Routledge
Taylor & Francis Group

Journal of Elections, Public Opinion and Parties

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/fbep20

Whose dimension is it anyway? Elite ideology and the exposed partisan public in the U.S.

Lukas F. Stoetzer

To cite this article: Lukas F. Stoetzer (2021): Whose dimension is it anyway? Elite ideology and the exposed partisan public in the U.S., Journal of Elections, Public Opinion and Parties, DOI: 10.1080/17457289.2021.1917583

To link to this article: https://doi.org/10.1080/17457289.2021.1917583

JOURNAL OF ELECTIONS, PUBLIC OPINION AND PARTIES
https://doi.org/10.1080/17457289.2021.1917583

Whose dimension is it anyway? Elite ideology and the exposed partisan public in the U.S.

Lukas F. Stoetzer

Department of Social Sciences, Humbolt-University of Berlin, Berlin, Germany

ABSTRACT

A multitude of political science research assumes that the same ideological dimension guides the interaction between citizens and elites. Public opinion research has repeatedly underlined that this assumption is unlikely to apply to the entire public. In this article, I test the expectation that the interplay between exposure to public debate information and partisan identities makes citizens align their preferences with the elite ideological dimension. I develop a joint scaling model for citizens' and legislators' preferences that allows for heteroscedastic deviations of citizens' policy preferences from the elite model. Applications to the Cooperative Congressional Election Study of 2008–2012 and the Senator Representation Study show that elite ideology can be a more reliable constraint on political preferences for exposed partisans, compared to unexposed non-partisans. The findings have implications for studies of party strategies, representation and political behavior that build on the assumption of shared ideological dimensions.

ARTICLE HISTORY Received 29 September 2020; Accepted 11 April 2021

Introduction

Contemporary theories of democratic representation conceptualize the interaction be- tween citizens and political elites as being guided by the same ideological dimension. Previous studies have compared the congruence between citizens and representatives in terms of ideological distance (see e.g. Golder and Stramski 2010; Bafumi and Herron 2010), provided evidence that the elite ideological dimension guides voters' decisions (see e.g. Hinich and Pollard 1981; Jessee 2009; Adams, Merrill, and Grofman 2005), and analyzed each party's position as a response to voters' ideological demands (see e.g. Ezrow et al. 2011; Adams, Haupt, and Stoll 2009). The analytical

CONTACT Lukas F. Stoetzer Lukas.stoetzer@hu-berlin.de
Supplemental data for this article can be accessed at https://doi.org/10.1080/17457289.2021.1917583.

framework of such studies builds on the spatial model in which political competition takes place across an ideological spectrum that organizes preferences for policies, and which is the same for voters and political elites (see e.g. Downs 1957; Davis, Hinich, and Ordeshook 1970; Schofield 1978; Adams, Merrill, and Grofman 2005; Laver and Sergenti 2011). However, research in public opinion and political psychology have questioned the assumption of shared ideological dimensions, arguing instead that a large section of the general public is completely "innocent of ideology" (Kinder 1983, 391). Dating back to Converse's original "black-and-white" model (Converse 1964), this opposing premise points to a clear divide between the elites with ideologically-organized preferences and the public with unstable and unconstrained attitudes.

Which part of the mass public uses the same ideological dimension as political elites is of central importance for understanding the interactions between elites and voters. Recent publications mediate the claim of a sharp divide between the two groups, while showcasing that some of the original conclusions can be ascribed to measurement error (see e.g. Achen 1975; Ansolabehere, Rodden, and Snyder 2008). However, the empirical verdict to date reveals that ideological thinking is likely to vary substantially within the general public (Jacoby 1995). Only around 40%-60% have highly stable opinions (Hill and Kriesi 2001), and belief systems of the mass public are multi-dimensional and have a socio-cultural and an economic dimension (Treier and Hillygus 2009; Stimson 2004). In this regard, three subpopulations can be identified (Baldassarri and Goldberg 2014): Ideologues (with ideologically coherent attitudes), Alternatives (with cross-cutting economic and social attitudes) and Agnostics (with only weak connections between political beliefs). Most of the findings analyze the ideology of mass and elite preferences separately. However, to test the validity of the assumption of shared ideological dimension it is of central importance to directly compare the two (see Lupton, Myers, and Thornton 2015).

Existing arguments expect that citizens who are well-informed about politics because they follow the public debate and also have strong partisan identities are more likely to hold preferences that map on to elite dimensions. Political sophistication and exposure to elite debate positively influence ideological thinking and constraint (see e.g. Stimson 1975; Knight 1985; Jennings 1992; Lupton, Myers, and Thornton 2015). But the effect of more exposure and information can make citizens ambivalent about their preferences regarding political issues (Alvarez and Brehm 1995), as political predispositions may clash with elite ideology. partisanship lies at the core of U.S. politics, which fits with the elite conflict line (Campbell et al. 1960; Layman and Carsey 2002). partisan identities make recipients more likely to accept certain issue considerations (Zaller 1992; Bartels 2002), which leads to an expected interaction between exposure to public debate and partisanship.

Increasing exposure will make partisan positions on most issues similar to the dominate positions of the party the person supports, a phenomenon known as partisan-sorting (see e.g. Abramowitz 2010; Bafumi and Shapiro 2009; Mason 2015). The argument presented here assumes that exposure will further shape partisans' preferences along the elite liberal-conservative spectrum. It expects that the exposed partisan public will be more likely to share elite ideological dimensions than the non-exposed public.

Testing this argument requires a novel estimate of citizens' deviation from the elite ideological dimension. The article builds on recent advancements in the joint scaling literature (Jessee 2009, 2016; Bafumi and Herron 2010; Shor 2009; Lewis and Tausanovitch 2015) and proposes an estimation method to assess whether citizens' issue preferences will exhibit additional stochastic variation when relating it to elite ideology (using a heteroscedastic item response formulation (Lauderdale 2010; Jessee 2009)). The model innovates on existing efforts by explicitly holding constant elite dimensions and estimating the varying degree of citizens' error variances. The error variances are directly informative for the understanding of the consistency between citizen and elite ideology. The parts of the citizenry with higher error variances more strongly deviates from elite ideology in structuring their views. I apply the model to the Cooperative Congressional Election Study (CCES) of 2008–2012 and the Senate Representation Study (SRS). Both studies contain questions that link respondents' preferences for a particular bill to roll-call voting in Congress and the Senate.

The results provide some evidence that elite ideology is a more reliable reflection of political preferences for the exposed partisan public. Informed partisans have more coherent views of policy issues when applying elite ideology, and therefore, comply more with elite ideology. In the 2008 CCES, an independent respondent who does not expose herself to public debate has a higher stochastic variance compared to an "exposed" partisan. Hence, the preferences of uninformed and unexposed independents substantially deviate from elite ideology. The interaction found in the models is of particular interest. The combination of partisanship and information makes the general public align their policy preferences towards the elite ideological dimension. Similar patterns exist in the SRS and the other CCES studies, but the applications also reveals some unclear and countering evidence.

The findings contribute to different active areas of research and have implications for our understanding of the elite voter interactions in the U.S.. They make a substantial contribution to long-lasting debates about the "ideological constraint" of the mass public (Converse 1964), by directly comparing the structure of citizen and elite ideology. The study further speaks to current debates in representation, as the results point out that the abstraction of representational closeness along one dimension might

not be a valid measurement for the entire electorate (see e.g. Broockman 2016). It further adds to debates in political behavior suggesting that ideological platform signals contain more reliable information for partisans than non-partisans, which could impair ideological voting (see e.g. Stoetzer 2019). Finally, the novel scaling method contributes to the development of joint scaling models by holding constant the estimation to one group of responses and analyzing deviations in another group (Jessee 2016).

Elite debate, citizens' issue preferences and ideology

The long tradition of research on mass belief systems aims to analyze the discrepancy between elite and citizens' ideology, most famously associated with Phillip Converse's 1964 chapter and The American Voter (Campbell et al. 1960). Political elites define and structure the public debate about political issues along a few ideological dimensions (Zaller 1992). Political attitudes "are organized into coherent structures by political elites for consumption by the public" (Feldman 1988, 417). The general public follows the debate and employs the debates' considerations to form their political preferences for the issues discussed (Zaller and Feldman 1992). Ideology in this sense is "represented in memory as a kind of schema i.e. a learned knowledge structure consisting of an interrelated network of beliefs, opinions, and values"(-Jost 2006, 310). This argument presupposes the existence of a certain elite ideology, a valuable analytical frame for analyzing which part of the public uses the same schema to structure their opinions. The central mechanism for elite ideology transmission is via the processing of information and considerations. In line with Zaller (1992) "Receive-Accept-Sample" model, citizens will receive numerous considerations via the elite debate and accept some of them as representing their positions. When asked about policy issues, citizens will sample from existing considerations to express personal attitudes.

The extent to which citizens use elite ideological dimensions will depend on their exposure to public debate. In Zaller's model, political predispositions make citizens more likely to accept certain considerations (Zaller 1992). Citizens that are strongly exposed to the news and are interested in public debate receive more considerations. When predispositions align with elite ideology, an increasing number of considerations will lead to a preference profile that conforms with elite dimensions. Relatedly, previous studies have outlined the relationship between political sophistication and ideological constraint and thinking (see e.g. Stimson 1975; Knight 1985; Jennings 1992). Findings that compare the dimensionality of elite and mass preferences are informative for the argument made here, namely "[a]s individuals become more politically sophisticated, their attitudes are more likely to be constrained to a single dimension represented by the liberal-conservative continuum in American politics" (Lupton, Myers, and Thornton 2015, 369).

In this regard, the exposure to political information, as an integral part of political sophistication is of particular importance (see e.g. Luskin 1990). Exposed citizens form more accurate views in line with elite debate, which leads to the formulation of a first hypothesis:

> **Hypothesis 1 (H1):** With increasing exposure to political debate, citizens' preferences will be more closely formed by elite ideological dimensions

The crux of this argument is that the predispositions that lead citizens to accept certain considerations need to align with elite ideology. There are two ways in which this might not hold. First, predispositions could play no or only a small role, which means that considerations are randomly accepted. This randomness would increase the chances of preferences that are inconsistent with ideology. A citizen would have an equal chance of accepting considerations from the liberal and the conservative side, resulting in preferences on specific issues that are unlikely to follow the ideological ordering. This group can be labeled agnostics that are "not as politically consistent as their peers are" (Baldassarri and Goldberg 2014, 60). Their attitudes do not resemble the ideological structure found in the elite debate. Second, citizens could consider additional factors that are unrelated to the elite dimensions. In this case, more considerations may lead to preferences that are inconsistent with elite ideology. A well-documented finding in this regard shows that conflicting "core beliefs" (Feldman 1988) can lead to ambivalence about policies (Alvarez and Brehm 1995). Multiple studies have further documented that citizens' ideology could in fact be multi-dimensional (see e.g. Luttbeg 1968; Treier and Hillygus 2009; Lupton, Myers, and Thornton 2015), contrasting with the one-dimensional liberal- conservative continuum that governs elite discourse (see e.g. Poole and Rosenthal 2000; Clinton, Jackman, and Rivers 2004). This aligns with the observation that the preferences of ordinary citizens are two-dimensional, while elite preferences are one-dimensional (Lupton, Myers, and Thornton 2015).

A central predisposition that influences information-processing is partisanship. In the Michigan model, partisanship is the "unmoved mover" that shapes perceptions and preferences (Bartels 2002; Campbell et al. 1960). In the words of Campbell et al.: "[party identification] raises a perceptual screen through which the individual tends to see what is favorable to his partisan orientation. The stronger the party bond, the more exaggerated the process of selection, and perceptual distortion will be" (Campbell et al. 1960, 133). Recent publications underline the interpretation of partisanship in this tradition (see e.g. Goren 2005; Johnston 2006; Goren, Federico, and Kittilson 2009; Slothuus and de Vreese 2010; Carsey and Layman 2006). For the present study, this is important, as in an elite debate, partisanship conflict and ideology conflict most often coincide (Layman and Carsey 2002). Citizens who are more likely to accept partisan considerations will adopt and thereby necessarily order

their preferences in line with elite ideology. This mechanism is also related to partisan-sorting (see e.g. Bafumi and Shapiro 2009; Abramowitz 2010; Baldassarri and Gelman 2008), which show that partisans have sorted in the "correct combination of party and ideology" (Mason 2015, 128). It aligns with work confirming that party loyalists are particularly likely to adopt policy views to elite-cues (Barber and Pope 2019; Hill and Huber 2019). The argument proposed here is that the ongoing adoption goes even further: not only do partisans converge towards the positions of their party (Lenz 2009), but as a consequence this renders their preferences to align with elite ideology. The second hypothesis therefore expects the following:

Hypothesis 2 (H2): *Partisanship increases the relationship between elite ideology and citizens' preferences*.

Bringing together these two arguments reveals a relevant interaction. The exposure to public debate should be particularly relevant to altering partisans' preferences to align with elite ideology. For independents, more exposure can lead to incompatible preferences with elite dimensions as they accept considerations from different sources. In contrast, partisans will be selective in only accepting considerations that make their preferences conform to elite ideology. Moreover, partisan identification and political interest are highly stable (Green and Palmquist 1994; Prior 2010) which strengthens the importance of this interaction. Even small biases in accepting elite considerations based on partisan cues will have a cumulative effect on the structure of opinions. In contrast, independents might change their conviction from one electoral cycle to another and accept competing considerations (Klar and Krupnikov 2016). Thereby not exhibiting the cumulative effects of partisans over time. These considerations lead to a third hypothesis:

Hypothesis 3 (H3): *Exposure increases the relationship between elite ideology and citizens' preferences more strongly for partisans*.

Recent experimental work confirms implications from the theoretical expectations. Hill and Huber (2019) use an original experiment to show that the information respondents have about the legislators' voting behavior influences their answers to roll-call questions. In line with the proposed hypothesis, the authors' results show that providing partisans with information about the voting patterns in parliament and information about the bill will make both democrats and republicans vote along lines more similar to the legislators of their respective parties (see also Lauderdale 2013). While this provides evidence that information and partisanship cues can change citizens' preferences, and thereby underline the mechanisms, the argument here asks whether it also makes them use the same ideological dimension to structure their preferences.

The theoretical discussion outlines that particular the exposed partisan public will be closest to elite ideology. Testing the hypothesis requires a measurement of elite and citizen ideology. The next section therefore discusses newer developments in joint scaling literature.

Measurement of ideology for citizens and elites

Researchers have stressed the importance of measurement when making deductions about mass belief systems (Achen 1975; Ansolabehere, Rodden, and Snyder 2008). Recent research also jointly estimates the ideology of legislators and citizens (Jessee 2009; Bafumi and Herron 2010; Shor 2009). In most instances, this work leverages survey questions that ask respondents how they would have voted on a particular bill, thereby bridging citizens' preferences to those of political elites. An item response formulation recovers the ideological positions of both groups, creating a joint ideological space.

The approach hinges on the crucial assumption that the item parameters of the model are constant for both groups (see also Lewis and Tausanovitch 2015; Jessee 2016). Otherwise, the scaled responses do not reflect the same measurement. In the face of the above theoretical discussion, the discrepancy in measurement parameters between legislators and respondents has a more substantial footing. It implies that the ideological dimension of respondents differs from that of the legislators' ideology. Hence, researcher can use the discrepancy in item parameters to analyze in how far elite ideology applies to citizens.

But existing joint scaling approaches do not permit inferences about deviations from elite ideology. Because citizens' responses influence the ideology measurement, a larger sample of citizens will influence the results (Jessee 2016). If the interest lies in analyzing deviation from a fixed elite ideology this is an unwelcomed methodological artefact. As a safeguard, researchers can fix the item parameters to either legislators or respondents, creating "citizen-based" or "legislator-based" ideology estimates (Jessee 2016, 1122). The proposed method builds on this. It uses elite-based ideology estimates and combines them with a model that estimates citizens' deviation from it.

A joint item response model with citizen specific error variance

Employing the spatial model of roll-call voting behavior estimates legislators' ideology using a two item IRT Model (Clinton, Jackman, and Rivers 2004; Jackman 2001). Each bill in the sample $j \in (1, \ldots, J)$ is presented to each legislator $l \in (1, \ldots, L)$. An indicator y_{lj} records if a he legislator has voted "Aye" ($y_{lj} = 1$) or "Nay" ($y_{lj} = 0$) on a specific proposal. Clinton, Jackman, and Rivers

(2004) show that given a set of common spatial voting assumptions, the two-item parameter model can be derived as follows (see also Jackman 2001):

$$\Pr(y_{lj} = 1) = \Phi[\beta_j \theta_l - \alpha_j], \tag{1}$$

θ_l refers to a legislator's ideological ideal point, while β_j as well as α_j are roll call vote specific item parameters. Φ is the C.D.F. of the normal distribution, that relates the linear combination of item parameters and ideology estimate to the probability of voting "Aye" on a specific proposal.

Which part of the public employs elite ideology to structure their preferences on particular issues? To find out, I follow the distinction between citizens and legislator scaling (Jessee 2016) and use the item parameters of the elite's responses to scale respondents' preferences on the same issues. This approach describes the part of the general public to which the elite model applies, and for which group it does not. I analyze the deviation using a heteroscedastic item response model that has been applied elsewhere in the study of variation in roll-call vote behavior in Congress (Lauderdale 2010), and to survey responses on roll-call voting questions (Jessee 2009). $c \in (1, \ldots, C)$ defines the sample of respondents who express their preferences for the same bill j:

$$\Pr(y_{lj} = 1 | \beta_j, \alpha_j) = \Phi\left[\frac{\beta_j \theta_c - \alpha_j}{\sigma_c}\right], \tag{2}$$

where β_j,α_j are fixed parameters from the legislator model. The heteroscedastic formulation has two citizen-specific parameters: A citizen's ideal point θ_c and the citizen's specific error variance σ_c. Similar to the legislators, the ideal point measures a citizen's ideological orientation. The error variance estimates the degree of stochastic variation around the ideologically expected pattern. The larger the error variance, the more random the citizen's issue preferences will be, conditional on the ideological position. The standard legislator model assumes that the error variance for all legislators is one. The above formulation permits citizens' answering patterns to be more random when adopting the elite ideology.

To test the hypotheses, I model σ_c as a function of citizens' specific covariates, using a heteroscedastic probit specification (Harvey 1976; Alvarez and Brehm 1995). Allowing for heteroscedastic error variance can entail that partisans and informed voters have more coherent views compared to other parts of the respondent pool when using the elite ideological dimension. The approach thereby allows me to test the hypotheses that especially the variance of well-informed partisan respondents is closer to that of legislators. The error variance has to be positive, thus, I model the log of it as a linear function of parameters: $\log(\sigma_c) = Z_c\gamma$. Z_c is a matrix with K covariates and γ a row-vector of effect parameters.

I obtain Bayesian estimates for the parameters of the model. In essence, there are two separate models: A legislator model and a citizen model.[1] To carry over the uncertainty about the item parameters from the legislator model to the citizen model, I jointly sample the two models. But the estimation of the item parameters is influenced only by data from the legislator roll-call votes (see Jessee 2016). Markov chain Monte Carlo (MCMC) routines to sample from the posterior of the two-parameter IRT model are widely available (Clinton, Jackman, and Rivers 2004). For the independent scaling, I rely on the ideal implementation from the pscl R-package (Jackman 2017). However, existing packages cannot estimate the joint response model that jointly estimates ideal points and fixes item parameter estimation to roll-call votes of the legislators. For this purpose, I implement my own program relying on RcppArmadillo (Francois, Eddelbuettel, and Bates 2012). Appendix A discusses the sampling scheme in more detail.

In general, the presented model helps to analyze how one groups latent dimension constraints observed responses of other groups. This can find application beyond the study of elite and citizen ideology, whenever researchers are interested in studying measurement across different groups. Variants of the model can for example find applications in the joint scaling of voters and parties (Lo, Proksch, and Gschwend 2014) and scaling of social media users (Temporão et al. 2018). The main purpose of the model is to understand how the second group deviates from the latent dimension of the first group, but allowing for heteroskedasticity might also lend itself to more accurate inferences about the latent scores of the second group (Lauderdale 2010).

Application

This section describes two applications of the model to the Cooperative Congressional Election Study 2008–2012 (CCES) (Ansolabehere 2012, 2013) and the Senator Representation Study (SRS) (see e.g. Jessee 2016, 2009). Both studies include survey questions linked to roll-call votes in the House and the Senate. In the CCES, the questionnaire asks respondents about their preferences regarding nine political issues. For each of the items, e.g. "withdraw troops from Iraq within 180 days", respondents can indicate if they support this bill, oppose it, or are "not sure". In all three CCES studies, the items cover a range of topics, such as economic issues (minimum wage, taxation, bank bailout, budget cuts) and social issues (gay marriage, end the don't

[1]The model requires a set of identification constraints (Rivers 2003). The one-dimensional model is locally identified by fixing the location and scale of the latent dimension. I achieve this using appropriate prior specifications for the parameters. Priors for the θl and θc are standard normally distributed, and all priors on the item parameters (αj,βj) are specified to be standard normally distributed.

ask don't tell act, birth control). The SRS includes 27 roll-call votes, covering a large variety of topics, such as minimum wage increase, the working family tax relief act, and the federal hate crime amendment. The large number of items makes the SRS study particularly suited for examining the linkage between elite and citizen ideology.[2]

The survey questions of both studies match roll-call votes in the Congress. The roll-calls measure legislators' preferences for those items. The survey questions measure citizens' preferences for the roll-call votes. Each of the CCES studies mainly corresponds to one congressional period.[3] House and senate roll-call votes on the issues are pooled, resulting in 547 legislators who vote on the issues. Respondents' answers in the SRS correspond with Senate roll-call votes from 2004 and 2005. A one in the roll-call voting data is coded as a favorable vote, while a zero reflects an unfavorable vote. The opinions expressed in the survey studies are taken as an indication of citizens' preferences, again coding "one" as a positive attitude towards the issue and zero as a negative. "Not sure" answers are coded as missing values.[4]

In all studies, the measure of partisanship relies on the standard survey question: "Generally speaking, do you think of yourself as a … ?". For the analysis, "partisans" respondents are categorized as either "strong democrat", "democrat", "republican" or "strong republican" and the rest of the respondents are "independents". The studies contain distinct measures of political exposure and information. The CCES asks respondents if they "follow what's going on in government and public affairs". Respondents are highly exposed to public debate when they answer that they follow the news "most of the time", while all other categories are coded as low exposure. The SRS contains six information items as a measurement of political information and exposure. The information scale is the share of correctly answered items.[5] Both available measures have limits that should be openly acknowledged. They are only indirect manifestations of the theoretical concept of being exposed to political debate. The single-item self-reported exposure in the CCES potentially has high measurement error and could be plagued by systematic over-reporting. The battery of information items in the SRS reduces measurement error, but it only measures the expected consequence of exposure that exposed respondents also know more about politics.

[2]For a complete item list please refer to Appendix B.1.
[3]The CCES questionnaire also includes roll-call vote questions from the previous senate. For example, the CCES 2010 asks respondents about their attitude towards the troubled asset relief program, a roll-call vote of the 110th Senate.
[4]Missing values are ignored when estimating the ideology and the error variances.
[5]For descriptive statistics please refer to Appendix D.

Respondents' and legislator's discrimination parameters

The first step of the analysis is to see how estimates obtained from item response models differ between the legislators and citizens. Separately estimating the full item response model of roll-call votes for both groups and studies permits the contrasting juxtaposition of the item parameters. The discussion of joint scaling (Jessee 2016) reveals that if the responses are from the same underlying construct, the item parameters should be similar.[6]

Figure 1 contrasts the discrimination parameters obtained for the legislators with parameters based on respondents' answers. It becomes clear that most parameters are positive or negative for both groups, implying that they discriminate in the same direction. For example, citizens favoring withdrawing troops from Iraq in the CCES 2008 are more liberal, as are representatives in favor of this legislation. The same holds for the health reform in the CCES 2010 and the amendment to increase minimum wage in the SRS. Some of the issue discrimination parameters are closer to zero for the citizens. For example, the estimate for the Middle-Class Tax Cut Act in the CCES 2012 and "Stopping Privatization of Federal Jobs" in the SRS are close to zero for respondents, so that they do not strongly differentiate between liberal and conservative respondents, but they do so for legislators. Another fact is that the ordering of the strength of discrimination is highly correlated. In the CCES, the correlation between the item discrimination parameters for legislators and citizens are around 0.9. The correlation is with around 0.6 smaller in the SRS. Overall, however, the relationships reveal that underlying ideological structure lean in the same direction, and the issue preferences appear to originate from the same dimension.

Of particular interest is the 45-degree line, as it represents a one-to-one relationship. Almost all observations fall below the line, which implies that most items do not discriminate as sharply between respondents as they do for legislators. Higher error variances for respondents could explain this pattern. However, it might also stem from the mode of observation. After all, increased noisiness can originate from the measurement instrument itself. The survey responses are likely to show higher variation compared to costly roll-call votes in parliament (Hill and Huber 2019). To more thoroughly investigate these deviations, the next section presents results from the item response model with citizen specific error variance.

[6]All models in this section use 120'000 draws saving every 100th observation and discarding the first 20,000 iterations as burn-in. Diagnostics show no sign of non-convergence after the burn-in phase. Starting values for legislators are set according to their party affiliation (democrats -1 and republicans 1). For the respondents, I use their reported party identification as starting values (strong democrats at −1, strong republicans at 1 and all other at zero).

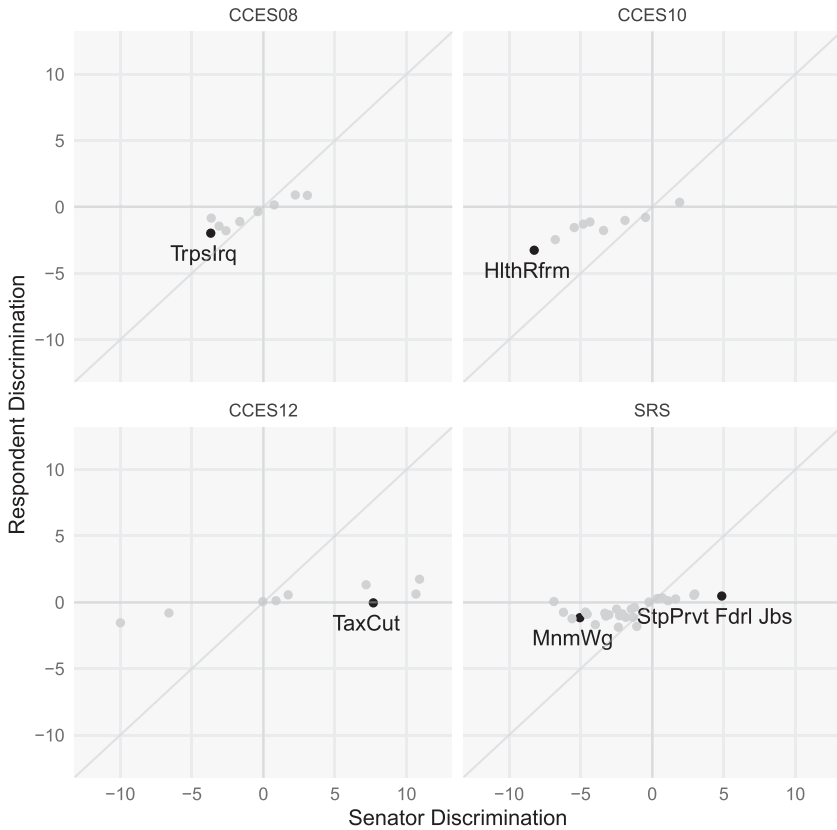

Figure 1. Comparison of discrimination parameters between legislator and respondent scaling in the CCES 2008–2012 and the SRS. Highlighted items are discussed in the text.

Results from item response model with citizen specific error variance

The joint item response model with citizen specific error variance estimates the effect of partisanship and political exposure on the varying structure. I present two model specifications for each study.[7] The first specification models the log of the error variance for citizens as a linear function of partisanship and political exposure, as well as an intercept. A second specification includes an interaction term between the partisanship and the exposure to political news.

Table 1 reports the mean from the posterior distribution and the 95% credible intervals in parenthesis. The CCES 2008 provides support for the hypothesis that informed partisans have more coherent views of policy and comply

[7]To approximate the posterior distribution I run four MCMC chains for a large number of iterations to achieve convergence. For each, I use 10′000 burn-in draws and 40′000 draws, saving every 100th observation. Standard diagnostics show no sign of dis-convergence.

Table 1. Estimates for the joint item response model with citizens specific error variance.

	CCES 08		CCES 10	
	Model 1	Model 2	Model 1	Model 2
Intercept	1.02	0.96	0.9	0.87
	[0.91,1.12]	[0.84,1.09]	[0.76,1.04]	[0.7,1.03]
Partisan	−0.22	−0.13	−0.15	−0.11
	[−0.29,−0.15]	[−0.27,0]	[−0.24,−0.07]	[−0.31,0.08]
Pol. Exp.	−0.08	0.01	0.29	0.34
	[−0.16,−0.01]	[−0.14,0.13]	[0.16,0.42]	[0.14,0.52]
Pol. Exp. * Part.		−0.13		−0.06
		[−0.28,0.02]		[−0.28,0.16]
Items	9		9	
Respondents	31538		53306	
Legislatures	547		541	
	CCES12		SRS	
	Model 1	Model 2	Model 3	Model 4
Intercept	1.22	1.23	1.11	1
	[1.08,1.37]	[1.06,1.4]	[1,1.23]	[0.89,1.13]
Partisan	−0.04	−0.04	0.03	0
	[−0.13,0.06]	[−0.2,0.13]	[−0.07,0.13]	[−0.12,0.1]
Pol. Exp.	−0.2	−0.2	−0.09	−0.08
	[−0.31,−0.1]	[−0.37,−0.04]	[−0.16,−0.04]	[−0.17,0.01]
Pol. Exp. * Part.		0		−0.03
		[−0.2,0.2]		[−0.14,0.08]
Items	9		27	
Respondents	51114		5867	
Legislatures	544		111	

The table reports the effect parameters of partisanship and political exposure on the error variance. The point estimates are the mean draws from the posteriori distribution, the values in the brackets refer to the 95% credible intervals.

more with the elite ideology. In the first model, both partisanship and political exposure to political news decrease the error variance. The credible intervals show that those effects are significantly different from zero. The interaction in the second model for the CCES 2008 shows that the negative impact of political exposure is dominantly driven by partisans, which under- scores the interaction between partisan identity and exposure to public debate. Hence, preferences expressed by exposed partisans align closest to the ideology held by the elite. For independents, exposure does not have a significant impact.

Model 1 of the CCES 2010 also estimates the influence of partisanship on the error variance. But the effect of exposure points in the opposite direction. It implies that less exposed respondents' preferences align more strongly with elite ideology. In contrast, Model 2 (with the interaction effect) shows that partisanship decreases the variance only for exposed respondents and has no clear direct effects. For the CCES 2012, the effect estimates show a negative influence of political exposure but not for partisanship. The estimates for partisanship in Model 1 are negative, but the uncertainty is too

large to offer clear conclusions about the effects. Political exposure has a clear negative effect in this case. The inclusion of the interaction effect in Model 2 does not change this. In the SRS study, the models show the effect of political information on the error variance, revealing support for the first hypothesis. However, the error variance is not different between partisans and independents, as the credible intervals include zero. The inclusion of the interaction effect in Model 2 shows that the political exposure effect is mostly present for partizans but does not seem to play a part for independents - confirming the third hypothesis.

Figure 2 illustrates what the effects from the second models imply for the estimated error variance. It shows a clear pattern for the CCES 2008. For partisans with high exposure, legislator ideology is a stronger approximation, compared to independent respondents with low exposure. In the CCES 2010 confirms that partisans at both levels of political exposure have a lower error variance. Exposure, however, does not impact the error variance

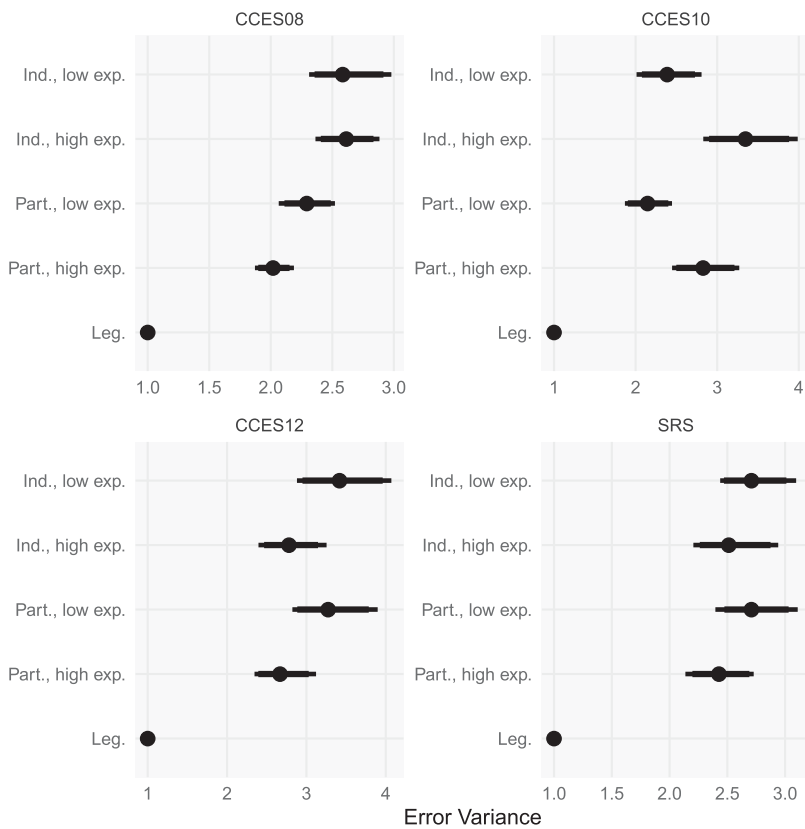

Figure 2. Error variance for the different groups in the joint item response model. The estimates show the error variance with 95% credible intervals.

in the expected direction. Less exposed independents have a lower error variance than highly exposed independents, contradicting the exposure hypothesis. The CCES 2012 again supports the hypothesis. Exposed partisans and independents have lower error variances, but the effect of partisanship in the CCES 2012 is not as pronounced. In the SRS, the lowest error variance is among partisans with high political exposure. The highest error variance is for independents with low exposure, but the differences are not as pronounced as in the CCES 2008. In total, the error variance of highly exposed partisans compared to partisans and independents with low exposure is significantly lower in three of the four applications (see Appendix E.2). In two applications, highly exposed partisans have further lower error variance compared to highly exposed independents.

Item response curves further illustrate the effects of partisanship and exposure to political news. Figure 3 shows the item response curves for the CCES 2008 study. The continuous lines depict the item response curves for

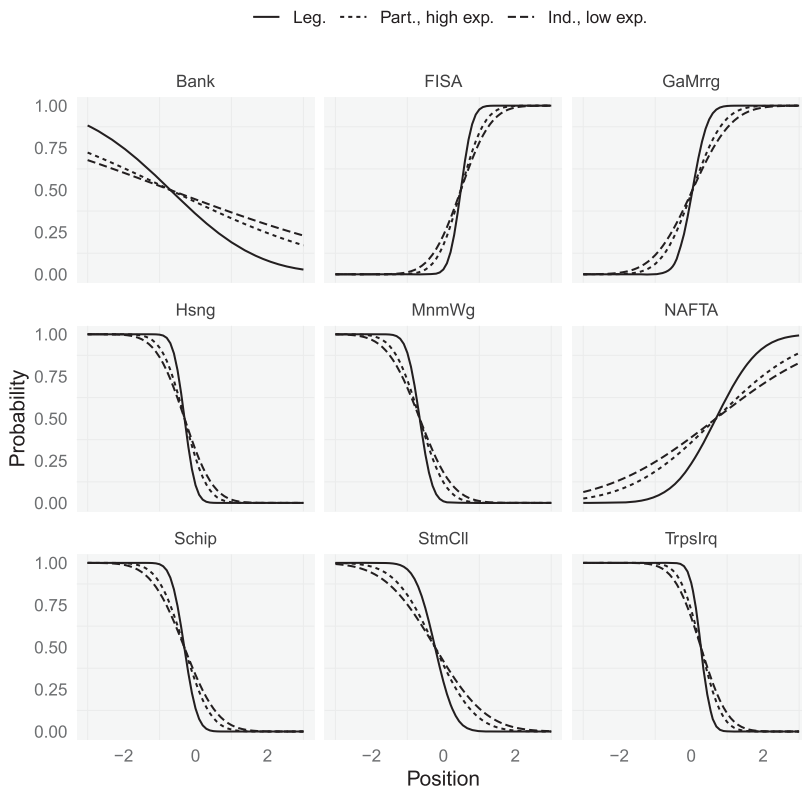

Figure 3. Item response curves for legislators and citizens for different items from the CCES 2008. Citizens' item response curves are displayed for partisans with high information and independents with low exposure.

legislators. It shows a strong relationship between the ideological position estimates and the predicted probability of a favorable response for most roll-call votes. For example, liberals are more likely to vote in favor of the proposition to increase the minimum wage. Only for "Bank Bailout" and "NAFTA" do the items not discriminate as strongly between liberal and conservative positions. The two dotted lines show the corresponding estimated item response curves for citizens. For independent respondents who do not closely follow the political news, the item response curves reveal the latent ideology construct does not discriminate as sharply. Even a strong conservative has a small chance of voting in favor of a minimum wage, while a liberal may still oppose this proposition. For partisans interested in political affairs the item response curves approximate those of legislators. For such respondents, ideology estimates from the elite model more strongly discriminate between the liberal and conservative position.

Overall, the results yield some support for the hypothesis put forward. In particular, the CCES 2008, 2012, and the SRS study show that informed partisans display preferences that are constrained more strongly by the ideological structure of legislators. The impact of political exposure aligns with previous survey findings in the literature that "as political sophistication increases, issue attitudes become constrained to a single dimension, as with political elites and the most sophisticated segment of the mass public." (Lupton, Myers, and Thornton 2015, 368). Experimental findings also confirm the revealed influence of partisanship. "Democrats and Republicans expressed support for each bill at rates closer to that observed in the House for their party when informed of the House vote for seven of eight items." (Hill and Huber 2019, 6). This converging evidence suggests that especially informed partisan public use elite ideology to structure their views.

Additional analysis

Previous work has been interested in studying differences between democrats and republicans with regards to ideological constraint (Lupton, Myers, and Thornton 2017). The 2010 and the 2012 CCES study reveal distinct patterns between the two partisan groups. While democrats exhibit a smaller error variance compared to independents, republicans' preferences less strongly align with elite ideology. The results further mediate the counterintuitive negative effect of exposure in 2010 study, as for democrats the results indicate a positive effect of exposure as expected. Only among independents exposure appears do increase inconsistency. In the CCES 2008, there is no stronger difference between republicans and democrats. But the negative effect of exposure exists among democrats and not among republicans. In the SRS, the results point in the same direction. More informed democrats

seem to share the same ideological structure to senators. For a more detailed discussion see Appendix E.3.

Furthermore, an analysis of the SRS in Appendix E.4 presents results that investigate the difference between issues. Arguments in the literature take the complexity of policy issues into account when formulating expectations about partisan sorting and elite cues (see e.g. Hill and Huber 2019). With the large set of issues in the SRS, enough can be classified as "hard" issues or "easy" issues to analyze the model for different kinds of issues. The results reveal that exposure matters more strongly for easy issues. For hard issues, the effect is less distinct.

Discussion

The assumption that citizens and political elites share ideological dimensions is widely supported in political science literature. This paper is the first to directly estimate which part of the electorate shares the same ideological dimensions as the elites. For this purpose, I develop an extension to existing methods that permits us to jointly scale legislators' roll-call votes and respondents' preferences for the same bills. The results reveal that both partisanship and exposure to public debate can matter in how strongly elite ideology constraints citizens' views. The applications provide some evidence that exposed partisans are most likely to apply elite ideology when structuring their preferences.

These findings are relevant to a wide range of research that has relied on the assumption of a shared ideological dimension between citizens and their political elites to understand U.S. politics. In the study of representation, researchers measure representational closeness along a single ideological dimension (see e.g. Golder and Stramski 2010). If elite ideology does not approximate the citizens' preferences, this measurement will be unreliable. Researchers have started to acknowledge the problem and propose valid alternatives (Broockman 2016). Furthermore, research regarding political behavior often builds on the idea of ideological party signals on a liberal-conservative continuum that informs voters decision-making (see e.g. Adams, Merrill, and Grofman 2005; Jessee 2009). If elite ideology is only a valid construct for a specific part of the electorate, then variation in electoral may have differential effects. For example, voters with inconsistent preferences place less weight on policy platforms (Stoetzer 2019). There is a need for theoretical and empirical research to probe the consequences of a faulty assumption regarding shared ideology.

The findings present avenues for further research. It is worthwhile to theorize about issue variation to understand how citizens and elite ideology become aligned. Additional analysis in Appendix E.4 reveal differences in how far the hypotheses apply to "easy" and "hard" issues. But more types of issue variation are relevant in the U.S., such as social versus economic

dimensions (Treier and Hillygus 2009), or consensus versus conflictual issues (Egan 2013). A better understanding of the issue types will enhance our under- standing of the shared ideology between elites and citizens. The argument presented in this article focuses on partisanship as a central predisposition, but other aspects could matter as well. For example, recent work has outlined the central role of negative partisanship that could affect the adaption process of political considerations (Abramowitz and Webster 2016).

Finally, I discuss some limitations of the research method. First, the selection of issues could impair the generalizability of the results beyond the study, if the set of bills that go to a vote are related to variation in ideological constraint. In general, the study covers a wide range of issues with varying ideological positions and partisan make-up (see the distribution of difficulty parameters in Appendix E.1), which increases confidence that the results should generalize to other situations. But it remains an open empirical question if the results apply to the changed partisan environment during the Trump presidency. It is also not clear if the results hold beyond the bi-partisan context, with less clear partisan flavored media exposure and diffuse partisan identities. Second, the theoretical process by which citizens share elite ideology is dynamic, whereas the empirical evidence is not. Central to a dynamic process is the citizens' ongoing evaluation of political considerations. Implications about this process, based on partisan information-processing, lead to the expectation that partisans in particular should share similar ideological dimensions with their elites. The presented evidence tested this implication, comparing how well elite ideology explains citizens' preferences at a given time. Research should examine the dynamics of this process. Alternative research designs could also address concerns regarding the reverse interpretation of the results that respondents do not identify with a political party because they hold views that don't match up well with political elites.

Acknowledgements

Previous Versions of this paper have been presented at the European Political Science Association General Conference 2016 in Brussels; the political psychology pre-conference workshop of the Ameri- can Political Science Association 2016 in Philadelphia. I thank Alexander Tahk, Thomas Gschwend, Kevin Arceneaux, Adam Berinsky, Marco Steenbergen as well participants of the Political Psychology Seminar at the Political Science Department of the University of Zurich for helpful comments and suggestions. Part of this paper was written while the author held a post-doc scholarship from the Fritz-Thyssen Foundation for a research stay at the Massachusetts Institute of Technology.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by Fritz Thyssen Stiftung: [Grant Number Az. 40.15.0.033PO].

References

Abramowitz, Alan. 2010. *The Disappearing Center: Engaged Citizens, Polarization, and American Democracy*. New Haven: Yale University Press.

Abramowitz, Alan I., and Steven Webster. 2016. "The Rise of Negative Partisanship and the Nationalization of US Elections in the 21st Century." *Electoral Studies* 41: 12–22.

Achen, Christopher H. 1975. "Mass Political Attitudes and the Survey Response." *The American Political Science Review* 69 (4): 1219–1231.

Adams, James, Andrea B. Haupt, and Heather Stoll. 2009. "What Moves Parties? The Role of Public Opinion and Global Economic Conditions in Western Europe." *Comparative Political Studies* 42 (5): 611–639.

Adams, J., S. Merrill, and B. Grofman. 2005. *A Unified Theory of Party Competition: A Cross-National Analysis Integrating Spatial and Behavioral Factors*. Cambridge: Cambridge University Press.

Alvarez, R. Michael, and John Brehm. 1995. "American Ambivalence Towards Abortion Policy: Development of a Heteroskedastic Probit Model of Competing Values." *American Journal of Political Science* 39 (4): 1055–1082.

Ansolabehere, Stephen. 2012. "CCES Common Content, 2010".

Ansolabehere, Stephen. 2013. "CCES, Common Content, 2008".

Ansolabehere, Stephen, Jonathan Rodden, and James M Snyder. 2008. "The Strength of Issues: Using Multiple Measures to Gauge Preference Stability, Ideological Constraint, and Issue Voting." *American Political Science Review* 102 (02): 215–232.

Bafumi, Joseph, and Michael C. Herron. 2010. "Leapfrog Representation and Extremism: A Study of American Voters and Their Members in Congress." *American Political Science Review* 104 (3): 519–542.

Bafumi, Joseph, and Robert Y. Shapiro. 2009. "A New Partisan Voter." *The Journal of Politics* 71 (1): 1–24.

Baldassarri, Delia, and Andrew Gelman. 2008. "Partisans Without Constraint: Political Polarization and Trends in American Public Opinion." *American Journal of Sociology* 114 (2): 408–446.

Baldassarri, Delia, and Amir Goldberg. 2014. "Neither Ideologues Nor Agnostics: Alternative Voters Belief System in an age of Partisan Politics." *American Journal of Sociology* 120 (1): 45–95.

Barber, Michael, and Jeremy C Pope. 2019. "Does Party Trump Ideology? Disentangling Party and Ideology in America." *American Political Science Review* 113 (1): 38–54.

Bartels, Larry M. 2002. "Beyond the Running Tally: Partisan Bias in Political Perceptions." *Political Behavior* 24 (2): 117–150.

Broockman, David E. 2016. "Approaches to Studying Policy Representation." *Legislative Studies Quarterly* 41 (1): 181–215.

Campbell, Angus, Philip E. Converse, Waren E. Miller, and Donald E. Stokes. 1960. *The American Voter*. Chicago: University of Chicago Press.

Carsey, Thomas M, and Geoffrey C Layman. 2006. "Changing Sides or Changing Minds? Party Identification and Policy Preferences in the American Electorate." *American Journal of Political Science* 50 (2): 464–477.

Clinton, Joshua D., Simon Jackman, and Douglas Rivers. 2004. "The Statistical Analysis of Roll Call Data." *American Political Science Review* 98 (2): 355–370.

Converse, P. E. 1964. *The Nature of Belief Systems in the Mass Public*. New York: Free Press.
Davis, Otto A, Melvin J Hinich, and Peter C Ordeshook. 1970. "An Expository Development of a Mathematical Model of the Electoral Process." *American Political Science Review* 64 (2): 426–448.
Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper & Brothers.
Egan, Patrick J. 2013. *Partisan Priorities: How Issue Ownership Drives and Distorts American Politics*. Cambridge: Cambridge University Press.
Ezrow, Lawrence, Catherine De Vries, Marco Steenbergen, and Erica Edwards. 2011. "Mean Voter Representation and Partisan Constituency Representation: Do Parties Respond to the Mean Voter Position or to their Supporters?" *Party Politics* 17 (3): 275–301.
Feldman, Stanley. 1988. "Structure and Consistency in Public Opinion: the Role of Core Beliefs and Values." *American Journal of Political Science* 32 (2): 416–440.
Francois, Romain, Dirk Eddelbuettel, and Doug Bates. 2012. "RcppArmadillo: Rcpp integration for Armadillo templated linear algebra library." R package version 0.3 6.
Golder, Matt, and Jacek Stramski. 2010. "Ideological Congruence and Electoral Institutions." *American Journal of Political Science* 54 (1): 90–106.
Goren, Paul. 2005. "Party Identification and Core Values." *American Journal of Political Science* 49 (4): 881–896.
Goren, Paul, Christopher M. Federico, and Miki Caul Kittilson. 2009. "Source Cues, Partisan Identities, and Political Value Expression." *American Journal of Political Science* 53 (4): 805–820.
Green, Donald Philip, and Bradley Palmquist. 1994. "How Stable is Party Identification?" *Political Behavior* 16 (4): 437–466.
Harvey, Author A C. 1976. "Estimating Regression Models with Multiplicative Heteroscedasticity Published by." *Econometrica* 44 (3): 461–465.
Hill, Seth J, and Gregory A Huber. 2019. "On the Meaning of Survey Reports of Roll- Call Votes." *American Journal of Political Science* 63 (3): 611–625.
Hill, Jennifer L, and Hanspeter Kriesi. 2001. "An Extension and Test of Converses Black-and-White Model of Response Stability." *American Political Science Review* 95 (2): 397–413.
Hinich, Melvin J., and Walker Pollard. 1981. "A New Approach to the Spatial Theory of Electoral Competition." *American Journal of Political Science* 25 (2): 323–341.
Jackman, Simon. 2001. "Multidimensional Analysis of Roll Call Data via Bayesian Simulation: Identification, Estimation, Inference, and Model Checking." *Political Analysis* 9: 227–241.
Jackman, Simon. 2017. *pscl: Classes and Methods for R Developed in the Political Science Computational Laboratory*. Sydney, New South Wales, Australia: United States Studies Centre, University of Sydney.
Jacoby, William G. 1995. "The Structure of Ideological Thinking in the American Electorate." *American Journal of Political Science* 39 (3): 314–335.
Jennings, M. Kent. 1992. "Ideological Thinking among Mass Publics and Political Elites." *Public Opinion Quarterly* 56 (4): 419–441.
Jessee, Stephen A. 2009. "Spatial Voting in the 2004 Presidential Election." *American Political Science Review* 103 (feb): 59–81.
Jessee, Stephen. 2016. "(How) Can We Estimate the Ideology of Citizens and Political Elites on the Same Scale?" *American Journal of Political Science* 60 (4): 1108–1124.

Johnston, Richard. 2006. "Party Identification: Unmoved Mover or Sum of Preferences?" *Annual Review of Political Science*9: 329–351.
Jost, John T. 2006. "The End of the End of Ideology." *American Psychologist* 61 (7): 651.
Kinder, D. R. 1983. "Diversity and Complexity in American Public Opinion." In *Political Science: The State of the Discipline*, edited by Ada W. Finifter, 389–425. Washington, DC: The American Political Science Association.
Klar, Samara, and Yanna Krupnikov. 2016. *Independent Politics*. Cambridge: Cambridge University Press.
Knight, Kathleen. 1985. "Ideology in the 1980 Election: Ideological Sophistication Does Matter." *Journal of Politics* 47 (3): 828–853.
Lauderdale, Benjamin E. 2010. "Unpredictable Voters in Ideal Point Estimation." *Political Analysis* 18 (2): 151–171.
Lauderdale, Benjamin E. 2013. "Does Inattention to Political Debate Explain the Polarization gap Between the U.S. Congress and Public?" *Public Opinion Quarterly* 77 (S1): 2–23.
Laver, Michael, and Ernest Sergenti. 2011. *Party Competition: An Agent-Based Model*. Princeton: Princeton University Press.
Layman, Geoffrey C, and Thomas M Carsey. 2002. "Party Polarization and 'Conflict Extension' in the American Electorate." *American Journal of Political Science* 46 (4): 786–802.
Lenz, Gabriel S. 2009. "Learning and Opinion Change, not Priming: Reconsidering the Priming Hypothesis." *American Journal of Political Science* 53 (4): 821–837.
Lewis, Jeffrey B, and Chris Tausanovitch. 2015. "When Does Joint Scaling Allow For Direct Comparisons of Preferences?".
Lo, James, Sven-Oliver Proksch, and Thomas Gschwend. 2014. "A Common Left-Right Scale for Voters and Parties in Europe." *Political Analysis* 22 (2): 205–223.
Lupton, Robert N., William M. Myers, and Judd R. Thornton. 2015. "Political Sophistication and the Dimensionality of Elite and Mass Attitudes, 1980–2004." *The Journal of Politics* 77 (2): 368–380.
Lupton, Robert N, William M Myers, and Judd R. Thornton. 2017. "Party Animals: Asymmetric Ideological Constraint among Democratic and Republican Party Activists." *Political Research Quarterly* 70 (4): 889–904.
Luskin, Robert C. 1990. "Explaining Political Sophistication." *Political Behavior* 12 (4): 331–361.
Luttbeg, Norman R. 1968. "The Structure of Beliefs among Leaders and the Public." *Public Opinion Quarterly* 32 (3): 398–409.
Mason, Lilliana. 2015. """I Disrespectfully Agree": The Differential Effects of Partisan Sorting on Social and Issue Polarization." *American Journal of Political Science* 59 (1): 128–145.
Poole, Keith T, and Howard Rosenthal. 2000. *Congress: A Political-Economic History of Roll Call Voting*. Oxford: Oxford University Press.
Prior, Markus. 2010. "Youve Either got It or You Don't? The Stability of Political Interest Over the Life Cycle." *The Journal of Politics* 72 (3): 747–766.
Rivers, Douglas. 2003. "Identification of Multidimensional spatial voting models".
Schofield, Norman. 1978. "Instability of Simple Dynamic Games." *Review of Economic Studies* 45 (3): 575–594.
Shor, B. 2009. "All together Now: Putting Congress, State Legislatures, and Individuals in a Common Ideological Space." In Ideal Point Modeling Conference, MIT May 2015.
Slothuus, Rune, and Claes H. de Vreese. 2010. "Political Parties, Motivated Reasoning, and Issue Framing Effects." *The Journal of Politics* 72 (3): 630–645.

Stimson, James A. 1975. "Belief Systems: Constraint, Complexity, and the 1972 Election." *American Journal of Political Science* 19 (3): 393.
Stimson, James A. 2004. *Tides of Consent: How Opinion Movements Shape American Politics*. Cambridge: Cambridge University Press.
Stoetzer, Lukas F. 2019. "A Matter of Representation: Spatial Voting and Inconsistent Policy Preferences." *British Journal of Political Science* 49 (3): 941–956.
Temporão, Mickael, Corentin Vande Kerckhove, Clifton van der Linden, Yannick Dufresne, and Julien M Hendrickx. 2018. "Ideological Scaling of Social Media Users: A Dynamic Lexicon Approach." *Political Analysis* 26 (4): 457–473.
Treier, Shawn, and D. Sunshine Hillygus. 2009. "The Nature of Political Ideology in the Contemporary Electorate." *Public Opinion Quarterly* 73 (4): 679–703.
Zaller, John R. 1992. *The Nature and Origins of Mass Opinion*. Cambridge: Cambridge University Press.
Zaller, John, and Stanley Feldman. 1992. "A Simple Theory of the Survey Response: Answering Questions Versus Revealing Preferences." *American Journal of Political Science* 36 (3):579–616.