Polarization over the Priority of Political Problems [*]

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What drives ideological division about political problems? When prioritising which problems are most in need of redress, voters might disagree about the severity of individual outcomes that constitute such problems; the prevalence of those problems; or whether such problems are amenable to solution by government action. We field a large survey experiment in the UK and US and develop a new measurement approach which allows us to evaluate how ideological disagreements change when respondents consider the individual badness, social severity, and priority for government action of a set of 41 political problems. We find that large ideological divergences are observed in beliefs about social severity and priority for government action, not individual problem badness, and only in the US. An important implication of these results is that polarization over problem-prioritization is more likely to be an emergent property of US politics than of the psychology of US citizens.

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Introduction

Before governments can act to address problems, they must identify what those problems are. Governments cannot feasibly attend to all problems facing citizens, and consequently allocate attention and effort selectively. Just as disagreement often centres around the tradeoffs that arise when governments take one policy action over another, citizens might also disagree on the tradeoffs inherent in the decision to pursue solutions to one political problem over another. Where citizens disagree significantly over which political problems are most important to solve, any account of political polarization – that is, any account of ideological disagreement in the electorate – that focuses only on the issue *positions* that voters hold on how to solve such problems (e.g. Layman and Carsey, 2002; Hetherington, 2001; Abramowitz and Saunders, 2008; Fiorina and Abrams, 2008; Mason, 2013, 2015) is incomplete.

When conceptualized in terms of problem prioritization, political scientists have a surprisingly weak understanding of political disagreement. Despite a long history of research into public issue salience (Niemi and Bartels, 1985; Krosnick, 1990; Wlezien, 2005; Ansolabehere and Puy, 2018; Dennison, 2019), almost no work systematically assesses differences in problem prioritization across groups of voters. We argue that the lack of such comparisons partly reflects empirical and theoretical weaknesses in the study of problem prioritization. Empirically, standard measurement instruments for issue salience are subject to a number of well-known methodological limitations (Niemi and Bartels, 1985; Wlezien, 2005; Johns, 2010; Jennings and Wlezien, 2011; Bartle and Laycock, 2012) which make them poorly suited to capturing differences in issue importance across different groups of voters. Theoretically, the mechanisms through which voters come to see some political problems as more important or more in need of government attention remain under-theorised (Dennison, 2019, 442; Paul and Fitzgerald, 2021, 370), undermining our ability to understand the roots of any ideological disagreement that might exist.

In this paper, we make three contributions to the measurement and understanding of the public

prioritization of political problems. Our main theoretical contribution is a framework which emphasises that variation between voters about the priority ascribed to political problems might stem from three sources of disagreement. First, voters might hold different perceptions on the severity or "badness" of individual instances of a problem. Second, voters might have different beliefs about the prevalence of a problem. Third, voters might have different beliefs about the likely efficacy of government action to address a problem. Previous work has focused heavily on differences in individual morality as the locus of contemporary political conflict (Haidt and Graham, 2007; Graham, Haidt and Nosek, 2009; Graham et al., 2011; Haidt, 2012; Koleva et al., 2012; Kertzer et al., 2014; Tappin and McKay, 2019; Enke, 2020; Enke, Rodríguez-Padilla and Zimmermann, 2022), a perspective which suggests that polarization is likely to be rooted in voters' different perceptions of individual problem badness. However, our framework highlights that all three sources of varying beliefs – about individual severity, societal prevalence, and government efficacy – might each play some role in observed levels of political polarization. We argue that separately and comparably measuring three sources of political disagreement is therefore necessary in order to understand where and how political polarization manifests.

Our second contribution is to develop a novel experimental measurement strategy and associated modelling approach for assessing the extent to which people disagree along ideological and political lines about these three features of political problems. To do so, we define a set of 41 political "problems", about which we query respondents using pairwise comparison experiments. We probe respondents' relative evaluations of these problems using different prompts to solicit information about the different types of disagreement that are the focus of our theoretical discussion. In one treatment condition, our prompt asks respondents to make evaluations based on beliefs about the relative *badness* or *severity* of individual instances of the two problems: "Which of these do you think is worse?" A second condition asks respondents to evaluate the aggregate severity of that class of problem in a given country context, combining their beliefs about relative individual problem badness with their beliefs about the relative *prevalence* of the two problems: "Which of these do you think is a worse problem

in the [US/UK]?" A final condition asks respondents to evaluate the relative priority for government action, combining beliefs about aggregate severity with their beliefs about the likely *efficacy of government action* in addressing each problem: "Which of these problems should be the higher priority for the [US/UK] government to try to fix?" By comparing the distributions of responses to the paired-comparison tasks across the three prompts, we are therefore able to assess which of the three sources of variation in beliefs are most important in driving ideological conflict over problem prioritization.

Our experiment provides responses to paired comparisons including all 41 problems for each of the three prompts, which we analyse using hierarchical Bradley-Terry models (Loewen, Rubenson and Spirling, 2012; Blumenau and Lauderdale, 2022, 2023). The modelling framework we use provides several advantages, the most important of which is that it allows us to quantify the level of ideological disagreement over the rankings of the full set of problems, and allows us to directly compare the extent and patterns of disagreement between the individual, social, and government priority prompts. In addition, while the large number of problems we study means that we have relatively imprecise estimates of the level of ideological disagreement on any particular problem, the multilevel modelling approach we adopt nevertheless allows us to make statements about the average level of disagreement between left- and right-wing respondents across all of the problems in our experiment, and about the differences in average disagreement between our three prompts.

Our final contribution is empirical. We field our experiment to representative samples of citizens in the US and UK and demonstrate a number of important findings. We show that, in evaluating the severity of individual problems, those on the left and right, and in both the UK and US, make largely similar choices, such that the rankings of problem severity for those with opposing ideology are strikingly similar, but also that the ideological differences on certain problem tend to be similar across both countries. We also show that, in both UK and US, voters provide different rankings of problems at the aggregate than at the individual level in ways that clearly reflect the fact that some problems are more prevalent than others. In the UK, limited ideological disagreement carries forward from individual problem level to evaluations of problem severity at the social level and also to priority

for government action. By contrast, in the US, evaluations of problem severity at the social level, and in terms of priority for government action, are much more polarized along ideological lines. These evaluations are substantially more strongly predicted by self-reported ideology (and past vote) than is the case for individual problem instances. This is true to the point that the evaluations of liberals versus conservatives are only weakly positively correlated with one another across the 41 problems in our study. Ideological differences in US respondents' beliefs about the relative prevalence of social problems are likely to play an important role in explaining why we observe these different patterns in the two countries.

Our core findings are important for our understanding of the nature of US ideological polarization, which has been the object of extensive academic and non-academic attention in recent years (e.g. Koleva et al., 2012; Haidt, 2012; Mason, 2013; Abramowitz and Saunders, 2008; Kertzer et al., 2014; Fishkin et al., 2020; Levendusky, 2018; Garrett and Bankert, 2020; Simonsen and Bonikowski, 2022). The pattern of results that we see forms strong evidence that variation in individual psychology plays only a partial role in explaining US polarization over the prioritization of different political problems. American liberals and conservatives do not disagree very much, or notably more than those on the UK left and right, regarding the individual instances of problems that are most narrowly and directly connected to individual moral psychology. The modest ideological differences in both countries tend to appear on the same issues and in the same directions. In contrast, when questions focus on social problems and priorities for government action, US liberals give responses that differ much more strongly from those given by US conservatives. The polarization we document in in the US, then, does not appear to stem from differences between liberal and conservative judgments of the badness of specific events, but rather from differences in the ways in which voters perceive the frequency of those events.

Polarization over Problem Prioritization

An extensive literature in political science documents the levels and trends of attitudinal conflict in the US electorate (Hetherington, 2001; Layman and Carsey, 2002; Abramowitz and Saunders, 2008; Fiorina and Abrams, 2008; Mason, 2013, 2015).[1] In particular, the extent of issue-based polarization – defined as the degree to which citizens take ideologically extreme positions on different policy issues – is the subject of ongoing debate, with some arguing that there are large and growing attitudinal divides among the US public (e.g. Abramowitz and Saunders, 2008) while others suggest that mass policy attitudes remain relatively moderate (e.g. Fiorina and Abrams, 2008). However, while ideological disagreement over policy is clearly one important quantity of interest in the study of polarization, political contestation does not *only* reside in the issue positions that voters adopt. An additionally important, and in some sense logically prior, question is whether and how far voters agree about the relative priority of the different problems that governments might seek to address through policy. Despite extensive debate over the conceptual meaning of polarization,[2] researchers have largely ignored the possibility that voters might have systematically divergent attitudes about the priority given to addressing different political problems.[3]

Public (dis)agreement over "what matters" in politics is important to understand for a number of reasons. First, high-quality political representation requires some level of correspondence between the attention paid by political actors to different issues and the priority ascribed to those issues by the public. To the extent that the public disagrees strongly about the ordering of public priorities, the agenda pursued by the government may correspond only to the priorities of some (potentially small and unrepresentative) subset of the electorate. Second, ideological conflict over what constitutes an important problem is, in some sense, a more troubling form of polarization than ideological disagree-

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[1]While political scientists have examined the extent of polarization over policy issues less in non-US contexts, issue-based disagreements are nevertheless seen as an important feature of politics in many countries (e.g. Ezrow, 2007; Kleiner, 2018, 2020; Bischof and Wagner, 2019; Hübscher, Sattler and Wagner, 2023).

[2]See Hetherington (2009) for a review of this literature.

[3]Where issue salience has been considered, it is mostly conceptualized as a weight that might affect the relevance of position-based polarization on a given issue (Hetherington, 2009, 434-6).

ment over the appropriate policy solution to a problem that everyone sees as important. As Paul and Fitzgerald (2021, 391) suggest, a cohesive society "is one in which different groups may disagree on a particular issue, but they are in agreement about what issues are the most and least important in society." On this view, whether citizens share similar perspectives on the relative ordering of different political problems is a critical aspect of social and political cohesion.

How much do we know about public disagreement over problem importance? While researchers studying public issue salience (Krosnick, 1990; Dennison, 2019) have described variation in the aggregate importance of issues over time (e.g. Wlezien, 2005) or used individual-level measures of issue importance to inform models of voting (e.g. Niemi and Bartels, 1985; Krosnick, 1990; Ansolabehere and Puy, 2018), very few studies evaluate the degree to which different groups of voters disagree about the relative priority of different political problems.[4] We argue that the lack of such comparisons are related to empirical and theoretical weaknesses in the study of problem prioritization.

Empirically, measures of issue salience overwhelmingly rely on survey questions that ask respondents to report the most important "problem" (MIP) or "issue" (MII) facing their country, but these instruments are subject to a number of well-known methodological limitations (Niemi and Bartels, 1985; Wlezien, 2005; Johns, 2010; Jennings and Wlezien, 2011; Bartle and Laycock, 2012). First, by focusing on the *most* important problem, these prompts provide little information about the prioritization of problems beyond what is currently getting the most political attention. Second, these questions often yield broad consensus answers, such as "the economy". However, when voters say "the economy", some might be referring to unemployment, others to inflation, and others still to wages or other concrete issues. The lack of specificity engendered by the open-ended response format therefore makes comparisons of salience across groups hard. Third, some scholars have argued that the open-ended nature of the MIP/MII prompt places unreasonable cognitive demands on voters (Bartle and Laycock, 2012), and that, as a consequence, voters' responses to the MIP/MII question may be more likely to reflect "what they believe the rest of the electorate believe to be important, making MII

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[4]Though see Paul and Fitzgerald (2021) and Neundorf and Adams (2018, 393,402).

responses useful only at the aggregate level" (Dennison, 2019, 439-40). If MIP/MII questions reveal the importance of problems to an *average* voter then they are unlikely to be informative about the degree of disagreement *between* voters of different ideological types.

Beyond proposals for some (relatively minor) alterations to the wording of the MIP/MII question (e.g. Wlezien, 2005, 575; Johns, 2010, 156), there has been remarkably little work which aims to develop new survey instruments better suited to capturing differences in prioritization across groups. One alternative to the MIP/MII question is single rating of different problems (e.g. Arceneaux and Kolodny, 2009), but this approach is also limited by the challenges of comparability of single ratings and the ambiguous scales on which such questions are measured (e.g. "very important", "somewhat important", etc), as well as the cognitive demands imposed on respondents by providing ratings across a wide variety of problems that might be asked in any given survey. An important obstacle, therefore, to developing understanding of disagreements about problem salience is the lack of appropriate tools to measure such attitudes.

Theoretically, understanding *how* voters form attitudes about the relative priority of different problems is a pre-requisite for being able to explain why disagreements between voters about such priorities might arise. However, while existing work assumes that perceptions of problem importance stem from voters' values, self-interest, and group-identification (e.g. Krosnick, 1990), this work is imprecise about how these mechanisms might lead to polarization in prioritization and is silent on other sources of influence that might affect voters' perceptions of problem importance. As a consequence, the mechanisms that determine attitudes in this domain remain "under-theorised" (Dennison, 2019, 442) and "underdeveloped" (Paul and Fitzgerald, 2021, 375). Thinking carefully about the sources of variation in perceptions of problem importance is an important step if we are to understand, and not merely measure, disagreement in such perceptions between voters.

Why might voters on the left and right come to disagree over the importance of different political problems? A prominent explanation for issue-based polarization comes from the literature on social psychology, which views policy preferences as – at least in part – causally downstream of voters' psy-

chology (e.g Jost et al., 2003; Lakoff, 2010; Haidt, 2012). Moral Foundations Theory (MFT), for instance, suggests that while the liberals tend to assign more weight to principles of care and fairness, conservatives put greater stock in principles of loyalty, authority and sanctity (Graham, Haidt and Nosek, 2009; Graham et al., 2011; Haidt, 2012). These moral-psychological differences are thought to explain issue-based polarization (Koleva et al., 2012; Kertzer et al., 2014), political extremism and hostility (Ryan, 2014, 2017), and affective polarization (Garrett and Bankert, 2020; Simonsen and Bonikowski, 2022). As Lakoff (2010, 51) puts it, "Conservatives and progressives typically support opposite policies because they have opposite moral worldviews – opposite notions of right and wrong." Together, then, this work concludes that moral disagreements between voters are at the root of mass political conflict.

Could voters' moral predispositions also affect the priorities they assign to different political problems? The implicit causal model in these accounts is that different psychological predispositions or intuitions will lead citizens to differentially perceive the moral disutility of certain actions, events, or problems. As a consequence, if voters of different ideological types do possess fundamentally contrasting moral "intuitions", then this might translate into different perceptions of the priority of different political problems, as different problems will relate more or less to particular moral concerns.

However there are other sources of disagreement that might also plausibly drive ideological contestation. In particular, we argue disagreement over problem prioritisation might arise from three types of variation in beliefs. First, consistent with the perspectives above, voters might differentially perceive the *severity or "badness"* of individual instances of a problem. Second, citizens might disagree about the relative *prevalence* of the problem. Third, citizens might additionally disagree about the extent to which that problem is *amenable to government action*. While the existing literature stresses the importance of the citizens' perceptions of the severity of individual problems, the central argument we advance is that differences in ideological disagreement will also reflect disagreements in citizens' beliefs about both prevalence and the efficacy of government action.

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From Individual Events to Social Problems to Government Priorities

In this section, we provide a simple formalization of these sources of disagreement to explicate the types of logical relationships that might exist between them. The quantities we are interested in are beliefs of citizens i. We are interested in beliefs about the individual badness or disutility of different types of problems j (e.g. an individual murder, inflation felt by an individual, etc) that occur in multiple instances. We denote the *average individual* disutility of all instances of the type of problem as D_{ij}. We are further interested in beliefs about the *social* disutility S_{ij} of those problems (e.g. murders in society, inflation felt across the entire society, etc) when aggregated across all such instances k of that type j. Finally, we are interested in beliefs about the payoff (utility) to *government action* G_{ij} for each of these problem types j. We do not expect the rankings that citizens have of D_{ij}, S_{ij} or G_{ij} to be the same across a given set of problem types j. Indeed, there is no reason to think that these rankings *ought* to be the same in general. In order to illustrate this point, we start by relating beliefs regarding individual (D_{ij}) and social (S_{ij}) disutility, and we then relate social disutiilty (S_{ij}) and payoffs to government action (G_{ij}).

While not the only way to relate the badness of aggregate social problems (S_{ij}) to the badness of the average individual instances of those problems (D_{ij}), a basic additive utilitarian calculus relating the two is a natural place to start considering the origins of potential disagreements:

$$S_{ij} \;\; = \;\; N_{ij} \cdot D_{ij} \tag{1}$$

That is, one way for an individual i to think about how bad a problem is for society (S_{ij}) is as the sum of the badness of each instance in which it occurs (D_{ij}), or equivalently, the product of that individual's belief about its prevalence in society (N_{ij}) and its average severity (D_{ij}) in the individual instances where it occurs. Thus a problem which is very severe in each individual instance, but relatively rare, might be viewed to be a lesser problem at the societal level than another problem which, while less severe in each individual instance, is far more prevalent. For example, an individual i might

reasonably assess that the average badness of an instance of someone being murdered is worse than an instance of someone experiencing inflation ($D_{i,murder} > D_{i,inflation}$) but also that murder is a lesser aggregate problem in society than inflation ($S_{i,murder} < S_{i,inflation}$) because inflation affects everyone while very few people are murdered.

We can make a similar case for a divergence between S_{ij} and G_{ij}. Assuming that governments are going to be better able to address some societal problems than others, we can define a coefficient or elasticity of government action (E_{ij}) for a given problem type that describes the marginal efficacy of government action in reducing the aggregate social problem (S_{ij}) per unit of government effort/resources.[5] We can then express payoffs to government action on a given problem (G_{ij}) as a (linear) function of the aggregate social badness of a problem (S_{ij}) and the efficacy of government action (E_{ij}):

$$G_{ij} \;=\; E_{ij} \cdot S_{ij} \tag{2}$$

Thus, just as an individual might rank the individual severity of a problem in a given instance differently from the aggregate social severity of that problem type because they believe the problems occur at different rates (N_{ij}), they might rank the aggregate social severity differently from the priority of government action on that problem type because they believe the problems are differently amenable to government remediation (E_{ij}).

In the data analysis that follows, we work with the log-scale equivalents of these quantities $d_{ij} = \log(D_{ij})$, $s_{ij} = \log(S_{ij})$, $g_{ij} = \log(G_{ij})$, $n_{ij} = \log(N_{ij})$, and , $e_{ij} = \log(E_{ij})$, which have additive relationships:

$$s_{ij} \;=\; n_{ij} + d_{ij} \tag{3}$$

$$g_{ij} \;=\; e_{ij} + s_{ij} \tag{4}$$

Working on an additive scale makes differences the natural measure of disagreements, and also links

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[5]This statement is intentionally vague regarding the units of the denominator of the coefficient or elasticity. One could think here of government effort here in a generalised capacity sense or in a narrower financial cost sense.

the quantities at the individual level described in the theoretical model above to population and sub-population averages that we can feasibly estimate over sets of individuals i.

These theoretical connections have implications for what we learn from different patterns of ideological disagreement about these quantities. Imagine that we define two population subgroups, corresponding to the ideological left (L) and right (R), and define corresponding averages d_{jL}, d_{jR}, s_{jL}, etc. If we observe ideological disagreement about individual problem severity, i.e. a non-zero value of $d_{jR} - d_{jL}$, we would expect it to carry through into ideological disagreement in social problem severity ($s_{jR} - s_{jL}$) because $s_{jL} = n_{jL} + d_{jL}$ and $s_{jR} = n_{jR} + d_{jR}$, unless there is a countervailing ideological disagreement about problem frequency ($n_{jR} - n_{jL}$). We would further expect ideological disagreements in social problem severity to carry through to become ideological disagreements in government action priority, unless there is a countervailing ideological disagreement about government efficacy ($e_{jR} - e_{jL}$). Indeed, those who argue that differences in moral psychology underpin political disagreements focus, either implicitly or explicitly, on different rankings of d_{ij} (e.g Jost et al., 2003; Lakoff, 2010; Haidt, 2012). These accounts imply that because liberals and conservatives evaluate the relative severity of individual *instances* of political problems differently, this will translate into different prioritisations of those problems in the political arena.

But this formalisation also clarifies that disagreement over the relative badness of individual instances of different problems is only one of the potential sources of ideological disagreement about social problems and priority for government action. For instance, equation 3 reveals that ideological disagreement about problem frequency ($n_{jR} - n_{jL}$) could lead disagreements about social problem severity ($s_{jR} - s_{jL}$) to be either amplified or attenuated versus those present in individual problem severity ($d_{jR} - d_{jL}$), depending on whether those disagreements point in the same direction or not on a given problem j. The same logic again applies between social problem severity and priority for government action.

We might also ask whether these ideological disagreements are *generally* positively or negatively correlated across problems. Positive correlations between $d_{jR} - d_{jL}$ and $n_{jR} - n_{jL}$ across a set of

problems j would mean that individuals on the right/left tend to believe that the problems which they think are *worse* at the individual instance level are also more *prevalent* in society (relative to what those on the other side think). Another possibility is that there is little/no ideological disagreement about individual problem severity (d_{jR} - d_{jL}) but disagreements about social problem severity (s_{jR} - s_{jL}) and/or priority for government (g_{jR} - g_{jL}) arise by virtue of ideological disagreement about problem frequency (n_{jR} - n_{jL}) or amenability to government remediation (e_{jR} - e_{jL}). The less that disagreements about s_j and g_j arise from disagreement about individual problem severity, and the more they arise from disagreements about problem frequency or amenability to government remediation, the more we have reason to doubt that moral or values-based divisions fully account for ideological conflict over political problems. Disagreements about problem frequency and amenability to government remediation are disagreements about the factual state of society and about public policy, rather than disagreements about what is right and wrong.

While individuals' beliefs might interact in more complicated ways, these simple theoretical relationships are nevertheless useful for identifying beliefs about relative prevalence and government efficacy as important potential locations for understanding how disagreements over problem prioritisation between individuals might form. We now turn to the challenge of measuring these quantities from survey data.

Experimental Design

In this section we describe the design of a survey experiment fielded to YouGov samples of 1763 UK and 2304 US respondents from 6-11 January 2023. Our experiment asked respondents to make choices between pairs of political problems, where the types of decisions they were asked to make varied between question prompts in ways that correspond to our theoretical discussion above. That is, respondents were asked to compare individual problems, social problems, and government priorities with respect to a specified list of problem types.

Our design has a number of virtues relative to many of the importance-eliciting tasks discussed

above (i.e. open-text MIP-style questions and long lists of closed response options). First, by asking respondents to make comparisons between pairs of problems, we directly solicit judgments about the *relative* priority/importance they would ascribe to these problems. Second, the question formats we use elicit *personal* judgments of importance, rather than impressions of the importance of issues to other people, and does so along several theoretically relevant dimensions of disagreement. Finally, the task we present is minimally demanding from a cognitive perspective, which contrasts with the tasks used in existing literature which demand a great deal of engagement and thought from respondents.

Defining the Problem Set

For the purposes of this study, we define a "problem" as a type of event that is understood by at least some people as being associated with a bad outcome. It is difficult to identify a "true" population of problems, and so to achieve reasonable coverage of the problems that tend to be relevant to politics, we reviewed newspapers of varying types and political leanings in the US and UK to identify the kinds of problems that receive media attention either as individual events (e.g. someone was murdered in described circumstances) or as a social problem (e.g. the murder rate has changed versus last year). Included in our set are several problems which have been extensively studied in the political science literature, such as various types of crime, inflation, unemployment, and shark attacks.

For each of the 41 problems we include in the experiment, we specify the problem both in the form of an individual instance and also as a social or aggregate problem type that has many instances. For example, one problem in an "individual" form is "A young person is killed by a gang", which is adapted to "Young people being killed by gangs" in its "social" form. All the problems were written in forms that could be presented to US and UK audiences with only minimal need for localisation (e.g. "trash" versus "rubbish"). Appendix table A1 contains the full texts of all 41 treatments in both individual and collective forms.

Problem Comparison Questions

Our main experiment consists of pairwise comparisons of problems, under three different prompts which correspond to the three mechanisms of problem prioritisation discussed above:

1. *Individual Prompt*: "Which of these do you think is worse?"

2. *Social Prompt*: "Which of these do you think is a worse problem in the [US/UK]?"

3. *Government Prompt*: "Which of these problems should be the higher priority for the [US/UK] government to try to fix?"

These prompts were designed with the aim of eliciting responses that reflected respondents' evaluations regarding the relative values of (1) d_{ij}, (2) s_{ij}, and (3) g_{ij} respectively for the two problems j presented. Respondents were randomly allocated, with equal probability, to the individual prompt, the social prompt, or the government prompt. Each respondent then provided answers to that prompt for six randomly selected pairs of problems. For each of these, the respondent had a choice between two problems and a neutral option ("They are about the same"). An example of the individual prompt, for one pair of problems, is provided in figure 1.

This design yields only a very small number of responses per problem pair. We have an average of 4 responses per pair, per prompt in the UK sample and 6 in the US sample. The strength of pairwise comparison designs comes from the larger number of appearances per problem. Each problem appears an average of 172 times per prompt in the UK sample and 225 times per prompt in the US sample, against a range of different "opposing" problems. This gives information about how respondents rate problems against a given prompt, relative to all others, which can be characterised using Bradley-Terry Models as described below.

We observe slightly higher rates of neutral responses in the social prompt (UK: 26%, US: 28%) and government action prompts (UK: 24%, US: 29%) than in the individual prompt (UK: 23%, US: 25%). There was no evidence of significant order effects in the sense of individuals selecting the problems shown on the left versus the one shown on the right.

Which of these do you think is worse?

| A person being addicted to drugs or alcohol. | High interest rates make it impossible for someone to buy a home. |

They are about the same

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Figure 1: Example of experimental presentation, for the individual prompt.

Additional prompts to explore mechanisms

Our pairwise comparison experiment yields data with respect to individual problem severity (d), social problem severity (s), and government action priority (g), as defined earlier, but not perceptions of problem prevalence (n) and efficacy of government action (e). We therefore included survey questions *after* the pairwise comparisons that relate to these quantities.

To assess beliefs about the prevalence of each problem type, we ask half of the respondents who answered the individual prompt and all respondents who answered the government prompt to rate how frequently people experience a random three of the problems that *did not* appear in that respondent's pairwise comparisons. The prompt we use is, "For each of the problems listed below, how often do you think these occur in the [US/UK]?", with an 11 point scale from "Extremely rarely" (0) to "Extremely frequently" (10) with unlabeled intermediate points.

To assess beliefs about government efficacy with respect to each problem type, we ask the other half of the respondents who answered the individual prompt and all respondents who answered the social prompt to rate how effective government is in addressing a random three of the problems that

did not appear in their pairwise comparisons. The prompt we use is, "For each of the problems listed below, how easy would it be for government action to reduce the problem in the [US/UK]?" with an 11 point scale from "Completely impossible" (0) to "Extremely easy" (10) with unlabeled intermediate points.

While these single rating questions have important limitations, which is why we do not use them for measuring d, s and g, these questions give us a way to assess whether ideological group level disagreements about prevalence (n_{ij}) and efficacy (e_{ij}) are associated with corresponding disagreements in responses to the pairwise comparison questions which yield measurements of d, s and g. We emphasize that we ask these questions *after* the pairwise comparisons rather than before, and of respondents who were not asked the most obviously relevant pairwise comparison prompt. This avoids priming respondents to focus on prevalence or efficacy in the pairwise comparisons, and it also avoids encouraging respondents to justify their specific pairwise response answers when answering the prevalence or efficacy ratings.

Ideological Self-Placement

We also ask questions to measure respondents' pre-treatment ideological self-placement. For the UK sample we asked "In politics people sometimes talk of left and right. Where would you place yourself on the following scale?", with 7 response options ranging from "Strongly left" to "Strongly right". For the US sample, we asked: "In politics people sometimes talk of liberals and conservatives. Where would you place yourself on the following scale?" with 7 response options from "Strongly liberal" to "Strongly conservative". For our main analyses we group all liberal/left of centre and all conservative/right of centre responses. In the UK, our population-weighted sample splits 32% Left, 46% Moderate, 22% Right. In the US, our population-weighted sample splits 31% Liberal, 34% Moderate, 35% Conservative.

We conduct some analyses using past vote choice from the 2019 UK and 2020 US general elections. These were not asked during the survey, but were already held by YouGov for their panellists. For

these, under the groupings we use, our UK sample splits 31% Labour, 27% Other, 42% Conservative.

Our US sample splits 31% Biden, 41% Other/None, 28% Trump.

Modelling Problem Priorities

Our pairwise comparison questions result in an ordered response variable for each response i with three categories:

$$Y_i \in \begin{cases} 1 = \text{Problem 2 is worse / higher priority} \\ 2 = \text{About the same} \\ 3 = \text{Problem 1 is worse / higher priority} \end{cases} \tag{5}$$

To model this outcome, we adopt an ordinal probit variation on the Bradley-Terry model for paired comparisons (Bradley and Terry, 1952; Rao and Kupper, 1967) where we model a latent response comparing problem j and problem j' according to a cutpoint model:

$$Y_i^* = \alpha_{j(i)} - \alpha_{j'(i)} + \epsilon_i \tag{6}$$

$$Y_i = \begin{cases} 1 \text{ if } Y_i^* \leq \theta_1 \\ 2 \text{ if } Y_i^* > \theta_1 \,\&\, Y_i^* \leq \theta_2 \\ 3 \text{ if } Y_i^* > \theta_2 \end{cases} \tag{7}$$

When we fit this model to the data from the individual prompt, $\alpha_j = d_j$; from the social prompt, $\alpha_j = s_j$; and from the government prompt, $\alpha_j = g_j$.[6]

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[6]Individual question responses will depend on an individual's d_{ij}, s_{ij}, or g_{ij}, but we can write these in terms of the relevant group means as $d_{ij} = d_j + v_{ij}^d$ where v_{ij}^d have mean zero (and equivalently for s and g). Thus, in the case of the individual prompt, we have:

$$Y_i^* = \left(d_{j(i)} + v_{ij(i)}^d\right) - \left(d_{j'(i)} + v_{ij'(i)}^d\right) + \epsilon_i$$

The two v and the ϵ are all mean zero, so their sum is also mean zero. Conventionally $\epsilon \sim N(0,1)$ in an ordered probit model to identify the latent scale. If we assume that the v are also normally distributed, all three of these error terms collapse into a single, mean zero, normally distributed error term, whose variance can be set to 1 without loss of generality, so long as the variance of individual assessments of problem severity and priority around their population means are equal across problems. Thus the Bradley-Terry model estimates the population means of d_{ij}, s_{ij}, or g_{ij}, so long as this homoscedasticity assumption is met.

Our core research questions involve making comparisons of the ranking of the 41 problems j we include in the experiment between prompts, countries, and ideological subgroups of respondents. To facilitate these comparisons, we adopt a hierarchical modelling framework in which we directly estimate the correlation of the Bradley-Terry "severity" parameters α between conditions and subgroups by making the correlation itself a model parameter in a "correlated severity" model (Blumenau and Lauderdale, 2023). This model starts with the first-stage model described in equation 6 in order to determine whether different groups of people rate problems as worse than others in different ways on average. We then hierarchically model the $\alpha_{j,p}$ parameters by assuming that they are drawn from a multivariate normal distribution with mean zero and covariance matrix Σ:

$$\alpha_{j,p} \sim MVN(0, \Sigma) \tag{8}$$

Here, Σ has diagonal elements σ_p^2 and off-diagonal elements $\sigma_p \sigma_{p'} \rho_{p,p'}$. The correlations ρ are our primary interest, as these tell us whether the relative severity/priority of the problems, across our entire experiment, tend to be similar for a pair of prompts or groups p and p' ($\rho_{p,p'} \gg 0$), whether the problems that are considered to be bad by one group are uncorrelated with those that are considered bad by the other ($\rho_{p,p'} \approx 0$), or whether the groups systematically disagree about which problems are worse ($\rho_{p,p'} < 0$). We estimate this model for variously defined groups p in the analyses below.

National Results

For our initial presentation, in figures 2, 3, and 4, we show the estimates of the $\alpha_{j,p}$ parameters from the first-stage ordinal logistic Bradley-Terry model estimated separately for each of the three prompts in each of the two countries. The points are sorted by the average of the US and UK estimates for a given problem on the prompt.

In the aggregate, US and UK citizens make similar evaluations of the relative severity of individual problems, and only slightly less similar evaluations on the relative severity of social problems and of

Figure 2: Bradley-Terry Estimates for severity of individual problems, in the UK (blue) and US (red).

Figure 3: Bradley-Terry Estimates for severity of social problems, in the UK (blue) and US (red).

Figure 4: Bradley-Terry Estimates for priority for government action, in the UK (blue) and US (red).

priority for government action. The correlation between the UK and US estimates for the individual problem prompt is 0.95, while the corresponding cross-country correlations for the social problem prompt and government action prompts are 0.86 and 0.86, respectively.

There are some differences with respect to specific problems on specific prompts, most of which reflect understandable differences between UK and US politics. On the individual problem prompt (figure 2), US respondents rate "A teenager takes medication which alters their hormones to match their gender identity" and "A woman has an abortion" as worse on average relative to the other problems than do UK respondents, likely reflecting the larger number of social conservatives who view these as relatively serious problems in the US versus UK. US respondents also rate "The police stop and search a person without reasonable suspicion of criminal activity" as worse than UK respondents do, possibly reflecting different formal rights in the two countries.

On the social problem prompt (figure 3), the notably different items are "Mass shootings with many deaths", "People being bankrupted by medical expenses" and "Women having abortions" all three of which are viewed as substantially worse problems in the US than the UK. The former two reflect the reality that these occur far more frequently in the US than the UK. The disagreement on the abortion issue is likely to reflect both the differences about the individual morality of having an abortion as well as how this is translated into perceptions of a social problem, which we discuss further below.

On the government action prompt (figure 4), we see UK respondents are inclined to prioritize government action on "Rising prices reducing peoples' standards of living" and "Rising energy prices forcing businesses to close" higher than US respondents. Inflation, and particularly energy prices, were high profile in both countries in early 2023, however the UK government's intervention in energy markets in late 2022 was far larger in scale than any in the US. US respondents viewed government action as relatively high priority compared to UK respondents on "People being forced to be vaccinated in order to do their jobs" and "Women having abortions".

Overall, the results suggest that respondents responded to the different prompts in ways that
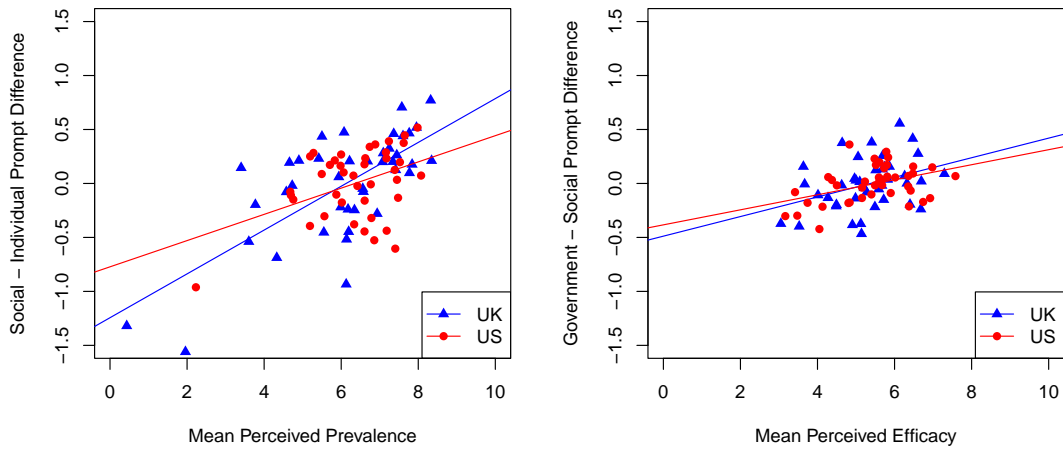
Figure 5: Differences in Bradley-Terry Estimates between social and individual prompts (left) and government and social prompts (right), in the UK (blue) and US (red), as a function of average perceived problem prevalence (left) and average perceived government efficacy (right). All four linear regression lines have statistically significant slopes.

reflect the differences in the questions that were being asked. In both the US and UK, people make distinctions between the relative severity of individual instances of problems and their aggregate consequence. The correlation between the individual prompt estimates and the social problem prompt estimates was 0.65 in the UK and 0.74 in the US. By contrast, in both the US and UK, people make less distinction between the relative severity of social problems and which problems government should prioritize addressing. The correlation between the social problem prompt estimates and the government action prompt estimates was 0.94 in the UK and 0.90 in the US.[7]

Our theoretical discussion suggests that differences between individual and social prompts will appear when there are differences in beliefs about the prevalence of different kinds of bad events. Similarly, differences in perceptions of social problem severity and priority for government action will arise when people hold different perceptions of the relative amenability of different social problems to government action. Figure 5 presents some initial evidence that supports these theoretical intuitions. The left panel shows a positive significant relationship, in both the UK ($p < 0.001$) and US data ($p = 0.006$), between the mean perceived prevalence of problems (measured using the 11-point

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[7] Figures A1 and A2 show the differences between the individual and social prompts and the social and government prompts, for each problem.

scale question), and the difference in the estimated severity of problems in the social and individual prompts. This implies that when, on average, respondents view a problem as higher prevalence (n_{ij}), average perceptions of social problem severity (s_{ij}) increase relative to perceptions of individual problem severity (d_{ij}). The right panel shows that there is also a positive significant relationship, in both the UK ($p = 0.019$) and US ($p = 0.006$), between the mean perceived efficacy of government action for addressing each problem, and the difference between the estimate for that problem in the government action prompt and in the social problem prompt. Again, these patterns are consistent with our theoretical argument: when comparing problems with equal perceived social severity (s_{ij}), respondents will give greater priority (g_{ij}) to those problems where they believe the government is more likely to be efficacious (e_{ij}).

Results by Ideology

We now turn to our primary research question and ask to what extent, and on which prompts, are there differences between left/liberal and right/conservative voters?

Ideological Gaps by Problem

Figures 6 shows the problem estimates for those who self-report as right/conservative minus the estimates for those who self-report as left/liberal for the individual severity prompt ($d_{jR} - d_{jL}$). We present equivalent plots for the social severity and government priority prompts in appendix figures A3 and A4. These plots are again sorted on the average of the UK and US ideological differences, and clearly indicate that in general there is a tendency to see ideological differences in the same direction with respect to specific problems in both countries.

In the individual prompt (figure 6), for example, "A teenager takes medication which alters their hormones to match their gender identity" and "An immigrant enters this country illegally" are among the items viewed as much more serious problems by people on the right in both countries, while problems related to child hunger, medical bankruptcy, tax evasion by the wealthy and police stops are all
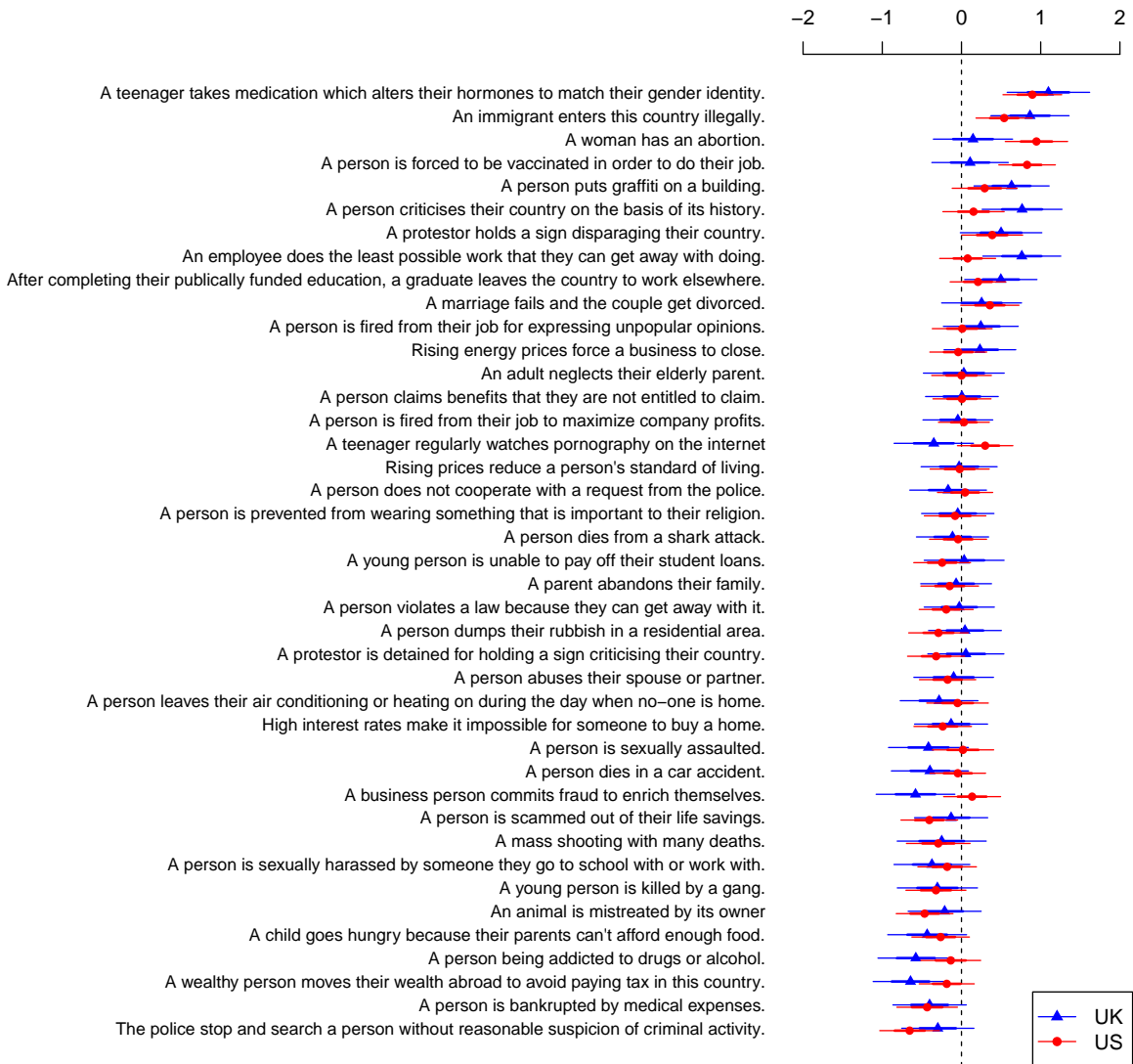
Figure 6: Difference in Bradley-Terry Estimates between right/conservatives and left/liberals, for individual prompt, in the UK (blue) and US (red).

viewed as more serious problems by people on the left in both countries. There are some items that are only politically aligned in one country and not the other (e.g. abortion and vaccination in the US and not the UK, employees not working hard and business fraud in the UK). There is just a single item which has substantial ideological alignments in both countries, but in the opposite directions: US conservatives and the UK left are more concerned about teenagers watching pornography than their respective domestic counterparts. There is a similar tendency for the left/right and conservative/liberal differences to covary across the two countries in the social problem and government action prompts also, with some variation in the details (see Figures A3, and A4).

In Figure 7, we show that there is also strong association between the ideological gaps across prompts. This is what we would expect under the theoretical model we described above, relating the three types of considerations that might lead to disagreement over government priorities. If there is an ideological gap in perceptions of individual severity (d_{ij}) then we would, at least on average, expect that to carry over to perceptions of social severity (s_{ij}), which is what we see in the left panel of the figure. Similarly, ideological gaps in perceptions of social severity (s_{ij}) will generally correlate with ideological differences in priorities for government action (g_{ij}), which is what we see in the right-hand panel of the figure. However, we note that in the left panel of Figure 7 there is an interesting tendency for the magnitude of ideological gaps to be *amplified* between the individual prompt and the social prompt in the US. That is, where US liberals and conservatives disagree about how bad a given problem is in an individual instance, they tend to disagree *even more* about how bad that problem is for society. The slope of the perpendicular regression line[8] for this relationship is 1.63. With only 41 problems, this slope is an imprecise estimate of the slope across a broader population of problems; however it is significantly different from 1 when we resample problem-level estimates using a non-parametric bootstrap (95% interval: 1.29 - 2.48). For all the other comparisons–UK individual to social (1.00), UK social to government (0.87), US social to government (0.89)–there is an approximately one-

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[8]We use perpendicular regression lines (equivalent to principle components analysis on two variables) for these analyses because it treats x and y variables symmetrically, which is appropriate given that both are measured with error, neither has any claim to be causally or predictively prior to the other, and we are simply interested in providing a linear description of their association.
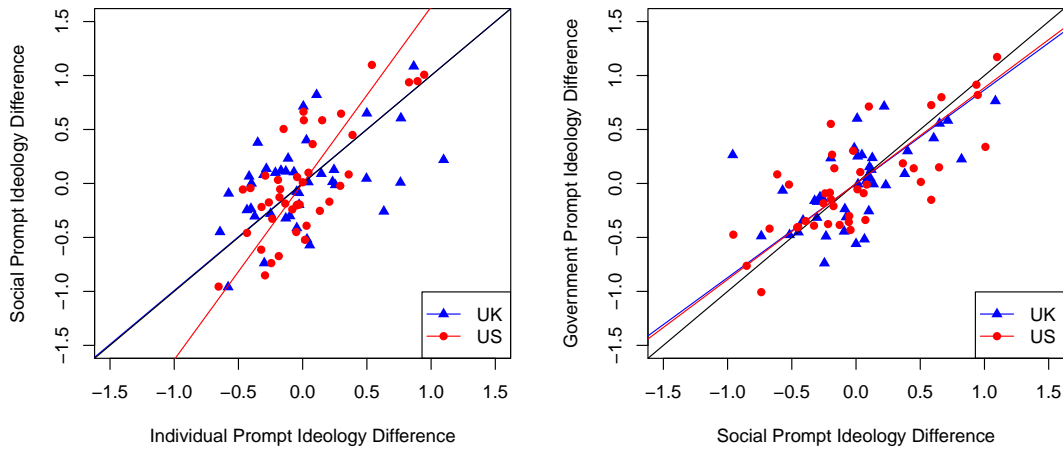
Figure 7: Differences in Bradley-Terry Estimates for each problem between right/conservatives and left/liberals, in the UK (blue) and US (red). Left panel shows comparison of social prompt (y-axis) versus individual prompt (x-axis), right panel shows comparison of government prompt (y-axis) versus social prompt (x-axis). Black line is x = y; blue and red lines for UK and US are via least perpendicular distance regression.

to-one association between the ideological differences by problem between prompts.

Divergent Views of Severity and Priority

This discrepancy leads us to the most important pattern of difference that we find between US and UK respondents. Figure 8 shows that the above patterns of agreement and disagreement have markedly different implications for the extent to which left/liberals and right/conservatives agree on the relative rankings across the three different prompts. In the UK, the correlation between how the left and right view the relative severity of problems and their priority for government action is high and mostly stable across prompts. In contrast, while the correlation between liberals and conservatives in the US on prompt 1 is nearly as high 0.75 (0.09) as for the UK 0.81 (0.07), the correlations between the views of liberals and conservatives in the US are far lower with respect to the social problem prompt 0.36 (0.16) and government action prompts 0.38 (0.16). This is true both by comparison to the UK equivalents, 0.71 (0.10) and 0.82 (0.07), and also to the US respondents on the individual problem prompt.

In both countries, we find the same pattern of results by past vote as by self-reported ideology
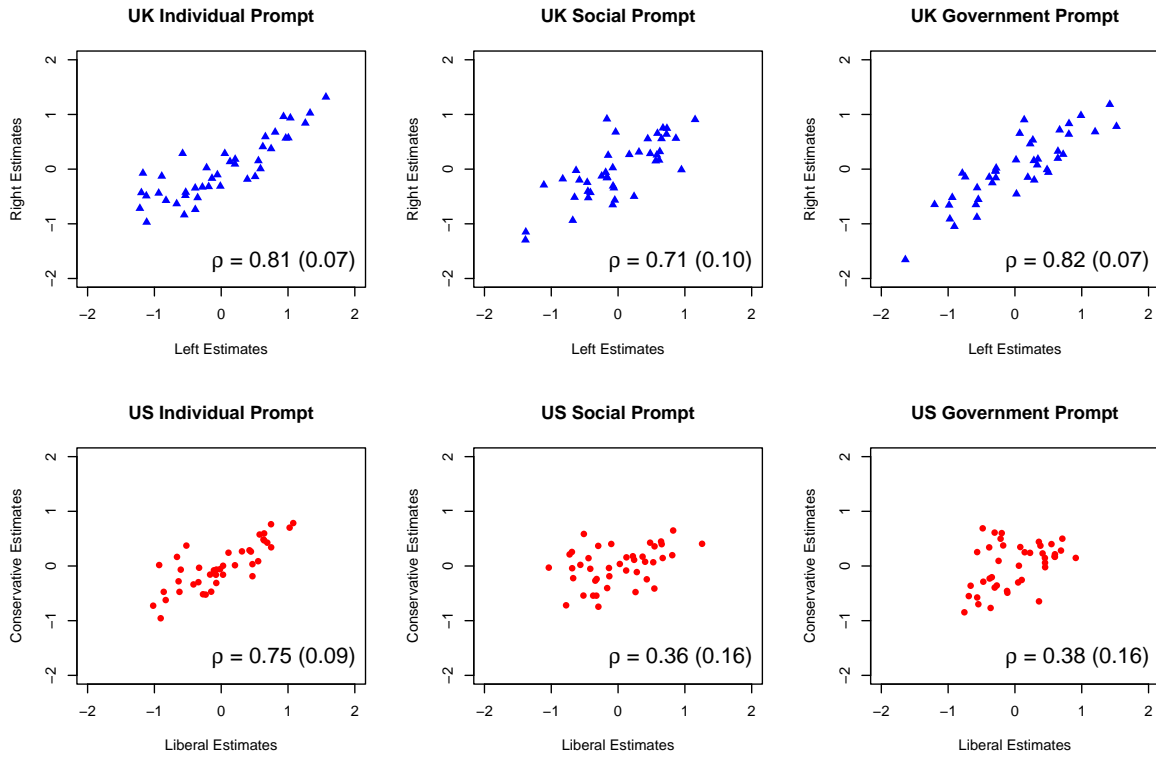
Figure 8: Comparison of Bradley-Terry estimates of different ideological groupings in the US and UK (rows), by prompt (columns).

(see appendix figure A5) and so we cannot simply ascribe the difference between the two countries to the different wording and domestic meaning of the labels in the ideology question. US liberals and US conservatives have starkly different political priority lists in a way that the UK left and UK right do not. If we look at some of the extreme 'off-diagonal' cases in the government priority prompt, we see that whereas "Immigrants entering this country illegally" ranks 1 of 41 in priority for government action among US conservatives, it ranks 35 of 41 among US liberals. On the other hand, whereas "Young people being unable to pay off their student loans" ranks 13 of 41 in priority for government action among US liberals, it ranks 38 of 41 among US conservatives.

The corresponding levels of disagreement for UK respondents are smaller. Looking at the same items, "Immigrants entering this country illegally" ranks 3 of 41 in priority for government action among the UK right, it ranks 20 of 41 among the UK left. On the other hand, whereas "Young people being unable to pay off their student loans" ranks 22 of 41 in priority for government action among

the UK left, it ranks 32 of 41 among the UK right. These are high salience, ideological issues in UK politics just as they are in the US, but there is not the same level of ideological divergence in public understanding of their relative priority.

Mechanisms of Divergence

Are there differences in beliefs about problem prevalence between those on the left and right? And do differences in perceptions of prevalence predict the ideological patterns we find on the individual and social prompts? We provide evidence relevant to both of these questions in figure 9. There is somewhat greater agreement between left and right about the relative prevalence of different problems in the UK (top left panel) than there is between liberals and conservatives about the relative prevalence of different problems in the US (bottom left panel). The right panels show that ideological disagreements about the prevalence of problems predict how liberals and conservative respondents in the US answer the social prompt versus the individual prompt (p = 0.006), but this is not the case in the UK. Despite the relative imprecision of this analysis from having only 41 issues and the limitations of the direct prevalence measure, in the US data we see that on the issues where there is a larger difference between conservative and liberal perceptions of *prevalence*, the difference in conservative and liberal perceptions of problem *severity* increases more between the individual and social prompt experiments.

Discussion

We find that US and UK respondents make very similar evaluations of the relative severity of a set of 41 politically salient problems when considering them as individual events. There are disagreements within country as a function of ideology regarding the relative severity of these, but they are not large enough to yield very different orderings of which problems are more severe overall, and they appear on similar problems in both countries. When we move from considering individual instances of problems to their aggregate severity for society and their relative priority for government action,
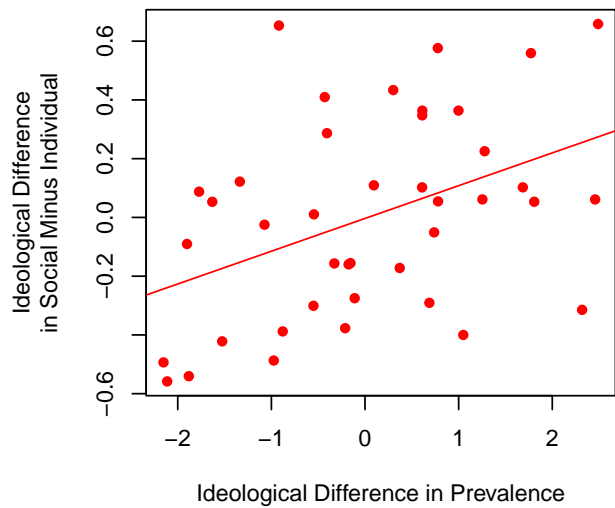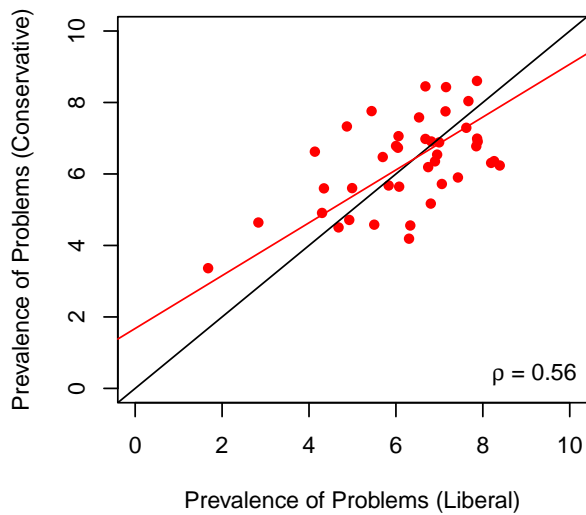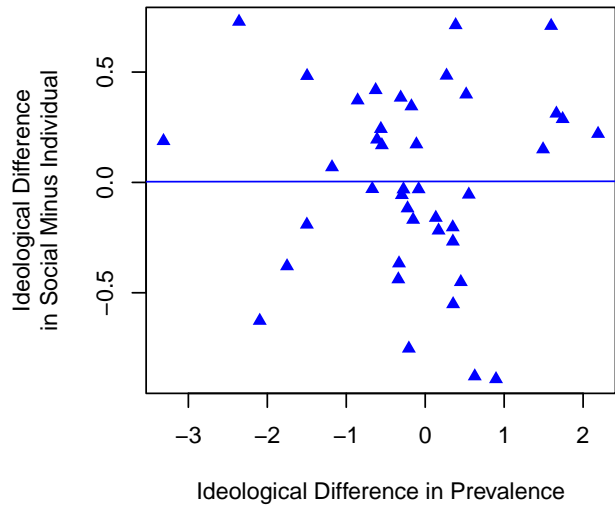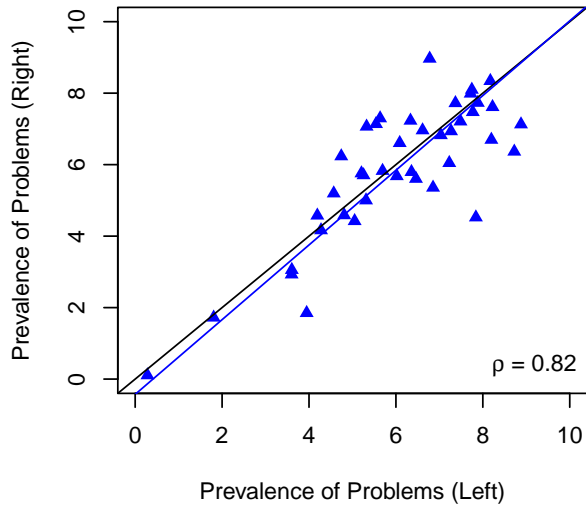
Figure 9: Relationships between mean prevalence responses for each problem from left/liberal and right/conservative respondents (left column). Relationship between change in ideological relationship between individual and social prompt and ideological differences in perceived prevalence (right column).

we see different patterns in the UK and US. In the UK, the ideological disagreements are similar in magnitude and on similar items to the individual prompt. In the US, the ideological disagreements grow in magnitude, amplifying disagreements about the individual instances of problems. As a consequence, while ideological disagreements about the relative magnitude of social problems are not large in the UK, US liberals and conservatives rank social problems and prioritise them for government action very differently.

One potential concern about our core findings is whether they could be the result the slightly different ideology questions we use in the US and UK. Could our results result from either the different wording or different public understanding of ideology in the two countries? We think the answer is no, for two reasons. First, we see exactly the same pattern as a function of past vote (appendix figure A5). Second, if there was an issue with the different meaning of ideology in the two countries, it is difficult to make a compelling argument that it should only manifest in the social and government prompts, but not in the individual prompt. Similarly, any concerns one might have about greater expressive responding in the US, that does not reflect individuals' real attitudes, would need to account for why this only occurs on some prompts and not others.

Another concern is whether our findings could be an artefact of the particular 41 problems that we chose to include. Our set of problems should be considered as a "convenience sample" drawn from the political news in both countries, looking at media with a range of ideological positions. Was there a different set of issues that we failed to include which would have been more divisive in the UK? One reason to think this is not very likely is again the fact that in the individual prompt the US and UK responses are very similar across problems and also with respect to ideological differences. A second reason to think this is not very likely is that we reviewed media in both countries and have, if anything, greater expertise on UK politics than US politics.

The fact that we have different results for the individual prompt versus the social and government prompts, in combination with our analysis of the direct prevalence and efficacy questions, suggests that the relevant mechanisms running through perceptions of problem prevalence are an impor-

tant channel through which greater ideological differences arise in the US. However, we do not have individual-level data linking these, as we intentionally did not ask individuals about the same problems from their pairwise choices in the prevalence and efficacy questions, in order to avoid creating spurious associations due to the survey sequencing. As ever, there are difficult design tradeoffs here. Given that our core design aim was to cleanly measure views about relative problem severity and priority, we think that the approach taken was the best one, but it does leave mechanism questions to be assessed in future research.

One such question, which has already been interrogated in the existing literature on correcting political misperceptions, is the extent to which views about the relative severity of social problems can be changed through the supply of information about prevalence. For example, Hopkins, Sides and Citrin (2019) show that providing accurate information about the size of the foreign-born population does little to affect attitudes towards immigration, even though these corrections do lead people to adjust their beliefs about the size of the foreign-born population. This kind of result highlights the challenge of studying mechanisms leading to different views across persons. The correlations between apparently logically related beliefs may arise independently from individuals' experiences or from communications and media consumption that are themselves correlated, rather than from maintained logical connections in the minds of the individuals. Nevertheless, while our data does not enable us to distinguish between internal versus external drivers of beliefs about individual and social problem severity, and priority for government action, we hope that this framework is nevertheless useful for scholars who wish to understand how these attitudes might be related.

Conclusion

Social science research provides rich insight into voters' disagreements over what governments should do to deal with particular political problems. Far less attention has been paid to whether and how much voters disagree about which political problems should be prioritized for government action in the first place. Polarization in problem prioritization matters for the same reason as polarization in

issue positions matter: it strongly influences both the possibility of quality political representation and is determinative of the character of social and political cohesion. In part, the lack of systematic study of problem prioritization reflects the difficulties of measuring variation in problem importance across groups using existing survey methods. In part, it reflects a lack of theoretical understanding of the determinants of voters' attitudes about the priority of different problems. In this paper, we attempted to address both barriers to understanding by describing some foundational theoretical insights about voters' priorities, and by introducing new methodological tools that allow us to measure theoretically important quantities relating to political polarization over problem importance.

We suggested at the outset of the paper that asking about the individual problem severity, social severity, and priority for government action is a way to interrogate the extent to which political disagreements reflect psychological differences between voters. Our individual, social and government prompts respectively correspond to respondents' psychological, sociological, and political evaluations, with respect to a set of common objects. Our results suggest that the psychologies of UK and US citizens are not so different from one another either cross-nationally or across the ideological spectrum, but that US citizens hold substantially more ideologically divided sociological and political assessments than do UK citizens. This suggests that recent claims that the origins of US polarization are to be found in the divergent moral psychology of US citizens (Lakoff, 2010; Kovacheff et al., 2018; Haidt, 2012; Graham, Haidt and Nosek, 2009) can be true only in a limited sense. We do see clearly that differences of individual psychology carry through across our prompts in the US as well as the UK. What is distinctive about the US is that they are amplified (see figure 7) in the transition from individual events to social perceptions in a way that they are not in the UK.

Why does this amplification of disagreement occur in the US? Both our theoretical model and empirical results suggest that one source of division stems from perceptions of the relative prevalence of different problems. This implies that we should be looking to the ways that the social and political information environment – such as distinctive features of the media (Broockman and Kalla, 2023) – differs between US and UK citizens. For instance, the role of Fox News has received extensive atten-

tion in the literature, most recently regarding evidence that exposure to Fox reduced compliance with anti-COVID measures (Ash et al., 2020; Simonov et al., 2020) because it reduced beliefs that COVID constituted a substantial problem. There is a broader conservative media ecosystem in the US that may not be matched in its reach by that in the UK, despite the fact that the UK does have substantial ideological differentiation in its media outlets. A media feedback loop in which individuals select into media exposure based on their prior orientation regarding what problems are more or less important, and then are differentially exposed to news which emphasizes the prevalence of those problems over others, seems like a plausible mechanism for amplifying differences in individual morality into larger disagreements about social problems and priorities for government action.

Our study is also a contribution to improving an area of survey measurement that has long frustrated academic and non-academic analysts. The "most important problem" question form is pervasive in both political polling and in academic surveys, but the measurement properties of this survey instrument have been widely questioned (Bartle and Laycock, 2012; Johns, 2010; Wlezien, 2005; Jennings and Wlezien, 2011; Dennison, 2019). We think that pairwise comparison experiments are a far better way to get at which problems people tend to think are more severe (both for the individuals affected in a given instance, and in the aggregate for society). As a consequence, the design we develop here could be profitably applied in a wide variety of surveys and could be used to track change in public priorities over time. We present a two country comparative study here, which already reveals interesting and important cross-national differences. A larger scale version of this study would enable us to understand the extent to which citizens in different social and political contexts share common views about the political problems that they might encounter in their lives, that their societies face, and that their governments might aim to do something to fix.

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Appendix Table of Contents

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Statement on Research Ethics

The research ethics committee for the our home institution, [redacted for peer review], determined that the survey experiment described in the paper was exempt from full ethics review because the survey involved "the use of [a] non-sensitive, completely anonymous survey" and "it is not possible to identify individuals from the information provided". We also note that our survey required no deception.

Differences between Prompts by Problem

Figure A1: Difference between Bradley-Terry Estimates for severity of social problems and corresponding individual problems, in the UK (blue) and US (red). .
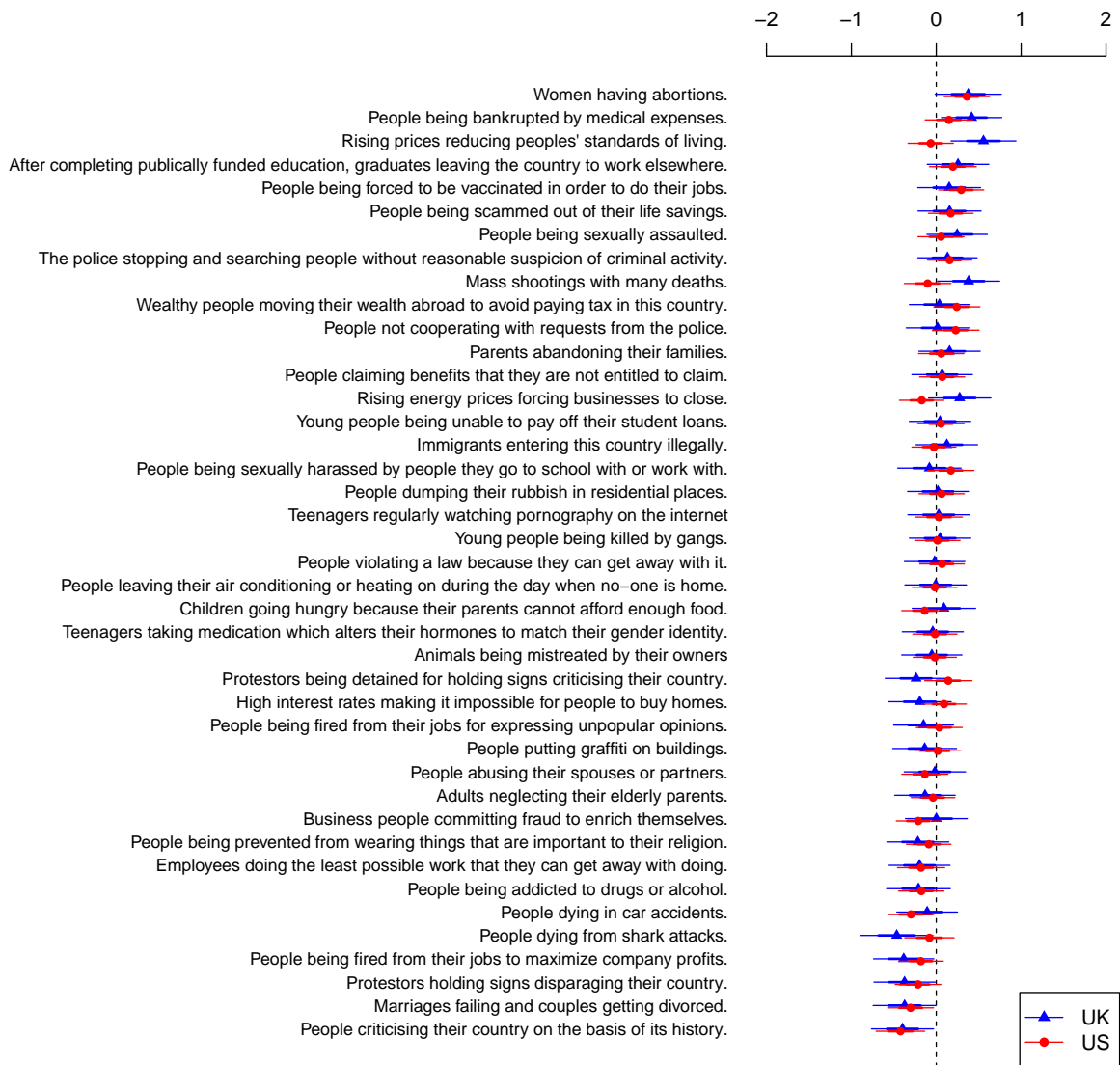
Figure A2: Difference between Bradley-Terry Estimates for priority for government action and corresponding severity of social problems, in the UK (blue) and US (red).
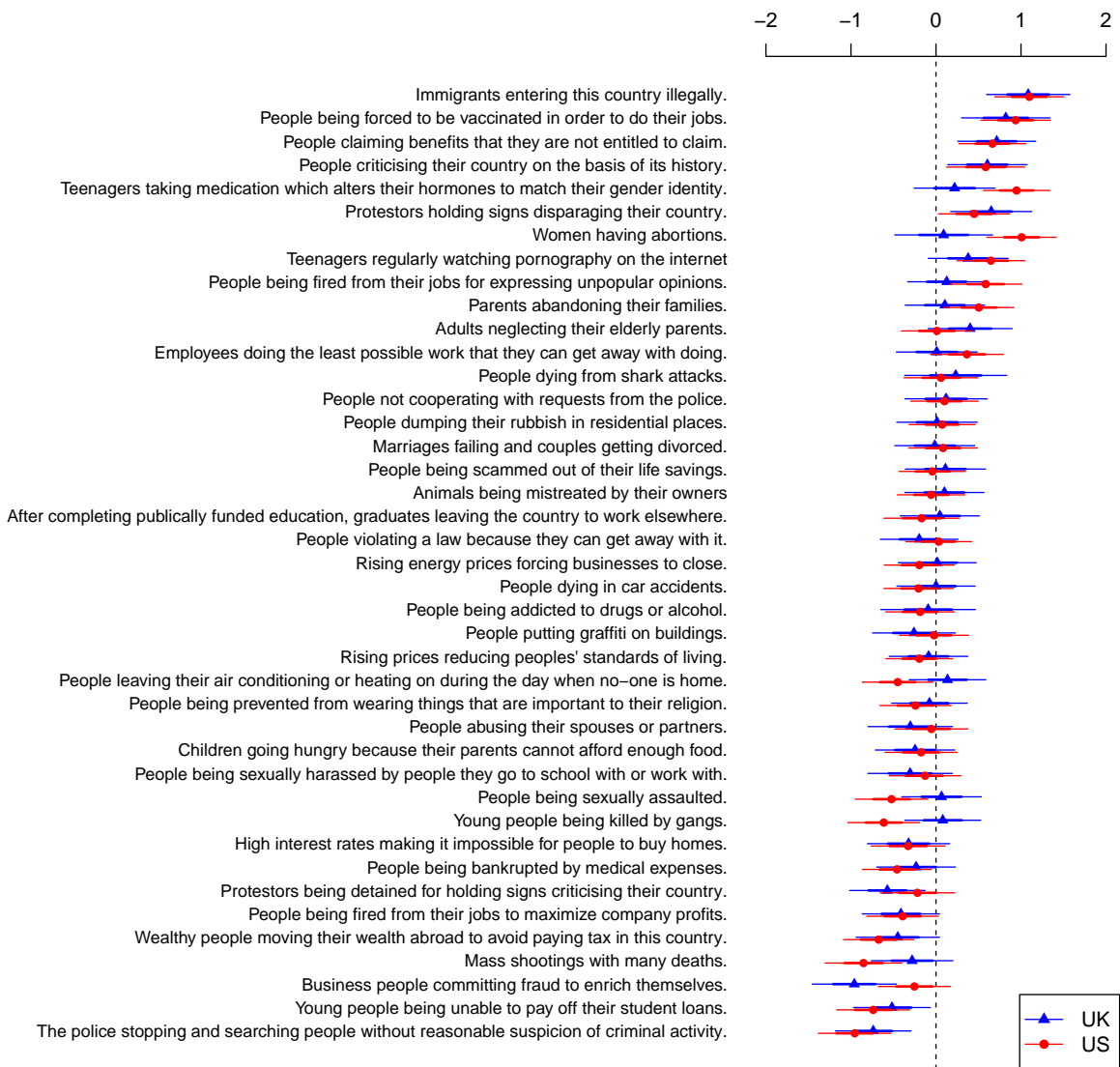
Figure A3: Difference in Bradley-Terry Estimates between right/conservatives and left/liberals, for social prompt, in the UK (blue) and US (red).

Figure A4: Difference in Bradley-Terry Estimates between right/conservatives and left/liberals, for government prompt, in the UK (blue) and US (red).

Bradley-Terry Estimates by Past Vote
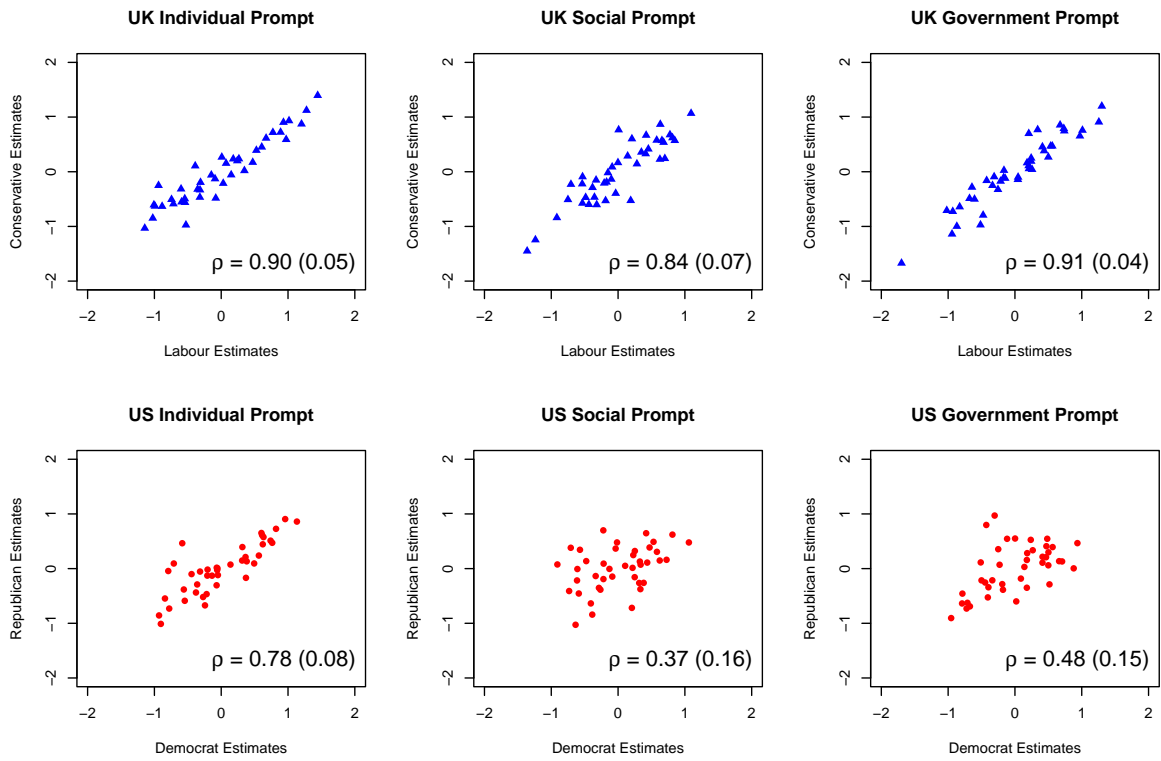
Figure A5: Comparison of Bradley-Terry estimates of different past vote groupings in the US and UK (rows), by prompt (columns).

Pairwise Correlations of Bradley-Terry Estimates for All Experimental Groups

|	UK Left Individual	UK Moderate Individual	UK Right Individual	UK Left Social	UK Moderate Social	UK Right Social	UK Left Government	UK Moderate Government	UK Right Government	US Left Individual	US Moderate Individual	US Right Individual	US Left Social	US Moderate Social	US Right Social	US Left Government	US Moderate Government	US Right Government
UK Left Individual																		
UK Moderate Individual	0.87																	
UK Right Individual	0.74	0.86																
UK Left Social	0.57																	
UK Moderate Social		0.64		0.80														
UK Right Social			0.48	0.63	0.83													
UK Left Government	0.67			0.84														
UK Moderate Government		0.63			0.90		0.84											
UK Right Government			0.48			0.79	0.74	0.90										
US Left Individual	0.91																	
US Moderate Individual		0.88								0.89								
US Right Individual			0.73							0.69	0.82							
US Left Social				0.78						0.70								
US Moderate Social					0.81						0.70		0.66					
US Right Social						0.57					0.55	0.33	0.73					
US Left Government							0.76			0.67			0.82					
US Moderate Government								0.74			0.62			0.76		0.69		
US Right Government									0.63			0.46			0.74	0.35	0.68	

Figure A6: Correlations between Bradley-Terry estimates for all country (UK, US) by ideology (Left, Moderate, Right) by prompt (Individual, Social, Government) groups. Comparisons varying more than one of these three omitted to aid visualisation.

Problem Texts with UK and US Localisations

Table A1: Treatment texts

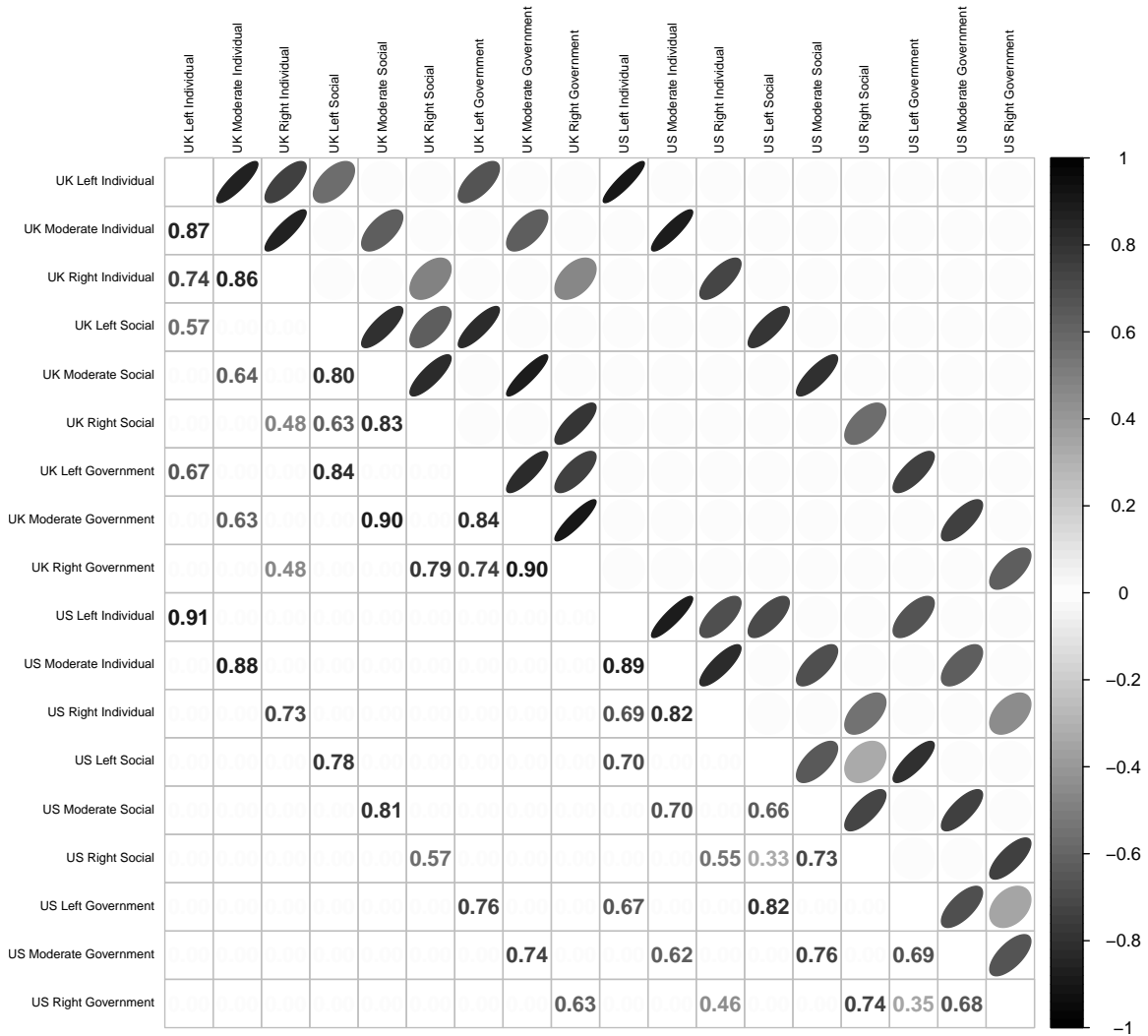| Individual	Social
A child goes hungry because their parents can't afford enough food.	Children going hungry because their parents cannot afford enough food.
A young person is killed by a gang.	Young people being killed by gangs.
A mass shooting with many deaths.	Mass shootings with many deaths.
A parent abandons their family.	Parents abandoning their families.
A person dies in a car accident.	People dying in car accidents.
A person dies from a shark attack.	People dying from shark attacks.
A person is bankrupted by medical expenses.	People being bankrupted by medical expenses.
An animal is mistreated by its owner	Animals being mistreated by their owners
A person abuses their spouse or partner.	People abusing their spouses or partners.
Rising energy prices force a business to close.	Rising energy prices forcing businesses to close.
High interest rates make it impossible for someone to buy a home.	High interest rates making it impossible for people to buy homes.
A person is scammed out of their life savings.	People being scammed out of their life savings.
Rising prices reduce a person's standard of living.	Rising prices reducing peoples' standards of living.
A young person is unable to pay off their student loans.	Young people being unable to pay off their student loans.
A person is fired from their job to maximize company profits.	People being fired from their jobs to maximize company profits.
A wealthy person moves their wealth abroad to avoid paying tax in this country.	Wealthy people moving their wealth abroad to avoid paying tax in this country.
A business person commits fraud to enrich themselves.	Business people committing fraud to enrich themselves.
A person dumps their [rubbish/trash] in a residential area.	People dumping their [rubbish/trash] in residential places.
The police stop and search a person without reasonable suspicion of criminal activity.	The police stopping and searching people without reasonable suspicion of criminal activity.
A person claims [benefits/welfare benefits] that they are not entitled to claim.	People claiming [benefits/welfare benefits] that they are not entitled to claim.

Table A1: Treatment texts *(continued)*

Individual	Social
A person leaves their air conditioning or heating on during the day when no-one is home.	People leaving their air conditioning or heating on during the day when no-one is home.
A teenager regularly watches pornography on the internet	Teenagers regularly watching pornography on the internet
A person is sexually harassed by someone they go to school with or work with.	People being sexually harassed by people they go to school with or work with.
A woman has an abortion.	Women having abortions.
A person is sexually assaulted.	People being sexually assaulted.
A teenager takes medication which alters their hormones to match their gender identity.	Teenagers taking medication which alters their hormones to match their gender identity.
A person being addicted to drugs or alcohol.	People being addicted to drugs or alcohol.
After completing their publically funded education, a graduate leaves the country to work elsewhere.	After completing publically funded education, graduates leaving the country to work elsewhere.
A marriage fails and the couple get divorced.	Marriages failing and couples getting divorced.
An adult neglects their elderly parent.	Adults neglecting their elderly parents.
A protestor holds a sign disparaging their country.	Protestors holding signs disparaging their country.
A person criticises their country on the basis of its history.	People criticising their country on the basis of its history.
A person puts graffiti on a building.	People putting graffiti on buildings.
A person does not cooperate with a request from the police.	People not cooperating with requests from the police.
An immigrant enters this country illegally.	Immigrants entering this country illegally.
An employee does the least possible work that they can get away with doing.	Employees doing the least possible work that they can get away with doing.
A person violates a law because they can get away with it.	People violating a law because they can get away with it.
A person is fired from their job for expressing unpopular opinions.	People being fired from their jobs for expressing unpopular opinions.
A protestor is detained for holding a sign criticising their country.	Protestors being detained for holding signs criticising their country.
A person is forced to be vaccinated in order to do their job.	People being forced to be vaccinated in order to do their jobs.

Individual	Social
A person is prevented from wearing something that is important to their religion.	People being prevented from wearing things that are important to their religion.

Right-Left Differences by Prompt by Moral Foundations Theory Category

Before conducting our experiment, we pre-registered a coding of our 41 problems into six Moral Foundations Theory (MFT) categories (Care, Fairness, Sanctity, Loyalty, Authority, Liberty). Of the 41 problems, 36 were coded into a single MFT category, and the remainder were coded as equally in two categories. In regression table A2, we regress the difference in Bradley-Terry estimate between right/conservatives and left/liberals, by prompt and by country, on these MFT category weights. This yields an estimate of an average ideological difference by problem type. Problems coded as relating to care and fairness tend to be rated as more severe / higher priority by left/liberals (negative right-left differences); problems relating to sanctity, loyalty, authority and liberty tend to be rated more highly by right/conservatives. The patterns are largely similar across both countries, however there is a suggestion that sanctity-coded problems have a much larger ideological difference in the US than the UK across the prompts.

	UK Ind	UK Soc	UK Gov	US Ind	US Soc	US Gov
Care	−0.19*	−0.10	−0.25**	−0.24**	−0.31*	−0.29*
	(0.09)	(0.11)	(0.09)	(0.08)	(0.12)	(0.11)
Fairness	−0.27*	−0.28	−0.05	−0.17	−0.28	−0.19
	(0.13)	(0.15)	(0.13)	(0.11)	(0.17)	(0.15)
Sanctity	0.00	0.12	0.03	0.45**	0.50*	0.34
	(0.16)	(0.18)	(0.15)	(0.13)	(0.21)	(0.19)
Loyalty	0.39*	0.34	0.38**	0.21	0.25	0.03
	(0.15)	(0.17)	(0.14)	(0.12)	(0.19)	(0.17)
Authority	0.41*	0.15	0.32*	0.15	0.31	0.50**
	(0.15)	(0.17)	(0.14)	(0.13)	(0.19)	(0.18)
Liberty	0.09	0.07	0.02	0.11	0.27	0.29
	(0.17)	(0.19)	(0.16)	(0.14)	(0.22)	(0.20)
R^2	0.40	0.22	0.37	0.43	0.37	0.38
Adj. R^2	0.30	0.08	0.26	0.34	0.26	0.28
Num. obs.	41	41	41	41	41	41

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Table A2: Linear regressions of the problem-level differences in Bradley-Terry estimate between those self-identifying right/conservative and left/liberal, by country and prompt.