple underlying dimensions, I conduct exploratory factor analyses (EFA) using the tetrachoric correlation matrix among all ten dichotomous items. As shown in Table A14, the first eigenvalue (3.38) is substantially larger than the remainder, but the second and third eigenvalues (1.12 and 1.04) also exceed the standard Kaiser criterion, and the decline after the second factor is modest. This pattern indicates that the full item set is not well captured by a unidimensional structure.

	Factor	Eigenvalue
1	1	3.38
2	2	1.12
3	3	1.04
4	4	0.89
5	5	0.86
6	6	0.78
7	7	0.67
8	8	0.51
9	9	0.49
10	10	0.26

Table A14. Eigenvalues from EFA of canonical and NHS items (NHS survey).

The one-factor maximum likelihood solution (Table A15) exhibits uneven loadings. Canonical items generally load strongly on the factor (0.51–0.76), with the partial exception of the legislative authority item (0.14). NHS items load more moderately (0.37–0.55), suggesting that the one-factor model captures shared variance across the ten items, but does so unevenly and with evidence of domain heterogeneity.

	Item	Loading
1	pol_house	0.69
2	pol_term	0.51
3	pol_parties	0.57
4	pol_law	0.14
5	pol_chancellor	0.76
6	nhs1	0.37
7	nhs2	0.41
8	nhs3	0.55
9	nhs4	0.47
10	nhs5	0.50

Table A15. One-factor ML solution for UK canonical and NHS items (NHS survey).

The two-factor solution (Table A16) reveals partial differentiation between the two batteries. Four of the five canonical items load strongly on the first factor (0.54–0.74), whereas the NHS items show more mixed loadings: one item (prescription costs) loads almost entirely on the second factor (1.00), and another (control across the UK) loads more strongly on the

second factor than on the first, while the remaining NHS items load moderately on both factors. Cross-loadings are non-trivial, indicating that canonical and NHS items share a general knowledge component, but the presence of a distinct factor dominated by NHS items is consistent with the idea that health care knowledge also has domain-specific elements.

	Item	Factor1	Factor2
pol_house	pol_house	0.74	-0.05
pol_term	pol_term	0.54	-0.04
pol_parties	pol_parties	0.57	0.01
pol_law	pol_law	0.18	-0.07
pol_chancellor	pol_chancellor	0.67	0.16
nhs1	nhs1	0.49	-0.18
nhs2	nhs2	0.43	-0.04
nhs3	nhs3	0.00	1.00
nhs4	nhs4	0.34	0.23
nhs5	nhs5	0.29	0.34

Table A16. Two-factor ML solution (oblimin rotation) for canonical and NHS items (NHS survey).

Together, the eigenvalue pattern and factor loadings suggest that the canonical and NHS batteries tap related but distinguishable latent dimensions, rather than a single unified construct. The NHS items cohere around a separate domain of knowledge, reinforcing the main text's claim that political knowledge is domain-specific rather than monolithic.

5 Pooled Models

5.1 Pooled Models with Covariates

Table A17. Canonical vs. Welfare Knowledge (Pooled Model with Covariates)

	<i>Knowledge Score</i>
Female	-0.091*** (0.016)
Welfare	0.095*** (0.020)
Age	0.002*** (0.0005)
Education	0.009 (0.005)
Income	0.005 (0.003)
England–North	-0.012 (0.019)
England–South	-0.029* (0.014)
Northern Ireland	-0.008 (0.026)
Scotland	-0.010 (0.019)
Wales	-0.032 (0.031)
Black	0.056* (0.026)
Black/Asian	0.196*** (0.030)
Mixed	0.006 (0.039)
Other	-0.082 (0.053)
White	0.035 (0.022)
Female \times Welfare	0.088*** (0.025)
Constant	0.635*** (0.040)
Observations	2,290
Log Likelihood	201.577
AIC	-369.154

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table A18. Canonical vs. Health Care Knowledge (Pooled Model with Covariates)

	<i>Knowledge Score</i>
Female	−0.092*** (0.018)
NHS	−0.043* (0.019)
Age	0.004*** (0.0004)
Education	0.040*** (0.006)
Income	0.002 (0.004)
England–North	−0.022 (0.020)
England–South	−0.001 (0.019)
Northern Ireland	0.012 (0.061)
Scotland	0.030 (0.026)
Wales	0.028 (0.033)
Black	−0.016 (0.029)
Mixed	−0.087 (0.053)
Other	−0.118* (0.051)
White	0.024 (0.018)
White/Asian/Mixed	−0.060 (0.059)
Female × NHS	0.063* (0.026)
Constant	0.492*** (0.040)
Observations	2,214
Log Likelihood	−73.292
AIC	180.584

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

5.2 Unweighted Pooled Models

Table A19. Canonical vs. Welfare Knowledge (Unweighted Pooled Model)

<i>Dependent variable:</i>	
Knowledge Score	
Female	-0.090*** (0.011)
Welfare	0.076*** (0.012)
Female × Welfare	0.093*** (0.016)
Constant	0.816*** (0.008)
Observations	2,296

Note: *p<0.05; **p<0.01; ***p<0.001

Table A20. Canonical vs. Health Care Knowledge (Unweighted Pooled Model)

<i>Dependent variable:</i>	
Knowledge Score	
Female	-0.079*** (0.013)
NHS	-0.030* (0.013)
Female × NHS	0.060** (0.018)
Constant	0.799*** (0.009)
Observations	2,216

Note: *p<0.05; **p<0.01; ***p<0.001

6 Knowledge Gaps by Welfare State Contact

Table A21. Gender Gaps by Welfare State Contact

Domain	Contact	Women Mean	Men Mean	Difference	p-value
Canonical	No contact	0.755	0.802	-0.047	0.022
Canonical	Any contact	0.685	0.797	-0.113	< 0.001
Welfare	No contact	0.864	0.864	< 0.001	0.992
Welfare	Any contact	0.893	0.909	-0.016	0.186

Note: Weighted means using ONS-based post-stratification weights. Differences are women minus men. p-values from weighted two-sample t-tests. Knowledge scores range 0–1. *Any contact* indicates any direct receipt, household receipt, or work involving welfare benefits in the UK.

7 Alternative Coding of “Don’t Know” Responses

Tables A22 and A23 re-estimate the main gender-gap comparisons using an alternative coding of “don’t know” (DK) responses. In the main analysis, DK responses are coded as incorrect, following standard practice in the political knowledge literature. Here, by contrast, DK responses are coded as missing, and knowledge indices are constructed from the mean of non-missing items within each battery. The substantive conclusions are unchanged. In both surveys, the canonical battery continues to show a gender gap favoring men, while gender differences in welfare and health care knowledge remain small and statistically indistinguishable from zero. These results indicate that the cross-domain pattern reported in the main text is not driven by the coding of DK responses.

Table A22. Gender Variation in Canonical and Welfare Knowledge (DK Coded as Missing)

	Women	Men	Difference	p-value
Canonical Political Knowledge	0.70	0.80	-0.10	0
Welfare State Knowledge	0.89	0.89	-0.01	0.42

Note: Weighted means. Difference is women minus men. All p-values from weighted two-sample t-tests. Knowledge variables scaled 0–1. DK responses coded as missing.

Table A23. Gender Variation in Canonical and NHS Knowledge (DK Coded as Missing)

	Women	Men	Difference	p-value
Canonical Political Knowledge	0.70	0.78	-0.08	0
Health Care Knowledge	0.72	0.74	-0.02	0.19

Note: Weighted means. Difference is women minus men. All p-values from weighted two-sample t-tests. Knowledge variables scaled 0–1. DK responses coded as missing.

8 Ethical Considerations

This project received ethics review and was determined to be exempt from further oversight by the [REDACTED] Institutional Review Board under U.S. federal exemption criteria for minimal-risk survey research. All data were collected in Summer 2025 via Prolific, and respondents were compensated at Prolific's prevailing fair-wage rates. Respondents were adults drawn from a general population sampling frame, and no vulnerable populations were targeted or disproportionately represented. No deception was used, and all respondents provided informed consent prior to participation.