Reassessing Proximity Voting: Expertise, Party, and Choice in Congressional Elections

Danielle A. Joesten University of California, Davis
Walter J. Stone University of California, Davis

Spatial theories of voting are appealing because they link voters' electoral choices to candidates' policy positions. Yet if voters lack political sophistication and awareness of candidate positions, they may not measure up to the cognitive demands of spatial voting models. Using district experts to ascertain House candidates' positions on the same liberal-conservative scale as in a survey of constituents, we find that proximity voting is common, even among voters unaware of candidates' ideological positions. Since voting based on party identification or presidential approval often produces votes consistent with the spatial model, such alternative decision rules explain this result by serving as powerful proxies for proximity voting. In addition, facilitator variables such as involvement in politically expert interpersonal networks, the ideological difference between candidates, and voters' distance from the district ideological cut point help explain proximity voting.

Issue voting is often seen as the gold standard for voters in representative democracies.[1] Elections, if they are to help set the course of public policy and hold elected officials accountable for their policymaking behavior, require that voters' choices reflect policy considerations. Spatial models are based on a particularly powerful version of issue voting because the choices voters make depend on the ideological positions of candidates in elections. However, their theoretical appeal is tempered by the unrealistic cognitive and informational demands they appear to place on voters.

We argue that voters find their way to spatial voting to a surprising degree, even in low-information elections when they lack information about the candidates' ideological positions. Recent work on congressional elections has provided strong evidence that voters are remarkably responsive to the spatial logic in their voting choice (Shor and Rogowski 2012; Simas 2013), a result extended to a local, nonpartisan electoral environment (Boudreau, Elmendorf, and MacKenzie 2013). Our purpose is to investigate the mechanisms whereby individuals cast a "spatially correct" vote in the 2006 congressional elections. We demonstrate that some of the usual explanations apparently required by the spatial model have remarkably little effect. Our data suggest that voters are more capable of advancing policy outcomes consistent with their interests than standard accounts in the literature suggest, although this happy result occurs for many voters as a byproduct of alternative decision rules that are more common and less demanding than those implicit in the spatial model.

Although the specific focus of our analysis is on proximity voting in the 2006 House elections, we engage fundamental questions related to the conditions that promote voting consistent with prominent normative theories of democracy. The spatial model is one such theory because it joins a conception of voting choice to predictions about candidate positioning and representation. However, there is a substantial literature suggesting that voters are poorly equipped to vote on the issues, much less the more stringent requirements of the spatial model (Berelson, Lazarsfeld, and McPhee 1954; Campbell et al. 1960; Caplan 2007; Converse 1964; Delli Carpini and Keeter 1996). The consensus is that interest in and information about politics in the public is low and that citizens are poorly equipped to exercise control over policy through their choices in elections. A more recent

[1]Support for this research was provided by the Division of Social Sciences, University of California, Davis. Data and supporting materials necessary to reproduce the results are available at http://electionstudy.ucdavis.edu/.

The Journal of Politics, Vol. 76, No. 3, July 2014, Pp. 740–753 doi:10.1017/S0022381614000140

ISSN 0022-3816

literature emphasizes heuristics as shortcuts voters can employ to make informed choices without much information (Lau and Redlawsk 2006; Lupia and McCubbins 1998; Sniderman, Brody, and Tetlock 1993). A problem in low-information elections like those for the House of Representatives is that heuristics based on candidate visibility that results from incumbency or a spending advantage may cause people to vote against their policy interests. Another worry is that party identification, the most commonly employed heuristic, is a distorting influence on spatial voting (Boatright 2008; Jessee 2010, 2012; Shor and Rogowski 2012; Simas 2013).

To our knowledge, there have been only a few attempts to explain individuals' proximity voting. A direct parallel to our effort is an article by Boatright (2008) that divides voters in presidential elections between those whose presidential-election vote was consistent with a spatial logic and "spatial violators" who cast a vote for the candidate farther from their own ideological preference. Our analysis and results in some ways conform with Boatright's, although there are important differences in the design and approach. In a series of publications, Lau and Redlawsk study the correlates of "correct voting," which includes an issue component similar to proximity voting (Lau, Andersen, and Redlawsk 2008; Lau and Redlawsk 1997, 2006). Like us, Lau, Andersen, and Redlawsk (2008) seek to explain which voters meet a standard that might be referred to as a "high quality" vote—in their case, a "correct" vote; in our case a vote consistent with the spatial logic.

In explaining proximity voting, we consider *facilitator* variables, by which we mean factors that are not decision rules but that increase the probability of voting consistent with the spatial model. Facilitators include awareness of the candidates' ideological positions, the existence of political experts in voters' interpersonal networks, political sophistication of the voter, ideological divergence between the candidates running in the district, and distance between the voter and the ideological cut point between the candidates. Each of these variables can be thought of as increasing the likelihood of voting consistent with the spatial logic either because they characterize the voter's ability to discern the ideological placement of the candidates relative to their own preferences or because they describe an aspect of the voter's environment that enhances her ability to engage the spatial logic when voting.

In addition to facilitators, we consider two decision rules as alternatives or "proxies" for spatial voting: party identification and presidential approval. These alternative decision rules may facilitate spatial voting by producing a voting decision consistent with spatial voting, even though the voter may be oblivious to the ideological positions of the candidates or the logic of the spatial model. Unlike facilitator variables, alternative decision rules provide voters with a vote-choice prescription that may be consistent with spatial voting. In suggesting party identification as a proxy rather than a factor that distorts proximity voting, we recognize that we depart from some of the recent literature on spatial voting and party identification (Boatright 2008; Jessee 2012; Shor and Rogowski 2012; Simas 2013). We return to this point after we present our evidence.

Four conclusions stand out from our analysis: (1) voters who cannot place the candidates' ideological positions tend nonetheless to vote consistent with a proximity rule; (2) party identification and presidential approval serve as alternative decision rules, or proxies, that enable voters to advance their ideological interests consistent with the spatial-voting logic; (3) voters with political expertise represented in their interpersonal networks engage in proximity voting at higher levels than those without access to expertise in their networks; and (4) voter distance from the candidate ideological cut point and the ideological divergence between candidates are associated with enhanced levels of proximity voting. Several facilitators widely supposed to promote proximity voting, including awareness of the candidates' ideological positions and voter sophistication, are *not* at the forefront of our explanation.

The Proximity Rule in House Elections

Among the difficulties that stand in the way of a study of spatial voting in congressional elections is placing opposing candidates, not to mention voters, in the same ideological or issue space. Jessee (2010, 2012) solves this problem by locating the 2004 and 2008 presidential candidates in an ideological space defined by their support of congressional roll calls and by using survey items on the same roll-call issues to infer voters' ideal points in a common space. In congressional elections studies, however, we do not typically have data on challengers' positions on roll-call issues, even if there are now data on incumbents and voters on important roll-call votes (Ansolabehere, Snyder, and Stewart 2001; Bafumi and Herron 2010). Shor and Rogowski (2012) use a method similar to Jessee's, combining voters' survey responses with National Political Awareness Test (NPAT) candidate surveys

of senators and House members administered by Project Vote Smart. Our solution to this common-space problem is to survey expert informants in each district in the study who placed both candidates running in the district in the same ideological scale we presented to voters for their own self-placement.[2]

We employ a standard spatial model[3] based on the comparative proximity between the individual voter's ideological preference or ideal point (v_i) and the positions taken by each candidate running in district j (D_j and R_j):

$$\text{Proximity Rule: } \left(v_{ij} - D_j\right)^2 - \left(v_{ij} - R_j\right)^2$$

The Proximity Rule captures the relative distance between the voter's preferences and the positions of the two candidates running in the district. When $(v_{ij} - D_j)^2 < (v_{ij} - R_j)^2$, the Democratic candidate is closer to the voter, the expression is negative, and the voter is predicted to vote Democratic. When the Rule takes on a positive value, the Republican candidate is closer to the voter, and the prediction is a Republican vote. When voters cast a vote consistent with the Proximity Rule, we say they engage in proximity voting.

Facilitators of Proximity Voting in House Elections

Prior to the recent studies on spatial voting in congressional elections (Shor and Rogowski 2012; Simas 2013), we suspect that the prevailing view among behavioral scholars was that voters lack the information necessary to cast ballots consistent with the Proximity Rule. It has long been known that most voters are unaware of congressional candidates' ideological and issue positions (Hurley and Hill 1980), and scholars frequently cite awareness as a necessary condition for proximity voting (cf. Campbell et al. 1960, 169–70). Erikson and Tedin, for example, state one of two conditions they see as necessary for this sort of voting to occur: "voters must be aware of the differences between the policy views of the candidates" (2011, 267). Although spatial models assert that voters act *as if* they were consciously following the proximity rule in making their voting choice, scholars in the behavioral and the spatial-modeling traditions frequently assume that information about candidate positions is an important facilitator, if not a necessary condition, for proximity voting. Political sophistication is a related variable that captures voters' awareness of politics, although it need not imply that voters have specific information about where the candidates in question are located in the ideological space, and has been found to relate to proximity and issue voting (Boatright 2008; Lau, Andersen, and Redlawsk 2008; Lau and Redlawsk 2006).

Involvement by voters in interpersonal network relationships may facilitate proximity voting for multiple reasons. Social networks influence how voters receive and process information (e.g., Berelson, Lazarsfeld, and McPhee 1954; Huckfeldt 2001; Huckfeldt and Sprague 1995), so voters may become informed about candidate positions by discussing politics with members of their network. Alternatively, voters may receive cues from network discussants about how to vote without receiving or retaining information about candidate positions, similar to an online processing model (Lodge, Steenbergen, and Brau 1995; McGraw, Lodge, and Stroh 1990). While we do not have the data necessary to distinguish such processes, we can investigate whether the presence of political experts in voters' social networks helps explain proximity voting in the 2006 House elections.[4]

Finally, a voter's distance from the ideological cut point between the candidates competing in the district may affect proximity voting because voters closer to the indifference point between the candidates may have more difficulty determining their preferences. Likewise, when candidates are more ideologically distinct, other cues to the voter may be animated, resulting in higher levels of proximity voting (Lau, Andersen, and Redlawsk 2008). Several studies have found that candidate divergence increases ideological voting (Abramowitz 1981; Buttice and Stone 2012; Kahn and Kenney 1999; Wright 1978), and Grose and Globetti (2007) found a link between candidate divergence and proximity voting.

[2]The methods for addressing the common-space problem have different strengths and require different assumptions. Among the advantages of an informant design is the ability to select a sample of districts and assure full representation of all districts selected. Informant designs do not require the assumption that voters and candidates react to issue questions (or roll-call choices) in identical ways, but they do require the assumption that voter and informant responses to ideological-placement items are equivalent.

[3]Our findings are robust to whether we use a quadratic loss or linear loss function to calculate the Proximity Rule.

[4]Examining the effect of disagreement between network discussants, Sokhey and McClurg (2012) compare learning and persuasion versus a network heuristic mechanism (unambiguous signals from network discussants serving as a shortcut) and find evidence for a network heuristic mechanism affecting correct voting. While we are not testing the effect of disagreement between network discussants, their evidence for the network heuristic mechanism may be applicable to our network expertise finding as well.

Alternative Decision Rules as Proxies for Proximity Voting

Party identification is a prevalent explanatory variable in voting studies often seen as representing a model of choice competing with spatial models. It is a highly accessible heuristic to most voters, easily linked to voting choice by partisan labels on the ballot, if not necessarily apparent in other ways in the campaign.[5] Thus, party identification, under certain circumstances, may fulfill the "as if" condition for many voters by serving as a proxy for the Proximity Rule, in the sense that voters who choose to support a candidate based on their party identification frequently choose the candidate who is closer to their own ideological preferences. Especially in a highly polarized system, most Democratic voters are closer to the Democratic candidate running in their district than they are to the Republican, with the same true for Republican voters *vis à vis* House candidates in their party. Of course, partisan voting of this sort does not require voters to have knowledge of (or be able to report) the ideological positions of the candidates running in their district.

An effect similar to that of party identification could result from presidential approval. Although President Bush was not on the ballot in 2006, presidential approval was a compelling concern for voters in the 2006 House elections (Grose and Oppenheimer 2007; Jacobson 2009; Stone et al. 2009). If liberals disapproved of President Bush's performance and voted Democratic in House elections in order to express their dissatisfaction with the president, they could act consistent with the Rule, even though their vote was motivated by their attitudes toward George W. Bush rather than a comparison of the local candidates running in their district. Likewise, Republicans seeking to express their support for President Bush could vote for the more conservative candidate in their district. Of course, presidential approval and party identification are correlated, but because the president is so visible in national politics, dissatisfaction with his job performance can cut across party lines.

[5]We prefer the terms "alternative decision rule" or "proxy" to "heuristic" for our purposes to avoid the implication that a variable such as party identification serves as a shortcut to a normatively preferable or more fundamental Proximity Rule. Whether voters acting on partisan or spatial logics are preferable on normative grounds is a complex issue that we cannot fully address. Our point is only that voters acting on the basis of party identification (or presidential approval) frequently also act in a manner consistent with the Proximity Rule.

Additional Covariates

As noted, resource asymmetries have been seen as potentially distorting influences in congressional elections, with incumbency and candidate spending the usual suspects. Or, in the language we have adopted, such variables may be considered "impediments" to proximity voting rather than facilitators. Incumbency and spending elevate a candidate's name recognition, which can encourage voters to support them on nonpolicy grounds. By a similar logic, challengers with office-holding experience may have the resources to distract some voters from casting a proximity vote. However, incumbency, spending, and experienced-challenger entry may be cues that convey ideological information to voters or are associated with other covariates such as candidate divergence. For example, when an incumbent runs for reelection, voters may infer that she is in tune with her district's ideological preferences, which can provide voters with a positive or negative cue depending on their own ideological fit with the district. A similar point can be made about challenger entry and spending, both of which may reflect anticipated electoral prospects linked to a candidate's ideological fit with the district.[6]

Analytic Model

We employ two statistical models to investigate how facilitators and alternative decision rules affect proximity voting. In the first, we treat vote choice in the 2006 midterm elections as the dependent variable to investigate the relationship between the Proximity Rule and vote choice. In this context, we consider ability to place the candidates on the ideological scale as a facilitator of proximity voting that conditions the effect of relative proximity on voting choice. Equation (1) presents the model we employ for this analysis.

$$\begin{aligned}\Pr(\text{Vote Repub.}) = \text{logit}^{-1}\{&\beta_0 + \beta_1(\text{Proximity Rule}) \\ &+ \beta_2(\text{Ability to Place Candidates}) \\ &+ \beta_3(\text{Proximity Rule*Ability to Place}) + \varepsilon\} \quad (1)\end{aligned}$$

If voters' ability to place the candidates in the policy space is a necessary condition for proximity voting, β_3 should exceed 0, while β_1 would equal 0 because it

[6]See Gordon, Huber, and Landa (2007) for a model of challenger entry that conveys substantive information to voters. Lupia and McCubbins (1998) make a similar point.

estimates the effect of the Rule on vote choice among voters unable to place the candidates on the policy dimension on which the Rule is calculated.

While Equation (1) tests whether the effect of the Rule is conditioned on voters' ability to place the candidates, it is cumbersome to estimate all of the effects of interest because of the need for multiple interaction terms. As a result, we switch to what amounts to a ''correct-voting'' model, where a ''correct'' vote is cast for the House candidate who is ideologically closer to the voter. That is, proximity voting (coded 1) occurs when the individual votes for the ideologically closer candidate; if the individual votes for the more distant candidate, the proximity-vote variable is coded 0.

In this setup, we enter facilitator variables such as awareness of the candidate positions, sophistication, expertise in the voter's interpersonal network, distance from the candidate cut point, and candidate ideological divergence as covariates in a logit analysis of proximity voting. A positive effect of awareness indicates that ability to place the candidates enhances proximity voting. Likewise, positive coefficients on other facilitators indicate that these variables are associated with an increased probability of casting a proximity vote.

We test the idea that party identification and presidential approval serve as proxies by investigating whether voting consistent with these alternative rules is associated with an increased probability of proximity voting. Each proxy is coded as consistent (coded 1) or not consistent (coded 0) with a proximity vote. Consistency occurs when the predicted vote based on party identification or presidential approval equals the predicted vote on the Proximity Rule. Thus, a Democratic identifier who is ideologically closer to the Democratic candidate is coded 1 on this variable because she is predicted to vote Democratic based on her party identification *and* by the Proximity Rule. A Democratic identifier who is ideologically closer to the Republican candidate in his district would be coded 0 because party identification is not consistent with the predicted vote on proximity. A similar logic applies to Republican identifiers who are ideologically closer to the Republican candidate (coded 1 on the party-identification proxy) or ideologically closer to the Democratic candidate (coded 0). Strict independents are coded 0 because their party identification cannot serve as a proxy for proximity voting. The same logic applies to presidential approval: disapproval of Bush is coded 1 when the voter is ideologically closer to the Democratic candidate in her district and 0 when the voter is closer to the Republican; approval of Bush is coded 1 for voters ideologically closer to the Republican and 0 for voters closer to the Democrat. Equation (2) expresses our fully specified model, including facilitators, alternative decision rules, and controls.

$$
\begin{aligned}
&\Pr(\text{Proximity Vote}) = \text{logit}^{-1}\{\beta_0 + \ldots \\
&\quad \textit{Facilitators} \\
&\qquad \beta_1(\text{Ability to Place Candidates}) + \\
&\qquad \beta_2(\text{Sophistication}) + \\
&\qquad \beta_3(\text{Network Expertise}) + \\
&\qquad \beta_4(\text{Distance from the Cut Point}) + \\
&\qquad \beta_5(\text{Candidate Ideological Divergence}) + \ldots \\
&\quad \textit{Alternative Decision Rules} \\
&\qquad \beta_6(\text{Party Identification Consistent with Rule}) + \\
&\qquad \beta_7(\text{Presidential Approval Consistent with Rule}) + \ldots \\
&\quad \textit{Controls} \\
&\qquad \beta_8(\text{Voter Ideological Extremity}) + \\
&\qquad \beta_9(\text{Incumbent Ran for Reelection}) + \\
&\qquad \beta_{10}(\text{Democrats Held Seat}) + \\
&\qquad \beta_{11}(\text{Challenger to Incumbent Spending Ratio}) + \\
&\qquad \beta_{12}(\text{Experienced Challenger}) + \\
&\qquad \beta_{13}(\text{District Supplemental Sample}) + \varepsilon\}
\end{aligned}
\tag{2}
$$

Design and Measures

We conducted a survey of political expert informants in 155 congressional districts to estimate the positions of House candidates—challengers as well as incumbents—in the 2006 elections. The expert survey was of delegates to the 2004 national conventions and state legislators resident in the districts, on the assumption that individuals who held these positions would be close observers of the congressional races in their districts. We surveyed experts in both political parties, which allows us to estimate and correct for partisan bias in individual informants' candidate placements.[7] The candidate-placement measures are district means of adjusted individual-expert ratings.

[7]We regress each individual expert's placement of the candidates on party identification (coded 1 = expert and candidate in same party; 0 = independent expert; -1 = expert and candidate in opposing parties). The coefficient indicates the degree of partisan bias across the sample; ratings were corrected by subtracting the coefficient from the individual informant's rating of the candidate.

Using district-expert informants allows us to estimate both the incumbent's and the challenger's positions in the same issue space as voters without relying on voters' perceptions of candidates' positions.[8]

The reliability and validity of district-expert ratings of candidate ideological placements has been investigated in depth (Maestas, Buttice, and Stone, in press). By several standards of reliability (interrater agreement; cross- and within-district variance; see Brown and Hauenstein [2005] and Jones and Norrander [1996]) the aggregated district-candidate placements are highly reliable. We validate the scores for incumbents by correlating them with a combined ADA-NOMINATE score ($r = 0.92$). The correlation remains substantial within party (for Democrats and Republicans respectively, the correlations are 0.72 and 0.56), so the overall correlation is not a simple result of partisan polarization. For the subset of challengers who won in 2006, the correlation between expert placements and NOMINATE scores in the first session after the election was 0.93, which suggests high validity for challengers, at least for those visible enough to win.

The constituent survey was conducted as part of the Cooperative Congressional Election Study (CCES) omnibus 2006 study as the UC Davis module, composed of 1,000 respondents selected from among registered voters in the sample districts. The constituent survey included a liberal-conservative item asking respondents to place themselves on exactly the same 7-point ideological scale as in the informant survey. In estimating individual voters' proximity to the candidates, we assume that candidate placements by district experts is on a scale equivalent to the item used to place individual constituents.

The assumption that our measures of candidate and voter ideological positions are on the same scale merits attention in comparison with other approaches used by scholars to achieve the same end. Our assumption is based on the fact that we used identical items in the informant survey to place the candidates as we presented to voters to place themselves. This 7-point liberal-conservative scale is in wide use in a variety of studies and has been shown to closely relate to alternative ideological measures (Jacobson 2012; cf. Ellis and Stimson 2012). The assumption of equivalence between activist reports of ideological and issue positions and self-reports of mass respondents has a long history in work comparing the positions of activists and voters (Kirkpatrick 1975; McClosky, Hoffmann, and O'Hara 1960; Miller and Jennings 1987). Stone and Rapoport (1994) use activists' perceptions of nomination candidates' ideological positioning to study the effects of candidate extremism. Our equivalence assumption seems more plausible than assumptions required with other methods, as when scholars pose roll-call items as survey questions and assume that voter responses are equivalent to roll-call votes cast in Congress.

The district sample is composed of a random cross-section sample of 100 districts, supplemented with a sample of 55 districts anticipated in the summer of 2006 to be competitive and/or open.[9] All analyses report robust standard errors clustered on the district with the CCES weights on mass respondents.[10] Concepts in our model of proximity vote (Equation 2) are measured as follows:

Ability to place the candidates: we asked respondents to place each party's candidate in their district on the liberal-conservative scale. Respondents correctly placed the candidates if they locate the Democratic candidate in their district to the left of the Republican.

Network expertise: we asked respondents to think of three people with whom they discuss politics; respondents were coded as having an expert in their network if at least one discussant was rated as having above-average political knowledge.[11] If the most informed discussant had an average level of political knowledge, the expertise variable is coded 0.5; and if

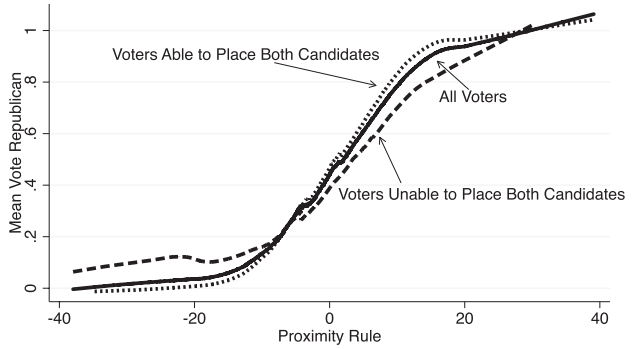
[8]Previous research measures candidates' policy positions using the average of respondents' placements of the candidates' positions, or respondent-specific placements of the candidates' positions (e.g., Adams, Bishin, and Dow 2004; Boatright 2008; Merrill and Grofman 1999), each of which present methodological issues (see Grynaviski and Corrigan [2006] and Macdonald, Rabinowitz, and Listhaug [2007] for more information on these potential measurement issues).

[9]The canvass of districts was conducted in June 2006 and consulted *Congressional Quarterly, Cook Report, Sabato Crystal Ball,* and *National Journal*. The canvass identified 17 districts already included in the random cross section, so strictly speaking, the sample control does not introduce a control for the competitiveness of the race. In analysis not shown, we find that competitiveness of the race does not affect proximity voting.

[10]The data and survey instruments for this study are available on the project website: https://electionstudy.ucdavis.edu.

[11]We measure network expertise as the highest level of expertise among discussants because although citizens consider the opinions of multiple discussants, they typically give more credence to the opinion of discussants with greater knowledge (Richey 2008). Although perceptions of expertise can be biased, voters reliably evaluate the political expertise of their discussants (Huckfeldt 2001; Ryan 2011a).

FIGURE 1 Mean Proportion Voting Republican in 2006 by Relative Proximity and Awareness of Candidate Positions



Note: Lowess curves. Respondents were coded as able to place both candidates if they placed the Democratic candidate to the left of the Republican candidate in their district.

the most informed discussant was below average in political knowledge, expertise is coded 0.[12]

Distance from the cut point: the voter's absolute distance from the midpoint between the candidates' ideological positions in the district.

Candidate ideological divergence: the absolute value of the ideological distance between the opposing candidates.

Sophistication: the sum of correct responses to a battery of 14 items asking respondents how their two U.S. senators voted on seven roll-call items.

Party identification: a standard 7-point scale coded consistent with the Proximity Rule (1) for respondents whose party-identification vote prediction is the same as their Proximity Rule vote prediction; and 0 otherwise.

Presidential approval: a 4-point scale coded consistent with the Rule (1) for respondents who (dis)approve of Bush and whose Proximity Rule vote prediction is the (Democratic) Republican candidate; 0 otherwise.

Ideological extremity: absolute value of the voter's ideological position.

Campaign spending ratio: ratio of logged incumbent to challenger spending.[13]

[12]Fifty-one percent of the sample are coded as in an expert network.

[13]In open-seat districts, spending is the ratio of logged spending by the incumbent party's candidate to the non-incumbent party's candidate spending. Data for spending, whether the incumbent ran for reelection and whether the challenger has previous office-holding experience, were generously provided by Gary Jacobson.

Results

Figure 1 provides the simplest possible test of the effect of the Proximity Rule on voting choice in the 2006 elections, conditioned on voters' ability to place the two candidates in their district on the liberal-conservative scale. We provide the comparison between aware and unaware voters because of the conventional view that awareness of candidates' positions is necessary for proximity voting. The solid line plots the average vote Republican as the Rule varies from voters much closer to the Democratic candidate than to the Republican in their district (negative scores) to indifference on the relative proximity scale (zero indicates voters who are at the cut point between the candidates) to voters who are increasingly close to the Republican candidate relative to the Democrat (positive scores). The curve denoting respondents able to place both candidates is slightly steeper than the curve for the full sample, while the curve for respondents who do not meet the awareness condition deviates only slightly the other way (and is somewhat noisier). Figure 1 shows that voters generally behave consistent with the Proximity Rule, regardless of their ability to place the candidates.

Table 1 provides a formal test by estimating Equation (1). Model 1 indicates that while ability to place both candidates on the ideological scale enhances

TABLE 1 Proximity, Ability to Place Candidates, Sophistication, and Vote Choice

	Vote Republican	
	Model 1	**Model 2**
Proximity Rule	0.150***	0.114***
	(0.04)	(0.04)
Ability to place Candidates	0.212	0.251
	(0.31)	(0.32)
Sophistication		-0.029
		(0.03)
Proximity Rule * Ability to Place	0.161***	0.152***
	(0.05)	(0.06)
Proximity Rule * Sophistication		0.006
		(0.01)
Intercept	-0.392*	-0.222
	(0.22)	(0.32)
N	622	622
χ^2	109.72	107.25
Log-Likelihood	-207.15	-205.95
Pseudo R^2	0.496	0.499

Note: Table entries are logit coefficient estimates and robust standard errors clustering on district in parentheses.
Significance levels: $^*p < 0.10$ $^{**}p < 0.05$ $^{***}p < 0.01$.

TABLE 2 Percent Agreement Between the Proximity Rule and Alternative Decision Rules

	Proxy and Proximity Rule Agree			Proxy and Proximity Rule Do Not Agree		
	Full Sample	Aware	Unaware	Full Sample	Aware	Unaware
Party Identification	81	81	79	19	19	21
Presidential Approval	80	84	70	20	16	30

Note: All cell values are percentages. N is 622 for the full sample of voters. "Do not agree" includes when the proxy and the Proximity Rule conflict or have no prediction. Less than 2% of the sample is equidistant between the candidates and thus has no prediction on relative proximity. Less than 8% are unpredicted by party identification (i.e., strict independents). Presidential approval does not have a middle category and thus always has a prediction.

proximity voting, it is not a necessary condition for voting consistent with the spatial rule. Model 2 in Table 1 adds general political sophistication and an interaction between sophistication and the Proximity Rule. The results of Model 2 suggest that the effect of ability to place the candidates is not due to general political sophistication. Being generally well-informed about politics does not reduce the effect of being informed about the positions of the candidates. Note that the main effect of the Proximity Rule in both equations is strong and significant, indicating that individuals unable to place the candidates who are uninformed on the sophistication battery of questions nonetheless vote consistent with the spatial model.

Explaining Proximity Voting

Our approach is to treat proximity voting as a dependent variable, where a "correct" vote is one cast for the ideologically closer candidate. To begin, we illustrate how party identification and presidential approval can serve as proxies for the Proximity Rule, even for voters unable to place the candidates. Table 2 presents the percentages of voters whose predicted vote based on the Proximity Rule and each proxy agree and do not agree.[14] The percentages are shown for the full sample of respondents and for the subsamples of respondents who are aware and unaware of the positions of the candidates on the liberal-conservative scale.

As noted, voters may choose on the basis of party, especially in a polarized environment, and vote consistent with the Proximity Rule a high proportion of the time. Indeed, as seen in Table 2, a predicted vote based on party identification alone produces exactly the same expected outcome as the Rule for 81% of our sample. Among those unable to place the candidates, the agreement is essentially identical with 79% of the sample in agreement between the two variables. The agreement between predicted vote based on the Rule and presidential approval is also substantial.[15] For both party identification and presidential approval, the agreement between the proxy and the Proximity Rule is slightly greater for respondents who are aware of the candidates' positions.

Table 3 shows how agreement between the alternative rules and the Proximity Rule produces proximity voting. Only 10.0% of respondents whose party identification and presidential approval did not agree with the Proximity Rule voted consistent with the Rule, while fully 96.7% of individuals whose party identification and presidential approval aligned with each other and the Proximity Rule voted for the candidate in their district ideologically closer to them. Note as well that individuals in this situation of alignment constituted over 70% of the entire sample.[16] Presidential approval has a stronger effect on proximity voting than party identification, although both variables, when they agree with the Proximity Rule, contribute to proximity voting.

Table 4 presents a multivariate analysis of proximity voting.[17] The first set of covariates are "facilitators" hypothesized to increase the probability of casting a vote consistent with the Proximity Rule. The conventional expectation that ability to place the candidates is a necessary (or even an important) condition for proximity voting is not supported in these results. The coefficient on respondents' ability to place the candidates on the liberal-conservative scale is not significant, a result that is insensitive to whether we

[14]The percentages for when the proxy and the Proximity Rule do not agree include when either variable has no prediction.

[15]The correlation between party identification and presidential approval is 0.79.

[16]The effects of awareness of candidate positions remain modest, but detectable. For example, 93.4% of respondents unable to place both candidates, but whose party identification, presidential approval, and proximity to the candidates were in alignment cast a proximity vote.

[17]The results presented in Table 4 are robust to additional controls such as race, gender, education, income, strength of partisanship, and activist participation.

TABLE 3 Percent Voting Consistent with Proximity Rule by Agreement between Alternative and Proximity Rules

		Agreement between Party Identification and Proximity Rule	
		Not in Agreement	In Agreement
Agreement between presidential approval and Proximity Rule	Not in Agreement	10.0% (13.5)	73.4% (7.1)
	In Agreement	95.1% (6.8)	96.7% (72.7)

Note: Percent of sample in parentheses. N = 622.

include sophistication in the analysis (which is also not significant).[18] Important facilitator variables in our analysis include network expertise, distance from the ideological cut point between candidates, and the ideological divergence between the candidates running in the district. When a voter is in a network with at least one political expert, compared to a voter in a network with no political experts, the probability of casting a proximity vote increases by 0.12, all else equal. That the network expertise effect is independent of awareness of candidate positions and sophistication suggests that experts in interpersonal networks may be providing cues to voters about how to vote. Network expertise has a modest effect on ability to place the candidates (analysis not shown), which indicates informational benefits to being exposed to political expertise in interpersonal networks. Note that voters' distance from the cut point has a strong effect on proximity voting, independent of the ideological extremism of the voter—when a voter is farther from the cut point, the probability of a proximity vote increases by 0.11, other things equal.[19]

Party identification and presidential approval have strong and significant effects on proximity voting. When party identification agrees with the Proximity Rule, the probability of a proximity vote increases by 0.17, while the increase associated with agreement between presidential approval and the Rule is 0.34. These strong effects are not surprising, given the extent of partisan polarization in 2006. Thus, a right-of-center voter was likely to be a Republican and to vote for the Republican candidate, while a left-of-center voter was even more likely to be a Democrat who voted for the Democratic House candidate.

The large effect of presidential approval relative to party identification may be surprising and bears further investigation. The relative effects of presidential approval and party identification are much more evenly balanced among partisans; it is among independents that the effect of agreement between presidential approval and proximity voting is magnified most dramatically.[20] The presidential approval question, which did not allow for a neutral position, contributes to the larger effect of presidential approval for independents compared to partisans. Presidential approval, moreover, is a short-term influence on midterm voting, which may cause voters to defect from party identification in House elections. Bush's unpopularity, the high level of dissatisfaction with the war in Iraq, and the visibility of the president meant that presidential approval served as a powerful factor guiding voters toward proximity voting in the 2006 House elections.

When an incumbent ran, proximity voting increased modestly. While there are several possible reasons for this, it does suggest that incumbency did *not* have a distorting effect on voters' tendency to follow the Proximity Rule. Voters may infer that an incumbent running for reelection indicates confidence in the incumbent's reelection prospects, which should be sensitive to the ideological fit between the incumbent and the district. Voters who are aware of the general ideological predisposition of their district may thus be able to infer information about the incumbent's ideological stands and accordingly increase their chances of voting consistent with the spatial rule.

Party Identification as a Distorting Influence?

The potential for distorting influences on voters' inclination to follow the Proximity Rule returns us to the effect of party identification, which has been considered by

[18]When we test the effect of ability to place the candidates and sophistication as lone predictors of proximity voting, both have significant, but modest, effects.

[19]Voter extremism and distance from the cut point are correlated but far from identical. The cut point between the candidates varies on the 7-point liberal-conservative scale from -1.0 to +2.0.

[20]The marginal effect of presidential approval on proximity voting is 0.28 among Democrats, 0.27 among Republicans, and 0.47 among independents.

Table 4 Facilitators, Alternative Decision Rules, and Proximity Voting

	Proximity Vote	
	Coefficient (Std. Error)	Estimated Effect
Facilitators		
Ability to Place Candidates	0.363	NS
	(0.47)	
Sophistication	-0.032	NS
	(0.06)	
Network Expertise	2.048***	0.12
	(0.54)	
Distance from the Cut Point	1.214***	0.11
	(0.35)	
Candidate Ideological Divergence	0.314*	0.02
	(0.16)	
Alternative Decision Rules		
Party Identification Consistent with Rule	2.193***	0.17
	(0.46)	
Presidential Approval Consistent with Rule	3.332***	0.34
	(0.42)	
Controls		
Voter Ideological Extremity	-0.319	NS
	(0.32)	
Incumbent Ran for Reelection	1.115**	0.06
	(0.46)	
Democrats Held Seat	-1.090**	-0.06
	(0.52)	
Incumbent to Challenger Spending Ratio	1.598	NS
	(1.41)	
Experienced Challenger	0.456	NS
	(0.45)	
District Supplemental Sample	0.538	NS
	(0.37)	
Intercept	-7.948***	
	(1.68)	
N	622	
χ^2	166.04	
Log-Likelihood	-105.77	
Pseudo R^2	0.607	

Note: Table entries are coefficient estimates and robust standard errors clustering on district in parentheses. Estimated effects for dichotomous variables are set 0 to 1; for continuous variables set to the 25th and 75th percentiles. NS indicates the variable is not significant.
Significance levels: $^*p < 0.10$ $^{**}p < 0.05$ $^{***}p < 0.01$.

recent scholars of the spatial model as a distorting variable (Shor and Rogowski 2012; Simas 2013). In contrast, we treat party identification as a proxy that can produce proximity voting. As the evidence in Tables 3 and 4 indicates, when individuals vote their party identification, they usually cast a proximity vote. This positive effect of party identification on proximity voting can also be seen by comparing the rates of proximity voting of independents, 69.6% of whom cast a proximity vote in 2006, with that of partisans (83.9%).

How, then, can party identification be considered a distorting influence? The authors cited above show graphic representations of the effect of the Proximity Rule on voting choice for Democrats, Independents, and Republicans, and all show steeper curves for independents than for partisans. All suggest that proximity therefore operates more forcefully on independents than on partisans.[21] The larger coefficient for independents indicates that they are more responsive than partisans to variation in relative proximity to the candidates, but it does *not* indicate higher levels of proximity voting among independents than partisans. Analysis of this sort ignores the relationship between ideological proximity and partisanship: most voters who are closer to the Democratic candidate identify as Democrats; most voters who are closer to the Republican candidate identify as Republicans.

There is an important condition under which party identification is a distorting influence on proximity voting: when party identification and the Proximity Rule are in conflict. Table 5 demonstrates that the Proximity Rule had only a modest effect on Democrats who were closer to the Republican candidate in their district with about a 7 percentage-point increase in the Republican vote for Democratic candidates. There was a stronger effect among Republicans, but more than two-thirds of Republicans closer to the Democratic candidate in their district voted Republican, against the prediction of the spatial model. Thus, partisanship deterred most cross-pressured voters from casting a proximity vote. However, it is also true that the vast majority of voters (87.3% of partisans) were not cross pressured between their party identification and the logic of the spatial model. A multivariate analysis that enters partisans, independents, and the Proximity Rule in a voting-choice model will show a stronger coefficient of proximity for independents than for partisans because the coefficient estimates in the model ignore the correlation between party identification and proximity to the candidates. Our analysis, in contrast, is based on the premise that the correlation between party identification and proximity to the candidates is the reason that party identification can serve as a proxy for voting consistent with the spatial logic.

[21]This pattern of a larger coefficient on relative proximity for independents than for partisans replicates in our 2006 data. Consistent with our argument, Jessee (2012, 98) shows that partisans were more likely than independents to cast a spatially-correct vote in the 2004 and 2008 presidential elections.

TABLE 5 Percent Voting Republican by Party Identification and Voter Proximity to Candidates

		Party Identification	
		Democrat	Republican
Voter was Closer to:	Democratic Candidate	3.7% (43.8)	70.9% (5.8)
	Republican Candidate	10.5% (6.9)	93.0% (43.5)

Note: Percent of sample in parentheses. Independents excluded from analysis. N = 568.

Whether party identification has a distorting effect on voters' propensity to vote according to the spatial model raises an important question about our analysis: how do we know that party identification and presidential approval are not more fundamental decision rules for voters than the Proximity Rule? That is, by showing that these rules serve as "proxies" for spatial voting, are we not also showing that the spatial model may have little or no explanatory power over and above party identification and presidential approval? If spatial voting is just a by-product of party identification, where does that leave it as a basis for understanding how voters and candidates behave in congressional elections? Posed in this way, the question points us toward the observational equivalence between party identification (and presidential approval) and proximity voting for a substantial majority of voters. Whether the spatial model should be considered in some sense more fundamental than party identification in models of behavior, then, depends on what we make of the correlation between ideology and party.

Without pretending to resolve this question, it is worth noting the evidence in Table 4 that supports effects linked to the spatial model. The voters' distance from the cut point between the candidates is an obvious example: voters relatively close to the ideological indifference point are much less likely to cast a vote consistent with the Proximity Rule than voters relatively distant from the cut point (Jessee 2012, 97). This combined with the effect of candidate divergence suggest the importance of candidate positioning in explaining proximity voting.

Conclusion

The consideration of party identification as a possible distorting influence touches larger issues related to our analysis. We do not argue that proximity voting is necessarily preferred on normative grounds to alternative decision rules, including party and presidential approval. Proximity voting is one normatively defensible rule in representative democracies, but we would be reluctant to privilege it without a good deal more information. For example, an individual who voted in 2006 with her party identification by choosing the more ideologically distant candidate in her district may have seen her vote as a judgment against the Republican Party and its policies, rather than an evaluation of the two candidates running in her district. Similarly, a voter could have wished to punish President Bush for his policies in Iraq, even if the local Republican candidate was closer on ideology (or, for that matter, on the Iraq war). To be sure, these alternative rules may reflect little thought or policy content, as when party is a socialized attitude without much substantive content or when a voter is motivated by feelings of spite or attraction to a president without concern for policy or performance.

Whatever one makes of the normative status of the decision rules we consider, the fact that such a large percentage of voters cast proximity votes in low-information elections is evidence of an electorate more capable of advancing its interests than the standard accounts in the congressional-elections literature suggest. While a significant proportion of the sample in our study could not place the candidates running in their districts on the liberal-conservative scale, the degree to which their voting choices followed the Proximity Rule easily outruns what we would expect based on the assumption that placing the candidates is a necessary condition. Indeed, people appear to vote consistent with their fundamental interests a good deal more than expected based on the low visibility, low levels of information, and resource differentials between candidates in U.S. House elections. Voters do not invest heavily in gathering information about the candidates and their campaigns in low-visibility races, but neither are they without resources to make reasonable choices that come surprisingly close to maximizing their ideological interests (cf. Boudreau, Elmendorf, and MacKenzie 2013).

It is striking how weak the effects of awareness of candidate positioning on proximity voting ultimately are in our analysis. While awareness strengthens the effect of the Proximity Rule on voting choice in a simple model of proximity voting, its impact disappears once we account for a fuller set of explanations. Yet we do not conclude that awareness of candidate positioning is irrelevant. Partisans, for example, may be more likely than independents to absorb information about

candidate positioning from the campaign. Likewise, voters in social networks with informed discussants are more likely to become aware of candidate positions. Thus, although we are confident in concluding that awareness is nothing like a necessary condition for proximity voting, the various rules that voters rely on to cue their voting choice may also be associated with awareness and be part of the reason facilitators and proxies explain proximity voting.

It appears that a greater focus on the effects of contextual factors and interpersonal networks in these elections could significantly enhance our understanding of how voters navigate the congressional-elections process (Huckfeldt et al. 2007). Being in an interpersonal network with at least one political expert increases the likelihood a voter engages in proximity voting. Unfortunately, our data do not allow us to probe in greater depth the mechanisms whereby network expertise enhances the impact of the Rule among uninformed voters. That is an obvious avenue for future research. Furthermore, the partisanship of network discussants and frequency of discussion with network experts may influence the likelihood of proximity voting and correct voting (Ryan 2010, 2011b; Sokhey and McClurg 2012), so partisanship and discussion frequency are also other avenues for future research.

Our analysis and findings are limited to a single midterm election, although the inclusion of a large number of districts provides important variation in the political context to which voters react. Nonetheless, there are inevitable limits that result from studying a single election. The strongly Democratic national tide helped shape some of our findings, and the relatively low turnout in midterm elections influences the nature of the electorate under study. Another factor that we are sure affects our results is partisan polarization. If we had comparable data from a period when the parties were less divided and the electorate less sorted along partisan and ideological lines, the overlap between party identification and ideology would be lower, reducing the ability of party identification to serve as a proxy for spatial voting. In such an environment, other factors such as network expertise and awareness of candidate positioning might well weigh more heavily.

Finally, a conclusion suggested by our analysis (along with the broader literature on social context and interpersonal networks) is that survey studies that attempt to explain citizens' behavior on the basis of variables measured by the survey design come away with a far too atomized view of the voter. That approach has led to an overemphasis on the information levels and other variables related to the "capacity" of the voter to meet the demands of effective participation in democratic politics (Sniderman 2000). While such an approach can find the voter wanting, it ignores the social and political context from which individuals can glean bits of information and guidance that help produce reasonable decisions. This is a perspective that needs to be incorporated more fully into our study of congressional elections. Spatial models are useful because they introduce an explicitly political dimension—candidate positions—into the analysis. As we have seen, candidate positions are an important part of voter response, whereas the relevance of voter information levels has been overstated.

Acknowledgments

A previous version was presented at the 2012 Annual meeting of the Midwest Political Science Association. We appreciate support from the UC Davis Department of Political Science for a summer collaborative grant to facilitate this research. Bob Huckfeldt collaborated on the design of the 2006 UC Davis module, and Cheryl Boudreau, Matt Buttice, and John B. Ryan offered helpful comments and suggestions on earlier drafts.

References

Abramowitz, Alan I. 1981. "Choices and Echos in the 1978 U.S. Senate Elections: A Research Note." *American Journal of Political Science* 25 (1): 112–18.

Adams, James, Benjamin G. Bishin, and Jay K. Dow. 2004. "Representation in Congressional Campaigns: Evidence for Discounting/Directional Voting in U.S. Senate Elections." *Journal of Politics* 66: 348–73.

Ansolabehere, Stephen, James M. Snyder, and Charles Stewart, III. 2001. "Candidate Positioning in U.S. House Elections." *American Journal of Political Science* 45: 136–59.

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: 519–42.

Berelson, Bernard R., Paul F. Lazarsfeld, and William N. McPhee. 1954. *Voting: A Study of Opinion Formation in a Presidential Campaign*. Chicago: University of Chicago Press.

Boatright, Robert Guy. 2008. "Who are the spatial voting violators?" *Electoral Studies* 27: 116–25.

Boudreau, Cheryl, Christopher S. Elmendorf, and Scott A. MacKenzie. 2013. "Lost in Space? Shortcuts and Spatial Voting in Low-Information Elections." Working Paper, UC Davis.

Brown, Reagan D., and Neil M. A. Hauenstein. 2005. "Interrater Agreement Reconsidered: An Alternative to the rwg Indices." *Organizational Research Methods* 8 (2): 165–84.

Buttice, Matthew K., and Walter J. Stone. 2012. "Candidates Matter: Policy and Quality Differences in Congressional Elections." *Journal of Politics* 74 (3): 870–87.

Campbell, Angus, Philip E. Converse, Warren E. Miller, and Donald E. Stokes. 1960. *The American Voter*. New York: Wiley.

Caplan, Bryan. 2007. *The Myth of the Rational Voter: Why Democracies Choose Bad Policies*. Princeton, NJ: Princeton University Press.

Converse, Philip E. 1964. The Nature of Belief Systems in Mass Publics. In *Ideology and Discontent*, ed. David E. Apter. Free Press, 206–61.

Delli Carpini, Michael X., and Scott Keeter. 1996. *What Americans Know about Politics and Why It Matters*. New Haven, CT: Yale University Press.

Ellis, Christopher, and James A. Stimson. 2012. *Ideology in America*. Cambridge: Cambridge University Press.

Erikson, Robert S., and Kent L. Tedin. 2011. *American Public Opinion*. New York: Longman.

Gordon, Sanford C., Gregory A. Huber, and Dimitri Landa. 2007. "Challenger Entry and Voter Learning." *American Political Science Review* 101 (2): 303–20.

Grose, Christian R., and Bruce I. Oppenheimer. 2007. "The Iraq War, Partisanship, and Candidate Attributes: Variation in Partisan Swing in the 2006 U.S. House Elections." *Legislative Studies Quarterly* 32 (4): 531–57.

Grose, Christian R., and Suzanne Globetti. 2007. "Valence Voters: Images, Issues, and Citizen Vote Choice in U.S. Congressional Elections." Presented at the Annual Meeting of the Midwest Politial Science Association.

Grynaviski, Jeffrey D., and Bryce E. Corrigan. 2006. "Specification Issues in Proximity Models of Candidate Evaluation (with Issue Importance)." *Political Analysis* 14: 393–420.

Huckfeldt, Robert. 2001. "The Social Communication of Political Expertise." *American Journal of Political Science* 45: 425–38.

Huckfeldt, Robert, Edward G. Carmines, Jeffery J. Mondak, and Eric Zeemering. 2007. "Information, Activation, and Electoral Competition in the 2002 Congressional Elections." *Journal of Politics* 69: 798–812.

Huckfeldt, Robert, and John Sprague. 1995. *Citizens, Politics, and Social Communication: Information and Influence in an Election Campaign*. Cambridge: Cambridge University Press.

Hurley, Patricia A., and Kim Quaile Hill. 1980. "The Prospects for Issue-Voting in Contemporary Congressional Elections: An Assessment of Citizen Awareness and Representation." *American Politics Research* 8: 425–48.

Jacobson, Gary C. 2009. "The President, the War, and Voting Behavior in the 2006 House Elections." In *Fault Lines: Why the Republicans Lost Congress*, eds. Jeffery J. Mondak and Dona-Gene Mitchell. New York: Routledge. 128–47.

Jacobson, Gary C. 2012. "The Electoral Origins of Polarized Politics: Evidence From the 2010 Cooperative Congressional Election Study." *American Behavioral Scientist* 56 (12): 1612–30.

Jessee, Stephen A. 2010. "Partisan Bias, Political Information and Spatial Voting in the 2008 Presidential Election." *Journal of Politics* 72 (2): 327–40.

Jessee, Stephen A. 2012. *Ideology and Spatial Voting in American Elections*. Cambridge: Cambridge University Press.

Jones, Bradford S., and Barbara Norrander. 1996. "The Reliability of Aggregated Public Opinion Measures." *American Journal of Political Science* 40 (1): 295–309.

Kahn, Kim Fridkin, and Patrick J. Kenney. 1999. *The Spectacle of U.S. Senate Campaigns*. Princeton, NJ: Princeton University Press.

Kirkpatrick, Jeane. 1975. "Representation in American National Conventions: The Case of 1972." *British Journal of Political Science* 5: 265–322.

Lau, Richard R., David J. Andersen, and David P. Redlawsk. 2008. "An Exploration of Correct Voting in Recent U.S. Presidential Elections." *American Journal of Political Science* 52 (2): 395–411.

Lau, Richard R., and David P. Redlawsk. 1997. "Voting Correctly." *American Political Science Review* 91 (3): 585–98.

Lau, Richard R., and David P. Redlawsk. 2006. *How Voters Decide: Information Processing in Election Campaigns*. Cambridge: Cambridge University Press.

Lodge, Milton, Marco R. Steenbergen, and Shawn Brau. 1995. "The Responsive Voter: Campaign Information and the Dynamics of Candidate Evaluation." *American Political Science Review* 89: 309–26.

Lupia, Arthur, and Mathew D. McCubbins. 1998. *The Democratic Dilemma: Can Citizens Learn What They Need to Know?* Cambridge: Cambridge University Press.

Macdonald, Stuart Elaine, George Rabinowitz, and Ola Listhaug. 2007. "Simulating Models of Issue Voting." *Political Analysis* 15: 406–27.

Maestas, Cherie D., Matthew K. Buttice, and Walter J. Stone. In press. "Extracting Wisdom from Experts and Small Crowds: Strategies for Improving Informant-Based Measures of Political Concepts." *Political Analysis*.

McClosky, Herbert, Paul J. Hoffmann, and Rosemary O'Hara. 1960. "Issue Conflict and Consensus Among Party Leaders and Followers." *American Political Science Review* 54 (2): 406–27.

McGraw, Kathleen M., Milton Lodge, and Patrick Stroh. 1990. "On-line Processing in Candidate Evaluation: The Effects of Issue Order, Issue Importance, and Sophistication." *Political Behavior* 12 (1): 41–58.

Merrill, III, Samuel, and Bernard Grofman. 1999. *A Unified Theory of Voting: Directional and Proximity Spatial Models*. Cambridge: Cambridge University Press.

Miller, Warren E., and M. Kent Jennings. 1987. *Parties in Transitions: A Longitudinal Study of Party Elites and Party Supporters*. New York: Russell Sage.

Richey, Sean. 2008. "The Autoregressive Influence of Social Network Political Knowledge on Voting Behaviour." *British Journal of Political Science* 38: 527–42.

Ryan, John Barry. 2010. "The Effects of Network Expertise and Biases on Vote Choice." *Political Communication* 27: 44–58.

Ryan, John Barry. 2011a. "Accuracy and Bias in Perceptions of Political Knowledge." *Political Behavior* 33: 335–56.

Ryan, John Barry. 2011b. "Social Networks as a Shortcut to Correct Voting." *American Journal of Political Science* 55 (4): 752–65.

Shor, Boris, and Jon C. Rogowski. 2012. "Congressional Voting by Spatial Reasoning, 2000-2010." Working Paper, University of Chicago.

Simas, Elizabeth N. 2013. "Proximity Voting in the 2010 U.S. House Elections." *Electoral Studies* 32: 1–10.

Sniderman, Paul M. 2000. Taking Sides: A Fixed Choice Theory of Political Reasoning. In *Elements of Reason: Cognition, Choice, and the Bounds of Rationality*, eds. Arthur Lupia, Mathew D. McCubbins, and Samuel L. Popkin. Cambridge: Cambridge University Press, 67–84.

Sniderman, Paul M., Richard A. Brody, and Philip E. Tetlock. 1993. *Reasoning and Choice: Explorations in Political Psychology*. Cambridge: Cambridge University Press.

Sokhey, Anand Edward, and Scott D. McClurg. 2012. "Social Networks and Correct Voting." *Journal of Politics* 74 (3): 751–64.

Stone, Walter J., Nathan J. Hadley, Rolfe D. Peterson, Cherie D. Maestas, and L. Sandy Maisel. 2009. "Candidate Entry, Voter Response, and Partisan Tides in the 2002 and 2006 Elections." In *Fault Lines: Why the Republicans Lost Congress*, eds. Jeffery J. Mondak and Dona-Gene Mitchell. New York: Routledge, 61–83.

Stone, Walter J., and Ronald B. Rapoport. 1994. "Candidate Perception among Nomination Activists: A New Look at the Moderation Hypothesis." *Journal of Politics* 56 (4): 1034–52.

Wright, Gerald C. 1978. "Candidates' Policy Positions and Voting in U.S. Congressional Elections." *Legislative Studies Quarterly* 3 (3): 445–64.

Danielle A. Joesten is a Ph.D. candidate in the Department of Political Science at the University of California, Davis, CA 95616.

Walter J. Stone is a Professor in the Department of Political Science at the University of California, Davis, CA 95616.