Measuring Public Uncertainty about Candidate Ideology

An Application to US Presidential Elections

Short title: Public Uncertainty about Candidate Ideology

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Abstract: The development of methods to measure the ideological positions of legislators and other political actors has become one of the most successful research programs in the study of political behavior. Less effort, however, has been given to approaches for measuring public uncertainty about those positions. In this article, we propose the use of a well-known measurement model to investigate public uncertainty about the ideological locations of political actors. To motivate its use empirically, we examine citizens’ perceptions of the ideology of Donald Trump during the 2016 election campaign. We show that among Republican and Democratic candidates since 1972, and compared to contemporary legislators, citizens have had the most difficulty assessing the ideology of Donald Trump. Our approach is widely applicable to questions concerning public perceptions of politicians’ ideology and the political behavior of citizens and their representatives.

Keywords: ideology, partisanship, uncertainty, scaling, Aldrich-McKelvey scaling, Donald Trump

Additional statements: Replication files are available in the JOP Data Archive on Dataverse (https://doi.org/10.7910/DVN/TPZPIO). Supplementary material for this article is available in the online appendix in the online edition.
Since the pioneering work of Poole and Rosenthal (1985), the development of methods to measure legislators’ ideological positions has become one of the most successful research programs in the study of political behavior. Less attention, however, has been given to measuring public uncertainty about those positions.\footnote{In applied work, Bartels (1986) measures uncertainty by whether respondents can place an actor on issue placement scales; others, a dispersion statistic (e.g. standard deviation) of placements on an ideological scale (e.g. Campbell, 1983; Somer-Topcu, 2015). Such scales frequently suffer from perceptual biases, however, an issue we address herein.} Measuring uncertainty is important: voters often use ideology as a heuristic to determine how well politicians align with themselves on the issues, and uncertainty about ideology is thus consequential for the quality of democratic representation (Downs, 1957); uncertainty about candidate ideology figures prominently in spatial accounts of vote choice (e.g. Enelow and Hinich, 1984); and the ideological ambiguity (e.g. Krupnikov and Ryan, 2017) and predictability (e.g. Rogowski and Tucker, 2018) of candidates are important for understanding campaign strategy, position-taking, voting, and turnout. By improving measurement of citizens’ uncertainty about politicians’ ideology, we can learn about the clarity and consistency of campaign messaging, the stability of politicians’ issue positions, and we can place public uncertainty about politicians’ ideology in comparative perspective.

In this article, we demonstrate how scaling approaches to measure citizens’ beliefs about the ideological positions of politicians (e.g. Hare et al., 2015; Ramey, 2016; Richardson, Clinton and Lewis, 2018) can also be used to measure uncertainty about that ideology. Specifically, we show how the error term in measurement models that correct for perceptual biases in placement scales quantify the public’s collective uncertainty about each politician’s ideology. Empirically, we motivate our approach by assessing the widespread claim among commentators during the 2016 US presidential campaign that the ideology of Donald Trump was decidedly unclear. We show that compared to contemporary legislators and past presidential candidates across nearly fifty years of elections, Trump’s ideology was exceptionally uncertain from the perspective of the electorate.
Measurement Approach

To advance approaches to measuring public uncertainty about politicians’ ideology and to place understandings of candidates in comparative perspective, we propose the use of a measurement model for ideological placement scales. The benefits of using such scales to measure ideological uncertainty are twofold. First, they directly capture variation in perceptions of political actors’ ideology. Second, because these scales are included in most major elections studies, they allow comparisons in understandings of actors’ ideology across elections. The challenge to using placement scales, however, is that they suffer from perceptual biases. These biases result from variation in respondent understandings of the response scale: what is liberal for one person, might be considered conservative by another (Hare et al., 2015). In the Appendix, we show why measures of uncertainty without adjusting for such biases are problematic.

To address perceptual biases of the response scale, Aldrich and McKelvey (1977) proposed a straightforward measurement strategy (see also, Hare et al., 2015). They develop a model to capture a data-generating process by which a respondent’s ideological placement of a political actor is a function of that actor’s ‘true’ ideological location and the respondent’s perceptual biases. An actor’s ‘true’ (latent) location is (1) shifted left or right depending on the extent to which the respondent perceives the scale to be liberal or conservative, and (2) stretched outward or shrunken inward to the extent that the scale is perceived to be polarized.

To illustrate this by example, assume that we know the ideological locations of two hypothetical candidates, one Republican and one Democratic:

First, respondents will vary in the degree to which the scale is perceived to be liberal or conservative. A respondent might, for example, perceive the left side of the scale as far more liberal than others, thus shifting the candidates’ locations to the right (respondent placements in white):
Figure 1: Low/high levels of collective public uncertainty about hypothetical politicians’ ideology

Second, respondents will vary in the degree to which the scale is perceived to be polarized. For example, our hypothetical respondent might perceive differences on the scale as relatively small, thus stretching the locations of the candidates outward:

Putting these two processes together, the placements are simultaneously shifted rightward and stretched outward from their locations on the underlying scale:

The aim of an AM scaling model is to account for these biases by estimating unique shift and stretch parameters per respondent and, simultaneously, the latent locations of each actor.

An unappreciated feature of heteroskedastic variants of these models, however, is that while their goal is to adjust for perceptual biases to estimate ideological positions, they can also quantify the degree to which respondents place each political actor with error: after correcting for variation in perceptions of the scale, the remaining error represents the collective degree of uncertainty about where each actor resides ideologically.\(^2\) To see this more clearly, we more

\(^2\)Substantive interpretations of model error are similarly given by Lauderdale (2010) and Peterson and Spirling (2018) in item-response theory and classification models respectively.
formally describe the statistical model. To begin, let $y_{ij}$ denote the placement of actor $j = 1, \ldots, J$ by respondent $i = 1, \ldots, N$. In a heteroskedastic AM scaling model, these placements are modeled as a linear transformation of each actor $j$’s latent ideological location $\zeta_j$ as follows:

$$y_{ij} \sim N(\alpha_i + \beta_i \zeta_j, \sigma_j),$$

where $\alpha_i$ denotes the respondent-specific shift parameter, $\beta_i$ the respondent-specific stretch parameter, and $\sigma_j$ the placement error specific to each political actor. As we can see, this latter parameter captures variation in the magnitude of the error with which respondents place each actor $j$. To see this graphically, Figure 1 presents the placements of two hypothetical political actors with different error distributions. The distribution on the left suggests an actor whose ideology can be readily identified; on the right, one whose ideology is less clear. The upshot is that by comparing estimates of $\sigma_j$ across actors, we quantify the extent to which some are more easily ideologically placed than others. Below, we apply our approach to an important recent case: uncertainty about the ideology of Donald Trump during the 2016 election campaign.

**Where in the World is Donald Trump?**

During the 2016 US election campaign, Donald Trump’s political ideology appeared difficult to pin down. Although candidates frequently use ambiguity in issue and ideological positioning strategically, Trump’s ideology seemed unclear for other reasons. First, his positions on issues often appeared ideologically unconstrained—a mix of policies from both left (e.g. protectionism) and right (e.g. border enforcement). Second, Trump’s positions frequently changed, with some policy positions first expressed in interviews (and tweets) seemingly without strategic forethought (examples are many, see Timm, 2016). This information environment led to manifold assessments of Trump’s ideology. He was characterized, for example, as “left-wing” (Rubin, 2016); “moderate” (Barro, 2015); and a “typical conservative” (Farrell, 2018). As one commentator put it: “we’ve never known less about an incoming president’s ideology” (Enten, 2016). Such assessments suggest that voters too had substantial difficulty assessing Trump’s ideology, both compared to his opponent, Hillary Clinton, and to past presidential candidates by their contemporary publics.
Data. To examine voter uncertainty about the ideology of Donald Trump in comparative perspective, we fit heteroskedastic AM scaling models to data from each year of the American National Election Study (ANES) since 1972—when placement scales were first introduced—and each presidential year of the Cooperative Congressional Election Study (CCES) (2008–2016). Data from the ANES allow us to compare assessments of candidates across nearly fifty years of US elections; those from the CCES, to make richer within-year comparisons due to the large number of actors placed by respondents. In both studies, respondents are asked to place actors on an ideological scale, labeled “Extremely liberal” on the left and “Extremely conservative” on the right. In the 1984 ANES, the placement question differs substantially from other years (a two-part question), but we include all estimates for completeness. For estimation, we fit the models in a Bayesian framework (Hare et al., 2015), with estimation details provided in the Appendix.

Results. We begin by presenting estimates in Figure 2 of the ideological placement error, $\sigma_j$, for Democratic and Republican presidential candidates in the ANES data. Estimates presented in the figure provide support for our expectation that the ideological position of Donald Trump was especially difficult for the public to identify. Aside from 1984, when the placement question was substantially different, error in the public’s ideological placement is largest for Trump compared to all other presidential candidates. Furthermore, the 2016 election exhibits the largest difference in the ratio of error between candidates within each election year, as presented in the second panel of Figure 2. Such comparisons enable us to examine differences between candidate pairs and to account for campaign-specific variation: each campaign may differ, for example, by the issues discussed and thus the general difficulty of the public in assessing the ideology of both candidates.\footnote{Within-year comparisons also improve comparability across elections to the extent that perceptions of the scale itself may vary across election years, increasing or decreasing overall placement error in each year. In the Appendix, we present the differences in differences (rather than the ratio), with results that are substantively equivalent.} As the second panel shows, error in the public’s placement of Trump is substantially greater than that of Clinton (1.37 times), and much larger than the average ratio of placement error in each year.
Thin lines indicate 90% CIs; thick lines, the difference between candidates. Estimates for other candidates include: Anderson 1.37 (1980); Perot, 1.73 (1992), 1.62 (1996); and Nader, 1.69 (2004). * The 1984 ANES placement question is substantially different from other years (see Appendix).

error between presidential candidates across all previous elections (1.26 times). To place these results in the context of other well-known political actors, we compare error in the placement of presidential candidates to that of a wide range of national- and state-level actors. To do so, we take advantage of CCES data, which contain placements for many state-level actors (e.g. senators, governors). CCES respondents only place state-level actors from the state in which they reside and thus those that they are likely to know best. Although this means that there

4This appears not due to respondents not knowing how to respond, as is common with third-party candidates: only 3% of respondents answer “Don’t know” when asked to place Trump; 2% when asked to place Clinton. See Appendix for major- and third-party comparisons.
Figure 3: Placement error of presidential candidates, senators, and governors (CCES)

Unlabeled lines (90% CIs) indicate placement error of governors, senators, and institutions.

are missing data for actors outside of respondents’ states of residence, placements of common national actors act as bridges to permit all model parameters to be estimated simultaneously.

We fit AM scaling models to data from each available presidential election year of the CCES (2008–2016), estimating placement error for all common actors and each governor and senator. Results are presented in Figure 3. As the figure shows, error in the ideological placement of the Republican and Democratic parties is low relative to the vast majority of other state- and national-level political actors. This is unsurprising: parties are more prominent than individual candidates, and the public is more exposed to their messaging both outside of and during election campaigns. Similarly, other than Donald Trump, the incumbent president and presidential candidates each are placed with low levels of error compared to state-level actors. Donald Trump is a clear exception. Among 156 national- and state-level political actors, the error in ideological placement for Trump is highest ($\sigma = 1.32$), substantially greater than that of the
parties \( \sigma^{(D)} = 0.75, \sigma^{(R)} = 0.87 \) and the 2016 Democratic candidate, Hillary Clinton \( \sigma = 0.75 \).

Lastly, during the 2016 campaign, commentator Salena Zito memorably suggested that “the press takes [Trump] literally, but not seriously; his supporters take him seriously, but not literally” (Zito, 2016). Did Republicans exhibit substantially less uncertainty than Democrats about Trump’s underlying ideology? To test this, we fit two AM scaling models to the CCES 2016 data: one for respondents who identify as Democrats; another, those who identify as Republicans. Results from these models show that although Republicans exhibited somewhat less uncertainty about Trump’s ideology than Democrats \( \sigma^{(R)} = 1.16, \sigma^{(D)} = 1.38 \), respondents who identified with either party exhibited more uncertainty about the ideology of Trump than the vast majority of other actors (156 of 156 actors among Democrats; 127 of 156 among Republicans). Uncertainty about Trump’s political ideology, in other words, was also high within each group of partisans.

**Conclusion**

Although much attention has been given to measuring legislators’ ideology itself (e.g. NOMINATE), much less has been given to measuring public uncertainty in ideology across actors to place them in comparative perspective.\(^5\) In this article, we propose a novel use of a heteroskedastic AM scaling model (Aldrich and McKelvey, 1977; Hare et al., 2015) by using the error term in these models to measure variation in public uncertainty about each actor’s ideology.

Our approach provides a useful complement to existing applications of AM scaling and opens up avenues for future research into citizen uncertainty about political actors’ ideology. It provides researchers with a useful tool to more deeply investigate, for instance, the relationship between ideological clarity and voting or electoral success; whether increasing polarization is associated with increased certainty about candidate positions; whether certainty is greater among voters who assess co-partisan political actors; and whether uncertainty about incumbents’ ideology increases or decreases as their careers progress. Finally, our empirical application sheds light

\(^5\)Campbell (1983), a notable exception, measures uncertainty as the standard deviation of respondents’ placements of actors; Sanders (2001), a survey question that asks about uncertainty directly, but which is unavailable across standard election surveys for actor comparisons.
on an important aspect of one of the most contentious election campaigns and candidates in modern US history. The results provide empirical support for the argument that compared to his challenger, Hillary Clinton, past presidential candidates, and the vast majority of governors and senators, the ideological basis of Donald Trump and his election campaign was decidedly unclear from the perspective of the electorate. Substantively, such uncertainty has important implications for accounts of electoral accountability, which depend on voters’ understanding of the ideological positions of those who win office (Manin, Przeworski and Stokes, 1999). How effectively can an electorate form a judgment about a candidate’s performance in office when the candidate’s ideological positioning on entering office is deeply uncertain? It also has important implications for scholars who wish to understand the ideological trajectory of candidates and representatives over time. By understanding system-level ideological uncertainty across election years, we can understand how this is related to realignments in party systems, for example. Finally, accurately assessing the ideological uncertainty of candidates can be useful for understanding why some elected candidates go on to become effective legislators and policy entrepreneurs, while others fail to deliver a coherent legislative agenda.

Biographical Information

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References


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A. Perceptual biases and measures of uncertainty with raw placement data

The presence of perceptual biases on ideological and other placement scales is well-known, and an increasing amount of methodological and empirical work now takes this problem seriously (e.g. Aldrich and McKelvey, 1977; Brady, 1985; King et al., 2004; Saiegh, 2009; Bakker et al., 2014; Lo, Proksch and Gschwend, 2014; Hare et al., 2015; Saiegh, 2015; Ramey, 2016; Richardson, Clinton and Lewis, 2018; Struthers, Hare and Bakker, Forthcoming). These efforts, however, have focused primarily on how respondents’ perceptual biases affect estimates of the ideological positions of political actors rather than the uncertainty of those positions.

One of the important drawbacks to the use of raw placement data to measure uncertainty is that such measures are exceptionally noisy. This is because in the presence of perceptual biases, the underlying positions of actors are, in effect, shifted left or right, and shrunken inward or stretched outward by respondents as a function of those perceptions. These biases add substantial systematic error to each placement. To show this empirically, we begin by calculating the standard deviation (as a measure of uncertainty) of the placements of each actor in the CCES data included in Figure 3 in the main article, doing so separately for self-identified Republicans and Democrats (i.e. party ID). Making comparisons between Republicans and Democrats is useful because, as Hare et al. (2015) show, perceptual biases differ clearly by party: Democrats tend to place politicians more to the right than do Republicans (e.g. placing Democratic politicians closer to the center); Republicans, conversely, tend to place politicians farther left (e.g. placing Democratic politicians closer to the left). In the CCES data, for example, the mean placement of each actor by those who identify as Republican is to the left of the same actor placed by Democrats in 95% of cases. Unless uncertainty about actors’ ideology is wholly different between partisan groups, however, we should expect uncertainty about these actors to be relatively similar and thus correlated between Democratic and Republican respondents. With the raw (unadjusted) data, however, this is not the case. In fact, the correlation
between the standard deviations of placements made by respondents who identify as Democrats and those who identify as Republicans are close to zero ($\rho^{(\text{Overall})} = 0.13$, $\rho^{(\text{CCES 2008})} = -0.01$, $\rho^{(\text{CCES 2012})} = -0.12$, $\rho^{(\text{CCES 2016})} = 0.03$). For estimates from the scaling model that corrects of perceptual biases, by contrast, the correlations between measures of uncertainty between Republican and Democrat identifiers are, as should be expected, substantially higher ($\rho^{(\text{Overall})} = 0.45$, $\rho^{(\text{CCES 2008})} = 0.50$, $\rho^{(\text{CCES 2012})} = 0.41$, $\rho^{(\text{CCES 2016})} = 0.43$). By reducing measurement error due to perceptual biases, in other words, measures of uncertainty about actor ideology have much stronger face validity than do those calculated from the raw data.

The use of raw measures of uncertainty are even more problematic because they can under- or over-state the level of uncertainty about actors depending on differences in the perceptual biases of those who provide the placements. To provide intuition for this, we use a stylized example. Assume, for simplicity, that respondents $i$ come from only two groups, $g \in \{D, R\}$, that make up proportions $\pi_D$ and $\pi_R$ of the population ($\pi_D = 1 - \pi_R$). These respondents are then asked to provide ideological placements, $y_{ig}$, for a given political actor. Assume further that uncertainty about that actor is 0—that all respondents have the same understanding of the actor’s ideology—but that the placements differ between groups by a constant (i.e. a group-level shift parameter) due to each group’s perceptual biases. For concreteness, say that those in group $D$ perceive what is considered centrist to be more ideologically right-wing on the scale than those in group $R$. A relatively right-wing political actor, for instance, might be placed by individuals in group $R$ at the center of the scale, whereas those in group $D$ will place that actor to the right of center. To illustrate this, we show the placements of a hypothetical actor in the first panel of Figure A1. The spikes at $Y_D$ and $Y_R$ indicate the density of placements by respondents in each group, where the difference between placements results from perceptual bias. Although uncertainty is 0 by construction, the differences in the perceptual biases of each group will result in a measure of uncertainty (e.g. the standard deviation) that is conflated with differences in perceptions of the response scale. As shown in the second panel of Figure A1,

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1For these correlations, we fit separate scaling models to the sample of respondents who identify as Republicans and those who identify as Democrats.

2For the purpose of this example, we ignore perceptual biases that vary at the individual respondent level and those due to variation in perceptions of scale polarization (i.e. the stretch parameter).
Figure A1: Stylized example of ideological placements for two groups of respondents (R and D) who differ in their perceptual understandings of the response scale

The panel on the left shows the density of placements of the same actor by respondents from two groups (for the case where \( \pi_D = \pi_R = 0.5 \)). Understandings of the actors are equivalent between groups, but placement differ by a constant due to differences in group understandings of the ideological scale. The panel on right shows the standard deviation, calculated as a measure of uncertainty, as the size of the groups change.

uncertainty will vary with the relative size of these groups, whose perceptions of the scale differ systematically from one another.

To demonstrate this problem empirically, we can examine this simple two-group case by investigating the raw placements of respondents whose party identification is Democratic or Republican. We measure uncertainty by the standard deviation of the raw ideological placements of all actors shown in Figure 3 of the main article (CCES data), and calculate the difference in the proportions of self-identified Democratic and Republican respondents who provide placements for each actor. Because respondents provide the placements of state-level actors only for actors in their own state, there is substantial variation in these proportions across placements. We regress the standard deviation of each actor's placements on the difference in the proportions of Democrats and Republicans who made those placements (Table A1). Consistent with our stylized example above, the larger the gap in the proportion of Democrats and Republicans who provide placements for a given actor, the lower the estimated uncertainty. The measure of ideological uncertainty from the scaling model that adjusts for perceptual biases shows no relationship. With the raw measure of uncertainty, in other words, the degree of ideological
Table A1: Relationship between the difference in the proportion of Democrats and Republicans in a sample and the measured level of uncertainty

<table>
<thead>
<tr>
<th></th>
<th>Raw data</th>
<th>Scaling model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Std. Dev.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Difference in proportion of Democrats &amp; Republicans</td>
<td>−0.202***</td>
<td>−0.104</td>
</tr>
<tr>
<td></td>
<td>(0.054)</td>
<td>(0.074)</td>
</tr>
<tr>
<td>Year: 2012</td>
<td>0.110***</td>
<td>0.053**</td>
</tr>
<tr>
<td></td>
<td>(0.014)</td>
<td>(0.020)</td>
</tr>
<tr>
<td>Year: 2016</td>
<td>0.195***</td>
<td>0.078***</td>
</tr>
<tr>
<td></td>
<td>(0.014)</td>
<td>(0.020)</td>
</tr>
<tr>
<td>Intercept</td>
<td>1.274***</td>
<td>0.903***</td>
</tr>
<tr>
<td></td>
<td>(0.013)</td>
<td>(0.018)</td>
</tr>
<tr>
<td>N</td>
<td>415</td>
<td>415</td>
</tr>
</tbody>
</table>

The “Difference in proportion of Democrats and Republicans” is defined as |π_{jD} − π_{jR}|, the gap in the proportion of Democrats (π_{jD}) and Republicans (π_{jR}) who place a given actor j. Standard errors in parentheses. * p < .05; ** p < .01; *** p < .001

uncertainty about a politician is conflated with the proportion of Democrats and Republicans in the sample used to calculate it i.e. the partisan make-up of states—an important confounder.³

One could indirectly address this problem by accounting for the partisanship of the respondent, as in this simple example (see Rogowski and Tucker, 2018). A virtue of using AM-scaling to measure uncertainty, however, is that they provide a direct adjustment of perceptual biases that can vary arbitrarily at the level of the individual respondent. It also provides an important complement to existing applications that use such models to estimate actor positions.

³This result is suggestive, but not definitive. It may be the case that there is less uncertainty about politicians in areas that are less competitive, an avenue for future research.

B. Model fitting, priors, and identification

All parameters from the AM scaling models examined in the article are estimated in a Bayesian framework (Hare et al., 2015) using the Bayesian inference engine Stan (Carpenter et al., 2017). We place priors on the parameters as described below, with constraints as necessary for model identification. The shift and stretch parameters α_i and β_i are given common prior distributions.
\[ \alpha_i \sim N(\mu_\alpha, \sigma_\alpha) \text{ and } \beta_i \sim N(\mu_\beta, \sigma_\beta);^4 \]
the parameters for political actors’ ideological locations, weakly informative priors, \( \zeta_j \sim N(0,5); \) and the error term parameters, half-Cauchy priors, \( \sigma_j \sim \text{Cauchy}(0,5). \) To identify the model, we need to avoid reflection invariance, which in concrete terms means that we need to fix the direction of the scale such that high values of \( \zeta_j \) indicate either liberal or conservative. Because the Democratic and Republican parties are placed by respondents in all election years, we resolve this identification problem by fixing each party’s location parameters, \( \zeta_{\text{Dem.}} \) and \( \zeta_{\text{Rep.}} \), to \(-1\) and \(+1\) respectively. Ideological placements for other political actors are, as a consequence, estimated relative to these fixed locations.

Note that the model does not include a scale parameter for individual respondents \( (\sigma_i) \), as in Hare et al. (2015). In practice, including a multiplicative error term \( (\sigma_j \sigma_i) \) in AM scaling models is challenging: there are typically very few data for which to estimate such parameters per individual \((\sim 2-5 \text{ placements per respondent})\), resulting in heavy reliance on the prior distribution; achieving convergence in these parameters is frequently difficult; and the model is more computationally demanding. We opt, therefore, for the slightly simpler model described above. All models are fit to data from respondents in each year of the ANES and CCES who have placed at least three political actors in a given year.

Lastly, we note that one drawback to the data used in the article is that they do not contain sufficient bridge actors year over year to allow the model to be fit jointly across election years.\(^5\) It is possible, therefore, that perceptual variation that differs between elections may inflate or deflate placement error in some years more than others. In the article, we seek to address this by including in the second panel of Figure 2 a comparison between the ratios of the error between candidates for each election year. These comparisons are useful because the biases that may inflate/deflate the error between years will not affect the relative differences of actors within the same year (error is inflated/deflated in the same way for each actor placed on the same scale). Figure A2 also presents a figure analogous to Figure 2, but showing the differences in differences of the error between candidates (rather than the ratio). The results are effectively equivalent to those in the second panel of Figure 2. Furthermore, with respect to Donald Trump

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\(^4\)The priors on the hyperparameters are set to \( \mu_{(\cdot)} \sim N(0,5) \text{ and } \sigma_{(\cdot)} \sim \text{Cauchy}(0,5). \)

\(^5\)The parties are common across years, but cannot be assumed to have fixed ideological locations.
specifically, the CCES data also allow us to triangulate our results to the extent that they provide context for each candidate within a short period of time, where scale meaning is unlikely to substantially change. As the data in Figure 3 in the article show, Trump is a clear outlier (ranked last) compared to the parties, the candidates, and the state-level actors for both between-year and within-year comparisons.
C. Variation in “Don’t know” responses across presidential candidates

To examine the extent to which respondents do not know where to place each presidential candidate, Figure A3 presents the proportion of respondents who answer “Don’t know” when asked to ideologically place each candidate. As the figure shows, differences in the proportions of respondents who answer “Don’t know” for candidates from the major two parties (in white) differ relatively little within each election year. If differences in placement error from the AM-scaling model for Trump (as compared to Clinton) were explained by respondents’ lack of knowledge about each candidate, we would expect large differences in “Don’t know” responses. As Figure A3 makes clear, however, this is not the case: only 2% of respondents answer “Don’t know” when asked to place Clinton; only 3%, those asked to place Trump. This result is consistent with the exceptionally large amount of media coverage that Trump received throughout the election campaign. Respondents who were asked to place independent/other-party candidates (in black) in past elections, by contrast, responded “Don’t know” far more frequently compared to their major-party counterparts.

D. The proportion of “Don’t know” responses, the standard deviation, and the scaling-based measure

For further comparison, in Table A2 we present the proportion of respondents who answer “Don’t know” when asked to place each candidate; the standard deviation of placements; and the AM-scaling measure of ideological uncertainty. As noted above in Appendix C (and Figure A3), there are few meaningful differences between the proportions of respondents who answer “Don’t know” for major-party candidates in each election year, but relatively large ones for third-party candidates. The standard deviations of placements for third-party candidates are relatively similar to those of major-party candidates. By contrast, the measure derived from the scaling
Despite Ralph Nader’s controversial role in the 2000 election, ANES respondents were not asked to place him in that year. The model produces estimates of uncertainty for third-party candidates that are substantially larger than those for major-party candidates, as one would expect. With respect to Donald Trump in particular, the ratio of uncertainty as measured by the scaling model for Trump relative to Clinton is substantially higher ($\sigma_{\text{Trump}}^{(AM)} / \sigma_{\text{Clinton}}^{(AM)} = 1.37$) than it is as measured by the unadjusted standard deviation ($\sigma_{\text{Trump}}^{(SD)} / \sigma_{\text{Clinton}}^{(SD)} = 1.15$).
<table>
<thead>
<tr>
<th>Year</th>
<th>Proportion “Don’t know”</th>
<th>Std. Dev.</th>
<th>( \sigma_j ) (scaling-based measure)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinton</td>
<td>0.921</td>
<td>1.561</td>
<td>0.017</td>
</tr>
<tr>
<td>Trump</td>
<td>1.261</td>
<td>1.789</td>
<td>0.026</td>
</tr>
<tr>
<td>Obama</td>
<td>0.910</td>
<td>1.593</td>
<td>0.030</td>
</tr>
<tr>
<td>Romney</td>
<td>0.856</td>
<td>1.664</td>
<td>0.042</td>
</tr>
<tr>
<td>Obama</td>
<td>1.049</td>
<td>1.808</td>
<td>0.091</td>
</tr>
<tr>
<td>McCain</td>
<td>0.956</td>
<td>1.650</td>
<td>0.093</td>
</tr>
<tr>
<td>Kerry</td>
<td>0.899</td>
<td>1.475</td>
<td>0.099</td>
</tr>
<tr>
<td>Bush</td>
<td>0.983</td>
<td>1.723</td>
<td>0.103</td>
</tr>
<tr>
<td>Nader</td>
<td>1.687</td>
<td>1.651</td>
<td>0.351</td>
</tr>
<tr>
<td>Gore</td>
<td>1.171</td>
<td>1.453</td>
<td>0.099</td>
</tr>
<tr>
<td>Bush</td>
<td>1.166</td>
<td>1.455</td>
<td>0.100</td>
</tr>
<tr>
<td>Clinton</td>
<td>0.866</td>
<td>1.479</td>
<td>0.061</td>
</tr>
<tr>
<td>Dole</td>
<td>0.840</td>
<td>1.405</td>
<td>0.088</td>
</tr>
<tr>
<td>Perot</td>
<td>1.617</td>
<td>1.741</td>
<td>0.192</td>
</tr>
<tr>
<td>Clinton</td>
<td>0.824</td>
<td>1.375</td>
<td>0.145</td>
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<td>Bush</td>
<td>0.854</td>
<td>1.492</td>
<td>0.123</td>
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<tr>
<td>Perot</td>
<td>1.733</td>
<td>1.803</td>
<td>0.262</td>
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<tr>
<td>Dukakis</td>
<td>0.993</td>
<td>1.589</td>
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<tr>
<td>Bush</td>
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<tr>
<td>Mondale</td>
<td>1.446</td>
<td>2.080</td>
<td>0.166</td>
</tr>
<tr>
<td>Reagan</td>
<td>1.354</td>
<td>2.086</td>
<td>0.123</td>
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<tr>
<td>Carter</td>
<td>1.167</td>
<td>1.499</td>
<td>0.075</td>
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<tr>
<td>Reagan</td>
<td>0.934</td>
<td>1.486</td>
<td>0.079</td>
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<td>Anderson</td>
<td>1.372</td>
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<td>0.252</td>
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<tr>
<td>Carter</td>
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<tr>
<td>Ford</td>
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<td>1.280</td>
<td>0.082</td>
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<tr>
<td>McGovern</td>
<td>0.846</td>
<td>1.328</td>
<td>0.098</td>
</tr>
<tr>
<td>Nixon</td>
<td>0.836</td>
<td>1.276</td>
<td>0.052</td>
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E. Placement error among Republican and Democratic party identifiers (2016 CCES)

In Figure A4, we present estimates of ideological placement error among Republican and Democratic party identifiers in the 2016 CCES data. Estimates are from two AM scaling models fit to the subsets of respondents who identify as Democrats (left panel) and Republicans (right panel). Placement error estimates are shown for Donald Trump, the common actors placed by all respondents, and the senators and governors from each state. The figure shows that there is substantial uncertainty about the ideological position of Donald Trump both among Democrats and Republicans. Among Democrats, he has the highest placement error among 156 actors placed; among Republicans, the 127th highest.

F. Placement error figures with all actor labels included (CCES)

In the main article, Figure 3 includes only labels for the primary actors discussed. In Figures A5, A6, and A7, we present the same figures with all actors labeled. Note that respondents were not asked to place the governor of their state in the 2008 iteration of the CCES.

G. ANES question text and political actors

Below we present the question wording, response categories, and the political actors placed for each version of the ANES. In each ANES, respondents could also refuse to answer or respond “Don't know.”

As noted in the article, the 1984 ANES ideological placement question is substantially different from other presidential election years. The question differs in two important respects: (1) it includes branching logic (a two-step question), and (2) the response categories are themselves
somewhat different. These differences change the nature of the question and therefore limits comparisons to other ANES election years. As noted in the article, results from this year are nevertheless included for completeness.

1972

Where would you place [NAME] on this scale?

Extremely liberal

Liberal
Figure A5: Ideological placement error for presidential candidates and senators (CCES 2008)

CCES 2008

Democratic Party
- Daniel K. Akaka
- Jack Reed
- Sheldon Whitehouse

Republican Party
- Daniel K. Inouye
- Patrick J. Leahy
- Norm Coleman

Barack Obama
- John Thune
- Hilary Rodham Clinton
- Barbara Boxer

John McCain
- Pat Roberts
- Jon Kyl

George W. Bush
- Diana Feinstein
- Hillary Rodham Clinton
- John Warner

Ideological placement error (σ)

0.5 0.75 1 1.25 1.5

CCES 2008
Figure A6: Ideological placement error for presidential candidates, senators, and governors (CCES 2012)
Figure A7: Ideological placement error for presidential candidates, senators, and governors (CCES 2016)
Slightly liberal
Moderate, middle of the road
Slightly conservative
Conservative
Extremely conservative

Placements ([NAME]): George McGovern, Richard Nixon, George Wallace, Democratic Party, Republican Party

1976

Where would you place [NAME]?

Extremely liberal
Liberal
Slightly liberal
Moderate, middle of the road
Slightly conservative
Conservative
Extremely conservative


1980

Where would you place [NAME]?
Extremely liberal
Liberal
Slightly liberal
Moderate, middle of the road
Slightly conservative
Conservative
Extremely conservative


1984

What about [NAME]? Do you usually think of [NAME] as a liberal, a conservative, a moderate or what?

Yes, liberal
Yes, moderate (middle of the road)
Yes, conservative

[If “Yes, liberal”] Do you think he is a strong liberal or a not very strong liberal?

Strong
Neither
Not very strong
[If “Yes, conservative”] Do you think he is a strong conservative or a not very strong conservative?

Strong
Neither
Not very strong

[If “Yes, Moderate (Middle of the road)”] Do you think he is more like a liberal or more like a conservative?

Liberal
Neither
Conservative

Placements ([NAME]): Walter Mondale, Ronald Reagan, Democratic Party, Republican Party

1988

Where would you place [NAME] on this scale?

Extremely liberal
Liberal
Slightly liberal
Moderate, middle of the road
Slightly conservative
Conservative
Extremely conservative
Placements ([NAME]): Michael Dukakis, George H. W. Bush, Jesse Jackson, Ronald Reagan, Democratic Party, Republican Party

1992

Where would you place [NAME] on this scale?

Extremely liberal
Liberal
Slightly liberal
Moderate, middle of the road
Slightly conservative
Conservative
Extremely conservative

Placements ([NAME]): Bill Clinton, George H. W. Bush, Ross Perot, Democratic Party, Republican Party

1996

Where would you place [NAME] on this scale?

Extremely liberal
Liberal
Slightly liberal
Moderate, middle of the road
Slightly conservative
Conservative
Extremely conservative

Placements ([NAME]): Bill Clinton, Bob Dole, Ross Perot, Democratic Party, Republican Party

2000

Where would you place [NAME] on this scale?

Extremely liberal
Liberal
Slightly liberal
Moderate, middle of the road
Slightly conservative
Conservative
Extremely conservative

Placements ([NAME]): Al Gore, George W. Bush, Bill Clinton, Pat Buchanan, Reform Party, Democratic Party, Republican Party

2004

Where would you place [NAME] on this scale?

Extremely liberal
Liberal
Slightly liberal
Moderate, middle of the road
Slightly conservative
Measuring Public Uncertainty about Candidate Ideology: Online Appendix

Conservative
Extremely conservative

Placements ([NAME]): John Kerry, George W. Bush, Ralph Nader, Democratic Party, Republican Party

2008

Where would you place [NAME] on this scale?

Extremely liberal
Liberal
Slightly liberal
Moderate, middle of the road
Slightly conservative
Conservative
Extremely conservative

Placements ([NAME]): Barrack Obama, John McCain, Democratic Party, Republican Party

2012

Where would you place [NAME] on this scale?

Extremely liberal
Liberal
Slightly liberal
Moderate, middle of the road
Slightly conservative
Conservative
Extremely conservative

Placements ([NAME]): Barrack Obama, Mitt Romney, Democratic Party, Republican Party

2016

Where would you place [NAME] on this scale?

Extremely liberal
Liberal
Slightly liberal
Moderate, middle of the road
Slightly conservative
Conservative
Extremely conservative

Placements ([NAME]): Hillary Clinton, Donald Trump, Democratic Party, Republican Party

H. CCES question text and political actors

Below we present the question wording, response categories, and the political actors placed for each version of the CCES. In each version of the CCES, respondents could also refuse to answer or respond “Not sure.”

2008
One way that people talk about politics in the United States is in terms of left, right, and center, or liberal, conservative, and moderate. We would like to know how you view the parties and candidates using these terms. The scales below represent the ideological spectrum from very liberal (0) to very conservative (100). The most centrist American is exactly at the middle (50).

\[0, 1, \ldots, 100\]

The actors placed by all respondents are the Democratic Party, Republican Party, George Bush, Barack Obama, and John McCain. As noted in the article, all sitting senators and governors are included as data in the model, and are placed by respondents from each relevant state.

**2012**

How would you rate each of the following individuals and groups?

Very liberal
Liberal
Somewhat liberal
Middle of the road
Somewhat conservative
Conservative
Very conservative

The actors placed by all respondents are the Democratic Party, Republican Party, Barack Obama, Mitt Romney, the Tea Party, and the Supreme Court. As noted in the article, all sitting senators
and governors are included as data in the model, and are placed by respondents from each relevant state.

2016

How would you rate each of the following individuals and groups?

Very liberal
Liberal
Somewhat liberal
Middle of the road
Somewhat conservative
Conservative
Very conservative

The actors placed by all respondents are the Democratic Party, Republican Party, Hillary Clinton, Donald Trump, and the Supreme Court. As noted in the article, all sitting senators and governors are included as data in the model, and are placed by respondents from each relevant state.

References


Carpenter, Bob, Andrew Gelman, Matt D. Hoffman, Daniel Lee, Ben Goodrich, Michael


