

When Candidates Value Good Character: A Spatial Model with Applications to Congressional Elections

James Adams University of California, Davis
Samuel Merrill III Wilkes University
Elizabeth N. Simas University of California, Davis
Walter J. Stone University of California, Davis

We add to the literature that examines the relationship between candidate valence and policy strategies by arguing that candidates intrinsically value both the policies and the personal character of the winning candidate. In making this argument, we distinguish between two dimensions of candidate valence: strategic valence refers to factors such as name recognition, fundraising ability, and campaigning skills, while character valence is composed of qualities that voters and candidates intrinsically value in office holders, including integrity, competence, and diligence. Our model considers challengers who value both the policies and the character-based valence of the incumbent and assumes that the incumbent's policy position is fixed by prior commitments. Under these conditions, we show that challengers who are superior to the incumbent in their character-based valence have incentives to moderate their policy positions. We report empirical tests of this good-government result of our model, using data on the 2006 congressional elections.

Spatial modelers increasingly have incorporated *valence characteristics* of candidates in models of candidate position taking in elections. Candidate valence is usually defined as any nonpolicy factor that influences voters' decisions, such as campaign skills, name recognition, integrity, competence, and dedication to public service. This literature demonstrates that the electoral advantages and disadvantages associated with candidate valence affect policy positioning. We build on extant models by distinguishing between valence characteristics that are instrumental to winning elections and valence characteristics that citizens intrinsically value in elected officials.¹ Thus, factors such as name recognition and campaign skills relate to *strategic valence*, whereas such qualities as competence, integrity, and dedication to public service relate to *character valence*.

The distinction between the strategic and character dimensions of valence is important because we propose a spatial model in which challengers in U.S. House elections have an intrinsic interest in the

character valence of the eventual winner. Our central theoretical and empirical claim, the *good-government result*, is that challengers who have a character-based valence advantage over the incumbent present policy positions more in line with district preferences, while challengers at a character disadvantage to the incumbents they wish to unseat move to the extreme, relative to their districts' preferences.

The assumption that candidates intrinsically value the character of the winner may strike some as implausible, although we doubt that anyone would challenge the idea that voters value candidates of high character. Indeed, many scholars would suggest that voters have an intrinsic interest in the qualities we define as character valence, much as they have an interest in policy outputs. Our assumption is that candidates differ from ordinary voters not in what they value, but in their ability to observe these qualities in office holders and candidates. All spatial models of position taking assume that candidates value holding office. Some models also assume that candidates value policy outcomes. Our model extends

¹An online appendix for this article is available at www.cambridge.org/jop containing formal proofs. The data employed in this study will be released for general access by March 2011 and available at <http://ps.ucdavis.edu/People/faculty/wstone/>.

this logic to include a second class of public goods—character qualities in the winner that lead to the competent and honest execution of governmental responsibilities.² In short, our assumption is that challengers in House elections, no less than ordinary voters, value good character in the winning candidate.³

The intuition behind our good-government result is straightforward and builds on spatial models that posit candidate interest in good policy.⁴ Spatial models with policy-seeking candidates posit that candidates balance the incentive to announce policies reflective of their sincere and typically noncentrist preferences against the incentive to moderate in order to win the election. When candidates value good character in the winner, as in our model, challengers who possess superior character attributes relative to the incumbent have added incentives to moderate their policy positions in order to win office and improve the character of the representative, a public good in which the winner shares. In short, *a challenger who values good character is willing to make more policy compromises to defeat a scoundrel than to defeat a saint.*

Our results extend numerous spatially based studies that model candidates' strategic advantages in fundraising and campaigning ability—strategic valence in our terminology—that influence election outcomes (e.g., Ansolabehere and Snyder 2000; Bruter, Erikson, and Strauss 2010; Groseclose 2001; Londregan and Romer 1993; Peress 2008; Serra 2010). Our theoretical and empirical findings suggest that this extension illuminates challengers' policy strategies. The good-government result implies that when challengers are particularly strong in character (or face incumbents of weak character), they have added incentives to bring their policy promises in line with the preferences of their district, so as to enhance their election prospects. This result is important because our model addresses situations in which

candidates, but not necessarily the voters, observe the candidates' character qualities. Our results suggest that challengers adopt policy strategies that increase the chances that voters will elect public servants of good character, even though the voters themselves may imperfectly observe the candidates' character qualities. This, as Mondak observes, allows voters to realize their overriding interest in electing office holders of high character:

Given that voters' political interests conflict, maximization of institutional quality may be the single objective shared by all congressional voters. He may prefer Republicans and she may prefer Democrats, but they should both favor the able over the incompetent and the trustworthy over the ethically dubious. (1995, 1043)

Candidate and Voter Motivations: The Role of Candidate Character

Previous spatial models that incorporate valence assume that candidates and parties value valence only because of its effect on electoral prospects.⁵ Implicitly, such models assume that candidates are indifferent over whether the winning candidate is a trustworthy public servant or an incompetent slacker. This is a questionable assumption, especially for models that analyze policy-seeking candidates who seek office in hopes of implementing their desired policies. As elaborated by Wittman (1973, 1983), such models posit that candidates have preferences over the policies that the winning candidate implements, because policy outputs are public goods in which the entire electorate (including winning and losing candidates) shares. Yet if candidates have preferences over policies that office holders enact, they plausibly have preferences over the officeholder's competence, integrity, and effort. That is, policy-seeking candidates are also likely to value good character. As Pratt notes, "an inept politician creates pure inefficiencies which are costly to all citizens" (2002, 167–68).

The intuition that candidates value the character-based qualities of incumbents is supported by several empirical studies. Mondak's (1995) study of incumbent integrity and competence showed that

²In the online appendix, we extend the model to situations where the challenger is also *office-seeking*, and we also analyze the characteristics of *Nash equilibrium* configurations for situations where both the challenger and the incumbent have the ability to shift their positions.

³Incumbents also should value character valence in the winner, but our focus is on challengers because incumbents are more constrained by their prior legislative voting record in the positions they take on issues.

⁴To our knowledge, the assumption that candidates intrinsically value good government has not been incorporated into a spatial model of candidate competition, although Gordon, Huber, and Landa (2007) develop a model of challenger entry, rather than a spatial model, in which challengers intrinsically value the officeholder's competence.

⁵We recognize that character-based valence may also enhance electoral prospects since voters may perceive good character qualities in candidates (an assumption we incorporate into our model below). The fact that character enhances a candidate's election prospects, however, does not gainsay its intrinsic value.

high-quality incumbents were less likely than low-quality incumbents to attract strong challengers. Although Mondak controlled for prior election margins in his analysis, it is possible that challengers were reacting to incumbents' character because of electoral considerations, rather than their taste for good government. In a study based on a survey of strong potential U.S. House candidates, however, Stone, Maisel, and Maestas (2004) show that when potential candidates contemplate a run for the House, they consider not only their electoral prospects but also the character of the incumbent they would have to challenge. The authors demonstrate that, while estimates of incumbent prospects are affected by character, potential challengers were still more likely to enter a race against incumbents judged to be low in character, independent of their election prospects. These results suggest that when potential challengers consider running for a House seat they intrinsically value defeating incumbents who are incompetent, untrustworthy, or otherwise lacking in character-based valence. That is, potential challengers have a taste for public officials of good character.⁶ It seems logical, then, to assume that if potential challengers value and consider character-based attributes when choosing whether to run, then those who ultimately enter the race will weigh these attributes when deciding what policy strategies to adopt.

There is extensive evidence that candidates' strategic attributes such as name recognition, campaign spending, and campaigning skills influence election outcomes (Abramowitz 1988; Canes-Wrone, Brady, and Cogan 2002; Gerber 1998; Green and Krasno 1990; Jacobson 1978, 1990; Mann and Wolfinger 1980). By contrast there is only limited empirical research on the electoral impact of candidates' character-based attributes, and this research reports weak and inconsistent findings. There is little need to argue that character-based valence is of intrinsic interest to voters (Bishin, Stevens, and Wilson 2006; Funk 1996, 1999; Kinder 1986; Kinder et al. 1980; Miller 1990; Miller, Wattenberg, and Malanchuk 1986). However, there is considerable reason to doubt that voters can monitor these qualities, especially in challengers. McCurley and

Mondak (1995) find evidence that incumbents' personal quality modestly affects evaluations and voting choice among constituents, but the conventional view in the congressional elections literature is that challengers typically struggle for visibility among voters (Gronke 2001; Jacobson 2009). Thus, although voters value candidate character, the assumption that they monitor it imperfectly seems reasonable, particularly for low-information environments including most House elections. In contrast, if the challenging candidates themselves value character, they are in an excellent position to monitor these qualities in the incumbent.

How Candidate Character Influences Challenger Positioning

Previous spatial analyses of candidate positioning have incorporated the effects of candidates' nonpolicy-related attributes via the introduction of valence dimensions that confer an electoral advantage on one of the candidates that is independent of her policy positions (see, e.g., Adams and Merrill 2009; Ansolabehere and Snyder 2000; Bruter, Erikson, and Strauss 2010; Groseclose 2001; Londregan and Romer 1993; Peress 2008; Serra 2010). However, these studies assume that the competing candidates value these attributes instrumentally, not intrinsically. We extend these models to consider the character-based valence qualities that both candidates and voters intrinsically value, but that may have a limited impact on election outcomes because rank-and-file voters have difficulty observing these candidate attributes. Thus, the candidates' character-based valence attributes may enter into the candidates' but not the voters' utility calculus—precisely the opposite pattern from the one posited in previous valence-based spatial models.⁷

We analyze candidate policy strategies for scenarios where candidates intrinsically value the winner's character-based attributes. In these scenarios we assume that the voters and the candidates are also policy seeking as in the models of Donald Wittman (1973, 1983). In the first scenario voters cannot observe the candidates' character traits, which therefore do not directly influence the election outcome. In the second set of scenarios the voters can (at least partially) observe the candidates' character traits.

⁶We note that this desire to defeat dishonest incumbents should extend even to challengers who are themselves untrustworthy. We expect that challengers—whether they are honest or dishonest—would prefer that the incumbent not loot the treasury, or appoint incompetent cronies to key positions, or accept bribes, as this type of dishonest behavior by elected officials creates a public “bad” which harms the challenger, even if s/he is dishonest.

⁷Note that in the Gordon, Huber, and Landa (2007) model of challenger entry candidates possess more information about their own (and their opponent's) personal qualities than the voters do.

Assumptions

We specify a model in which two candidates, an incumbent D and a challenger R , locate along a one-dimensional Left-Right policy continuum and voters' decisions are based on their proximity-based evaluations of the candidates' policy positions, along with the candidates' strategic valence attributes. The candidates' strategic valence attributes are denoted V_{SD} and V_{SR} , respectively, and their character-based valence attributes are similarly denoted V_{CD} and V_{CR} ; the candidates' Left-Right strategies, i.e., their policy promises, are denoted s_D and s_R , and we assume that the incumbent D 's strategy is fixed for the duration of the campaign by her previous policy behavior in office (we relax this latter assumption in supplementary analyses described below). The challenger R 's sincerely preferred Left-Right position is denoted p_R ; note that R 's announced strategy, s_R , may diverge from her sincere policy preference, p_R —indeed our goal is to analyze the extent to which candidates are prepared to announce positions that diverge from their sincere policy beliefs, in pursuit of policy outputs and good character. As is standard in spatial models with policy-seeking candidates (see Wittman 1973), we assume that R believes that, in the postelection period, the winning candidate will implement her announced preelection strategy.⁸

Illustrative Examples

We now present illustrative examples designed to convey the intuition about how challengers' taste for good character affects their policy strategies. In these examples voter i 's utility $U_i(j)$ for candidate j increases with j 's strategic valence V_{SR} but decreases with the distance between the voter's policy preference v_i and j 's announced position s_j :

$$U_i(j) = -(v_i - s_j)^2 + V_{Sj},$$

where $j=D$ or R .⁹ This specification implies that candidates enhance their appeal to the median voter in the district by converging towards this voter's

position. This proximity-based specification is consistent with empirical research by Canes-Wrone, Brady, and Cogan (2002) and Ansolabehere, Snyder, and Stewart (2001), who find that congressional candidates who compile moderate legislative voting records tend to outperform those who compile extreme records. Note that in this formulation voters are *not* influenced by the candidates' character-based attributes, which we assume they cannot observe (we relax this strong assumption later). It follows that the voter's comparative utilities for candidates R and D are

$$\begin{aligned} U_i(R) - U_i(D) &= [-(v_i - s_R)^2 + V_{SR}] \\ &\quad - [-(v_i - s_D)^2 + V_{SD}] \\ &= [(v_i - s_D)^2 - (v_i - s_R)^2] \\ &\quad + [V_{SR} - V_{SD}]. \end{aligned}$$

The above formulation represents the standard approach that spatial modelers use to incorporate valence issues into voters' decisions, i.e., they represent valence via an additive term that modifies the voter's comparative evaluation of the candidates' policy strategies (see, e.g., Bruter, Erikson, and Strauss 2010; Groseclose 2001; Peress 2008; but see Buchler 2008 for an ingenious specification in which candidate valence interacts with their policy positions in voters' utility functions).

With respect to the candidates' utilities, R attaches utility to the winning candidate w 's positional strategy s_w and to the winner's character-based valence attributes, V_{Cw} , but *not* to the winner's strategic valence V_{S_w} . Thus candidate R 's utility for the winning candidate w is:

$$U_R(w) = -(s_w - p_R)^2 + V_{Cw},$$

so that R 's comparative utility for winning office, compared to D winning office, is

$$\begin{aligned} U_R(R) - U_R(D) &= [-(s_R - p_R)^2 + V_{CR}] \\ &\quad - [-(s_D - p_R)^2 + V_{CD}] \\ &= [(s_D - p_R)^2 - (s_R - p_R)^2] \\ &\quad + [V_{CR} - V_{CD}]. \end{aligned}$$

We assume, following Groseclose (2001), that the candidates, at the time they select their policy strategies, are uncertain about the election outcome because they cannot perfectly forecast the distribution of voters' Left-Right positions.¹⁰ Specifically, in

⁸This assumption is typically justified on the grounds that politicians project that, in future elections, retrospective voters will punish officeholders who violate their preelection policy promises, and that these projected future electoral reverses will in turn generate policy losses that exceed the policy gains officeholders can achieve by renegeing on their promises during the current interelection period.

⁹As discussed below, our theoretical results on candidate positioning do not require that voters (or candidates) have quadratic policy loss functions.

¹⁰This uncertainty may be due to sampling error in polling, as well as the fluidity of voters' policy preferences between the time when the candidates announce their positions and Election Day.

this illustration the voters and candidates are located on the conventional 1–7 Left-Right scale, and uncertainty about the location of the median voter position is captured by a normal probability distribution centered on 4.0 with standard deviation 0.5. The probability that each candidate is elected is the probability that the median voter prefers that candidate. For these examples we specify the challenger R 's sincerely preferred Left-Right position as $p_R = 6$, i.e., R favors a position that is significantly to the right of her expectations about the likely location of the median voter, and we specify that the incumbent D is fixed at $s_D = 2.5$, i.e., D locates to the left of the median voter's likely location. To capture the fact that congressional incumbents typically benefit from strategic advantages, we initially set the candidates' relative strategic valence to $[V_{SR} - V_{SD}] = -2$, i.e., we assume that D benefits from significant electoral advantages due to factors such as name recognition and fund-raising, that are not directly tied to her Left-Right position.¹¹

How the challenger's policy strategy responds to the candidates' character-based valence. We now ask: How does R 's optimal policy strategy depend on the candidates' relative character-based qualities, as captured by the term $[V_{CR} - V_{CD}]$? Figure 1, which plots R 's optimal strategy s_R^* (the vertical axis) as a function of $[V_{CR} - V_{CD}]$ (the horizontal axis), reveals the following relationship: *the stronger the challenger R 's character-based valence relative to the incumbent, the more moderate R 's optimal policy strategy.* Specifically, when R 's character-based valence qualities are weak relative to the incumbent, i.e., when $[V_{CR} - V_{CD}] = -2$,¹² then in this example R 's optimal position is approximately $s_R^* = 4.55$; however when R and D are evenly matched on their character-based valence, i.e., when $[V_{CR} - V_{CD}] = -0$, then R 's optimal position is located at approximately $s_R^* = 4.43$, which is closer to her expectations about the median voter's position (recall that the proba-

bility distribution on the median voter position is centered on 4.0); and, when R 's character-based valence exceeds D 's valence by the amount $[V_{CR} - V_{CD}] = +2$, then R 's optimal position, $s_R^* = 4.43$, is even closer to her expectation about the median voter's position. Figure 1 displays the fact that, for this illustrative example, as the challenger R 's character qualities (integrity, competence, etc.) improve relative to those of the incumbent, i.e., as $[V_{CR} - V_{CD}]$ increases, R is motivated to moderate her policy strategy—an effect we label the *good government result*.

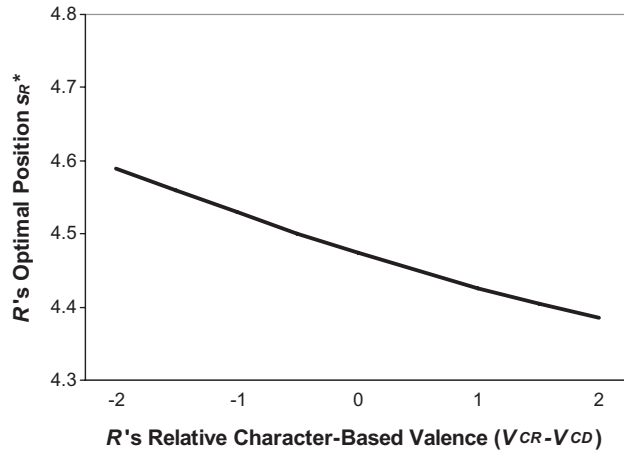
Why, in this example, does the challenger R 's taste for the public good of strong character in office holders motivate her to moderate her strategic Left-Right position, as her character-based valence improves relative to the incumbent? Note first that, unlike previous spatial models that incorporate valence issues (Bruter, Erikson, and Strauss 2010; Groseclose 2001; Londregan and Romer 1993; Peress 2008), this dynamic is *not* due to the effects of the candidates' character-based valences on their electoral prospects. In our example the candidates' character-based qualities do not affect the election outcome because the voters do not observe them. Instead, the good government dynamic revolves around the value of the character-based public good the challenging candidate receives if she is elected and thereby replaces the incumbent in office. To understand the challenger's calculations, consider two opposing scenarios: in the first, the challenger has much better character-based valence than the incumbent and therefore has strong incentives to unseat the incumbent because she, the challenger, believes she can provide greater integrity, competence, and effort—qualities that she intrinsically values. As a result, she is willing to make significant policy compromises in order to win the election. In the second scenario, the challenger views the incumbent's character traits positively relative to her own character. Consequently, she does not have character-based motivations to defeat the incumbent and hence the challenger's *only* public-good benefit from winning office is the ability to enact policies she prefers to the ones the incumbent advocates.¹³ Thus, in the second scenario the challenger has weaker incentives to make policy compromises in pursuit of office, and she announces noncentrist policies that more closely reflect her sincere beliefs. By presenting more extreme

¹¹Substantively, the specifications $[V_{SR} - V_{CD}] = -2$ and $s_D = 2.5$ imply that if R locates at $s_R = 5.5$, so that R and D are located symmetrically with respect to the center point 4.0 of the probability distribution for the median voter position, then R 's probability of winning the election is only about 0.25 (assuming, as we do here, that the probability distribution on the median voter is normally-distributed with standard deviation = 0.5).

¹²Substantively, the specification $[V_{CR} - V_{CD}] = -2$ implies that R 's preference for D 's character-based qualities is such that R is indifferent between winning the election while advocating her sincere policy preferences (i.e., $s_R = p_R$), and D winning the election while announcing a policy that is located at $\sqrt{2} \approx 1.41$ policy units away from R 's sincere policy preferences, along the 1–7 Left-Right scale.

¹³For an extension of the model to scenarios where candidates systematically overestimate their own character-based valence, see the online appendix.

FIGURE 1 How Challenger Positioning Responds to Character-Based Valence, when Voters do not Observe the Candidates' Characters



Notes: The challenging candidate R 's optimal policy strategies s_R^* are computed for the scenario where the incumbent candidate D 's position is fixed at $s_D=2.5$; R 's sincerely preferred Left-Right position is $p_R=6$; the candidates and voters have quadratic policy losses; the candidates' relative strategic valence is $2[V_{SR} - V_{SD}]=-2$; voters are assumed to attach no weight to the candidates' character-based valence; and uncertainty about the location of the median voter position is captured by a normal probability distribution centered on 4.0 with standard deviation 0.5. For this scenario, we see that as R 's character-based valence improves relative to the incumbent, i.e., as $[V_{CR} - V_{CD}]$ increases, R moderates her policy strategy s_R^* by shifting closer to 4.0, the center of the probability distribution on the median voter position.

positions the character-disadvantaged challenger does not concede the election to her opponent, although it is a response to the tradeoffs between balancing her policy and character-based valence utilities, and her prospects for victory. By taking a more extreme position, the challenger enhances her policy utility if she wins. This scenario illustrates how the challenger adjusts her strategy when she values good government in addition to policy outputs.

The strategic logic of our good government result parallels the arguments that Gordon, Huber, and Landa (2007, 306) develop in their analysis of challengers' entry decisions, in which the authors demonstrate that the opportunity costs that challengers are willing to bear to enter the race decreases as the incumbent's competence—or "type," in their model—improves. Analogously, we argue that challengers are increasingly willing to bear the "costs" of making policy compromises—where we define compromise as promising policies that diverge from the

challenger's ideal point—when the incumbent is of poor character.¹⁴

Challenger strategies when voters can observe the candidates' character traits. In our initial illustrative examples, voters could not observe the candidates' character-based valence. In real-world elections, however, voters may acquire information about the candidates' characters, even if they are less informed about these character traits than the candidates are themselves. To analyze these situations, we modify the voter's utility function to include the candidates' character-based valences V_{CR} and V_{CD} , where these terms are weighted by a nonnegative *character salience parameter* α , which denotes the weight that voters attach to the candidates' character-based valences, relative to the weights that the candidates themselves attach to character-based valence. Thus voter i 's utility $U_i(j)$ for candidate j becomes:

$$U_i(j) = -(v_i - s_j)^2 + V_{sj} + \alpha V_{Cj},$$

where higher values of α denote that voters are more strongly influenced by candidate j 's character-based valence, and these values are related to how well voters can observe these characteristics.¹⁵ Specifically, $\alpha = 0$ denotes that voters are unable to observe candidates' character-based valences, so that these attributes do not influence voters' decisions (as in the previous illustrative example); $0 < \alpha < 1$ denotes that voters attach some weight to the candidates' character-based valence, but less weight than the candidates do themselves; $\alpha = 1$ denotes that voters

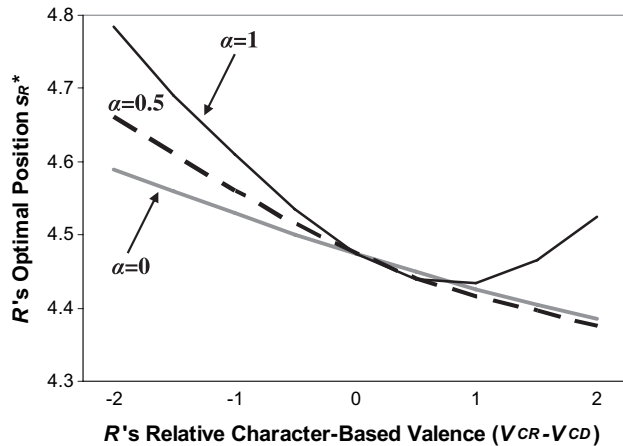
¹⁴Our good government result also relates to Groseclose's (2001) "Moderating Front-runner" and "Extremist Underdog" results, which state that policy-seeking candidates who possess valence advantages (relative to their opponent) are motivated to moderate their policies, while those that suffer from valence disadvantages are motivated to shift to more radical positions. Groseclose's results apply to the "standard" valence-based spatial model in which the voters are moved by the candidates' valence attributes but the candidates themselves do not intrinsically value these attributes—factors that we have labeled strategic valence effects (name recognition, campaign spending, etc.). Our good government result suggests that the strategic dynamics that Groseclose identifies may extend to a different type of candidate traits, namely character-based valence attributes that the candidates value intrinsically but that voters cannot easily observe.

¹⁵Note, however, that the character salience parameter α also reflects the intrinsic importance that voters assign to the candidates' character-based valence, i.e., some voters may not weigh candidate character very heavily even if they can fully observe it, because they believe that candidate character is not intrinsically important compared to the policies the winner will implement once in office.

and candidates attach the same weight to character-based valence.

Figure 2 plots R 's optimal strategy s_R^* for scenarios that are identical to the preceding example except that we vary the value of the character salience parameter α . Specifically, the figure plots s_R^* when $\alpha = 1$ (voters attach the same weight to character-based valence as the candidates do themselves); when $\alpha = 0.5$ (the candidates' character traits are half as salient to voters as they are to the candidates); and for $\alpha = 0$, the scenario in the preceding example. The figure shows that the good government effect holds for $\alpha = 0$ and for $\alpha = 0.5$, while for $\alpha = 1$ there is no systematic relationship between the candidates' character-based valences and R 's optimal positioning: for this latter scenario R initially moderates her position as her character traits improve relative to those of the incumbent, but further improvements in $[V_{CR} - V_{CD}]$ motivate R to shift to more radical positions (this latter effect occurs when $[V_{CR} - V_{CD}] > 0.8$).

FIGURE 2 How Candidate Positioning Responds to Character-Based Valence: Effects of Varying the Weights Voters Attach to Candidate Character



Notes: The challenging candidate R 's optimal policy strategies s_R^* are computed for the scenario where the incumbent candidate D 's position is fixed at $s_D = 2.5$; R 's sincerely preferred Left-Right position is $p_R = 6$; the candidates and voters have quadratic policy losses; the candidates' relative strategic valence is $[V_{SR} - V_{SD}] = -2$; and uncertainty about the location of the median voter position is captured by a normal probability distribution centered on 4.0 with standard deviation 0.5. The figure plots R 's optimal policy strategies s_R^* for three different assumptions about the weights that voters attach to candidate character: $\alpha = 0$, i.e., character traits do not influence voters' decisions; $\alpha = 0.5$, i.e., voters weight to the candidates' character-based traits, but only half as much as the candidates do themselves; $\alpha = 1$, i.e., voters and candidates attach equal weights to candidate character.

Why, in this example, does the good government effect break down when voters have sufficient information to weight candidate character heavily in their utility calculus? The intuition is that the challenging candidate's strategy reflects both her desire for good character, and the effects of character-based valence on her electoral prospects—an effect that was absent in the previous example, which assumed that voters do not observe candidate character. To see this, consider a scenario where voters fully observe candidate character and where the challenger's character-based valence is so much better than the incumbent's that she is virtually certain to win election regardless of her policy strategy. In this case the challenger has the leeway to announce her sincere, noncentrist, policy beliefs, secure in the knowledge that she will be elected anyway, and that she will thereby enjoy the public good of high character. Thus, if the challenger's character-based valence advantage is large enough *and* voters can fully observe these traits, the good government effect may not hold since the challenger will have no incentive to moderate. Note, however, that this counterexample assumes that the voters have sufficient information about the candidates' character traits that these traits significantly influence the election outcome. This suggests in turn that when voters do not acquire sufficient information about the candidates' character-based valences, the good government effect will hold.

Challenger Positioning and Candidate Character: Theoretical Results

We now state and prove the existence of conditions that support the good government result. The proof of this theorem is given in the online appendix. Our results apply to a more general class of situations than those described in our illustrative examples; in particular, we do not require that voters and candidates have quadratic policy loss functions or that the probability distribution on the median voter position be normally distributed. Specifically, let voter i 's utility $U_i(j)$ for candidate j be:

$$U_i(j) = g(s_j, v_i) + V_{sj} + \alpha V_{Cj}, \quad (1)$$

where $g(s_j, v_i)$ represents voter i 's utility for j 's position s_j , and $g(s_j, v_i)$ is strictly concave and peaks

at v_i and has continuous partial derivatives of order two.¹⁶ Similarly, let candidate R 's utility for the winning candidate w be:

$$U_R(w) = h(s_w, p_R) + V_{Cw}, \quad (2)$$

where $h(s_w, p_R)$ is strictly concave and peaks at p_R and has continuous partial derivatives of order two. Assume that the location of the median voter follows a continuous distribution.

Theorem 1 (The Good Government Result).

Assume that the incumbent D 's policy strategy s_D is fixed, that the challenger R 's utility function is given by equation (2), that voters' utility functions are given by equation (1) and that the probability density function for the median voter position has a continuous derivative. Also assume that R 's optimal position s_R^* lies strictly between s_D and p_R , where p_R represents R 's sincere Left-Right preference. Then there exists $\beta > 0$ such that if $0 < \alpha < \beta$, then as R 's character-based valence improves (declines) relative to that of D , R is motivated to shift towards (away from) s_D .

In words, the good government result states that when candidate character valences do not weigh too heavily in voters' decisions, then the better the challenger's character-based valence relative to that of the incumbent, the more the challenger is motivated to converge towards the incumbent's position.¹⁷ Given that challengers and incumbents almost invariably locate on opposite sides of the median voter position (we report evidence on this

point below), Theorem 1 implies that character-advantaged challengers will tend to moderate their positions toward the district median.¹⁸

Simulation Analysis

To substantiate the conclusions suggested by our examples and theoretical results, we simulated 1,000 elections in which parameters were chosen randomly from a parameter space. We computed the challenger R 's optimal position s_R^* for simulated elections where the candidates' strategic valences V_{SR} and V_{SD} and character-based valences, V_{CR} and V_{CD} were each chosen independently from uniform distributions on the interval from -1.0 to 1.0 ; the incumbent D 's position s_D was chosen from a uniform distribution on the interval from 1.0 to 4.0 ; the weighting parameter α for the effect of the candidates' character-based valences on voter utility was chosen from a uniform distribution on the interval from 0.0 to 1.0 ; and the challenger's sincere policy preference was set to $p_R = 6$. Uncertainty about the median voter location was represented by a normal distribution centered on 4.0 with standard deviation $= 0.5$, as in the illustrative examples. For each set of random parameters we computed the challenger R 's optimal strategy s_R^* , and we then regressed s_R^* on five independent variables: R 's strategic valence relative to that of D [$V_{SR} - V_{SD}$], the incumbent's position s_D , the character salience parameter α , R 's character-based valence relative to that of D [$V_{CR} - V_{CD}$], and a variable that interacted the salience parameter with character-based valence, ($\alpha \times [V_{CR} - V_{CD}]$); we included this latter variable in order to determine how the character salience parameter α mediated the effects of character-based valence on R 's optimal position. The regression produced the following parameter estimates:

$$\begin{aligned} s_R^* = & 5.04 + 0.088[V_{SR} - V_{SD}] - 0.135s_D - 0.001\alpha \\ & - 0.065[V_{CR} - V_{CD}] + 0.097[\alpha \times (V_{CR} - V_{CD})]. \end{aligned}$$

Each estimated coefficient, except for α , is significant at the .001 level, and collectively these parameters

¹⁶By this we mean that g has continuous second partial derivatives including mixed partials and there is a strictly concave function, say \bar{g} , of a single variable such that $\bar{g}(s_j - v_i) = g(s_j, v_i)$ for all s_j and v_i . In turn, we say that a function \bar{g} is strictly concave and peaks at x_0 if it is continuously differentiable, and if for all x in the domain of \bar{g} for which $x \neq x_0$, $\bar{g}(x) < 0$ and $\bar{g}(x_0) > \bar{g}(x)$. Note that if \bar{g} is concave and peaks at x_0 , then \bar{g} is strictly increasing on the left of x_0 and strictly decreasing on the right.

¹⁷The condition that R 's optimal policy strategy s_R^* lies strictly between m and p_R is included to address unusual situations in which R 's optimal policy is actually more extreme than her sincere policy preferences, i.e. where $m < p_R < s_R^*$ or $s_R^* < p_R < m$. As Groseclose demonstrates, this can occur when a candidate—here the challenger R —suffers from such a large strategic valence disadvantage that if she announces a strategy that exactly matches her sincere policy preference, i.e., if $s_R^* = p_R$, then even voters that exactly share R 's policy position do not vote for her (i.e. $[U_i(R) - U_i(D)] < 0$ for $v_i = s_R^* = p_R$). In this unusual case the conclusion of Theorem 1 would not hold, because R can actually improve her election prospects by shifting to a more extreme position, relative to m .

¹⁸The online appendix extends Theorem 1 to a more general model of candidate and voter motivations, in which candidates may derive private benefits from holding office and where voters may attach more weight to one of the candidates' character-based valence than to the other's character, an extension that may capture scenarios where voters can more easily observe the character qualities of the incumbent. These and the other extensions explored all suggest that the good government result extends to more general scenarios.

explain 35% of the variance in the challenger's optimal positions.¹⁹ Note that, other things being equal, the challenger's optimal strategy s_R^* moves to the right—and thereby becomes more extreme relative to expectations about the median voter position—as the challenger's relative strategic valence $[V_{SR} - V_{SD}]$ increases, while the negative coefficient on s_D indicates that the challenger can afford to take a more extreme (right-wing) stand if the incumbent is more extreme (in the leftist direction). Note also that these coefficient estimates imply that, for the range of parameters we investigate, candidate R 's optimal position will invariably be to the right of 4.0, which is the expectation of the median voter's position—i.e., R 's optimal position will always be on the same side of 4.0 as R 's bliss point $p_R = 6$.²⁰

Most important for our purposes are the coefficient estimates on the challenger's relative character-based valence variable $[V_{CR} - V_{CD}]$, along with the estimate on the interaction variable ($\alpha \times [V_{CR} - V_{CD}]$). The negative coefficient on $[V_{CR} - V_{CD}]$ implies that, when voters do not observe the candidates' character-based valences (i.e., when $\alpha = 0$), then R 's optimal strategy shifts to the left—and hence towards the location 4.0 which is the expectation of the median voter position—as her character improves relative to the character of the incumbent—an effect that supports the good government dynamic that we outlined earlier. The positive and significant estimate on the ($\alpha \times [V_{CR} - V_{CD}]$) variable indicates that the good government effect dissipates as voters are increasingly influenced by the candidates' character-based valences; specifically, the parameter values imply that this effect obtains over the approximate range $0 \leq \alpha < 2/3$, but not for higher values of α .²¹ These simulation results thereby corroborate the good government result, and suggest that this effect obtains for significantly positive values of the character salience parameter α .

¹⁹Separate regressions for fixed values of s_D have much higher values of R^2 . See the online appendix materials (Table S1, Part A) for details including standard errors of the parameter estimates.

²⁰Specifically, given these coefficient estimates and the range of the parameters we investigated, R 's optimal position (as predicted from the coefficients) will always be to the right of about 4.20.

²¹Note that s_R moves to the left if for a marginal increase in $[V_{CR} - V_{CD}]$, the expression $[-0.065 + 0.097\alpha]$ given by the parameter estimates on the simulated data remains negative, i.e., if $\alpha < 0.065/0.097 = 0.66$. Thus s_R moves to the left with $[V_{CR} - V_{CD}]$ if $\alpha < 0.66$ but to the right if $\alpha > 0.66$.

Challenger Positioning and Candidate Character: Empirical Results

Our illustrative examples and theoretical results suggest *The Good Government Hypothesis*: the stronger the challenger's character-based valence relative to that of the incumbent, the more moderate the challenger's ideological position relative to her district.²²

To test this hypothesis we employ data from both expert and constituent surveys drawn from a random sample of 97 U.S. House districts in 2006.²³ The constituent surveys are based on the 2006 Cooperative Congressional Election Study (CCES) common-content items. The expert data come from a separate survey of 2004 Democratic and Republican national convention delegates and state legislators residing in the sample districts who served as district informants knowledgeable about their House district, the candidates running, and the campaigns they conducted. The district-informant survey was conducted by mail and over the internet during the month of October, 2006, before the November election.²⁴ We aggregate expert perceptions to the district level so that the unit of analysis throughout is the district and/or candidate.

We chose these data sources for two reasons. First, they allow us to place the positions of both candidates and districts on the same scale. A limitation of much of the empirical literature on congressional elections is that it emphasizes incumbents, because only officeholders can be located based on their roll-call votes or interest-group ratings. In this context “moderation” is measured relative to other incumbents, rather than relative to the district. Likewise, the smaller number of studies that consider challenger placements do so only relative to one another or to incumbents, rather than to the district. We use the informant placements to locate both the

²²We note that this hypothesis states that character-advantaged challengers shift towards the *district median*, while Theorem 1 states that character-advantaged challengers shift towards the *incumbent's position*. However given that real world challengers and incumbents virtually always locate on opposite sides of the district median, in practice Theorem 1 and the Good Government Hypothesis are equivalent. This is the case with the data on congressional challengers we analyze below, in which all challengers were on the opposite side of the district median from the incumbent.

²³The actual N in our analyses ($N=74$) is smaller due to the fact that open seats and districts without challengers are dropped.

²⁴Our response rate was 21%, and the average number of informants per district was 6.2.

incumbent and the challenger on the 7-point liberal-conservative scale.²⁵ District placements are provided by computing the mean self-placement of CCES survey respondents on the liberal-conservative scale, numbering over 36,000 respondents nationwide.²⁶ The size of this sample affords the opportunity to build district-based measures of constituency opinion based on unusually large district samples.²⁷ We note that our informant-based placements locate all the Democratic challengers to the left—and all the Republican challengers to the right—of our estimates of these district medians.

A second strength of the 2006 district-informant study is that it gives us far more detailed measures of strategic and character-based candidate valence than has heretofore been possible from using standard indicators of “candidate quality” such as office-holding experience; indeed to our knowledge this is the only study that satisfies our need for separable empirical measures of candidates’ strategic and character-based valence. We questioned informants about candidates’ strategic and character-based valence, based on a battery of measures designed to assess the qualities of both incumbents and challengers.²⁸ All items are scored on 7-point scales ranging from “extremely weak” (−3) through “extremely strong” (+3). For use in our analysis, relative measures of both strategic and character-based quality were computed by subtracting the incumbent’s score from the challenger’s score on each index.²⁹

²⁵We have reestimated all of the specifications that we report below (see Table 1) using CCES respondents’ candidate placements in place of the informant placements, and these analyses support substantive conclusions that are identical to those we report below.

²⁶The CCES common-content survey used a 5-point liberal-conservative scale.

²⁷The mean number of respondents per district in the sample districts is 85.8.

²⁸The strategic-valence items are: ability to raise funds from others; ability to fund own campaign; current name recognition in district; ability to attract attention; ability to be persuasive in public; ability to run a professional campaign; overall strength as a campaigner. The character valence items are: personal integrity; ability to work well with other leaders; ability to find solutions to problems; competence; grasp of the issues; qualifications to hold public office; overall strength as a public servant. We confirmed the distinction between the two dimensions of valence by principal components analysis.

²⁹The mean difference between challengers and incumbents indicates that incumbents had a larger advantage on strategic valence (the mean difference score is −2.45) than on character valence (mean difference = −0.79). For comparisons between challengers and incumbents on individual items, see Stone and Simas (2010, 375).

Table 1 reports statistical tests of the good government hypothesis by analyzing the relationship between character-based valence and the challenger’s ideological distance from the district. The table reports coefficient estimates for regression analyses where the dependent variable is challenger distance from the mean voter position in the district. Thus, smaller values on this variable denote more moderate challenger positions relative to the district; larger values indicate more extremism relative to the district. The independent variable of interest is the challenger’s character-based valence quality minus the incumbent’s character-based valence quality, so that challengers’ character-based superiority is indicated by positive values of this variable. The good government hypothesis anticipates a negative coefficient on relative character-based valence because as the challenger’s character-based valence advantage over the incumbent increases, the challenger’s distance from the mean voter position in the district should decrease.

The first column in Table 1 estimates a baseline model, which includes as independent variables the challenger’s character valence relative to the incumbent’s character valence; the challenger’s relative strategic valence; the party of the incumbent; and the incumbent’s distance from the mean voter position in the district. Recall our assumption that the incumbent’s position is fixed by previous public commitments, including a record of roll-call voting in the House (Poole and Rosenthal 1997). The incumbent distance variable is included to allow for the possibility that the incumbent’s position relative to the district has an impact on challenger positioning, as suggested by the simulations reported in the preceding section; this variable is not statistically significant.

Column 2 presents estimates for a second model, which includes an additional independent variable, challenger partisans’ distance from the district, which is the distance between the mean voter placement in the district and the mean placement of partisans in the district from the challenger’s party.³⁰ We include this variable to control for effects relating to primary elections. Since many challengers were selected in contested party primaries we might expect that more extreme primary electorates (relative to the district as a whole) pull challengers away from the mean voter position in the district. This variable is significant, in the expected direction.

³⁰Based on CCES respondents’ ideological self-placements. The distance on the Left-Right scale is between the position of all respondents in the district and those who identify with the challenger’s party.

TABLE 1 Analysis of 2006 House Challengers' Distance from their Districts' Ideological Positions

	Baseline Model (1)	Primary Electorate Model (2)	Strategic Entry Model (3)
Challenger's relative character valence	-.21* (.09)	-.25** (.09)	-.18* (.09)
<i>Challenger's relative strategic valence</i>	.05 (.08)	.05 (.08)	.04 (.08)
<i>Democratic incumbent</i>	.32 (.17)	.14 (.17)	.08 (.18)
<i>Incumbent distance from district</i>	-.18 (.12)	-.20 (.11)	-.14 (.12)
<i>Challenger's partisans' distance from district</i>		.79** (.25)	.86** (.28)
<i>District presidential vote share for incumbent's party, 2004</i>			-2.14 (1.09)
<i>Challenger's office-holding experience</i>			-.44* (.18)
<i>Intercept</i>	1.75** (0.26)	0.72 (0.42)	1.95** (0.59)
Adjusted R ²	.19	.28	.34
N	(74)	(74)	(74)

** $p \leq .01$; * $p \leq .05$, two-tailed tests.

Note. In these analyses the dependent variable is the distance between the challenger's ideological position and the mean ideological position of the voters in the district, measured on a 7-point liberal-conservative scale. The definitions of the independent variables are given in the text.

Column 3 presents estimates for a third model, which includes two additional independent variables to control for the strategic entry of challengers: the partisan composition of the district measured as the share of the 2004 presidential vote won by the incumbent's party, and the office-holding experience of the challenger, which is the standard indicator of challenger quality in strategic-entry research (Jacobson and Kernell 1983). We control for these factors because, to the extent that they capture the strategic calculations potential challengers make about entering the race, omission of these variables can generate biased coefficient estimates on the independent variables relating to character-based and strategic valence.

The results in Table 1 support the good government hypothesis: the effect of relative character valence is significant and in the expected direction in all three specifications, whereas the effect of strategic valence is not.³¹ This shows that, consistent with our expectations, challengers are influenced by characteristics such as integrity and legislative competence and not simply by a desire to win office. As noted above, incumbents were rated on average by district experts

as stronger in their character than challengers (relative character score = -0.79 ; $sd = 1.27$). If we compare challengers who were relatively weak in character-based valence with those who were relatively strong relative to the incumbent (\pm one standard deviation on relative valence), the difference in the expected distance from their districts is about 0.5 units on the 1–7 liberal-conservative scale. That is, the parameter estimate -0.21 on the relative character variable in column 1 of Table 1 implies that, *ceteris paribus*, challengers whose relative character-based valences were one standard deviation above the mean located an average of over 0.5 units closer to their district than did challengers whose character-based valence rating was low, relative to the incumbent. This is a substantial difference on the 7-point ideological scale.

Finally, the estimated effects of the control variables in our specifications are generally in the expected directions, but they are not necessarily statistically significant. The estimated effects of relative strategic advantage are modest and are not statistically significant. These positive coefficient estimates would indicate that the stronger the challenger's strategic attributes relative to those of the incumbent, the more extreme the challenger's position—a dynamic that would be consistent with our simulation results. The office-holding experience of the challenger, however, does have a statistically significant moderating effect.³²

³¹If character-advantaged challengers moderate their positions due to office-seeking motivations (i.e., if these candidates seek to minimize their policy differences with the incumbent so that voters choose based primarily based on valence differences), then we would also expect to find challengers who benefit from strategic valence advantages to moderate their positions. However our coefficient estimates do not support this latter expectation. Thus, our model can explain—as previous models cannot—why challengers moderate their positions when their character-based valence improves, but do not moderate their positions as their strategic valence improves. We thank two anonymous reviewers for raising the issue of challengers' office-seeking motivations.

³²To the extent that previous office-holding experience is an indicator of superior competence or diligence over and above what is captured by the district informants' character ratings, this moderating effect is consistent with the Good Government Hypothesis, i.e., it implies that high-character challengers (as indicated by their previously having held office) tend to moderate their policy strategies.

Similarly, we estimate that smaller and/or more extreme partisan constituencies push challengers away from their district, as critics of the primary system have suggested, and that these effects are of comparable magnitude to the effects of candidates' character-based valences.³³ However, controlling for these effects does not undermine the good government result in our analysis.

Finally, we note that in comparisons of challengers' versus incumbents' distances from the district, our data show that challengers who enjoy a character advantage over the incumbent locate roughly 0.6 units *closer to* their districts' mean preferences (on average) than do the incumbents they are trying to unseat, while challengers who have a character deficit relative to the incumbent locate an average of 0.2 units *farther away from* their districts (on average) than do the incumbents they are opposing. This is striking evidence in support of the good-government effect: character valence is important not only because it is intrinsically valued, but because the strategic logic of relative character drives challengers to provide better *policy* representation than the incumbents they challenge.³⁴ The logic of the good-government effect is that candidates with desirable character qualities have incentives to provide good policy representation as well. Thus, constituents can "win twice" by supporting the candidate advantaged on character and who is also likely to provide a better ideological fit with district preferences.

³³In the Strategic Entry Model, both challengers' partisans' distance from the district and partisan composition of the district (defined as the district presidential vote share for the incumbent's party) are statistically significant. The coefficient estimate on the [Challengers' partisans' distance from district] variable in the Strategic Entry Model (column 3 in Table 1) is 0.86 and the standard deviation on the values of this variable is 0.33, so that if we compare districts where the challenger's partisans are moderate relative to the district median to districts where these partisans are relatively extreme (+/- one standard deviation on the [challenger's partisans' distance from district] variable), the difference in the challengers' expected distance from their district is about 0.57 units on the 1-7 liberal-conservative scale. This is similar to the estimated effect on challenger positioning of the challenger's relative character valence. Similar computations on the effects of district presidential vote share suggest that this variable exerts comparable effects on challenger positioning. We also note that when the analysis is run separately for Democratic and Republican challengers, both these variables are highly significant for Republicans but not for Democrats, suggesting that partisan ideology may have more effect in Republican than Democratic primaries.

³⁴We have estimated the equations presented in Table 1 using the relative proximity of the challenger and incumbent to the district, rather than the proximity of the challenger to the district, as the dependent variable. The effects of relative personal quality are, if anything, stronger in that setup than the one reported in Table 1.

Conclusion

In a series of seminal articles, Donald Wittman (1973, 1977, 1983) extended the Downsian model to incorporate the crucial insight that politicians may not focus exclusively on the private goods that come from holding office (i.e., income, prestige, fame), but rather that they also share voters' taste for the public good of the policy outputs ultimately generated by the winning candidate. Wittman showed that such a model generates fundamentally different predictions from the standard Downsian model, in particular that when there is uncertainty over the election outcome then policy-seeking candidates diverge on policy as we observe in real world elections.

Our model extends Wittman's insight on the strategic importance of public goods. If voters value the public good of good government in the form of able, honest, and diligent public servants, then the candidates themselves plausibly value these same attributes in elected officials. And, to the extent that candidates intrinsically value good character they should weigh their own (and their opponent's) character qualities when crafting their election strategies. Previous work has found that potential candidates' decisions about whether to run for office are influenced by their taste for character-based valence (Stone, Maisel, and Maestas 2004). We build on this research by presenting theoretical results that this taste for good character motivates challengers with qualities superior to the incumbent to moderate their policy positions toward their district's preferences. Our empirical analyses of congressional challengers' policy strategies confirm this good government effect.

From a theoretical standpoint, the distinction between character-based and strategic valence extends the perspective offered in previous spatial studies that incorporate valence issues without making the distinction between strategic and character valence (e.g., Ansolabehere and Snyder 2000; Bruter, Erikson, and Strauss 2010; Groseclose 2001; Londregan and Romer 1993; Peress 2008). We argue that strategic and character-based valence enter the candidates' strategic calculus in fundamentally different ways: namely, candidates value strategic valence instrumentally, as assumed in previous studies, but they value character-based valence both instrumentally and intrinsically as a public good. Our empirical results support this proposition.

Our findings have positive implications for representative democracy. To the extent that challenging candidates who are especially able, honest, and hard

working are prepared to moderate their policies in pursuit of office, this enhances the likelihood that voters will elect high-character challengers and benefit from the quality of leadership that results. Furthermore, by moderating their policy strategies, these high-character challengers move closer to the median voter's expected position and thereby provide superior policy representation to their district. These results are not contingent on voters' abilities to observe the candidates' character-based attributes. Indeed we have shown that the good-government result is strongest in situations where voters possess little or no information about the candidates' character-based valence. Given that extensive research documents that voters often possess little information about congressional candidates (Jacobson 2009 122–26), particularly challengers, it is reassuring that so long as candidates themselves value good government they are motivated to adopt policy strategies that enhance the likelihood that voters will receive the good government that results from competence, integrity, and diligence in their leaders, and the good policy representation that results from policy moderation over extremism.

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James Adams is a Professor in the Department of Political Science at the University of California, Davis, CA 95616.

Samuel Merrill, III, is Professor Emeritus in the Department of Mathematics and Computer Science, Wilkes University.

Elizabeth N. Simas is a graduate student 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.