# SHOULD THE DEMOCRATS MOVE TO THE LEFT ON ECONOMIC POLICY?<sup>1</sup>

### BY ANDREW GELMAN AND CEXUN JEFFREY CAI

## Columbia University

Could John Kerry have gained votes in the 2004 Presidential election by more clearly distinguishing himself from George Bush on economic policy? At first thought, the logic of political preferences would suggest not: the Republicans are to the right of most Americans on economic policy, and so in a one-dimensional space with party positions measured with no error, the optimal strategy for the Democrats would be to stand infinitesimally to the left of the Republicans. The median voter theorem suggests that each party should keep its policy positions just barely distinguishable from the opposition.

In a multidimensional setting, however, or when voters vary in their perceptions of the parties' positions, a party can benefit from putting some daylight between itself and the other party on an issue where it has a public-opinion advantage (such as economic policy for the Democrats). We set up a plausible theoretical model in which the Democrats could achieve a net gain in votes by moving to the left on economic policy, given the parties' positions on a range of issue dimensions. We then evaluate this model based on survey data on voters' perceptions of their own positions and those of the candidates in 2004.

Under our model, it turns out to be optimal for the Democrats to move slightly to the *right* but staying clearly to the left of the Republicans' current position on economic issues.

- 1. Introduction. In the 2004 presidential election campaign, it has been suggested that voters saw little difference between the parties on economics but large differences on other issues. The Democrats are traditionally closer than the Republicans to the average voter's view on the economy. Should the Democrats have moved to the left on economic issues? Could such a strategy win them votes? We study this using a theoretical model and survey data.
- 1.1. Candidate positions and the median voter theorem. In a two-party system the median voter theorem states that it is in each party's best interest to move toward the center (the median) of the distribution of voters [Hotelling (1929) and Downs (1957)]. If either party is not at the median, the other party has a winning

Received November 2007; revised November 2007.

<sup>&</sup>lt;sup>1</sup>Supported by U.S. National Science Foundation and the Columbia University Applied Statistics

Key words and phrases. Median voter, Presidential election, public opinion, spatial model of voting.

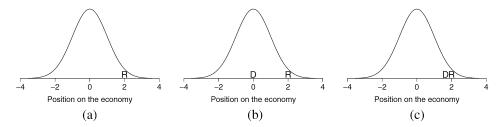


FIG. 1. Some possibilities in a one-dimensional spatial model: the curve indicates the opinions of voters on economic issues, and D and R show the positions of the Democratic and Republican parties, respectively. In all three pictures the Republicans are right of center. In (b), the Democrats are at the median voter; in (c), the Democrats are just barely to the left of the Republicans, thus optimizing their vote share if the Republicans are not free to move. (We are assuming here that the Republican position is fixed, perhaps because they are the incumbent party or perhaps because of strong policy preferences.)

strategy. For example, in Figure 1(a) the Republicans have a position to the right of the average voter. If the Democrats sit at the median [see Figure 1(b)], they will attract more than half the voters. But the Democrats will do even better by moving just infinitesimally to the left of the Republicans [see Figure 1(c)] and getting the votes of everyone to the left.

This analysis ignores the possibility that the Republicans can also move (an issue to which we return in Section 4). If both parties are free to move to optimize their votes, they will converge to an equilibrium where they are both at the median.

The median voter theorem is regularly falsified by actual data. Politicians regularly depart from the median [Poole and Rosenthal (1997)] despite there being clear evidence of an electoral benefit for having moderate positions [Gelman and Katz (2005)]. Legislators' distances from the median have been found to be correlated with district characteristics [Gerber and Lewis (2004)]. There are many practical reasons for politicians to move away from the center. Ideological positioning is only one of the factors influencing election outcomes, and a candidate might well, for example, sacrifice an estimated 2% of the vote in order to be better positioned to implement desired policies in the event of an election victory. There are also other constituencies to satisfy (including campaign contributors, party activists and primary election voters). We are assuming that ideological stances reflect real policy issues—or, to put it another way, we are assuming that the candidates have already performed whatever ideological posturing they can, and that changes in their spatial "locations" can be effected only by changes in policy positions.

The median voter theorem also becomes more complicated with constraints on candidate positions, multiple issue dimensions, and variation among voters in perceptions of candidates. These are the directions we explore in this paper, to see whether the Democrats might gain from moving to the left on economic issues, apparently contradicting the one-dimensional picture in Figure 1.

**2. Simple theoretical models.** We shall illustrate the potential benefits for the Democrats to move using a simple spatial voting model with error [following Erikson and Romero (1990)] in one, two and three dimensions. In each model we set up a simple unimodal distribution for voter preferences, place the two parties in this distribution, and then consider what happens to the Democrats' share of the vote if we change their position on the economic dimension.

# 2.1. Spatial voting models in 1, 2 and 3 dimensions.

One-dimensional model. We stipulate that voters' individual positions on the economy follow a unit normal distribution, with negative and positive values being liberal and conservative. We further assume that the Republicans' position is +2 (very conservative) and that the Democrats start at +1 (somewhat conservative). If we now let the Democrats move freely, it is clear that their optimal position is around +1.9999, so that they will get all the votes of the people to their left. [See Figure 1(c).] This is the sort of reasoning that leads the Democrats to move as close as possible to the Republicans while staying just slightly toward the center.

This model also predicts that the Democrats will get over 90% of the vote! In actual elections, though, the Republicans actually do pretty well, but maybe not specifically because of their conservative economic policies on issues such as tax rates, trade, the minimum wage, and so forth.

Two-dimensional model. We now move to a two-dimensional model, whose dimensions we label as "economic issues" and "all other issues." Figure 2(a) shows our assumptions: the voters have a bivariate normal distribution with correlation 0.5 (fiscal conservatives are commonly, but not always, social conservatives), the Republicans are at (+2, +1)—very conservative in economic policy, somewhat conservative otherwise—and the Democrats are at (+1, -2)—moderately conservative economically, very liberal otherwise. Finally, we assume the two dimensions are equally important and that a voter will prefer the candidate who is closer (in Euclidean distance).

In Figure 2(a) more voters are closer to the Republicans' position than to the Democrats'. Although the Democrats are slightly more moderate on economic issues, they are further from the majority of the voters.

Now suppose the Democrats have the freedom to alter their position—but only on the economic dimension (see Section 4 for discussion of this point). Should they move leftward (toward the median voter) or rightward (toward the Republicans, in the way that would be recommended from the one-dimensional model)? The answer is: unlike in one dimension, the Democrats should move to the left! Figure 2(b) shows that if the Democrats move to (0, -2), they pick up votes from the Republicans.

More generally, Figure 3(a) (computed by simulation using 10,000 voters randomly-sampled from the bivariate normal distribution) shows the proportion

2

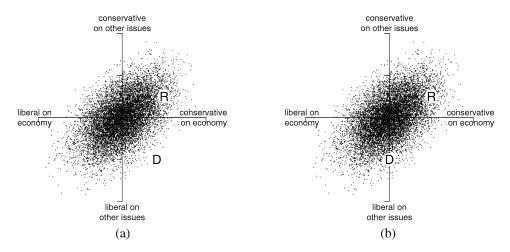


FIG. 2. Some possibilities in a two-dimensional spatial model: the points in the scatterplot indicate the opinions of voters on economic and other issues, and D and R show the positions of the Democratic and Republican parties, respectively. In both pictures the Republicans are right of center on economics and on other issues, and the Democrats are left of center on other issues. In (a), the Democrats are at just barely to the left of the Republicans on economics; in (b), the Democrats are at the median. Unlike in the one-dimensional scenario (see Figure 1), the Democrats are better off separating themselves from the Republicans on economic issues.

of voters who would prefer the Republicans, under the spatial model, as a function of the Democrats' position. In this configuration the Democrats benefit by being

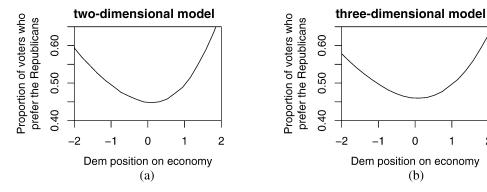


FIG. 3. (a) Proportion of voters who would prefer the Democrats, as a function of the party's position on the economy, assuming that the Democrats' positions on other issues is fixed at -2 and that the Republicans' positions are fixed at +2 on the economy and +1 on other issues; see Figure 2. Under these conditions, the Democrats are best off being very slightly to the right of center. They should not be at +1.999 as would be implied by the simple one-dimensional spatial theory. (b) Proportion of voters who would prefer the Democrats, as a function of the party's position on the economy, in a similar three-dimensional spatial model. As in two dimensions, it benefits the Democrats to clearly distinguish themselves from the Republicans on the economy.

slightly more conservative than the average voter but still clearly separated from the Republicans on the economic dimension, so as to be closer to the mass of voters in the two-dimensional space.

This model seems unrealistic, as it predicts that the Republicans support could vary from the range of 45% to 65%. We shall discuss more realistic models below. The point here is that even the simple spatial model has interesting implications when moving beyond one dimension, leading to a violation of the often-assumed rule that the Democrats would gain by being as conservative as possible (and, conversely, that the Republicans should be as liberal as possible).

Three-dimensional model. Figure 3(b) shows that a similar pattern holds for the three-dimensional model. Here the dimensions are economic, foreign, and social policy. We assume the voters follow a normal distribution with correlation 0.5 among each pair of dimensions, with Republicans at (+2, +1, +1) and Democrats at (x, -1, -2), where we consider values of x ranging from -2 to +2. If we consider x = +1 to be the status quo, we see that, as in two dimensions, the Democrats would do better to move to the left, toward the mass of the voters.

2.2. Varying the model specification. Our spatial model can be generalized in many ways, two of which we consider here. First, we suppose that different voters have different perceptions about where candidates stand on the issues. Second, we suppose that preferences depend on factors other than ideology.

Differing perceptions of candidate issue stances. Different voters have different views about where the candidates stand on the issues. This variation can be expressed as an error term in our model of candidate positions, and the distribution of these perceptions can be estimated using survey data.

What will be the effect of adding uncertainty about party positions? In the onedimensional model, it can make a big difference. Once we add uncertainty, it is no longer optimal for the Democrats to be infinitesimally to the left of the Republicans. Even in one dimension, it makes sense for the Democrats to move to the left—that is, toward the center—to establish a clear difference for the voters [Erikson and Romero (1990)]. In addition, as discussed by Chappell and Keech (1986), in the presence of uncertainty about party positions, it makes sense for parties to move toward their policy preferences.

Even in the absence of motivation or turnout effects, once there is uncertainty or variation in perceptions of candidates, a party can gain by clearly delineating itself on issues for which it has popular support (such as the economy for Democrats). Separation is beneficial in itself if it conveys the relative positions of the parties to more of the voters. We shall explore this further in our empirical analysis in the next section.

In two or more dimensions, adding uncertainty doesn't change the fundamentals of the model: depending on the positions of the parties and the distribution of the voters, it can still makes sense for the Democrats to move toward the center, or to distance themselves from the Republicans on economic issues.

Allowing preferences to depend on factors other than ideology. There are also the "valence issues." Suppose all the voters' positions on issues are fixed, and the candidate positions are fixed. Then the economy booms. This will benefit the party in power, even if basic views on economy are not changed. A change in the economy might also change voters' views about economic issues, but the "valence" idea is that, in addition to any such fundamental change, there will be a shift in preferences. This would be expressed as an additive term in the utility model. Thus, the relative utility of the Democrats, compared to the Republicans, for voter i, would be  $||x_i - R||^2 - ||x_i - D||^2 + \text{shift}$ , where  $x_i$  is the (multidimensional) ideological position of voter i, R and D are the positions of the two parties, and the shift represents valence issues. "Valence issues" in this definition also include incumbency advantage, unequal spending, and any other advantages for one party or another, beyond issue positions. This framework is consistent with the findings of Rosenstone (1984) and others that election outcomes are predictable given measures of ideological difference and recent economic conditions. As Groseclose (2001) points out, a candidate who is weaker on valence issues can be motivated to move away from the center on issues.

One can also alter the model in other ways. For example, so far we have assumed a quadratic utility function—that is, based on squared Euclidean distance between candidates and voters. Instead we can define utility based on absolute-value distance [i.e., changing from  $d(x, y) = \sum_j (x_j - y_j)^2$  to  $d(x, y) = \sum_j |x_j - y_j|$ , in both cases summing over dimensions j]. Changing this distance function has little effect on the basic patterns we have found. The utility function can also be generalized so that some issues are more important than others—that is, a weighted sum over dimensions instead of a simple sum.

**3. Empirical data on voter and candidate positions on issues.** The analysis presented in the preceding section is interesting, counterintuitive, and potentially appealing if you think it would be desirable for the two parties to be further apart, to present a clearer choice to voters. We test it using voters' placements of themselves and the candidates on economic and social issues in the 2004 National Election Study.

We take three questions for each set of issues,<sup>2</sup> using all the relevant questions from the National Election Study in which respondents were asked to judge the

<sup>&</sup>lt;sup>2</sup>The social issues were opinions about the role of women, gun-control policy, and government aid to African Americans. The economic issues were opinions about the level of spending that the government should undertake in the economy, the role of the government in providing an economic environment where there is job security, and the level at which the government should spend on defense. We replicated our analysis removing the defense spending question (which is arguably on a different dimension than economics) and got similar results [Cai (2006)].

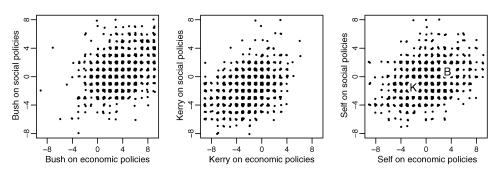


FIG. 4. Respondents' views of Bush, Kerry, and themselves on a scale of -9 (extremely liberal) to +9 (extremely conservative) for economic policies and -8 (extremely liberal) to +8 (extremely conservative) for social policies. Points have been jittered to avoid overplotting. The symbols in the third graph show the average perceived positions of Bush and Kerry.

positions of Bush, Kerry, and themselves. We then summed the responses in each dimension, yielding a -9 to 9 scale on economic issues and a -8 to 8 scale on social issues. We then have six data points for each respondent, representing economic and social positions as judged for Bush, Kerry, and self. Figure 4 displays the data: there is correlation across issue dimensions and also a lot of variation. It is perhaps surprising that voters differed so much in their assessments of where Bush and Kerry stand on the issues.

To estimate the effect of a change in party positions, we model in three steps the data on issue attitudes and vote preference. First, we fit linear regressions to predict views of Bush's and Kerry's policy positions, given respondent's party identification and self-placements on the issues. Second, we fit logistic regressions to the probability of supporting Bush (among those respondents who express a preference), given respondent's party identification and his or her relative distance from each candidate on the issues. Third, we consider counterfactuals in which the candidates' perceived issue positions change (by altering the intercepts in the regression in the first stage of the model), and then seeing the effect in aggregate vote preferences as predicted by the logistic regressions.

Model of perceived candidate issue positions given self-placements. We fit separate regressions on four different outcomes—views of Bush's and Kerry's position on economic and social issues—and the display in Figure 5 shows the estimated coefficients for the constant term and for self-perceptions on economic and social issues. Within each of the twelve plots are the estimates for the models fit separately to Democrats, independents and Republicans.

In considering Figure 5, we first discuss the two columns on the left, which relate to views of the candidates' economic positions. The constant terms show, unsurprisingly, that Bush is viewed as more conservative than Kerry, with Democrats perceiving Bush as more conservative and Republicans perceiving Kerry

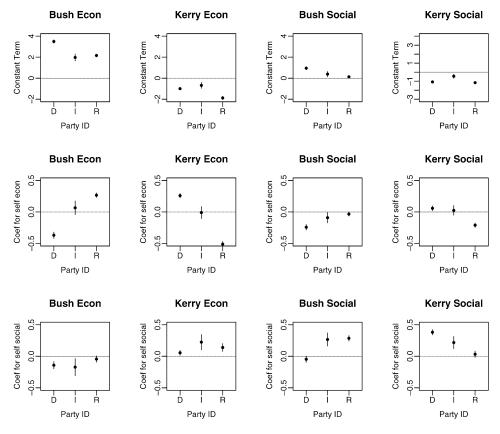


FIG. 5. Estimated coefficients for the regressions of perceptions of Bush and Kerry on economic and social issues. The four columns of the display represent these four outcomes. For each, the top, middle and bottom rows show estimates ( $\pm 1$  standard error) of the constant term and the coefficients for self-perception on economic and social issues. The model was fit separately to Democrats, independents and Republicans, as indicated by the three points within each graph. Generally, Democrats with more liberal positions viewed Kerry as more liberal and Bush as more conservative on the issues, and Republicans show the opposite pattern.

as more liberal. The coefficients for self-perception on economic issues show a striking pattern: the more liberal a Democrat is on economic issues, the more he or she views Bush as conservative and Kerry as liberal, with the reverse happening for Republicans. Apparently, there is a strong motivation to believe that your party's candidate is similar to you in his political views. Weaker patterns appear in the first two plots in the lowest row of Figure 5 with self-perceptions on social issues being slightly negatively predictive of views of Bush's economic position and slightly positively predictive of views on Kerry.

We now consider the two columns on the right of Figure 5. Again, the intercepts are higher for Bush than for Kerry, but to a much weaker extent than for the economic position, indicating that more of the variation in views of the candidates'

positions on social issues is explained by respondents' self-perceptions. Here the patterns are more complex. Democrats' views of Bush's position on social issues is negatively predicted by self-perceptions on *economic* issues, with self-perception on social issues not coming into the equation at all. In contrast, Democrats' views of Kerry's positions on social issues are entirely predicted by self-perceptions on *social* issues. Now we look at the coefficients for Republican respondents: to predict their views of Bush's position on social issues, only their self-perception on social issues is relevant, but when predicting Kerry's position on social issues, only their self-perception on economics is relevant.

To summarize, voters appear to characterize their own party's nominee's positions in a way consistent with their self-perception on each issue dimension. But their views of the other party's nominee, in both dimensions, is predicted (with a negative coefficient) solely based on self-perception on economics.

Model of vote choice given distances from candidates. Our next step is a logistic regression model predicting vote preference given ideological distance from candidates. We define, for each survey respondent i, the distance from Bush minus the distance from Kerry:

$$(\text{dist.E})_i = (\text{econ}_i^{\text{Bush}} - \text{econ}_i^{\text{self}})^2 - (\text{econ}_i^{\text{Kerry}} - \text{econ}_i^{\text{self}})^2,$$
  
$$(\text{dist.S})_i = (\text{soc}_i^{\text{Bush}} - \text{soc}_i^{\text{self}})^2 - (\text{soc}_i^{\text{Kerry}} - \text{soc}_i^{\text{self}})^2,$$

and then we fit a logistic regression of vote intention ( $y_i = 1$  if respondent i supports Bush for President, 0 for Kerry, excluding undecideds and others from the analysis) on dist.E and dist.S. We fit separate models for each party identification, yielding

$$\Pr(y_i = 1) = \log_i t^{-1} \left( -1.32 - 0.05 \cdot (\text{dist.E})_i - 0.04 \cdot (\text{dist.S})_i \right)$$
 for Democrats, 
$$\Pr(y_i = 1) = \log_i t^{-1} \left( 0.38 - 0.05 \cdot (\text{dist.E})_i + 0.02 \cdot (\text{dist.S})_i \right)$$
 for independents, 
$$\Pr(y_i = 1) = \log_i t^{-1} \left( 2.30 - 0.03 \cdot (\text{dist.E})_i - 0.02 \cdot (\text{dist.S})_i \right)$$
 for Republicans.

As expected, dist.E (economics) is more important than dist.S (social issues), and the coefficients themselves are negative: if you are further from Bush than from Kerry, you are less likely to support Bush. The only exception is the positive coefficient for dist.S among independents, but this is not statistically significant (the estimate is 0.02 with a standard error of 0.02) so we take it to just represent sampling error. We also see that the coefficients for ideological distance are greater for Democrats than for Republicans, which is consistent with the idea that Democrats

are more diverse in their political preferences (so that conservative Democrats are more likely to vote for Bush than liberal Republicans were to vote for Kerry).

Model of aggregate vote given shifts in candidates' positions. Our next step is to consider hypothetical changes in the candidates' positions on economic and social issues, and see how these would translate into vote changes. For each change, we simply alter the constant term in the appropriate regressions shown in Figure 5—for example, if we want to shift Kerry by one point to the right on the -9 to 9 economic scale, we add 1 to the intercepts of the "Kerry econ" regressions for each of the three party identification groups. We then run the models of the previous sections forward, first simulating random positions from the linear models from Figure 5 (with intercepts altered appropriately), then computing estimated ideological distances and simulating vote preferences from the logistic regressions (3.1). This represents a replicated election outcome under the hypothetical position shift. For each hypothesized shift, we take the average of 100 simulations to get the predicted election outcome.

Figure 6 shows the effect, under this model, of shifting the positions of either Kerry or Bush on economic or social issues, by as much as 3 points in either direction. The answer to the question posed by the title of the paper appears to be No, Kerry should not have moved to the left on economic policy. Conventional wisdom appears to be correct: Kerry would have benefited by moving to the right, and Bush by moving to the left. The optimal shifts for Bush are greater than those for Kerry, which is consistent with the observation that voters are, on average, closer to the Democrats on issue attitudes.

Figure 7 shows similar calculations, allowing each candidate to move in both issue dimensions. Again, this model finds Kerry benefiting by moving a bit to the right, and Bush benefiting by moving a lot to the left, especially in the economic dimension. One could continue along these lines by allowing the two candidates to move simultaneously, but this is not our goal here. We do not consider our calculations to represent a realistic causal model of what would happen if candidates were to move; rather, it is a way of exploring the multidimensional space of voters' perceptions of themselves and the candidates, and evaluating in a fairly direct way the hypotheses of Section 2.

Comparing these shifts to the candidates' average perceived positions (see the rightmost plot in Figure 4), the optimal position for Kerry is to the right of his position at the time, but still far to the left of the perceived position of Bush. Given that the Republicans are far to the right of the median voter on economic issues—and given the large variation in voters' perceptions of the candidates' positions—it appears to be best for the Democrats to stay in the center, quite a bit left of the Republicans, in order to make their relative location clear to the voters.

Comparison to the theoretical model. The empirical model we have used is a generalization of the formal model of Section 2, in four ways: (a) voters are al-

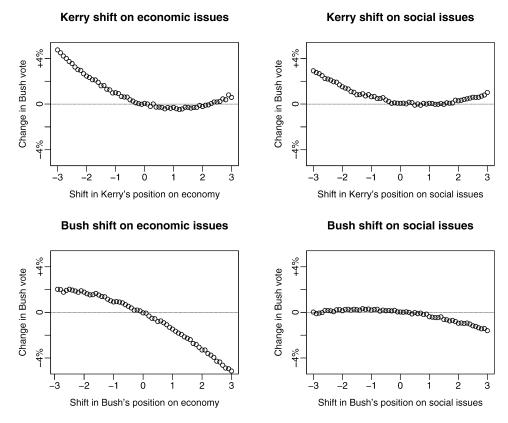
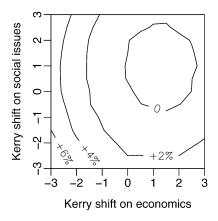


FIG. 6. Predicted change in Bush's share of the vote, if Kerry's or Bush's position on economic or social issues were to shift by a specified amount. The predictions are calculated based on the fitted logistic model of vote choice given voters' ideological distances from candidates. Positions on the economy and on social issues are measured on a –9 to 9 scale, and a –8 to 8 scale, respectively; see Figure 4. Based on this model, it would be beneficial for Kerry to shift slightly to the right in both dimensions, for Bush to shift slightly to the left on social issues, and for Bush to shift a great deal to the left on economic issues. The curves are slightly jittery because of simulation variability.

lowed to vary in their perceived positions of the candidates, (b) candidates can differ in their valences, (c) the two issue dimensions need not be equal in importance, and (d) different models apply to Democrats, Republicans and independents. The model (3.1) is equivalent to a spatial voting model with weighted squared Euclidean distance and logistic errors (the discrete responses have enough different categories that the continuous approximation seems reasonable enough).

The empirical conclusions are similar but not identical to the results of Section 2, with the key difference being that the voters on average perceived Kerry as slightly left of center on economic issues [see Figure 4(c)], as compared to the theoretical model of Figure 2(a), which hypothesized that voters saw little difference between the candidates on this dimension. In both the theoretical and empirical



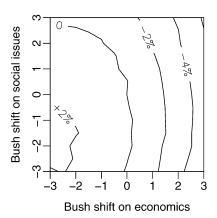


FIG. 7. Predicted change in Bush's share of the vote, if Kerry's or Bush's position were to shift on both economic and social issues. According to this model, the optimal strategy for Kerry is to move 1 point to the right in both dimensions; in contrast, Bush would benefit by moving about 2 points to the left on social issues and nearly 3 points to the left on the economy.

models, the Democrats would benefit by placing or maintaining some distance between themselves and the Republicans on economic issues.

## 4. Practical concerns.

4.1. Using survey responses to measure perceived ideological positions. A key issue regarding with the empirical part of this study is the reliability and validity of the survey questions about candidate- and self-placement. It has long been known that responses to individual issue positions are unstable over time and are not meaningful for many voters [Erikson and Tedin (2004)]. In our data this can be seen in the wide variation in perceptions of Bush and Kerry on the issues (see the left two plots in Figure 4). Ansolabehere, Rodden and Snyder (2006) have shown that more can be learned by averaging the responses to several related questions. Our economic and social attitude scales are based on only three questions each (in the National Election Study, all we could find that asked about the candidates and the respondent), and we would be interested in results from a more detailed survey. On the other hand, if the goal is to model what would happen if candidate positions change, this needs to be filtered through the imperfect perceptions of voters, so it is not a fatal flaw that respondents are not completely consistent with themselves and each other.

Another concern is the complicated nonsequential relationship between party identification, issue attitudes, perceptions of candidates, and vote preference [Page and Jones (1979)]. Party identification is a stable individual measure [Miller and Shanks (1996)], so we do not mind subdividing our analysis into Democrats, independents and Republicans. Beyond this, we recognize that it is an approximation to model vote preference as a function of candidate perceptions rather than

the reverse. Our regressions are based on the observed correlations between the issue-response and vote-choice questions, and we are implicitly making additional causal assumptions in using the model to speculate on what would happen if the candidate positions changed. We think our approach is a useful starting point, however, and even this imperfect empirical analysis gives insight into models such as the median voter theorem that are commonly applied automatically without any connection to data.

4.2. Constraints and flexibility in party positions. Our analysis treats the two parties asymmetrically and treats the issue dimensions differently as well. Is it reasonable to suppose that the Republicans cannot move ideologically but the Democrats can? And is it plausible that the Democrats are free to move to the left on economic policy but cannot move to the center on foreign policy and social issues?

We would answer Yes to both these questions. It is reasonable to suppose that, as the party in power, the Republicans are less inclined to make an ideological move that would convince the voters. In addition, their conservative position on economic issues is important to a key segment of the Republicans' electoral, financial, and intellectual base. It makes sense that the Republicans will remain to the right of the majority of voters on economic issues, even if this costs them some votes.

As for the Democrats, we would expect that most of their stakeholders would prefer a move to the left on economic issues—if anything, it might be that their moderately conservative position was chosen partly from a median-voter thinking as exemplified by Figure 1.<sup>3</sup> In contrast, internal party pressures could make it more difficult for the Democrats to move toward the center in other dimensions.

A related question is how the parties can signal their position changes to the voters. Our models simply assume the ability to do so, but presumably the voters would need some convincing that a move to the center is not just a pre-election ploy.

Finally, a common counter-argument to spatial voting models is that moving to the median might gain votes at the middle at the expense of the other party, but at the cost of diminishing turnout among one's core supporters. There is no particular evidence that this happened in 2004. The innovation of the theoretical model of this paper is to posit a counterintuitive motivation for a party (in this case, the Democrats) to distinguish itself in policy from the other part, purely from spatial voting concerns arising from multidimensionality and variation in voters' perceptions of the candidates, *without* bringing in turnout.

<sup>&</sup>lt;sup>3</sup>Moving to the left would not be costless for the Democrats, however. In particular, one would expect them to lose some contributions from businesses and affluent individuals, and support of policies such as tariff barriers could be unpopular among elite opinion-makers such as those who determine newspaper endorsements.

**Acknowledgments.** We thank Jasjeet Sekhon, Shigeo Hirano, Robert Erikson, Jeff Lax, Joseph Bafumi and David Park for helpful conversations.

### REFERENCES

- Ansolabehere, S., Rodden, J. and Snyder, J. M. (2006). Issue preferences and measurement error. Technical report, Dept. Political Science, MIT.
- CAI, C. J. (2006). Why shift policy? M.A. thesis, Quantitative Methods in Social Science Program, Columbia Univ.
- CHAPPELL, H. W. and KEECH, W. R. (1986). Policy motivation and party differences in a dynamic spatial model of party competition. *American Political Science Review* **80** 881–899.
- DOWNS, A. (1957). An Economic Theory of Democracy. Harper and Brothers, New York.
- ERIKSON, R. S. and ROMERO, D. W. (1990). Candidate equilibrium and the behavioral model of the vote. *American Political Science Review* **84** 1103–1126.
- ERIKSON, R. S. and TEDIN, K. L. (2004). *American Public Opinion: Its Origin, Contents, and Impact*, 7th ed. Longman, New York.
- GELMAN, A. and KATZ, J. N. (2005). The moderate benefits of moderation in Congressional elections. Technical report, Dept. Statistics, Columbia Univ.
- GERBER, E. R. and LEWIS, J. B. (2004). Beyond the median: Voter preferences, district heterogeneity, and political representation. *J. Political Economy* **6** 1364–1383.
- GROSECLOSE, T. (2001). A model of candidate location when one candidate has a valence advantage. *American J. Political Science* **45** 862–886.
- HOTELLING, H. (1929). Stability in competition. *Economic J.* **39** 41–57.
- MILLER, W. E. and SHANKS, J. M. (1996). The New American Voter. Harvard Univ. Press.
- PAGE, B. I. and JONES, C. C. (1979). Reciprocal effects of policy preferences, party loyalties and the vote. *American Political Science Review* **73** 1071–1089.
- POOLE, K. T. and ROSENTHAL, H. (1997). Congress: A Political–Economic History of Roll Call Voting. Oxford Univ. Press.
- ROSENSTONE, S. J. (1984). Forecasting Presidential Elections. Yale Univ. Press.

DEPARTMENT OF STATISTICS
AND
DEPARTMENT OF POLITICAL SCIENCE
COLUMBIA UNIVERSITY
NEW YORK
USA
F-MAIL: gelman@stat.columbia.edu

E-MAIL: gelman@stat.columbia.edu jeffccx@gmail.com