An Artificial "Disconnect" [*]

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Abstract

A rich tradition in political thought suggests voters' interests are sometimes better served if policymakers are insulated from voters' preferences to some degree. Skeptical of this notion, an ambitious reform agenda has sought to encourage politicians to act as delegates, reflecting voters' preferences to a greater degree. One stated rationale for this agenda is the widely accepted empirical finding that politicians support more extreme policies than nearly all voters, which suggests to many that increasing politicians' accountability to voters would lead to more desirable policy outcomes. This paper first argues that the existing evidence for the empirical claim that most voters support moderate policies crucially relies upon the assumption that voters' preferences can be summarized on one dimension. An analytical argument shows that even if voters had immoderate views on many issues, voters could appear more moderate than legislators when mapped to one dimension. I then illustrate this distortion occurring in original data: despite appearing uniformly moderate on one dimension, non-trivial shares of voters appear to support immoderate policies on many issues. Moreover, voters' measured immoderate views appear meaningful, as they persist over time and guide subsequent choice. As such, encouraging politicians to more closely represent voters' policy preferences may not reliably moderate politicians' issue positions. These results have substantive implications for reformers and methodological implications for scholars.

"It may well happen that the public voice, pronounced by the representatives of the people, will

be more consonant to the public good than if pronounced by the people themselves."

- James Madison, Federalist No. 10

A rich tradition in political thought suggests voters' interests are sometimes better served if policymakers are insulated from voters' preferences to some degree (e.g., Burke, 1774). In Federalist No. 10, for example, James Madison articulated the widespread fear that "citizens, whether amounting to a minority or majority of the whole," may be "united...by some common impulse...adverse to...the permanent and aggregate interests of the community." Far from being an outmoded relic of 18th century elitism, such concerns about voters have been a continuing focus of empirical research. In the mid-20th century, landmark studies of public opinion were inspired by the concern that the American public might be capable of perpetuating similar atrocities as European mass publics had during World War II (e.g., Adorno et al., 1950; Asch, 1956; Milgram, 1963).[1] Scholars today have likewise produced no shortage of evidence that mass publics can fall short when it comes to judging matters of policy (e.g., Kousser, 2005; Sances, 2013) or protecting minority rights (e.g., Alvarez and Butterfield, 2000; Hainmueller and Hangartner, 2014).

Inspired by the tension political elites may sometimes face between representing voters' views and serving voters' interests (or protecting minorities' rights), scholars draw a careful distinction between when elites act as *delegates*, "select[ing] policy based on the public's (potentially-mistaken) beliefs about the policy that best serves their interests" and *trustees*, "selecting policy based on [their] best judgement about how to promote the public interest" (Fox and Shotts, 2009). In line with the trustee model, empirical research shows that elites sometimes incur costs to advance priorities they personally care about (Bianco, 1994; Broockman, 2013; Burden, 2007) and considers how elites arrive at their beliefs about what policies will be in voters' interests (Broockman, 2014*b*; Broockman and Ryan, 2014; Drutman and Hopkins, 2013; Kalla and Broockman, 2014; Noel, 2014). Likewise, many accounts often depict elites navigating a delicate balance between these roles (e.g., Fenno, 1973; Gailmard and Patty, 2007; Kingdon, 1989).

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[1]Hannah Arendt was famously prescient in writing that "the problem of evil will be the fundamental question of postwar intellectual life" (Arendt, 1945).

In the United States today, an ambitious reform agenda seeks to expand the role of elites[2] as delegates – hoping they will more closely represent public opinion – and to restrict their ability to act as trustees (e.g., Brownstein, 2007; Lessig, 2011; Mann and Ornstein, 2013). A stated rationale for much of this agenda is an empirical claim: voters reliably support more moderate policies than elites. Consistent with this notion, scholars regularly report that voters nearly all support moderate policies (e.g., Ansolabehere, Rodden and Snyder, 2006). Moreover, legislators are thought to reliably support more extreme policies than nearly all voters (e.g., Stone and Simas, 2010; Masket and Noel, 2012). For example, Bafumi and Herron (2010) find that only 10% of American voters prefer policies that are as extreme as their representatives in Congress.[3] For many reformers, it follows from this view that, if we observe one political party successfully pursuing a policy that we see as undesirable relative to the status quo, most voters will support a less extreme and thus more desirable alternative.[4] Together with evidence suggesting that the policy proposals the two parties advance differ dramatically, the scope for improvement by returning power to voters seems significant to many (Fowler and Hall, 2013*b*). Taking this state of affairs as a given, a veritable army of scholars have thus attempted to understand why voters allow it (e.g., Bawn et al., 2012; Fowler and Hall, 2013*b*; Lessig, 2011; McCarty et al., 2014; Henderson, 2013).

This paper argues that the widely accepted empirical claim that voters support more moderate policies than political elites crucially relies upon the assumption that voters' preferences can be summarized on one dimension. Nearly all the research claiming that voters are reliably more moderate than political elites makes this assumption in one way or another.[5] For example, Bafumi and Herron (2010) ask survey respondents how they would have voted on a number of bills that

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[2]I use the term 'elites' instead of 'legislators' because this literature, political reformers, and much of the classic thought on the subject generally contrast the opinions and priorities of the nation's elite, elected or not, about what is in the national interest with the views of the public at large.

[3]That is, only a small share of the public is more liberal than Democratic Members of Congress, and only a small share of the public is more conservative than Republican Members of Congress. I will follow Bafumi and Herron (2010) in adopting this definition of extremism in the American context: supporting a policy to the left of the typical Democratic position or to the right of the typical Republican position.

[4]For example, in support of campaign finance reform Lessig (2011) writes: "Fundraising happens among the extreme, and that puts pressure on the extremist [politicians] to become even more extreme." In support of voter registration reform, Mann and Ornstein (2013) recommend that we can "moderate politics by expanding the electorate."

[5]A notable exception is Fiorina and Abrams (2009), who examine trends on individual issues as well.

their representatives in Congress had voted on. The authors then use voters' survey responses and legislators' votes to estimate a common set of individual-level, one-dimensional 'ideal points' for both survey respondents and their Members of Congress. The result: over 90% of voters have more moderate ideal points than legislators (see also Clinton, 2006; Gerber and Lewis, 2004; Masket and Noel, 2012; Peress, 2013; Stone and Simas, 2010).[6]

To appreciate why the assumption that voters' views can be summarized on one dimension may be crucial for generating the conclusion that they are reliably more moderate than legislators, consider two examples of how one-dimensional ideal points may be estimated.

Exaggerating Voter Moderation?

First, Table 1 presents an example of how a simple ideal point estimator, the mean,[7] might describe an example legislator and an example voter on one dimension. In this example, the voter's ideal policy is significantly more extreme than the legislator's on each of two policies. However, when mapping their views to one dimension it is the legislator who appears extreme. Why? When asked whether he would like to nudge the policy status quo in a conservative or liberal direction, this voter gives inconsistent answers, answering in a liberal manner on one question and a conservative manner on a different question. 'On average,' then, this voter is in the 'middle' of the liberal-conservative continuum. The legislator, by contrast, supports fairly moderate policies in both cases. However, the legislator also consistently casts conservative votes, and thus is estimated to be 'extreme' on the continuum. One-dimensional models may thus do a good job identifying ideological orthodoxy but fail to detect extremism on issues.[8] As this example also suggests, to the extent public opinion is extreme on some issues, the bromide that politicians should more closely

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[6]In a similar spirit, other work compares how members of the public tend to describe themselves on a liberal-conservative spectrum and where they perceive the political parties' stances on that spectrum.

[7]For the purpose of transparent exposition I ignore more complex ideal point estimation strategies for the moment. However, empirically, more sophisticated ideal point estimators correlate with this naive estimator extremely strongly (Fowler and Hall, 2013*a*).

[8]This idea is a cousin of what Savage refers to as 'the flaw of averages': "Consider the case of the statistician who drowns while fording a river that he calculates is, on average, three feet deep." (Savage, 2009). I acknowledge Steve Scott for drawing the connection.

represent public opinion may prove less unambiguously appealing to reformers.

Table 1: How Placing Voters On One Dimension Can Overstate Voters' Moderation

	Voter	Legislator
Ideal Gay Rights Policy	Do not allow gays to teach in public schools	Civil unions only, no same-sex marriage
Answer to survey question / Roll call vote: "Should gay marriage be illegal?"	Yes	Yes
Ideal Income Tax Policy	Tax all income over $1,000,000 at 100%	Decrease taxes for all brackets by 5%, accomplished by reducing spending
Answer to survey question / Roll call vote: "Should the income tax on the wealthy be lowered?"	No	Yes
One-Dimensional Ideology Estimated From Survey Responses / Votes	**Moderate**	**Extreme Conservative**

Exaggerating Elite Extremism?

The assumption that voters' views can be summarized on one dimension may also lead legislators to look more extreme than voters even if most voters are not extreme on issues. To appreciate why, consider Table 2. In this example, a legislator represents a conservative-leaning district. On each of five issues, a majority – 3 of 5 voters – favor the conservative position. Suppose the legislator takes the conservative position on each of these votes as well, about as good a job as this legislator can do by the delegate standard given the political agenda. Now, consider a simple one-dimensional ideal point estimator: the share of issues on which each individual took a conservative position. By this metric, shown in the last row, the legislator again appears more extreme than every voter.

Perversely, in order to look like a better delegate on the scale, the legislator would need to vote against majority opinion on issues. We can thus lean quite heavily upon the statistical assumption of one-dimensionality when we describe extreme legislators as being more 'out of step' with voters than moderate legislators. In fact, 'ideologically extreme' legislators may tend to represent the public's views most closely, even if the public is fairly moderate on issues.

Table 2: How Placing Voters On One Dimension Can Overstate Legislators' Extremism

| | Conservative Survey Response? | | | | | Conservative Vote? |
	Voter 1	Voter 2	Voter 3	Voter 4	Voter 5	Legislator
Issue 1	1	0	1	1	0	1
Issue 2	0	1	1	0	1	1
Issue 3	1	1	1	0	0	1
Issue 4	0	1	0	1	1	1
Issue 5	1	0	0	1	1	1
Estimated One-Dimensional Ideology	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**	**1**

Notes: The majority of voters favor the conservative policy on each issue, as does the legislator. Despite voting congruently with majority opinion on every issue, the legislator appears 'more extreme' on one dimension.

Figure 1 helps illustrate that the concerns articulated in Table 2 are not idle. On the x-axis of these graphs are a measure of legislators' ideology, Conservative Vote Probabilities (similar patterns are evident in other ideal point estimators) (Fowler and Hall, 2013*a*). Both graphs are oriented such that higher values correspond to legislators with more moderate scores on the first dimension. It is commonplace for legislators assigned more extreme ideological scores to be termed more 'out of step' with voters and legislators assigned more moderate ideological scores to be termed more 'in step.' This animates the concern that legislators look increasingly extreme on these scores. However, the y-axis calculates a more direct measure of the congruence between politicians and voters – agreement on issues (e.g., Ansolabehere and Jones, 2010). In particular, to calculate the mean agreement scores on the y-axis, I first calculated an agreement score for every respondent in the 2010 CCES. I then averaged these scores for each legislator, capturing the average share of votes on which their roll call votes accord with their typical constituents' views. These can be thought of as follows: 'if a voter in the district is selected at random and their view

on an issue is selected at random, how likely are they to agree with the legislators' position?'

Figure 1: Legislators' Ideological Moderation Has No Relationship With Agreement With Constituents On Issues
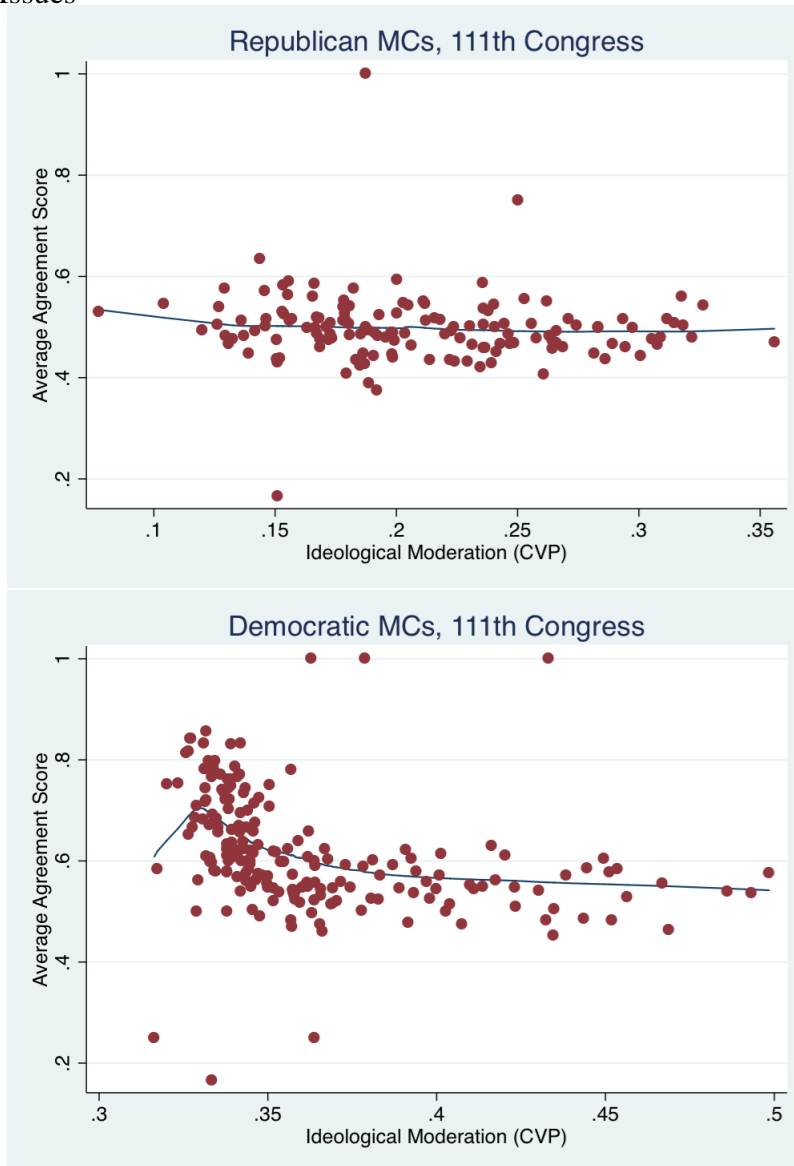
Notes: The y-axis is a straightforward measure of proximity to constituents on issues, each legislators' constituents' average agreement score with the legislator on roll-call votes on the 2010 CCES. The x-axis measures the legislators' ideological moderation. To many, ideological moderation is a near-synonym with greater agreement with voters on issues. However, these measures do not have a clear relationship in data.

To many, ideological moderation is a near-synonym with proximity to voters, and we should thus observe a strong positive relationship between these measures. Indeed, ideological moderation

and congruence with voters' preferences are supposedly – if the view of voters as moderate, one-dimensional, and represented by extreme elites is correct – essentially the same concept. However, Table 2 showed how elite ideological moderation may not coincide with agreement with voters on issues if voters are not one-dimensional. Rather, as Table 2 showed, elites voting with majority will on each issue may appear 'extreme' on one dimension if voters are ideologically conflicted but tend towards the legislators' view. Figure 1 is more consistent with the latter view. Ideological moderation and representation of constituents on issues do not have a clear relationship in these data. While not representing definitive evidence one way or the other – omitted variables like voters' propensity to agree with liberal policies in these districts may attenuate this relationship – the lack of any relationship between congruence with voters as it is measured on one dimension and congruence with voters as it is measured on actual issues is surprising in light of assumptions those who study representation take for granted. It also suggests that the theoretical concerns expressed above about studying the congruence between politicians' issue positions and voters' views with ideological scales are not idle.

The first half of this paper illustrates in greater detail how summarizing voters' views on one dimension can change the conclusions we reach about voters and legislators in real data. The examples shown in Tables 1 and 2 are not contrived, but patterns just like these are common in opinion data. The conventional wisdom scholars and reformers increasingly take for granted – that legislators support more extreme policies than voters – thus may crucially rely on the assumption that voters' preferences can be summarized on one dimension. Next, I consider voters' views on individual issues and show that, on many issues, a non-trivial share of voters voice support for policies more extreme than legislators. Moreover, these measured views appear genuine, as they persist over time and guide voters' choices. Consistent with a classic body of public opinion research, political elites may be more likely to hew to mainstream political positions than voters, not less likely (Zaller, 1984). Finally, I consider the implications of these ideas for the study of representation methodologically and substantively.

The notion that voters' opinions cannot be described on one dimension is an old idea (e.g.,

Converse, 1964; Lane, 1962). Empirical work has consistently replicated it (Kinder and Sears, 1985; Layman and Carsey, 2002; Baldassarri and Gelman, 2008; Fiorina, 2013), and significant theoretical work speaks to its implications (McKelvey, 1976; Plott, 1967; Shepsle and Cox, 2007) – voters are not the consistent ideologues that talk of a 'culture war' suggests (Fiorina, Abrams and Pope, 2005). However, although the implications of this idea are widely considered in the study of political behavior and political competition, they are much less well-appreciated for the empirical study of political representation. This paper argues that these implications are significant.

The One-Dimensional Assumption and Studies of Representation

When survey data look like the examples shown in Tables 1 and 2, the assumption that public opinion is one-dimensional is crucial to maintaining the conclusion that legislators are more extreme. Unfortunately, without this assumption, the extremity of legislators' and voters' ideal policies is difficult to judge in existing data. Survey instruments are typically built by asking voters to pick a side in elite policy disputes, leaving the public generally unable to register support for policies that legislators do not by design.[9] We may observe that a voter supports raising the income tax, but this alone tells us little about how high her ideal income tax would be.[10] The one-dimensional assumption thus becomes indispensable for studying extremism with most available data, as we typically do not give voters the opportunity to explicitly register extreme views on issues.

To illustrate how conclusions about political representation may differ if we understood voters'

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[9]Moreover, the policy alternatives on the elite agenda are endogenously determined by elites, and thus may tend to be more moderate than would be expected by chance (Aldrich, Montgomery and Sparks, 2014; Clinton, 2012; Lee, 2009; Krehbiel and Peskowitz, 2012). I consider this point in the discussion.

[10]An alternative assumption existing data allows us to make is that voters can accurately perceive the parties' positions on individual issues, or that statistical techniques allow us to make such inferences across voters (e.g., Aldrich and McKelvey, 1977). Such techniques generally find less support for the idea that voters are uniformly moderate (Hare et al., 2014), consistent with my argument, although I avoid this technique here as it naturally raises questions over the validity of the assumptions underlying the survey response model.

views on individual issues in greater detail, I composed survey items meant to probe support for policies less extreme, as extreme, and more extreme than political elites typically support within individual issue domains. The omission of such items on most surveys is understandable. Composing such items requires analysts to exert judgement rather than simply summarizing roll calls, an approach that presents obvious drawbacks. But present practice is not without its drawbacks, too: as Tables 1 and 2 show, when we accuse legislators of extremism, we lean heavily upon the statistical assumption that "the American policy space is unidimensional and aligned left to right" in voters' minds (Bafumi and Herron, 2010, p. 521), despite a rich history of public opinion research to the contrary (e.g., Converse and Pierce, 1986; Fiorina, Abrams and Pope, 2005; Kinder and Sears, 1985).

Data

To evaluate the public's support for immoderate policies and explore how a one-dimensional summary of their views may render them, we conducted a two-wave panel survey that explicitly probed support for such policies (Ahler and Broockman, 2014). In the first wave, conducted in January 2014, we recruited 1,240 survey respondents from the United States through Survey Sampling International, which recruits samples that compare favorably to Census benchmarks. The sample matches the population reasonably well on key demographic variables, although African-Americans were intentionally oversampled for another project (see Table 8). We use survey weights to account for this oversampling and to improve the correspondence between the sample and the population on observable covariates more generally.[11] We also conducted a follow-up wave in March 2014 with 515 of the Wave 1 respondents to assess the stability of the attitudes we measured, a matter we return to in a moment. Sections A.1 and A.3 in the Appendix respectively describe the survey questions and procedures.

In line with the discussion above, this survey differed from most in a crucial respect: it offered citizens the opportunity to voice support for policies more moderate and more extreme than the

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[11]Unweighted results are similar.

parties support within a variety of policy domains.[12] These items were structured as follows. The survey asked Americans for their opinions on twelve issues: health care, gun control, immigration, taxes, abortion, the environment, Medicare, gay rights, social security, unions, contraception, and education (see the Appendix for the full questionnaire). For each issue, the survey described seven concrete policy options:

- at 1 and 2 on the scale, two 'extreme' liberal policies that very few Democratic Members of Congress support,

- at 3 on the scale, a policy corresponding to the typical Democratic view advanced by party leaders and most in the rank-and-file,

- at 4 on the scale, a 'moderate' policy that is to the right of most Democratic elected officials' positions but to the left of most Republicans', usually describing the status quo,

- at 5 on the scale, a 'Republican' choice mirroring the Democratic choice at point 3, and, finally,

- at 6 and 7 on the scale, two extremely conservative choices to the right of most Republican elites.

To craft these scales, a team of research assistants catalogued the positions of all senators from the 113th Congress on these issues. We measured elite positions in the interest of making scale points "3" and "5" correspond with mainstream Democratic and Republican elite positions. We then composed a point "4" occupying centrist ground for each of the 12 issues, which generally captured the status quo. All choices were composed so as to be as easy to understand and free from political jargon as possible. We then looked to positions taken by the more extreme political elites in each party to formulate points 2 and 6. Points 1 and 7, the extreme liberal and conservative choices, represent points of view more liberal and conservative than nearly any national political

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[12]I do not endeavor to measure what policies members of the public might support were they elected to Congress (a counterfactual that is fundamentally unanswerable in all survey research) nor what policies members of Congress might support were they answering a survey as private citizens.

elites support. Point 4 on each policy was formulated to be more liberal than what nearly any Republican elites have proposed but more conservative than what nearly any Democratic elites have proposed, a moderate option. The positions were then validated by attempting to place all 100 sitting US Senators' positions on each issue on the scales, revising the scales as necessary when it did not adequately capture a common position in the political debate.

The One-Dimensional Assumption In Practice

These unique items facilitate an appreciation of how the validity of the one-dimensional assumption is critical to the conclusions we may reach about the extent of voters' support for extreme policies in real data. First consider Figure 2, which depicts the marginals on the Income Taxes item. The policies at 1 and 2 describe, respectively, establishing a maximum national income of $1,000,000 per year and increasing income taxes on the wealthiest 1% of Americans by a significant amount, over 5%. Consistent with a great deal of public opinion evidence, significantly higher taxes on the wealthy appear very popular with the American public at large (e.g., Page, Bartels and Seawright, 2013).

Figure 2: Responses to Income Taxes Question
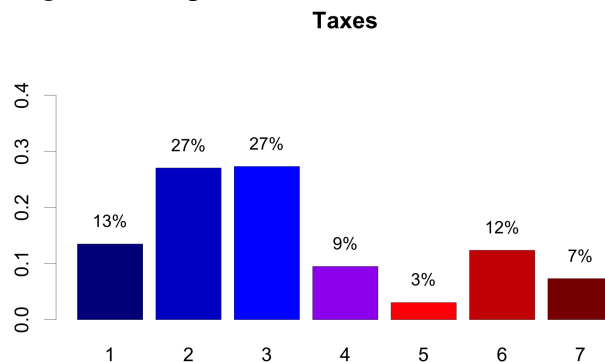
Notes: The policy labeled as a 1 in each question is the most extreme liberal response available, a 3 corresponds to the national Democratic party's general position, a 5 corresponds to the national Republican party's general position, and a 7 is the most extreme conservative response available.

Of course, generalizing from any one item on a survey to conclusions about politics in general would be premature. Suppose an analyst is interested in understanding whether citizens tend to

support more moderate policies than legislators in general, across many such items (e.g., Bafumi and Herron, 2010). Table 3 considers two voters' responses to two issue questions and two possible approaches for aggregating them in pursuit of appraising the extent of extreme views. (For the purposes of transparent exposition, this aggregation is initially pursued simply, without the benefit of more sophisticated methods. For now I also leave aside the question of measurement error, a matter to which the next section is devoted.)

Table 3: Strategies for Aggregating Mass Opinion, Example Data

	Issue 1	Issue 2	Mean	Aggregation Strategy
Voter 1	1	7	4	Voters' 'Typical Responses'
Voter 2	6	1	3.5	
% At 1	50%	50%	50%	
% At 6	50%	0%	25%	Pattern on 'Typical Issue'
% At 7	0%	50%	25%	

A first approach for aggregating across items and respondents is shown at the top right of Table 3. This approach first computes the average of each voters' responses and considers the distribution of voters' 'typical responses.' Note how this approach entails the assumption that voters' preferences can be mapped to a point on one dimension, as in order to characterize voters' preferences we collapse their views across items to a single index. The results of this approach in the public opinion data I described are shown in the top panel of Figure 3. As can be seen, the overwhelming tendency is for individual voters' 'average responses' to be near 4, the moderate anchor. The conclusion that one might reach from this data thus mirror the conclusion in the literature more generally that voters reliably support moderate policies (Ansolabehere, Rodden and Snyder, 2006).

As described earlier, the approach just executed may exaggerate voters' moderation if the one-dimensional assumption does not hold. These data show this exact form of exaggeration occurring in practice. In particular, consider a second approach to aggregating this data that does not make the one-dimensional assumption. This approach is shown at the bottom right in Table 3. This approach first considers the pattern on every issue, like the Income Taxes item

Figure 3: Strategies for Aggregating Mass Opinion, Real Data

Distribution of Respondents' Average Responses - Mass Public
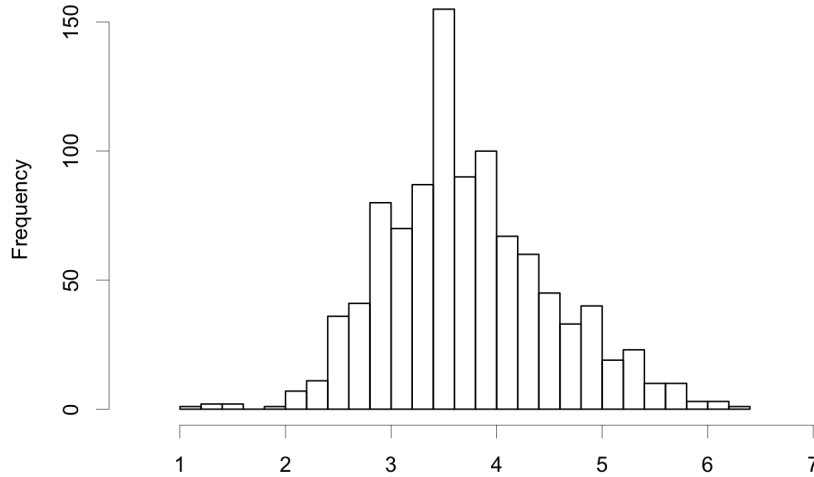
Distribution of Responses on 'Average Issue' - Mass Public

Wave 1
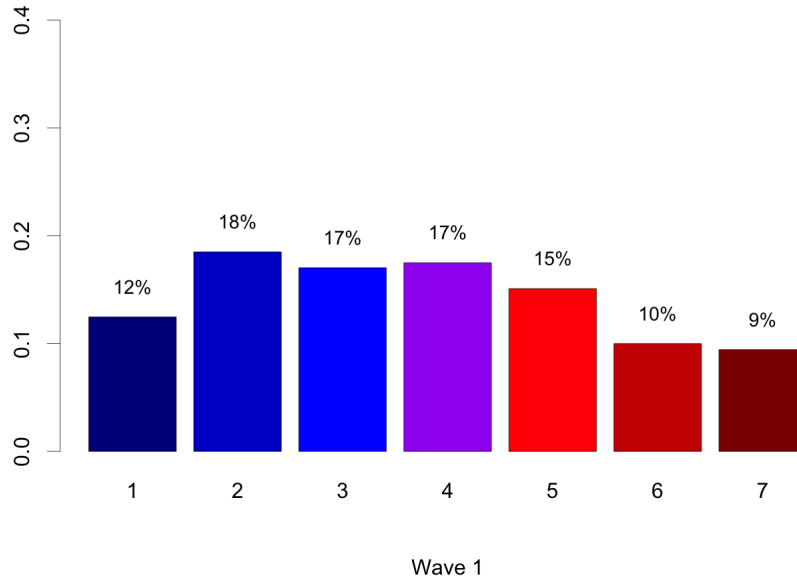
Notes: The histogram in the top panel shows the distribution of respondents' 'average responses.' To compute this figure, I first average each voters' response across multiple issues and then plot a histogram of these voter-level response averages, as shown in the top right of Table 3. To calculate the bottom figure, I followed the aggregation strategy shown at the bottom of Table 3: I first calculated the marginals on every issue (see next section), as in Figure 2, and then average the marginals to describe the 'typical issue.'

above, and then considers what pattern is typical on issues. From this approach, we thus get a picture of the distribution of mass opinion on the 'typical issue' in the survey[13] without making the assumption that voters can be mapped to one dimension. Table 3 shows how this strategy might yield quite different results, and potentially more accurate ones if the one-dimensional assumption is not satisfied. And indeed, the bottom panel of Figure 3 shows that this procedure does yield markedly different results in the public opinion data. The bottom panel shows that about 30% of Americans give one of the two most left-wing responses on the typical question, even though the top panel shows that nearly none of these respondents gave this response on *every* question, potentially giving the impression that nearly no Americans support policies as or more left wing than the Democratic party (e.g., Bafumi and Herron, 2010). Nevertheless, a look at the data without any respondent-level aggregation suggests that such positions often receive a fair amount of support in the public.

These data, although quite naively aggregated, thus facilitate an appreciation of how the assumption that public opinion is one-dimensional may change the conclusions we draw about it. To appreciate this assumption concretely, consider an example issue. Approximately 20% of Americans in this survey stated that they favored a state-owned health care system similar to Britain's. Few American political elites take positions this liberal on this issue, but opinion polls routinely find that a non-trivial share of the public holds this view. However, suppose an individual in the public who supported a state-owned health care system also noted a belief that all undocumented immigrants should be deported immediately, a draconian conservative policy. A one-dimensional scale would suggest these responses are together diagnostic that this individual is a 'moderate' on average. This description only seems accurate to the extent one dimension can adequately capture citizens' views. The one-dimensional assumption, correct or incorrect, thus appears crucial.

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[13]The 'typical issue' respondents are asked about, not necessarily the typical issue in general. Indeed, drawing attention to the potentially limited generalizability of the issues at stake is one strength of considering patterns of representation on individual issues on at a time, instead of grouping issues together into an index.

Contrasting The Structure of Mass And Elite Opinion

The data presented in the bottom panel of Figure 3 avoids the assumptions that public opinion is one-dimensional and that voters can accurately perceive the parties, but it makes the assumption that the scales themselves accurately place the parties. The scales are surely not flawless, so one may wonder whether the contrast between the panels in Figure 3 does not represent the importance of the one-dimensional assumption but rather flaws in the items. For example, suppose the 'truly moderate' option on the scales was not usually near 4 on the scales, but drifted between 1 and 7 across items. This may lead public opinion to appear extreme on many items, but moderate on average, even if public opinion on most issues were truly moderate. To help assess this possibility, and to further illustrate the importance of the one-dimensional assumption, I also administered these same items to a convenience sample[14] of elites ($N = 337$).

To gather the elite sample, I conducted a parallel survey of sitting state legislators and administered the same issue batteries as I delivered to the mass public (following Jennings, 1992; Converse, 2000).[15] This survey was not intended to be strictly representative of sitting legislators or their positions, but merely to explore the consequences of the much greater degree of ideological consistency typically present in elite samples and assess the validity of assuming that party elites' typical positions are near 3 and 5. The survey was also not intended to query legislators' *personal* opinions on the issues at hand but simply their *positions*.

Figure 4 depicts the results of these surveys in the very same way that the mass survey results were depicted: the top panel shows the distributions of individual legislators' 'average responses,' whereas the bottom panel shows the frequency of the legislators' responses on the 'typical issue.'

First, to appreciate why the one-dimensional assumption has been so widely accepted among scholars of political elites, compare the differences between the results of the two aggregation strategies previously discussed when now applied to elites. Figure 3 showed that assuming the public's views can be captured with a one-dimensional index has the potential to do a great deal of

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[14]Efforts to collect a more representative sample on these items are in progress.

[15]State legislators were invited to participate by contacting them at their public email addresses. Screener questions ensured that only legislators themselves were answering the survey.

Figure 4: Strategies for Aggregating Elite Opinion

Distribution of Respondents' Average Responses - Legislators
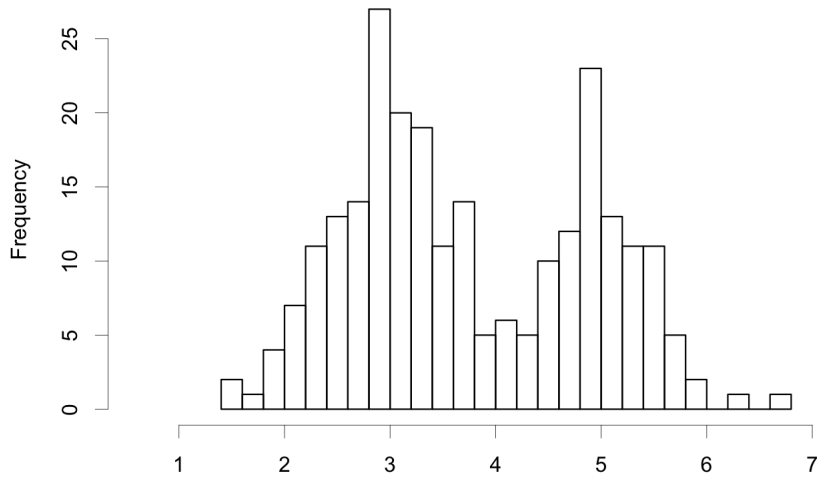
Distribution of Responses on 'Average Issue' - Legislators
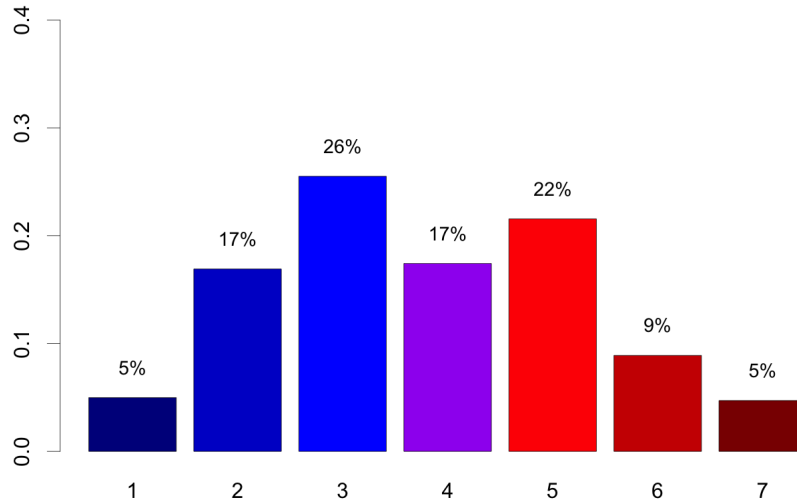
Notes: The panels were computed identically to Figure 3, but with the elite sample.

violence to our understanding of the public's views on typical issues if it fails, but Figure 4 shows than making this same assumption about legislators does little to change the portrait of theirs, at least on these issues. Because individual elites tend to fall at the same point on the scale on every

question, the distribution of elites' 'average responses' looks very much like the distribution of their responses on the 'typical issue.'[16] (Reassuringly, elites also tend to cluster at 3 and 5 in both panels, consistent with the notion that the items do not strongly overstate the public's extremism by misplacing the moderate option.)

Figure 5 directly compares the conclusions we might reach about legislators' and voters' relative extremism when we do and do not make the one-dimensional assumption. The left panel of the Figure shows the extremity of individual elites' and citizens' 'average responses' on the issues in the survey. Like a great deal of research, this panel describes the extremity of the policies the mass public and elites support by first calculating a one-dimensional summary of their views at the level of individuals and then examining the extremity of these individual-level, one-dimensional scores.[17] As expected, on such metrics the mass public looks generally more moderate than legislators. However, the right panel displays a view of the data that does not require a liberal-conservative spectrum to capture citizens' views in order to summarize their issue positions. To calculate the respondent-level extremity scores in this panel, I first calculated the extremity of each policy position taken by every respondent, defined as distance from '4' on the scale, and then took the mean of each respondents' extremity.[18] This allows for respondents to be extreme on some issues and moderate on others. When relaxing the assumption that voters' views can be summarized on one dimension and instead examining whether the public supports extreme policies one issue at a time, the mass public's support for more extreme policies appears similar if not greater than elites'. Once again, the assumption that the public is one-dimensional appears crucial to the conclusion that the public is reliably more moderate than legislators.

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[16]This comparison also shows why procedures such as Poole and Rosenthal's (1997) and Clinton et al.'s (2012) have rightly proven so successful. As an empirical matter, elite position-taking is one-dimensional enough that legislator-level and issue-level aggregation strategies do yield almost the exact same results, consistent with a rich tradition investigating the different structure of elite and mass opinion (e.g., Converse and Pierce, 1986; Converse, 2000; Jennings, 1992).

[17]More precisely, each respondent's extremity score in the left panel is $\theta_i = \frac{|\Sigma_{j=1}^{j=n} x_{ij} - 4|}{n}$, where i indexes respondents, j indexes the n issues, and x_{ij} is respondent i's response to issue question j.

[18]More precisely, each respondent's extremity score in the right panel is $\theta_i = \frac{\Sigma_{j=1}^{j=n} |x_{ij} - 4|}{n}$, with i, j, x defined in the previous footnote. Note how this formula assesses extremity at the level of issues first rather, as above, than placing respondents on one dimension first and then assessing the extremity of this one-dimensional summary.

Figure 5: The Public's "Average Response" is Less Extreme than Legislators', But The Public Typically Voices Support For More Extreme Policies
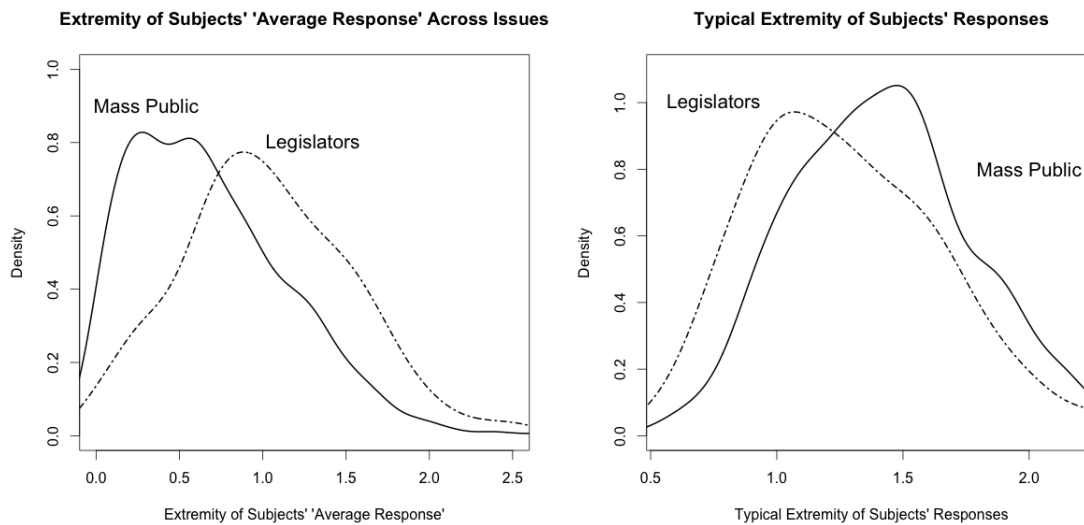
In summary, original public opinion data shows that the assumption that public opinion is one-dimensional can be crucial to reaching the conclusion that legislators are significantly more extreme than voters. Among voters (shown previously in Figure 3), the deep blue and red bars at points 1, 2, 6, and 7 on the scale received a great deal of support – on the typical question about 49% of the public offered these positions. But among elites, where extremism is alleged to run rampant, the modal responses on the typical issue centered nearly exactly at points 3 and 5, where the parties' expected positions were specified ex ante. Moreover, legislators were actually slightly *less* likely to describe their positions at points 1, 2, 6, and 7. And, nearly the exact same share picked a 'moderate' option on the typical policy. Although certainly not dispositive in either direction, these simple comparisons show how the new conventional wisdom that legislators reliably support more extreme policies than the public can crucially rely on the assumption that voters' views can be summarized on one dimension, an assumption that sits at odds with decades of research.[19]

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[19]One may wonder whether the aggregation strategies pursued in the Figures above do justice to the more sophisticated procedures employed by methods such as IRT models, but Figure 7 uses data from a battery of 20 binary questions (see Appendix) delivered to both the mass public and legislators to show that state of the art methods do not overcome these problems. The IRT estimates look like the top panels on Figures 3 and 4, suggesting these legislators are reliably more extreme than the survey respondents.

Are Voters' Claimed Immoderate Preferences Meaningful?

Figures 3 and 4 showed that the public is likely to voice support for policies on single survey questions that are not moderate. This section considers how common these patterns are on individual issues and whether these measured views are meaningful.

It might be expected (but the one-dimensional assumption does not easily allow)[20] that voters will tend to be more moderate than legislators on some issues than others. To explore this potential, Figure 6 presents the raw data by issue.[21] Several patterns on individual issues are immediately apparent that are consistent with a large body of public opinion research. Much of the American mass public appears more liberal than many political elites when it comes to social insurance programs like Social Security and Medicare, and there is substantial support for the Democratic party's position in these areas (Fiorina, 2013; Lelkes and Sniderman, 2014). These programs are extremely popular, and most Americans would like them to be expanded in generosity and scope (e.g., Cook, Barabas and Page, 2002). Likewise, as reviewed before, taxing the wealthy is very popular, again consistent with other research. The public also tends to support restricting access to guns beyond the status quo. On the other hand, an undercurrent of strong conservatism exists among the public on immigration, with over 40% of respondents voicing support for deporting all undocumented immigrants immediately. Of course, these patterns are not limited to these issues: more than 10% of respondents voiced support for more extreme policies than the parties typically support on every single issue, inconsistent with the notion that fewer than 10% of voters are as extreme as typical legislators.

Whether or not policies like establishing a maximum national income or deporting all undocumented immigrants are normatively desirable is beyond the scope of this paper's ambitions. However, to the extent reformers believe the policies politicians currently support are too extreme,

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[20]Different discrimination parameters in an IRT model could yield the conclusion that the distribution of *responses* differs across items, but the substantive conclusion analysts typically draw from discrimination parameters differing across items in an IRT model is that some items are answered with more *error* than others, not that true latent opinion is more dispersed. (Difficulty parameters here are constrained by design.)

[21]That patterns of claimed extremism vary dramatically by issue also help rule out another potential form of measurement error: that many respondents simply reliably place themselves at extreme points on scales (e.g., Greenleaf, 1992).

Figure 6: Mass Opinion On Individual Issues
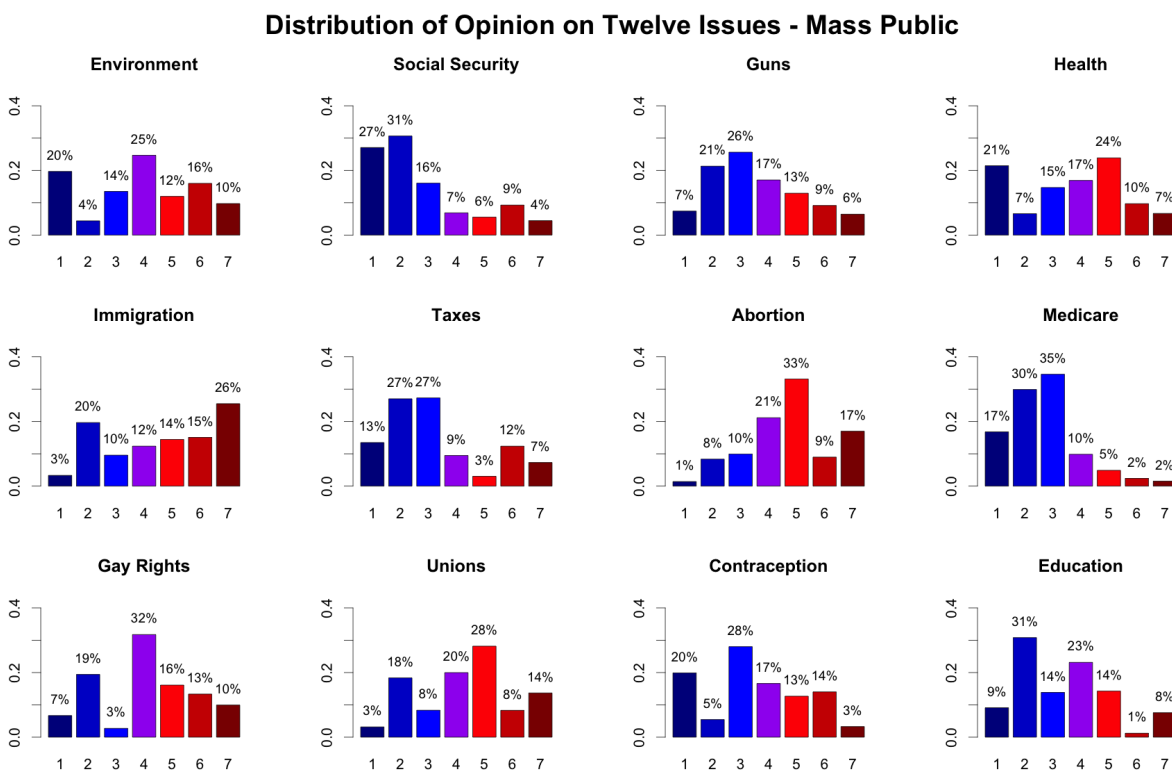
Distribution of Opinion on Twelve Issues - Mass Public

Notes: The policy labeled as a 1 in each question is the most extreme liberal response available, a 3 corresponds to the national Democratic party's general position, a 5 corresponds to the national Republican party's general position, and a 7 is the most extreme conservative response available.

these data suggest it is unclear that the alternatives many voters favor would prove more palatable.[22]

But are these measured extreme views meaningful? It is time to consider the elephant in the room: measurement error. It is well known that responses to survey questions contain error, and this error almost certainly overstates the public's extremism on individual items to some degree. Most tests for the true dimensionality of data[23] or how to model measurement error (unless five

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[22]Even though such positions command substantial support, the median respondent on most of these issues is closer to the center of the elite policy debate than these positions. The claim I am making is not that the median is reliably more extreme; rather, I wish to cast doubt on the idea that all voters are reliably more moderate. I avoid focusing on the median voter for several reasons. First, many models of political competition, especially if voters have multidimensional preferences, suggest the full distribution of opinion is relevant for understanding the policy legislators will select. Second, making strong claims about the location of the median would entail stronger assumptions about the representativeness of this sample and the nature of measurement error in the items.

[23]The usual evidence given that public opinion is one-dimensional is that adding a second dimension to ideology models does not explain much additional variance in Americans' policy preferences (e.g., Jessee, 2009; Tausanovitch and Warshaw, 2013, 2014). However, the conclusion that only one dimension exists does not logically follow from the

panel waves are collected)[24] rely on arbitrary choices that leave significant discretion in the hands of the analyst.

This paper does not seek to advance a precise estimate about how widespread extreme views are – with only two panel waves,[25] it would be difficult to agree upon a falsifiable empirical test establishing the correct measurement error model. Instead, I only wish to show that voters' stated support for policies more extreme than legislators typically support often reflect meaningful views. The alternative is that these responses represent error, and that voters' voiced support for these policies represent mistakes.

I test this falsifiable prediction of the alternative model based on data collected from 515 respondents in a recontact wave two months later.[26] The measurement error explanation for the support voters voice for policies more extreme than the parties would predict that most of the responses observed at 1, 2, 6, and 7 on the scales at Wave 1 are 'mistakes.' To evaluate this explanation, I examine whether respondents would prefer candidates who take these 'extreme' positions over candidates who take positions closer to voters' predicted true moderate position under the alternative model. Collecting this data at a distance from the first measurement helps alleviate concerns that respondents will show a preference for the same policy in order to appear consistent.

To see how this test is constructed, consider the hypothetical response pattern to a Wave 1 survey shown in Table 4. If the literature's measurement error model is correct, this respondent's choices to issue questions 1, 4, and 9 would represent mistakes for most respondents. Now,

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finding that one dimension is particularly strong. Merely because adding *one* additional dimension does not capture a great deal of the heterogeneity of Americans' issue preferences does not mean that additional dimensions do not exist; it merely means that there is not any one particularly large secondary influence common across all Americans. There may be hundreds of 'dimensions' to Americans' policy preferences – some might favor universal healthcare because of a personal experience with an insurance provider, for example, and others may oppose gay marriage due to their religious convictions (Tesler, 2014). Simply because one cannot identify a single particular factor that competes in strength with the first dimension does not mean that such factors collectively matter little.

[24]In particular, Palmquist and Green (1992) show that if measurement errors in panel data are correlated across waves, five survey waves are needed in order to reduce sampling variability to reasonable levels, even though the correlated model is just-identified in fewer waves. If survey error is assumed to be random, three waves are sufficient. However, as correlated errors are common in survey data, it is difficult to know which model to accept unless enough data is collected to evaluate both models (Achen, 1983).

[25]In future versions, I hope to collect more panel waves with greater time between them.

[26]This material is drawn from Ahler and Broockman (2014), Study 4A.

Table 4: Example Response Pattern, Wave 1

Issue 1	**2**	Issue 7	4
Issue 2	4	Issue 8	5
Issue 3	5	Issue 9	**1**
Issue 4	**7**	Issue 10	3
Issue 5	3	Issue 11	5
Issue 6	3	Issue 12	3

Note: the measurement error model being tested claims that the bolded responses to this example Wave 1 survey are very likely to represent 'mistakes.'

Table 5: Example Candidate Matchup, Wave 2

Imagine choosing between on of the two candidates for U.S. House shown below...

	Candidate 1	Candidate 2
Issue 1	2	4
Issue 4	7	4
Issue 9	1	4

Note: concrete positions still described to respondents; scale positions shown here for simplicity.

imagine this respondent faces the choice in Table 5, between two candidates with issue positions shown in the cells. If the respondent's true positions are moderate, the respondent should tend to select Candidate 2, who has consistently moderate positions. On the other hand, if the respondent's extreme responses to the issue questions speak to a meaningful preference they have for politicians to take immoderate positions on these issues, we should see this respondent tend to select Candidate 1.

We presented respondents in the Wave 2 survey a matchup like this, between a candidate who took the most extreme positions they took on the Wave 1 survey and a candidate who takes moderate positions on these issues. The results suggest that citizens do want to see their previously immoderate views on issues represented. When presented with a choice between a politician who espouses their own least moderate positions and a politician who is centrist on those same issues, 74.6% of respondents ($n = 513$) select the politician who mirrors their previously reported immoderate issue views ($p < 0.001$, 95% CI: [68.6%, 80.7%]).[27]

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[27]The results are identical for the vast majority for the sample who express at least three 'extreme' responses.

This result is consistent with the notion that the measured support for immoderate policies on the first wave represented meaningful preferences for a large share of respondents. On many issues, the public opinion data suggested that a non-trivial share of the public seemed to support more extreme policies than the parties. Considering the literatures on these individual issues, including the popularity of social insurance programs and hostility towards immigrant minorities, this notion is not surprising. But in light of the new conventional wisdom in the literature on representation that voters should be thought of as reliably moderates, it is.

In a companion paper, Ahler and Broockman (2014), we present several other studies testing implications of the claim that voters prefer politicians to take moderate positions despite their answers to individual survey items. The evidence we find is broadly inconsistent with this view. For example, citizens' preference for a politician who adopts their previously expressed issue views, including their more extreme views, does not abate even when explicitly informed that an alternative politician is more moderate. These results should increase skepticism of the claim that citizens reliably clamor for politicians to take more moderate issue positions.

'Ideological Innocence' and the Study of Representation

Today, an ambitious reform agenda envisions constraining legislators to act as delegates of public opinion, limiting the political power left to elites. In the American context, one stated rationale for this agenda is an empirical claim: political elites support more extreme policies than nearly all voters, as on one dimension around 90% of voters prefer moderate policies in comparison to political elites. For reformers, the implication of this idea is that when we observe politicians of one party or ideological group pursuing policies we judge to be unwise, we can assume that rank-and-file voters would support a more moderate alternative (Lessig, 2011; Mann and Ornstein, 2013).

This paper first argued that existing evidence that voters' preferences are reliably more moderate than political elites' depends crucially on the assumption that voters' views can be

summarized on one dimension. Analytically, Table 2 showed that a legislator who voted with majority opinion in her district on every single bill might appear very extreme on a one-dimensional index. Likewise, Table 1 showed that a representative with moderate issue positions may appear more extreme on one dimension than a voter with more extreme positions on all issues. In this sense, the probability that existing literature would conclude that voters are moderate is high even if voters were not moderate.

The extent of voter support for moderate or immoderate policies has been difficult to judge on the basis of previously available data because survey questions typically ask voters to pick a side in elite policy disputes. Such items leave voters generally unable to indicate support for policies more extreme than legislators do by design. This omission is understandable, as asking such questions requires analysts to exert more judgement. But the alternative, relying on a one-dimensional scale computed from the elite policy agenda, is not without its drawbacks, too: as Table 2 showed, we may infer extremism from a pattern of popular positions, enlisting the statistical assumption that "the American policy space is unidimensional and aligned left to right" in voters' minds (Bafumi and Herron, 2010, p. 521) despite a rich history of public opinion research to the contrary (e.g., Converse and Pierce, 1986; Fiorina, Abrams and Pope, 2005; Kinder and Sears, 1985).

This paper does not seek to advance any strong claims about the location of the median voter on issues. However, the data gathered on voters' and legislators' preferences are consistent with the concern that assuming voters' preferences can be described on one dimension can be crucial to maintaining the conclusion that voters are reliably more moderate than politicians. In the data collected here, a non-trivial share of voters voiced support for policies more extreme than legislators on many particular issues. However, when imposing the assumption that voters' views can be summarized on one dimension on this data, this conclusion vanishes and the picture of voters as reliably more moderate than elites returns. If individual voters support large expansions to Social Security and very conservative immigration policies, they are described as moderates. This characterization may be correct if public opinion were truly one-dimensional. However, panel data suggest that many of the immoderate views voters express on issues are meaningful, as they tend

to persist over time and guide later choices. These patterns raise questions about the widespread view that voters can be assumed to reliably support moderate policies.

Implications for the Study of Representation

Relaxing the assumption that voters' views can be summarized on one dimension may also have implications for the study of representation more generally, as one-dimensional ideological scales have formed the basis of much conventional wisdom in numerous literatures. Two examples illustrate this potential.

First, because one-dimensional scales can describe elites' positions relatively successfully, they are understandably a staple of the literature on elite positioning. An influential strand in the empirical literature on elite positioning considers the conditions under which elites are 'held accountable to voters more strongly,'[28] which is often defined as the extent to which politicians' estimated ideal points are moderate. This metric is premised upon the idea that voters are generally moderate (e.g., Canes-Wrone, Brady and Cogan, 2002). Yet, consider again Table 2. In order to represent majority will on every issue, this legislator must take the conservative position on every issue. The legislator thus appears 'extreme.' Moreover, in order to appear closer to voter preferences on one dimension, this legislator would need to begin voting liberally on more issues, against majority will on more issues. When partitioning legislators into 'extremists' and 'moderates' scholars often assume that 'moderates' represent voters' preferences more closely, but precisely the opposite is possible even if voters' views are not extreme.[29] The substantive conclusions of studies using ideology to study electoral accountability may depend on how voters evaluate the particular policies on which moderate legislators and extreme legislators disagree.

As an example of this potential for substantive conclusions to change as a result of this critique, Snyder and Strömberg (2010) show that legislators whose districts overlap well with

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[28]As Ashworth and de Mesquita (2014) note, this approach may be preferable to micro-level studies of voter and elite behavior, as it captures how outcomes change in equilibrium, which is not always obvious ex ante.

[29]Empirical studies are remarkably mixed on whether voters prefer moderates (e.g., Adams et al., 2013; Montagnes and Rogowski, 2012), and when differences between extremists and moderates on valence dimensions are carefully taken into account, the conclusions of such studies can reverse (e.g., Stone and Simas, 2010).

newspaper markets tend to be more moderate, which they interpret as showing that the media helps voters hold legislators accountable to their preferences. If voters are thought to be uniformly moderate and other political actors uniformly extreme, this interpretation may be relatively straightforward. However, consider an alternative interpretation of this result: interest groups tend to encourage ideological moderation, perhaps because it is less likely to lead to changes in the status quo (Baumgartner et al., 2009; Bonica, 2013); and, when Members of Congress know it is less expensive for interest groups to purchase negative advertisements against them (because an advertisement in only one newspaper can cover an entire district), they are more careful not to contravene interest groups' preferences. This is quite a different view of how media coverage affects political accountability. Without the assumption of voter one-dimensionality and its accompanying characterization of voters as reliably moderate, which interpretation of Snyder and Strömberg's (2010) results is correct becomes less clear.[30] An examination of the extent of public support for the particular votes that separate the moderate and extreme legislators in their data is likely necessary.

Second, the literature on race and unequal representation has attempted to judge the conditions under which Latinos and whites are better represented by comparing the one-dimensional ideal points of legislators to the typical ideal points imputed to white and Latino voters (Griffin and Newman, 2007). However, consider a hypothetical libertarian legislator representing a Latino-majority district. This libertarian could appear 'moderate' and in-step with her constituents on a one-dimensional scale due to being 'liberal on some issues and conservative on others,' just as Latinos tend to be. However, the specific issues on which libertarians are liberal and conservative tend to be the opposite of Latinos. Such a legislator might thus be very unrepresentative of her Latino constituents' views on all issues *and* appear to be a 'good ideological fit.' Recommendations on how to encourage better representation of Latinos' views based on one-dimensional scales thus may yield counterproductive results.[31] Similar issues could arise in studies of differential

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[30]This specific critique and this paper's general critique is of course far less relevant to papers that consider substantive outcomes instead of policy congruence (e.g., Chattopadhyay and Duflo, 2014; Fujiwara, 2014).

[31]This example illustrates the converse pathology of that shown in Table 2.

representation by income, partisan responsiveness, and sub-constituency responsiveness (e.g., Gerber and Lewis, 2004; Ezrow et al., 2011).

Potential Implications for Reformers

An increasingly accepted description of the political landscape suggests extreme parties and activists are attempting to force dramatic changes to the status quo. Voters, it is argued, are largely moderate and therefore should be empowered in order to arrest elites' efforts. The patterns presented in this paper bear on this claim in two key ways.

Does Elite Polarization Imply Divergence From Voter Preferences?

At a positive level, these data suggest a different ordering altogether may prevail on some issues: an elite policy consensus against many voters' preferences for policies that are more extreme. Relative elite consensus may seem an implausible notion in an age where 'polarization' is the watchword of political observers. In particular, in the eyes of many scholars, the implication of the observation that Democratic and Republican elites disagree often over particular policy questions is that the absolute distance between Democratic and Republican elites' preferred policies is tremendous. Moreover, it is thought to follow from the conclusion that elites' preferences diverge dramatically that their preferences must also diverge dramatically from voters' in a similarly dramatic fashion, consistent with the notion of moderate voters spurned by extreme leftist and rightist elites (e.g., Fiorina and Abrams, 2009; Fowler and Hall, 2013*b*; McCarty et al., 2014). However, as other scholars have noted, that politicians reliably oppose each other has ambiguous implications for their absolute distance without enlisting additional assumptions, especially about the representativeness of the legislative agenda and the nature of elite strategies (e.g., Broockman, 2012; Clinton, 2012; Lee, 2009; Krehbiel and Peskowitz, 2012).

Two examples illustrate the potential problems with the idea that consistent elite disagreement itself implies a) elites' preferences differ dramatically from voters' preferences or b) elites' preferences differ dramatically from each other. First, Table 6 shows an example district with

four voters and two potential representatives. The four voters each have a liberal view on two policies and a conservative view on two policies. Elites have a consistent set of positions across policies. Voters again look moderate relative to elites on one dimension and elites appear quite distant from each other. In this sense, we might conclude from a one-dimensional scale that the elites represent voters very poorly by virtue of their extremism, having 'leapfrogged' their ideal points (Bafumi and Herron, 2010; Fowler and Hall, 2013*b*). However, note that any mix of elite positions across issues would leave many voters displeased. Indeed, because voters themselves do not agree, no Pareto improvements to either of the elites' positions exists. As a result, it does not necessarily follow from the observation that elites disagree to the conclusion that they have abandoned the effort to represent voters' preferences (e.g., McKelvey, 1976).[32]

Table 6: Elite Polarization Does Not Imply Large Divergence From Voter Preferences

	Voter 1	Voter 2	Voter 3	Voter 4	Democratic MC	Republican MC
Issue 1	L	C	C	L	L	C
Issue 2	L	L	C	C	L	C
Issue 3	C	L	L	C	L	C
Issue 4	C	C	L	L	L	C
Estimated Ideal Point	**0.5**	**0.5**	**0.5**	**0.5**	**0**	**1**

Elite polarization also has ambiguous implications for understanding the relative differences between elites' and voters' preferences. Table 7 illustrates this idea, extending the intuition of Table 1. In Table 7, Democratic and Republican Members of Congress have slightly different ideal points than each other on each of two policies, always being at -1 and 1 respectively. In this sense Democrats and Republicans are polarized over the policy proposals before them, and thus appear far from each other on one dimension. Likewise, voters appear torn between them, with each voter agreeing with one party on one vote and one party on another vote. However, observing these voters' true policy-specific ideal points may reveal that voters themselves disagree over these policies to a more dramatic extent than elites do. These individual voters just do not disagree with

[32]Moreover, ironically, a 'moderate' candidate may be more plausibly said to be intensely serving a small pocket of voters' interests, while the two 'extreme' candidates in the example are satisfying all voters' preferences to a similar extent.

elites in a consistent way across different policies, leaving them appearing 'similarly conflicted' at the middle of one dimension, despite concealing their dramatic differences with each other relative to elites' small disagreements.

Table 7: Polarization Does Not Imply Politicians' Ideal Policies Differ More Than Voters'

		Voter 1	Voter 2	Democratic MC	Republican MC
Policy 1	*True Ideal Point*	*-10*	*10*	*-1*	*1*
	Vote on Proposal: Move SQ from 0 to 1	0	1	0	1
Policy 2	*True Ideal Point*	*10*	*-10*	*-1*	*1*
	Vote on Proposal: Move SQ from 0 to 1	1	0	0	1
Estimated Ideal Points		**0.5**	**0.5**	**0**	**1**

These examples show how mapping voters and elites to one dimension has the potential to dramatically overstate the extent of both voter agreement and elite disagreement – *especially* when elites are polarized.[33] Moreover, when considering distributions of elite and voter preferences like that shown in Table 7, it becomes less obvious that increasing elites' responsiveness to voters would moderate their positions or policy outcomes. Rather, to the extent elites are held more strongly accountable to voters' preferences, elites may see incentives to become more extreme to appeal to large subsets of voters, even if elites' true ideal points are relatively close. The data presented in Figure 6 were consistent with this potential.

Potential Normative Implications For Reformers

On many issues, the data in Figure 6 also suggested a different 'disconnect' altogether: elites in *both* parties sometimes spurn many voters in the same way – declining to raise taxes on the wealthy or increasing spending on social insurance programs dramatically, for example, or being much harsher towards undocumented immigrants. Likewise, elites in both parties' choice to support the bank bailout in 2008 was very unpopular with voters (e.g., Nyhan et al., 2012).

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[33]When considering how such patterns have changed over time, the inferential challenge becomes even more difficult. Is the absolute distance between Congressional supporters and opponents of Jim Crow, at the nadir of polarization, less than between Congressional supporters and opponents of a top tax rate of 35% as compared to 39.6%? The question may be too ambiguous to answer precisely.

Observing such orderings of elites and voters, as we appear to on policies like the bailout and immigration, raises a different set of normative considerations than have been typically brought to bear in the contemporary study of representation. On the one hand, a common refrain is that legislators should be held to the standard of delegates, expected to select policy "based on the public's (potentially-mistaken) beliefs about the policy that best serves their interests" (Fox and Shotts, 2009). Scholars and political reformers increasingly hold legislators to this very standard. For those who adopt this standard, the central puzzle empirical researchers should concern themselves with is "Why...American voters reelect their incumbents at such high rates...even when their representatives do not closely represent their preferences" on policy issues (Fowler and Hall, 2013*b*).

Largely absent among the debate surrounding this quandary is a different view, deeply engrained in American political thought: congruence with public opinion is not the only standard by which representation can be judged. Rather, as a rich and increasingly neglected intellectual tradition has long underscored, faithful representation of sometimes-extreme public opinion is scarcely the chief standard to which representatives can aspire (Burke, 1774).[34] When trusted politicians and those most knowledgable about politics[35] support policies relatively close to the status quo, but rank-and-file voters prefer less moderate alternatives, this tradition would suggest caution is in order before readily assuming that rank-and-file voters have correct beliefs about what is in their interest.

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[34]Burke (1774) writes: "Your representative owes you, not his industry only, but his judgment; and he betrays, instead of serving you, if he sacrifices it to your opinion."

[35]In a companion paper, Broockman (2014*a*), I also show that citizens who are most engaged and knowledgeable about politics are also *less* extreme on issues despite appearing more extreme on one dimension. Because highly engaged and knowledgeable individuals appear similarly extreme as legislators on ideological scales, they have often been implicated in distorting representation and leading legislators to support more extreme policies (e.g., Fiorina, 1999; Fiorina and Abrams, 2009; Abramowitz, 2010; Bafumi and Herron, 2010). However, that engaged citizens' policy views are more extreme may seem natural, but in fact sits at odds with a great deal of classic wisdom that rank-and-file members of the public with the *least* political information and education are most likely to support extreme political endeavors (e.g., Stouffer, 1955). As Zaller (1984) wrote, those highest in education and who closely attend to politics were once widely accepted to be "more rather than less likely to conform to prevailing convention" (p., 22) – that is, to reliably hew to beliefs within the political mainstream. On the other hand, classic understandings of political behavior would also expect individuals who are very politically engaged to be the most ideologically consistent across issues as they tend to support their political side on salient issue debates (e.g., Converse, 1964; Zaller, 1992; Lenz, 2012). The greater ideological consistency of political sophisticates thus appears to account for why they appear 'extreme' on the ideological scales that measure ideological consistency across policy domains.

Legislators and the public appear to agree with such cautions that voters' preferences do not always represent a moderate gold standard. Legislators do not appear to invest in learning where public opinion stands before staking out many positions, even on salient issues (Broockman and Skovron, 2014). Likewise, voters sometimes seem inclined to trust legislators' policy judgments over their own (Broockman and Butler, 2014; Lenz, 2012). Rather than judge representation on the basis of congruence with their views on issues alone, voters tend to say they want effective governance above all else (Fiorina, Abrams and Pope, 2005). Ironically, doubt that this ideal is best approximated when legislators serve as mere delegates of voters was the very inspiration for many institutions reformers are attempting to dismantle.[36]

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[36]Consistent with these cautions, scholars who have studied reforms that empower voters like open primaries, non-partisan redistricting, and public funding of primary elections have generally found that these reforms fail to moderate politicians (Ahler, Citrin and Lenz, 2013; Barber, 2014; Bullock and Clinton, 2011; Hall, 2014; Kousser, Phillips and Shor, 2013; McGhee et al., 2013).

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Appendix

A Survey Procedures

A.1 Questions with Multiple Responses, Designed To Capture Extremity Variation

Note: these questions were constructed based on a coding of 100 Senators' positions and were asked to state legislators for validation. Suggestions for revision are welcome. As discussed in the paper, these questions attempted to probe the extent of voters' support for immoderate policies directly, rather than assuming voters' views are moderate because they answer in ideologically mixed ways across questions.

On the surveys, the order of the questions was randomized, but the answer options within each question were always presented to respondents in the order shown below. Answer choice 1 is sometimes the most conservative choice and sometimes the most liberal choice in the below questions; however, for ease of interpretation the data in the paper reverse codes some questions such that 1 is always the most liberal choice and 7 is the most conservative choice.

- Which statement comes closest to describing your views on gun control?

    1. Sales of firearms of any kind should be completely banned in the United States.

    2. Weapons with high-capacity magazines of all kinds should be banned in addition to fully automatic weapons, and those wishing to buy other kinds of guns should always have to pass a background check. Ammunition should be heavily regulated, with certain types (e.g., armor-piercing bullets) banned outright. Additionally, it should be illegal for civilians to carry concealed guns in public.

    3. Weapons with high-capacity magazines of all kinds should be banned in addition to fully automatic weapons, and those wishing to buy other kinds of guns should always have to pass a background check. Ammunition should also be heavily regulated, with certain types (e.g., armor-piercing bullets) banned outright.

    4. Fully automatic guns like high-powered machine guns should be extremely difficult or illegal for civilians to purchase. Those wishing to buy other kinds of guns should always have to pass a background check, except when buying guns from friends and family.

    5. Fully automatic guns like high-powered machine guns should be extremely difficult for civilians to purchase. Other firearms should be free to be bought and sold at gun shows and in other private transactions without restrictions.

    6. All Americans should be allowed to buy any kind of gun they want, including automatic guns. No background checks or licenses should be required.

    7. Certain Americans who are not in law enforcement (e.g., teachers and school staff) should be REQUIRED to own a gun to protect public safety.

- Which statement comes closest to describing your views on the issue of health care?

1. The United States should move to a system like Great Britain's, where the government employs doctors instead of private companies and all Americans are entitled to visit government doctors in government hospitals free of charge.

2. The government should expand Medicare to cover all Americans, directly providing insurance coverage for all Americans free of charge.

3. The government should guarantee full private health insurance coverage to all Americans, regardless of their age or income.

4. The government should help pay for all health care for vulnerable populations like the elderly, children, and those with low incomes. Other Americans should only receive assistance in paying for catastrophic illnesses.

5. The government should help pay for some health coverage for vulnerable populations like the elderly and those with very low incomes, including prescription drugs. However, other individuals should not receive government assistance. The government should primarily pursue market reforms (e.g., tort reform, increasing tax deductions, allowing citizens to buy across state lines) to make insurance more affordable.

6. The government should only help pay for emergency medical care among the elderly and those with very low incomes. Other individuals and any routine care should not be covered. Instead, the government should pursue market reforms to make insurance more affordable.

7. The government should spend no money on health care for individuals. Those who cannot afford health care should turn to their families and private charity for help.

- Which statement comes closest to describing your views on Social Security?

  1. The government should increase social security benefits AND provide new, direct non-cash benefits to seniors such as food aid and in-home care.

  2. Social security benefits should be increased.

  3. Social security benefits should remain at their current levels.

  4. Social security benefits should be tied to the Chained Consumer Price Index, meaning that benefits would rise slower with time than they currently do.

  5. Federal spending on social security should decrease, either by raising the retirement age or decreasing cash benefits.

  6. Social security should be mostly or wholly privatized, allowing taxpayers to invest their social security savings as they see fit.

  7. Social security should be abolished entirely or made semi-voluntary, with the government potentially providing incentives for retirement saving but not managing individuals' retirement funds.

- Which statement comes closest to describing your views on immigration?

  1. The United States should have open borders and allow further immigration on an unlimited basis.

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2. Legal immigration to the United States should greatly increase among all immigrant groups, regardless of their skills. Immigrants already in the United States should be put on the path to citizenship.

3. Immigration of highly skilled individuals should greatly increase. Immigration by those without such skills should continue at its current pace, although this immigration should be legalized.

4. Immigration of highly skilled individuals should greatly increase, and immigration among those without such skills should be limited in time and/or magnitude, e.g., through a guest worker program.

5. The United States should admit more highly skilled immigrants and secure the border with increased physical barriers to stem the flow of other immigrants.

6. Only a small number of highly skilled immigrants should be allowed into the United States until the border is fully secured, and all illegal immigrants currently in the US should be deported.

7. Further immigration to the United States should be banned until the border is fully secured, and all illegal immigrants currently in the US should be deported immediately.

- Which statement comes closest to describing your views on taxes?

  1. Establish a maximum annual income, with all income over $1,000,000 per year taxed at a rate of 100%. Decrease federal taxes on the poor and provide more services benefitting the middle class and poor.

  2. Increase federal income taxes on those making over $250,000 per year to pre-1990s levels (over 5% above current rates). Use the savings to significantly lower taxes and provide more services to those making less and to invest in infrastructure projects.

  3. Increase federal income taxes on those making over $250,000 per year to 1990s rates (5% above current rates). Use the savings to lower taxes and provide more services to those making less while also paying down the national debt.

  4. Maintain current levels of federal spending and federal income taxes on the rich, middle class, and poor.

  5. Decrease all individuals' income tax rates, especially high earners who pay the most in taxes now, accomplished by decreasing government services.

  6. Move to a completely flat income tax system where all individuals pay the same percentage of their income in taxes, accomplished by decreasing government services.

  7. Move to a flat consumption tax where all individuals pay the same percentage of their purchases in taxes, banning the income tax, even if this means the poor pay more in taxes than the rich. Significantly decrease government services in the process.

- Which statement comes closest to describing your views on abortion?

  1. Abortions should always be legal, and the government should pay for all abortions.

  2. Abortions should always be legal, and the government should help women pay for abortions when they cannot afford them.

3. Abortions should be legal in the first two trimesters at least, and the government should require private insurers to cover abortions.

4. Abortions should be legal in the first two trimesters, though the government should not play any role in financially supporting abortions.

5. Abortion should only be legal if the life of the mother is in danger or in cases of rape and incest.

6. Abortion should only be legal if the life of the mother is in danger.

7. Abortion should always be illegal.

- Which statement comes closest to describing your views on pollution and the environment?

  1. The government should institute a carbon tax or cap and trade system that would significantly decrease US carbon emissions over the next several decades.

  2. The government should institute a carbon tax or cap and trade system that would keep US carbon emissions at or just below their current levels.

  3. The government should discourage the use of energy sources that contribute most heavily to global warming (e.g., coal) and subsidize the use and development of solar, wind, and nuclear energy. However, there should be no general cap on or market for carbon emissions overall.

  4. The government should enact regulations encouraging energy efficiency and subsidize the use and development of solar, wind, and nuclear energy.

  5. The government should encourage energy efficiency but not subsidize the development of 'green' energy.

  6. The government should allow for further oil drilling offshore and/or on federal lands, prioritizing American energy independence and low prices over environmental concerns.

  7. The government should both allow AND subsidize increased domestic production of fossil fuels (i.e., coal, oil, and gas).

- Which statement comes closest to describing your views on Medicare, the government's program for covering the elderly's health care costs?

  1. Replace Medicare with government-run hospitals and clinics for the elderly that directly employ doctors, nurses, and surgeons.

  2. Increase spending on Medicare, allowing the program to provide even more benefits than it does today, although retain its current structure.

  3. Maintain the current annual growth in Medicare spending and all other aspects of the program in their current form.

  4. Reduce the rate of growth in Medicare funding over time, though continue to leave the program as structured.

5. Reduce the rate of growth in Medicare funding over time and transition towards a voucher system that helps seniors to buy private insurance instead of directly covering health costs.

6. Significantly reduce funding for Medicare so that it helps seniors only with catastrophic health costs like expensive surgeries, leaving other costs to be paid for by their savings, their families, and private charities.

7. The government should not assist the elderly in paying for any health expenses.

- Which statement comes closest to describing your views on rights for gays and lesbians?

1. Same-sex couples should be allowed to marry and adopt children; the government should prosecute companies for firing individuals because they are lesbian or gay; the government should require corporations to offer the same benefits to partners of gay and lesbian employees as they do to straight employees' partners; and, government should require that all schools teach children about gay and lesbian relationships.

2. Same-sex couples should be allowed to marry and adopt children; the government should prosecute companies for firing individuals because they are lesbian or gay; and, the government should require corporations to offer the same benefits to partners of gay and lesbian employees as they do to straight employees' partners.

3. Same-sex couples should be allowed to marry and adopt children; and, the government should prosecute companies for firing individuals because they are lesbian or gay.

4. Same-sex couples should be allowed to marry each other and adopt children.

5. Same-sex marriage should not be legal, although the government should not regulate homosexual conduct or ban gays and lesbians from adopting children.

6. Gay sex should be permitted, but same-sex marriage should be illegal and known gays and lesbians should not be allowed to adopt children.

7. Gay sex should be illegal and punishable by imprisonment, similar to the penalties for committing incest and bestiality.

- Which statement comes closest to describing your views on unions?

1. The government should periodically administer union elections in all workplaces where a union has not been formed.

2. The government should automatically recognize unions in instances when over 50% of a workplace's employees indicate interest in forming a union.

3. Workers should be allowed to attempt to form unions that charge mandatory dues, by secret ballot. If a companys workers form a union, new employees may be compelled to join.

4. Workers should be allowed to attempt to form unions with voluntary dues and membership. Unions should only be formed through secret ballots. Corporations should not be allowed to fire workers for starting them.

5. Workers should be allowed to attempt to form unions with voluntary dues and membership. Unions should only be formed through secret ballots, and unionized workplaces must hold recertification elections regularly. Corporations should not be allowed to fire workers for starting them.

6. Workers should be allowed to attempt to form unions with voluntary dues, but corporations should have the right to fire workers for attempting to start such unions and/or the power of the National Labor Relations Board to issue directives to unionized companies should be significantly curtailed.

7. Workers should not be allowed to form unions, just as corporations are not allowed to form cartels.

- Which statement comes closest to describing your views on birth control?

  1. The government should help pay for birth control pills for all women AND other forms of contraceptives for women who cannot afford them.

  2. The sale of birth control pills should be allowed. Pharmacists should be required to sell them and the government should cover their cost.

  3. The sale of birth control pills should be allowed. Pharmacists should be required to sell them and insurance companies should be forced to cover their cost.

  4. The sale of birth control pills should be allowed and pharmacists should not be allowed to refuse selling birth control pills. However, employers and insurance companies may decline to cover birth control.

  5. The sale of birth control pills should be allowed to people of all ages. However, insurance companies, pharmacists, and employers should be allowed to refuse selling or covering birth control.

  6. The sale of birth control pills should be allowed, but only to women over 18 years of age. Insurance companies, pharmacists, and employers should be allowed to refuse selling or covering birth control.

  7. Birth control pills should be banned.

- Which statement comes closest to describing your views on public funding for private school education?

  1. All children should attend public schools. Private schools perpetuate economic inequality and should be banned.

  2. Private schools should be legal but the government should play no role in funding private education – for example, private schools should not be exempt from taxes.

  3. Private schools should be legal and retain tax exempt status, but government should play no active role in funding private education.

  4. The government should create private school voucher programs in school districts where regular public schools are failing so all families in such areas can send their children to a private school if they wish.

5. The government should create a voucher program in all school districts, paying private school tuition for families so that they always have the choice to send their children to private schools.

6. The education system should be fully privatized, although the government should still provide support for private school tuition.

7. The education system should be fully privatized, with government playing no role in paying for families' education expenses. However, private school tuition should be tax deductible.

A.2 Binary Questions for Ideological Scale

These items were delivered to both the mass public and state legislators.

Do you agree or disagree with the following statements? (Please pick the option that most accurately represents your views.) *[Question order randomized.]*

- The federal government should pay for the elderlys medical care.

- The government should provide parents with vouchers to send their children to any school they choose, be it private, public, or religious.

- Allow doctors to prescribe marijuana to patients.

- Increase taxes for those making over $250,000 per year.

- Overturn Roe v. Wade.

- Allow workers to invest a portion of their payroll tax in private accounts that they can manage themselves.

- Same-sex couples should be allowed to marry.

- Implement a universal healthcare program to guarantee coverage to all Americans, regardless of income.

- Limit the amount of punitive damages that can be awarded in medical malpractice lawsuits.

- There should be strong restrictions on the purchase and possession of guns.

- Illegal immigrants should not be allowed to enroll in government food stamp programs.

- Include sexual orientation in federal anti-discrimination laws.

- Prohibit the use of affirmative action by state colleges and universities.

- The US should contribute more funding and troops to UN peacekeeping missions.

- The government should not provide any funding to the arts.

- I support the death penalty in my state.

- Repeal taxes on interest, dividends, and capital gains.

- Prohibit the EPA from regulating greenhouse gas emissions.

- Health insurance plans should be required to fully cover the cost of birth control.

- The federal government should subsidize student loans for low income students.

## A.3 Representativeness and Weighting

Participants were recruited via Survey Sampling International, a reputable survey firm with procedures similar to YouGov/Polimetrix. The SSI sample looks similar to the ANES, GSS, and other surveys on key demographic and political benchmarks (as discussed, African-Americans were oversampled for another project). Table 8 shows a number of demographic benchmarks in the ANES and the unweighted SSI Survey.

The results presented in the text are weighted using the `anesrake` package in `R` (Pasek, 2013). Gender, age, and race are weighted to the most recent US Census. Personal ideology and educational attainment are weighted to the most recent General Social Survey. Party ID is weighted to the 2012 ANES. Unweighted results are available on request and are very similar to the weighted results.

Table 8: Raw and Unweighted SSI Sample Compared to ANES and Census Data

	SSI Sample quota	Weighted SSI Sample quota w/ survey weights	ANES probability	Weighted ANES weighted prob.	U.S. Census population
Age					
18-24	5.2%	7.3%	0.6%	1.4%	9.2%
25-34	21.0%	19.6%	3.9%	9.4%	17.5%
35-49	26.6%	26.9%	16.6%	27.3%	27.2%
50-64	30.7%	26.6%	49.1%	40.3%	17.9%
65+	16.5%	19.6%	30.0%	21.6%	17.2%
Gender					
Male	47.6%	55.6%	61.2%	57.7%	49.1%
Female	52.4%	44.4%	38.8%	42.4%	50.9%
Race/Ethnicity					
Non-Hispanic White/Caucasian	41.6%	59.7%	83.3%	83.0%	63.7%
Black/African-American	30.5%	13.9%	4.9%	4.9%	12.2%
Asian/PI	11.7%	4.9%	1.0%	2.0%	4.8%
Hispanic/Latino	13.2%	17.3%	4.6%	4.0%	16.4%
Native American	1.8%	0.3%	0.9%	0.7%	1.1%
Other	1.4%	3.9%	5.3%	5.4%	6.2%
Education					
Less than HS degree	1.2%	3.8%	0.5%	2.6%	8.9%
High school/GED	18.6%	37.2%	7.8%	9.9%	31.0%
Some college/2-year degree	39.8%	25.2%	33.2%	33.7%	28.0%
4-year college degree	25.1%	22.7%	31.3%	29.6%	18.0%
Graduate/professional degree	15.3%	11.0%	27.2%	24.3%	9.3%
Party Identification					
Democratic (inc. leaners)	55.3%	47.3%	46.9%	49.0%	
Republican (inc. leaners)	27.4%	39.9%	41.9%	39.0%	
No party preference/Other	17.3%	12.8%	11.3%	11.9%	
Ideology					
Liberal (inc. leaners)	34.4%	25.2%	39.5%	38.6%	
Moderate	38.8%	40.3%	15.5%	18.9%	
Conservative (inc. leaners)	26.8%	34.5%	45.0%	42.3%	

Figure 7: Elite and Mass Scores on IRT Scales, When Jointly Scaled

Distribution of Cross-Policy 'Ideal Points'
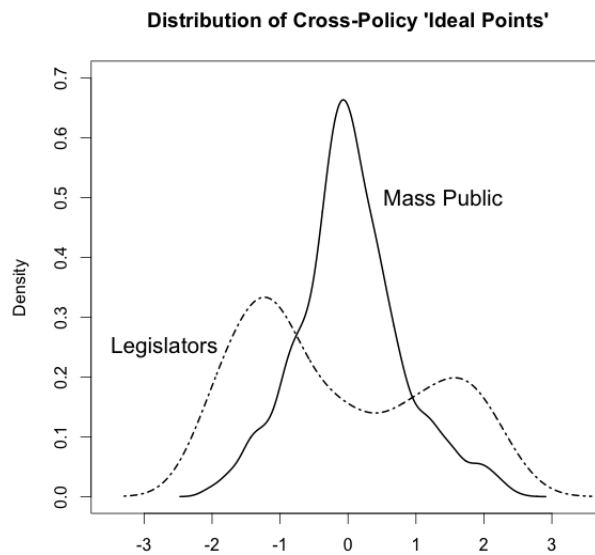
Notes: Legislators and the mass public's responses to the battery of binary issue questions were jointly scaled using a standard IRT procedure (Martin and Quinn, 2002). The resulting estimates replicate the pattern of results familiar in other datasets: legislators are nearly all more extreme than the largely moderate public. Because prevailing methods do yield similar results in these samples, it seems unlikely that the contrary findings reached with other methods as described in the paper are due to idiosyncrasies of the samples.