

## **Valence Voters: Images, Issues, and Citizen Vote Choice in U.S. Senate Elections**

Christian R. Grose and Suzanne Globetti

Vanderbilt University  
Department of Political Science  
VU Station B#351817  
Nashville, TN 37235-1817  
615-322-6222  
christian.grose@vanderbilt.edu  
suzanne.globetti@vanderbilt.edu

Paper presented at the 2007 meeting of Midwest Political Science Association, Chicago, IL,  
April 12-15, 2007

**Abstract:** Can a candidate's non-policy valence advantages over his or her opponent cause voters to vote contrary to their issue preferences? We theorize that both issues and valence affect voting behavior, and, more importantly, their effects depend on each other. We use insights from the valence models of voting to explore the nature of this relationship: we argue that the effect of issues and traits are contingent upon both (1) how large the valence or non-policy trait advantage of one candidate over the other is; and (2) how far away the voter is from one candidate relative to the second candidate. We test our hypotheses with a unique data set from the 2006 Cooperative Congressional Election Study (CCES). We employ an experimental design in which some respondents view trait advertisements for their two U.S. Senate candidates, while others do not. Our results suggest that the effects of valence traits and issues are indeed contingent on each other. Voters extremely close to one candidate, though distant from the other, vote entirely based on issue preferences. Voters only slightly closer to one candidate than the other, so-called "Stokes voters," vote, instead, on traits. One of the implications of our results is that voters have distinct preferences for candidates with better traits and for candidates with congruent issue preferences; and not that traits are used simply as low-information information shortcuts. Our theory and findings move beyond the strict assumption of pure rational choice-based theories of voting behavior based on issues; it also moves beyond behavioral vote models that overemphasize the weight of traits by failing to realize that traits matter in relation to issue congruence.

Can a candidate's non-policy valence advantages over his or her opponent cause voters to vote contrary to their issue preferences? The Pew Research for the People and the Press released their final election report on November 1, 2000. The report revealed a substantial issue advantage for Vice President Al Gore. When asked which candidate would do a better job handling the issues, the public chose Gore on both traditional Democratic issues and traditional Republican issues. To be sure, Gore held a greater edge on health care (47 percent to Bush's 38%), social security (49-39), and prescription drugs (48-34), yet he also bested Bush on handling the economy (46-40) and representing Americans' views on world affairs (47-42). Even the emergent "culture war" did not seem to hurt Gore. Gore held a slight edge over Bush on strengthening families (42-39) and only a slight disadvantage on gun control (39 for Bush; 37 for Gore). Bush's only advantages lay in taxes (45- 41), the role of government (44-41), and defense (50-40).<sup>1</sup> In a post Cold War and pre-9/11 world, this last advantage, though large, was less consequential than in decades past.

While the public liked Gore better on the issues, they did not like *him* better. Indeed, Bush's non-policy advantage equaled Gore's policy advantage. More people viewed Bush as likable (44-37), honest (43-32), a strong leader (44-41), not a typical politician (51-29), and able to get things done (43-39). Gore held a fairly sizable advantage in one trait domain only – personal qualifications (45-38) – and only a small advantage (43-40) on caring, a traditional Democratic trait strength (Hayes 2005).

Bush and Gore held different, potentially offsetting, advantages. Yet, Bush eventually became president. Many media commentators consider Bush's victory evidence that candidate image trumps issues. Commentators have always placed significance on campaign events and

---

<sup>1</sup> "Bush Gains on Personal Qualities," The Pew Research Center for the People and Press. Study released November 1, 2000. <http://people-press.org/reports/display.php3?ReportID=27>

ephemera, whether it is tank riding (Dukakis 1988), sighing (Gore 2000), or personal peccadilloes (Clinton 1992). Political scientists, however, differ in the significance they accord such “valence” (Stokes 1963) considerations, with different intellectual approaches emphasizing different voting criteria. Initial spatial voting models focused exclusively on policy, ideological, or positional, considerations (e.g., Downs 1957; Enelow and Hinich 1981, 1982). Initial behavioral approaches downplayed issues and focused instead on party identification and candidate images (e.g., Campbell et al. 1960). Later research in these traditions has broadened to include a role for both issues and valence (see, e.g., Adams 2001; Adams, Merrill and Grofman 2005; Ansolabehere and Snyder 2000; Groseclose 2001; MacDonald and Rabinowitz 1998; Miller and Shanks 1996; Peterson 2005; Rahn et al. 1990; Peress 2006), yet each approach still tends to privilege one factor over the other or treat each factor additively in both theoretical and empirical models.<sup>2</sup>

In this paper, we argue that both issues and valence affect voting behavior, and, more importantly, their effects depend on each other. We use insights from the valence models of voting to explore the nature of this relationship: We argue that the effect of issues and traits are contingent upon both (1) how large the valence or non-policy trait advantage of one candidate over the other is; and (2) how far away the voter is from one candidate relative to the second candidate. Our theory moves beyond the strict assumption of pure rational choice-based theories of voting behavior based on issues; it also moves beyond behavioral vote models that overemphasize the weight of traits by failing to realize that traits matter in relation to issue congruence.

---

<sup>2</sup> However, see Hollard and Rossignol’s (2007) formal theoretical work on candidate positioning which assumes voters’ valence and issue dimensions are multiplicative.

We test our hypotheses with a unique data set from the 2006 Cooperative Congressional Election Study (CCES). We employ an experimental design in which some respondents view trait advertisements for their two Senate candidates, while others do not. Respondents who view ads are asked to rate candidate traits based on the content of the ad; respondents who do not view ads are asked to rate them on pre-existing impressions. This experimental design enables us to isolate the effects of traits from those of issues. We construct senate vote choice models with measures of traits, issues, party identification, and the interaction of issues and traits. Our results suggest that the effects of valence and issues are indeed contingent on each other. Valence and issues matter in relation to each other. Voters extremely close to one candidate, though distant from the other, vote entirely based on issue preferences. Voters only slightly closer to one candidate than the other, so-called “Stokes’ voters” (Groseclose 2001), vote, instead, on traits. One of the implications of our results is that voters have distinct preferences for candidates with better traits and for candidates with congruent issue preferences; and not that traits are used simply as low-information information shortcuts.

### **DETERMINANTS OF THE VOTE: BEHAVIORAL APPROACHES**

Early behavioral approaches found that party identification was the most important determinant of vote choice. The authors of the *American Voter* characterized party as a perceptual filter which shaped voters’ reactions to surrounding political stimuli (Converse et al. 1960). The Michigan scholars may have assigned party identification the starring role, but they also noted that candidates, such as Dwight D. Eisenhower, were the “short-term” forces that swayed elections (Stokes, Campbell, and Miller 1958; Stokes 1966). As party weakened and the media strengthened over the decades, candidates and their images became more influential in

voting (Asher 1988; DeClerq, Hurley, and Luttbeg 1975; Miller and Miller 1976; Miller and Shanks 1996; Pomper 1975; Rahn et al. 1990; Rosenberg et al. 1986; Wattenberg 1991, 1998).

This increasing influence prompted scholars to focus on candidate images as avenues for research. One prominent strand of this research investigates whether there is a presidential prototype that voters have in mind when selecting a president (Sullivan, Aldrich, and Rahn 1990; Kinder 1986). Political psychologists find that there are certain stable traits that voters find desirable in candidates over time, and that they reward those candidates with comparative advantages on these traits (Miller, Wattenberg and Malanchuk 1986; Funk 1999). Simply put, if voters like one candidate more than the other, they will be more likely to vote for that candidate (Glass 1985; Rahn et al. 1990; Miller, Wattenberg, and Malanchuk 1986).

The prominence of candidate characteristics suggests a lesser role for issues. In most behavioral models, issues do matter (Peterson 2005; Miller and Shanks 1996; Niemi and Weisberg 2001). Yet, they matter less than either party or traits. Theoretically, this is because issues are often seen as plagued by partisan projections (Conover and Feldman 1989) or as too difficult a voting criterion for ordinary citizens to employ usefully. In the standard view, the relative theoretical importance of candidate traits may thus be explained by information processing and social cognition theories. Ordinary citizens are inattentive to issues and thus largely unable to judge their own issue positions, much less those of candidates (Rahn et al. 1990; Sniderman, Brody, and Tetlock 1991). In contrast, they are used to making character judgments, since they do so daily. Relying on this type of heuristic thus is a natural and reasonable (Popkin 1991) voting strategy.

As further evidence that candidate characteristics trump issues in voters' minds, most studies find that politically sophisticated voters, for whom we would expect issues to matter the

most, are actually the most likely to evaluate candidates on the basis of their characteristics as opposed to their issues (Glass 1985; Miller, Wattenberg, and Malanchuk 1986; Pierce 1993; but see Luskin and Globetti 2002; Sniderman, Brody, and Tetlock 1991). When asked what they like and dislike about the candidates, political sophisticates make more personality-related mentions than issue mentions, and their ratio of personality to issue mentions is the highest of all sophistication strata (Miller, Wattenberg, and Malanchuk 1986).<sup>3</sup>

### **VALENCE DIMENSIONS, ISSUE DIMENSIONS, AND VOTING BEHAVIOR**

In contrast with these studies giving primacy to either trait effects or issue effects, our theory of individual-level voting behavior argues that both candidate issues and images are predictors of citizen vote choice. We argue that voters are likely to prefer candidates closest to them on an issue dimension, but that voters also prefer candidates with higher valence advantages, a generic theoretical term for image or trait advantages. However, we also argue that one of these dimensions can offset disadvantages on the other. Voters may, under certain circumstances, choose a candidate somewhat more distant on issues if that candidate has a substantial valence advantage. Also, under other circumstances, voters may choose a candidate with a substantial issue advantage, though that has a slight valence disadvantage.

Adams (2001); Adams and Merrill (2003); Adams, Merrill, and Grofman (2005); Ansolabehere and Snyder (2000); Groseclose (2001); MacDonald and Rabinowitz (1998); and Peress (2006); among others, suggest that candidates with high valence advantages (Stokes 1963) are likely to lead to election campaigns where candidates do not necessarily converge to

---

<sup>3</sup> Of course issues and traits are related to each other, with inference generally moving from issues to traits (Rapoport, Metcalf, and Hartman 1989; Peterson 2005). A higher coefficient for traits may be masking an indirect effect of issues. Peterson (2005) reports empirical evidence that traits are a function of issue agreement for those who are certain of issue positions. That is, if voters are certain of candidates' policy positions, they are more likely to positively evaluate candidates who share their policy positions. He estimates vote models that take into account both the indirect and direct effects of issues and concludes that issue effects are often underestimated.

the median voter in their constituency, though this relationship is not necessarily monotonic. These theories focus on and provide more empirically realistic predictions regarding candidate positioning than the Downsian-Hotelling median voter model, and they also provide more reasonable assumptions of voter behavior. While this literature on candidate valence is focused primarily on predictions of candidate behavior, implicit within most of these formal theories' assumptions are that, for voters, valence (or traits) can sometimes trump issues and issues can sometimes trump valence. Which of these two factors trump the other depends primarily on where the voter is located on the issue dimension and how large one candidate's valence advantage is over the second candidate.<sup>4</sup>

We borrow from the assumptions of this formal theoretic work regarding voter decision-making to theorize about the effects of candidate traits and issues on the vote. The assumptions underlying these valence theories suggest that voters value both issue distance and the valence dimension. While these particular theoretical assumptions and predictions are clear, existing theories do not identify, in detail, what valence advantages might be. We argue that valence advantages occur when a candidate has more desirable character traits than his or her opponent. Voters should, by and large, prefer honesty to dishonesty, and competence to incompetence, in their leaders. Such traits are clear valence advantages. Thus, our theory provides more definition to the concept of valence suggested in spatial models of voting and introduces the concept of a valence dimension to behavioral theories of trait-based voting.

The valence dimension in spatial models of voting is a second, non-positional dimension (Stokes 1963). The theories assume that voters make decisions based on both the positional

---

<sup>4</sup> We interchangeably use the terms "issue dimension" and "ideological dimension" (and "issue distance" and "ideological distance") throughout the manuscript. While not precisely the same concepts, we are interested in measuring voter distance from candidates on issues, whether these are conceived of as a specific set of issues or a broader structured ideology mapping onto issues.

issue-based first dimension and the second valence, non-positional dimension. The unification of behavioral models of voting (focusing on valence dimensions such as traits) and rational choice models (focusing on issue distance between voters and candidates) is achieved theoretically in these valence models of voting (Adams, Merrill, and Grofman 2005). Until the insights from valence theories are incorporated, the debate over voting behavior is likely to remain focused on whether issues *or* candidate traits are the most important predictor of a citizen's vote choice. We posit that both issues and valence traits are important predictors of the vote. Further, the importance of a valence trait is contingent upon the issue distances between the voter and both candidates. Under valence theories of voting, some voters will vote based on issues, while others will be likely to vote based primarily on the valence dimension, while others will weigh both dimensions.

To motivate our theory of valence voting, we will describe a few hypothetical theoretical scenarios of how a citizen will make a voting decision. First, in instances where one candidate has both an issue advantage and an image or valence advantage, the citizen's vote choice is clear: the advantaged candidate on both issue and valence dimensions is preferred by the voter.

In another instance, imagine a voter,  $V_1$ , with an ideal point in one policy dimension located equidistant between two candidates (see Figure 1a). Imagine that the voter's ideal point is located at 50 on a 0 to 100 scale, where smaller values are conservative and larger values are liberal.<sup>5</sup> The Republican candidate, candidate A, is located at 25 and the Democratic candidate, candidate B, is located at 75. Thus, based purely on issue distances, the voter is indifferent.

Under pure issue-based theories of voting and assuming the voter does not abstain, a voter would simply "flip a coin" and have a 50 percent probability of choosing each candidate. However,

---

<sup>5</sup> Obviously, these theoretical scenarios can be made more general than a 0-100 scale, but we use specific numeric values simply to motivate the theories. For one example of a general formalization of these assumptions of voting based on both an issue dimension and a valence dimension, see Groseclose (2001, 864-65).

with the addition of a second valence dimension (not shown in the figure), this voter will then also consider the candidate's trait advantages. If the Democratic candidate (candidate B) is perceived as stronger on traits than the Republican candidate—and the voter is equidistant from both candidates on the first spatial dimension—then the voter will simply vote for candidate B. Issue distance yields indifference, but one candidate's valence traits clearly predict a voter's decision.

Now consider another voter,  $V_2$ , located at 25 in the unidimensional issue space (see Figure 1b). In this instance, the voter's ideal point is identical to candidate A's ideal point and is far away from candidate B's ideal point. This voter also perceives that Candidate B is stronger on traits than Candidate A. But, given the issue congruence of the voter with the Republican candidate (candidate A) and the relatively large distance between the voter and the Democratic candidate (candidate B), the issue dimension gulfs the valence or trait evaluation dimension in the mind of the voter. Essentially, the voter would prefer an ideologically congruent candidate who might happen to be less inspirational than a highly inspirational—though issue distant—alternative candidate.

Finally, consider another type of voter,  $V_3$ . This is a voter where both the issue dimension and the trait dimension have some weight—and where the trait dimension may cause the voter to go against his or her issue preferences (see Figure 1c). Consider a voter located at 48 on the policy continuum displayed in Figure 1c. Like with the other examples, the Republican candidate (candidate A) is located at 25, and the Democratic candidate (candidate B) is located at 75. This means that based purely on issue distance, the voter is closer to the Republican candidate than the Democratic candidate in the policy dimension. Thus, based on proximity (or directional) models of voting with no valence dimension, the prediction would be that the voter

would vote for the Republican. However, the voter is just barely closer to the Republican candidate than the Democratic candidate. If the Democratic candidate has a substantial advantage on a trait or valence second dimension, this voter will likely vote for the Democrat. This type of voter, which Groseclose (2001, 864) terms a “Stokes voter” in deference to Stokes’s (1963) critique of the Downsian spatial model, casts a vote based on a candidate’s trait advantages and contrary to issue preferences.

However, this “Stokes voter” makes this decision of traits over issues because s/he is relatively distant to both candidates on issues. Our theory predicts that voting based on traits is contingent upon the existing issue locations of voters and candidates. Voters highly congruent with one candidate on issues (and not the other) will not be swayed by the other candidate’s valence trait advantage. In contrast, voters closer to one candidate than the other—but generally distant from both on the issue dimension—are likely to be swayed to vote contrary to their issue preferences dependent upon the extent of the trait dimension.

### **THE VALENCE VOTERS HYPOTHESIS AND ALTERNATIVES**

This theoretical logic yields the following hypothesis. When voters perceive only a small issue advantage for one candidate (e.g., Figure 1c), the importance of candidate traits on the vote will be high. Further, when one candidate’s trait advantage far outweighs the other candidate’s traits, the importance of issues will decline for a larger group of voters. However, voters highly congruent on issues with one candidate and not the other candidate will not be likely to use candidate traits in their vote decisions (unless the trait advantage of one candidate over the other is immense).

There are of course two alternative hypotheses. Instead of our valence voting hypothesis that suggests that both candidate traits and issues will affect the vote, the pure rational choice

alternative hypothesis would be that issue distance only will affect the vote. Also, in contrast to our valence hypothesis, the pure behavioral alternative hypothesis would be that traits only or primarily will affect the vote. Note that while our theory of the contingent nature of both issues' and traits' effects on the vote are complementary to the alternative pure trait-based and pure issue-based explanations, it is a distinct theoretical argument. Scholars arguing that citizens vote based purely on issues would not expect traits to have any impact, while we do. On the other side, trait-centric scholars often argue that traits are simply low-information cues or shortcuts that would imply there will be no interactive or contingent effect between traits and issues.

Unlike Popkin (1991), who argues voters are using traits as cues or shortcuts, we posit that voters evaluate candidates separately on the issue dimension and the trait dimension, and that these two separate dimensions may also be likely to interact for some "Stokes voters." Voters want to be inspired by their elected officials, *and* they want their elected officials to be close to them on the issues. We argue that voters care about and have preferences about candidate traits not as a means of quickly assessing issue congruence, but instead as an end itself.

For instance, in the 2006 U.S. Senate race in Tennessee between Democrat Harold Ford, Jr. and Republican Bob Corker, Ford was able to make inroads with voters who viewed his policy positions as somewhat more moderate or liberal than their own. While more moderate than the national Democratic party, Ford's issue positions were clearly to the left of many conservative voters in the state (e.g., Ford occasionally took a nominally pro-choice position at points throughout the campaign, while his opponent did not). Albeit in a losing effort, Ford was able to garner the votes of nearly 20 percent of self-described conservatives on Election Day, a not inconsequential percentage since 45 percent of the electorate included conservatives.<sup>6</sup> Ford's

---

<sup>6</sup> The source for these data is CNN.com's archive of 2006 exit polls.

charm and energy, clear valence characteristics, excited some conservative voters who would have otherwise voted for the more ideologically congruent Corker.

In a campaign appearance before a group of mostly Republican county elected officials in East Tennessee, candidate Ford was able to turn the extremely conservative and “initially cautious” crowd in his favor, as they “warmed rapidly to his remarkable speaking skills....”<sup>7</sup> After the speech, Ford’s exit was blocked by “burly Republican county commissioners who had heard him talk and were lining up to hug him.” As Fred Congdon, the head of the Association of County Mayors said at the event, “There’s an awful lot of Elvis Presley in him. He’s got more charisma than any politician I’ve seen in a long time.”

These words of praise regarding Ford’s “Elvis”-like attributes were not information shortcuts for these highly informed GOP county officials (and voters). These voters simply preferred Ford on the valence dimension of traits relative to his soft-spoken and less dynamic opponent, Bob Corker. While voters clearly take issues into account, they also have separate preferences regarding candidate traits. Of course, even while taking moderate stances during the 2006 campaign, on an issue dimension Ford was likely less congruent with this group of voters. However, on the valence dimension focused on Ford’s traits, Ford was likely preferred to Corker, especially by these voters with more weakly conservative issue preferences. Ford was not mobbed by these GOP voters because they mistakenly perceived him as ideologically congruent with their issue preferences, but because they liked his charisma as an end in itself.

In sum, our theoretical predictions suggest that large candidate advantages on traits will have no impact if the trait-advantaged candidate is simply out of sync on issues with a voter. Further, the importance of traits will be magnified if a voter perceives very little issue differences

---

<sup>7</sup> The source for this quote and others in this paragraph is as follows: Julian Borger, 2006. “News: U.S. Midterm Elections: Republicans Facing Electoral Hurricane in Face of Centrist Democrat Push.” *The Guardian (U.K.)*, October 28.

between the two candidates. And finally, if a “Stokes voter” is closer to one candidate than the other, but only marginally so, then trait advantages may cause the voter to vote against their underlying issue preferences. For these voters, issues alone cannot win a citizen’s vote, and traits alone cannot win a citizen’s vote. The combination of the two can affect vote choice.

However, there is primarily one empirical problem with testing our theory of the contingent effect of both candidate traits and issues on voter choice using existing survey data. Most surveys asking respondents to rate candidates on both issue distance and on trait qualities face problems assessing the extent that candidate traits are not correlated with voter’s perceptions of issue distance. If respondents are using candidate traits as information shortcuts, voters might rate candidates they are ideologically in sync with highly on a battery of trait questions. These high trait ratings may occur because the respondent actually perceives a candidate as highly competent or inspirational, or it may occur because the voter is projecting issue congruence onto the trait dimension (the inverse, projecting certain traits on issue distance is also possible). In existing surveys, without an experimental research design, we cannot be sure of the independent effect of candidate traits on the vote relative to issues. We get around this thorny methodological issue by engaging in an experimental research design.

### **THE DATA AND EXPERIMENTAL DESIGN**

The survey data come from the 2006 Cooperative Congressional Election Study (CCES).<sup>8</sup> The survey initially included 1000 respondents, and half of these respondents were selected into the experimental group and the other half were selected into the control group. After dividing these two groups of respondents, voters without a senate race were excluded, dropping the

---

<sup>8</sup> Most of the data used come from a 1000-person sample that was asked questions concurrently with the broader CCES survey. The survey was a nationally representative sample, conducted by Polimetrix. One of the key independent variables is taken from the broader CCES sample, and the rest of the measures are taken from the 1000-person sample (which was included in the broader CCES sample). We weight the analyses to control for any sampling biases.

number of respondents substantially in each group. The experimental group watched one actual advertisement from each of the two major party U.S. Senate candidates running in their state and then was asked a battery of trait questions about each candidate.<sup>9</sup> This group was specifically instructed to answer the questions based on the content of the ad. The control group did not view any advertisements from their senate candidates, but were also asked the same battery of trait questions about each candidate. The battery of trait questions asked respondents to evaluate both major party senate candidates on their competence, inspiration, likeability, and other factors (see the appendix for a full list of the trait questions and other survey questions used in the analysis).

Prior to the battery of trait questions, in the “common content” portion of the survey, respondents in both the experimental and control groups were asked to place themselves and the senate candidates on a 0 to 100 ideological dimension. After the ideological placement and trait questions were asked in the survey, the respondents were then asked to determine who they would vote for if the election were held at that time. In a post-survey, the voters were also asked who they actually voted for.<sup>10</sup> Thus, in both the experimental group and control group of respondents, we have (1) comparable measures of voters’ ideological positions relative to both candidates; (2) comparable measures of voters’ ratings of candidate traits; and (3) measures of vote choice. These survey responses will be used to construct an empirical model of vote choice, described later in the paper.

In addition to helping us move past this methodological issue endemic to many non-experimental survey-based studies of the effects of issues and traits on voting behavior, the

---

<sup>9</sup> In Connecticut and Vermont, instead of being asked about the major party candidates, respondents were asked about Ned Lamont (D-CT), Joe Lieberman (I-CT), Rich Tarrant (R-VT), and Bernard Sanders (I-VT).

<sup>10</sup> In the logit analyses presented later in the paper, we use the intention to vote question as the dependent variable instead of the post-survey vote choice as the dependent variable. This is done as there are more respondents who answered the intention to vote question in the pre-survey and because the intention to vote question was asked after the questions regarding issue distance and traits. Nevertheless, we also estimated the logits presented later with the post-survey vote choice question, and the results are statistically and substantively similar. Also, the correlation between both vote choice measures is  $> 0.9$ .

experimental design also allows to assess additional questions regarding campaign effects. If watching two advertisements centered on each candidate's traits causes more respondents to vote for the more highly rated candidate than those respondents who do not watch any advertisements, then substantial evidence for campaign effects will be found. Gauzy, positive ads highlighting a candidate's traits and background have generally been dismissed as not particularly informative or useful (e.g., see Geer, 2006, 46) to voters. However, given our theory of voting where voters weigh both issue distance and candidate traits, positive "bio" advertisements may have an informational effect on the campaign.

### **THE ADVERTISEMENTS USED IN THE EXPERIMENTAL SAMPLE**

As noted above, the experimental group of respondents first viewed advertisements from each major senate candidate before answering the battery of trait questions listed in the appendix. The control group did not view these advertisements, though answered the same set of trait questions. Thus, any effect of traits we find in the experimental group that is larger than the effect of traits in the control group can likely be attributed to the actual traits perceived by respondents in the advertisements viewed. Of course, if the trait and issue distance measures in non-experimental surveys are useful and separate measures of these two concepts (as the non-experimental respondents evaluated these concepts during the course of the campaign), we are underestimating the effect of traits by only examining the increase in the trait effects in the experimental group. However, we prefer this experimental method so that we can best isolate the effect of traits relative to the issue dimension, though keeping the experiment highly realistic within the context of actual U.S. senate campaigns (and instead of adopting a fictional experimental design).

The process for selecting the advertisements for the experimental group respondents was as follows. First, we utilized the database of U.S. Senate campaign advertisements available on the *National Journal* web site. This database listed every senate campaign in 2006, and included downloadable links to all senate advertisements almost as soon as the campaigns had made them publicly available to *National Journal*. From the advertisements in the *National Journal* database, we chose the most biographical advertisement that was as free of issue-based content as possible. In nearly all instances, the advertisement meeting these criteria was the candidate's first advertisement released by the campaign, the so-called introductory "bio" ad.<sup>11</sup> In instances where the first advertisement focused on issues, we perused the other advertisements in each candidate's archive of advertisements and chose the one that was least issue-focused. In instances where more than one advertisement appeared to be equally focused on traits and devoid of issue content, we chose the advertisement that was aired earliest.<sup>12</sup>

In some instances, primarily the least competitive Senate races in 2006, no advertisements were available from both candidates when the survey went into the field. Thus, respondents in these states were also excluded from the experimental sample. We also excluded all respondents from Indiana, where Sen. Richard Lugar faced no Democratic opposition. While excluding these non-ad races from the sample reduces the N, we are unable to assess the effect of trait-based advertisements on respondents when there are simply no advertisements available.

The creativity of our experimental design is that we have a control group of respondents who do not see any ads and a treatment group of respondents that see ads from each candidate. However, we pair actual "bio" advertisements that the candidates chose to show in their

---

<sup>11</sup> The *National Journal* ad archive listed the date each advertisement was released.

<sup>12</sup> In addition to the *National Journal* database, we also perused the candidates' individual web sites in order to make sure that the *National Journal* had not omitted important advertisements. In a couple of instances we did find biography ads that were not posted on the *National Journal* web site.

constituencies. Thus, the valence advantage (or disadvantage) a candidate has relative to an opponent is captured through the messages the candidates choose to communicate. Because we use actual candidate advertisements, but are careful to select those advertisements that are entirely or almost entirely focused on traits and devoid of positional issues, our experiment yields more external validity than most experiments using fictional candidates and advertisements.

The varieties of valence images in the advertisements are numerous, though they all tend to summarize to a central theme of leadership and fitness for office. Some candidates choose to focus on their specific traits and experience explicitly (“... fixing problems, that’s what we’re supposed to do”, Mike McGavick, R-WA); while others describe actions that would suggest positive valence characteristics (“that’s the reason I fought so hard to secure \$100 million...for Pennsylvania,” Rick Santorum, R-PA). Still others focus on gauzy platitudes stressing leadership and valence issues that Stokes (1963) claimed most campaigns were fought over “... I hope all of us will take a moment to remember those brave Americans fighting to make the world freer and our country safer,” Harold Ford, Jr., D-TN).

Other advertisements may garner positive valence reactions from voters less through their audio, but instead through the visual display (making our experimental survey design where respondents actually view ads even more important). The visuals and audio in incumbent senator Jon Kyl’s (R-AZ) advertisement focused explicitly on his traits. While Kyl speaks to the camera, blurbs about his background scroll by on the screen while he is shown talking to voters and walking on a ranch with men in cowboy hats: “A workhorse, not a showhorse.” (quoted from the *East Valley Tribune*); “diligence, hardwork, and intellectual prowess” (quoted from the

Arizona Republic); and “[t]he Senate’s most frugal member” (quoting Citizens Against Government Waste).

To assess a candidate’s advantage on valence, a trait advantage index was constructed. The rating of each question for the candidate was summed (see appendix for battery of trait questions), and thus a candidate’s individual trait rating can range from a low of -7 to a high of +7.<sup>13</sup> To assess the advantage relative to the other candidate, we first summed each candidate’s rating on this -7 to 7 scale to garner the Democrat’s valence rating,  $V_D$ , and the Republican’s valence rating  $V_R$ . We then constructed a *Democratic trait advantage* measure,  $[V_D - V_R]$ , which captures the relative Democratic trait advantage over the Republican for that specific voter. Positive values of the measure indicate the Democratic candidate has a valence advantage on traits over the Republican candidate, and negative values indicate the Republican candidate has a valence advantage over the Democratic candidate.

Table 1 shows the mean respondent trait ratings of both Democratic and Republican U.S. Senate candidates, listing the results for the experimental and control groups separately.<sup>14</sup> The control group of respondents that did not view any advertisements rated the Republicans higher on traits than the Democrats. However, these control group respondents rated both Democrats and Republicans positively. Notably, the viewing of experimental valence-oriented advertisements clearly increased the positive trait ratings of both Democratic and Republican candidates. The mean Democratic trait rating increased from 0.397 in the control group to a

---

<sup>13</sup> In general, we modeled our trait questions asked in our component of the CCES survey on the trait questions asked in the National Election Study (NES). These NES questions were developed by Donald Kinder as part of his exploration of presidential prototypes and some subset of them have appeared on the NES since 1980. We also include two of our own trait questions in the CCES survey: we ask how likeable the candidate is and how safe the candidate makes the respondent feel.

<sup>14</sup> The mean ratings in Table 1 are based on the samples that included only those respondents who provided answers to all questions used in the logit analyses in Tables 2 and 3. A number of respondents did not answer ideological placement questions and thus are excluded from these summary statistics, even though they did in fact answer the trait questions.

mean of 2.061 in the experimental group, while the mean Republican trait rating increased from 1.054 to 1.537 between control and experimental groups. Table 1 suggests that, on average, Democrats were able to offset their issue disadvantage (in both experimental and control groups, the Democratic candidates had a nearly equivalent and slight issue disadvantage, a measure we describe in greater detail below) through effective trait-based advertisements. The Democratic trait advantage in the control group was an average of -0.657, and this improved to 0.524 in the experimental group.

To further motivate the effect of highlighting valence traits in advertisements, we will discuss a few examples based on specific U.S. Senate races.<sup>15</sup> Sen. Debbie Stabenow (D-MI) was one of the largest beneficiaries in trait evaluations between the control and experimental groups of voters. Those voters who did not watch any advertisements before being asked our battery of trait questions, on average, rated Stabenow negatively; however, on average, she was positively rated on traits by those respondents who viewed her advertisement.

Stabenow cannot charitably be described as one of the most dynamic senators, perhaps explaining her negative trait evaluation rating among the control group. However, the images and language used in her advertisement shown to the experimental respondents communicated strength and resilience. The ad, called “Leader,” offered valence-oriented platitudes that were devoid of positional issue content. For instance, in the opening of the ad, Stabenow speaks directly to the camera with the backdrop of a factory floor and a man in a hardhat working behind her, stating “[t]imes are tough in Michigan, but so are we.” Later in the ad, she continues with a focus on valence issues, saying “That’s why I’m fighting...to invest in education, so our

---

<sup>15</sup> Because the survey was a national sample, the number of respondents per state is relatively small. Thus, inferences should not be made on a case-by-case basis. The results in Tables 1 and 2 are simply offered to show how the experimental respondents’ viewings of advertisements from both candidates may shift the ratings relative to the control group respondents.

children have a chance to get ahead. I'm Debbie Stabenow, and I approve this message because we've got a great future here in Michigan and I'm fighting for it every day." But perhaps more importantly than her words are her style and image in the advertisement. She looks directly at the camera, speaks forthrightly, and stressed that she is a "fighter" numerous times throughout the 30-second spot.

Examining other specific races also yields other interesting patterns: for instance, if we look at the ratings among Rhode Island respondents (keeping in mind these specific race-by-race samples are small), Sheldon Whitehouse (D-RI) was already advantaged on traits over incumbent Sen. Lincoln Chafee (R-RI) when comparing their estimates from the control group. Chafee, with a fairly ineffectual speaking style and presentation of self, was rated an average of -5.3 on the trait scale among control respondents, while Whitehouse was rated a somewhat less negative -1.2 among control respondents. Those watching the advertisements, though, rated both Chafee and Whitehouse better than the control group, though Chafee improved to a still poor trait rating of -2.7, while Whitehouse dramatically improved to an average of 4.5 among experimental respondents.

Similarly, some Republican candidates had large positive shifts on the trait advantage scale relative to their Democratic opponents when comparing the experimental group respondents' ratings of the candidates' traits to the control group respondents' ratings of traits. Mike DeWine is the Republican candidate with the greatest relative gain on trait ratings over his Democratic opponent when comparing the experimental and control group ratings. DeWine's mean trait rating in the control group was -1.4, and this improves to 2.9 among experimental respondents (while his opponent, Sherrod Brown, sees a slight decline when comparing the control and experimental ratings). In DeWine's ad showed to the experimental group, the ad

opens with a man identified as Kyle Miller, “assistant fire chief,” explaining how DeWine has helped deliver federal funds for anti-terrorism to firefighters in Ohio, and then ends with DeWine speaking directly to the camera. In the ad, the fire chief states “Senator DeWine saw how stretched our local fire departments had become and he went to work. He delivered badly needed equipment...to firefighters and emergency services across Ohio. He saw a problem and he fixed it. He’s not flashy, but Senator DeWine gets things done.”

Simply perusing these descriptive statistics in Table 1 and considering these anecdotal examples suggests that the experimental group may have been moved by the ads to change their trait evaluations of the candidates, and further suggests that the valence-oriented ads may have caused them to think more explicitly about traits when evaluating candidates. However, to assess the relative and interactive effect of both traits and issues on vote choice, we need to specify multivariate models utilizing these data for both the experimental data and the control group data.

### **SPECIFYING THE EMPIRICAL MODELS**

We develop a basic vote choice model and estimate it separately for the experimental and control groups. Following our theory, we model vote choice as a function of issues, traits, and, most importantly for our purposes, their interaction. Recognizing the importance of party identification in behavioral models, we also include it in our model.<sup>16</sup>

Our dependent variable is intended senatorial *Vote*, coded 1 for a Democratic vote and 0 for a Republican one.<sup>17</sup> Our measure of traits is the *Democratic trait advantage* described

---

<sup>16</sup> This model represents the socio-psychological determinants of the vote. Demographics are prior to these determinants and thus their effects should be captured in these socio-psychological determinants. We did estimate our model with such demographic controls, and our results were essentially the same. Including these controls, however, significantly reduces our number of cases, so we choose to exclude them here.

<sup>17</sup> As noted earlier, we use intended vote asked during the pre-election portion of the survey (though asked after the issue distance and trait questions) as this measure correlated very highly with the post-survey vote choice intention, yielded more cases, and also did not differ substantively from results estimated with the alternative post-measure.

above.<sup>18</sup> To measure the relative ideological distance of the voter to the two candidates, we follow the measurement strategy employed by Adams, Bishin, and Dow (2004). The precise issue distance measure is  $[(x_R - x_i)^2 - (x_D - x_i)^2]$ , where  $x_i$  is the voter's ideological self-placement,  $x_D$  is the voter's ideological placement of the Democratic senate candidate, and  $x_R$  is the voter's ideological placement of the Republican senate candidate. We used squared distances in keeping with the assumptions of the model of spatial voting.<sup>19</sup> Coded this way, the variable measures the *Democratic issue advantage*. This measure is thus positive if the Democratic candidate is closer to the voter than the Republican candidate and negative if the Republican candidate is closer to the voter than the Democratic candidate.<sup>20</sup>

To measure party identification, we distinguish partisans from leaners. We code strong Republicans and weak Republicans as a 1, leaning and pure independents as a 2, and strong and weak Democrats as a 3. Thus, in keeping with the rest of the model, higher *party identification* scores represent greater Democratic advantage.

Lastly, we include a multiplicative interaction term to capture the relationship between comparative trait advantage and issue proximity. This last variable is crucial to understanding the predictions of the valence model. Unlike purely additive models, our interaction model allows us to assess whether the effects of candidate traits are contingent on issue distance, as the valence theory predicts. In short, we move beyond arguing that both traits and issues matter to arguing that they matter in relation to each other.

---

<sup>18</sup> Some research suggests that traits are composed of separate dimensions, such as competence, leadership, and integrity (see Funk 1999 for a review). We are interested in the overall trait advantage, however, and thus only use this summary measure. The scale reliability, measured by Cronbach's alpha, is .79.

<sup>19</sup> Analyzing the models using the absolute value of the linear distance yielded substantively similar results to those we present later based on this quadratic measure.

<sup>20</sup> In Connecticut, independent Joe Lieberman is treated as the Republican candidate. In Vermont, independent candidate Bernard Sanders is treated as the Democratic candidate.

As argued above, the experimental design is attractive in that the treatment group views trait ads, while the control group does not. Thus, we may consider the trait advantage in the experimental case as more purely trait-oriented and, as much as possible, “purged” of issue projections. We can compare the two groups to see how issues and traits interact to influence vote choice. Because our dependent variable is dichotomous, we estimate logits.

### **RESULTS OF THE INFERENTIAL MODELS**

We report our results in Tables 2 and 3. Table 2 presents coefficient estimates and significance levels for the experimental group, whereas Table 3 presents coefficient estimates for the control group. The models share the same pattern of results, with one notable exception. First, both models report positive and statistically significant effects of party identification. As expected, increasing Democratic attachment increases the likelihood of voting Democratic. Both models also illustrate the importance of candidate traits in vote choice. The coefficient on the Democratic trait advantage variable represents the effect of this variable when the conditioning variable, Democratic issue distance advantage, is equal to zero. Thus, the positive sign on this coefficient suggests that increases in trait advantage increases the likelihood of voting Democrat when the candidates are viewed as equally congruent on issues. The coefficient on issue distance, which represents the influence of issue distance when neither candidate holds a trait advantage, is statistically insignificant in both the control and experimental models. This suggests that issues by themselves are less important predictors of vote choice than are other factors, such as party identification and candidate trait evaluations. However, as seen by the statistical significance of the *Issue Distance \* Traits* variable in Table 2 and as we discuss below, issues, interacted with the valence dimension, have an effect on vote choice.

Crucially, however, we are interested in the choices voters make when facing candidates who possess differing valence and policy advantages. To interpret the substantive effect of the variables of interest, we compute predicted probabilities of voting for the Democratic U.S. Senate candidate in Tables 4 and 5. Based on the logit coefficients in Tables 2 and 3, we vary the Democratic trait advantage and the trait component of the interaction variable, while holding all other values constant to garner the predicted probabilities in Tables 4 and 5. In Table 4, we examine an instance where a voter is relatively distant from both the Republican candidate and the Democratic candidate, though would favor the Democratic candidate based purely on the proximity model of voting. In this table, the *Democratic issue advantage* variable is held constant at 1200, which is the value of the variable, for instance, if the voter is located at 40, the Democratic candidate is located at 20, and the Republican candidate is located at 80.<sup>21</sup> The *Party identification* variable is held constant at 2, which indicates the respondent identifies as an independent.

As can be seen in Table 4, under this scenario where the voter is ideologically closer to the Democrat, a Republican valence advantage on traits can cause the voter to cast a Republican ballot. In both the experimental model and the control model, we find this effect when examining the predicted probabilities. However, there is a clear difference between the experimental data—where the respondents viewed trait-oriented advertisements and then rated the candidates on traits—and the control data—where the respondents also rated the candidates but did not watch advertisements as part of the survey. As shown in Table 4, when a Republican candidate has a trait advantage of 3 or higher (indicated in the table as the values between -3 and -7 in the Democratic valence disadvantage/advantage column), the respondent in both

---

<sup>21</sup> Recall that the measure of the Democratic issue advantage variable is  $(x_R - x_i)^2 - (x_D - x_i)^2$ . Thus, inputting these voter and candidate values, we get  $(80 - 40)^2 - (20 - 40)^2 = 1200$ .

experimental and control samples is likely to vote for the Republican over the Democrat, even though the respondent is closer to the Democrat. In both samples, these “Stokes voters” are evidence for our theoretical expectations: for example, a Democratic candidate with a valence disadvantage of 3 points lower on the trait scale than the Republican opponent is only likely to receive the vote of a voter fitting this ideological profile with probability 0.09 in the experimental sample and with a probability of 0.39 in the control sample.

However, the size of the Republican valence advantage (or alternatively the Democratic valence disadvantage) required to cause a voter to cast a ballot contrary to ideological preferences is much smaller for the experimental sample. This suggests that the effects of two positive campaign ads focused on traits can “prime” a respondent to think more about traits when making a vote choice. It also suggests that our measures of trait advantages are due to the respondents viewing the advertisements—and not due to respondents’ projections of issue distances on traits. In fact, the experimental evidence suggests a strong relationship for traits or valence advantages for these sorts of voters that are relatively distant from both candidates (though closer to one candidate than the other). A Democratic candidate with a relatively small valence disadvantage is still less likely to receive the vote of a respondent with the ideological profile in Table 4, as the predicted probability of voting for a Democrat with a Democratic valence disadvantage of -2 and -1 is 0.23 and 0.47, respectively, for those voters in the experimental sample. In fact, the power of priming the trait/valence dimension by showing trait-oriented advertisements to these voters with distant preferences to both candidates is quite remarkable, as not until there is no valence advantage for Republicans that these voters that are ideologically closer to Democrats are predicted to vote for Democrats.

In contrast, in Table 5, we show predicted probabilities for a different kind of voter. This voter is quite far from the Republican candidate, and is fairly close though not ideologically congruent with the Democratic candidate. In Table 5, we display predicted probabilities based on the logit coefficients in Tables 2 and 3 while varying the *Democratic trait advantage*, and again holding the *Democratic issue advantage* and *Partisan identification* constant. Like Table 4, partisan identification is again held constant at 2 for independents; unlike table 4, we now hold the Democratic trait advantage constant at 4000. This issue advantage value of 4000 represents the instance where the voter is located at 25, the Democratic candidate is located near the voter at 10, and the Republican candidate is located quite far from the voter at 90.

According to our theory, ideological preferences should matter more than valence advantages in Table 5 than they did in Table 4 because the voter is much closer to a candidate in the ideological space. As shown by the predicted probabilities in the experimental sample, this expectation is borne out. In the control sample, the Democrat has a lower than 0.5 probability of winning only when the Democratic valence disadvantage is at -4 or lower. And even when the Democrat's valence disadvantage is at the level of -4, the probability of voting for the Democrat is still fairly high at 0.47. These control results suggest that issue distance can sometimes trump valence advantages when the voter is much closer to one candidate relative to the other.

Nevertheless, when examining the experimental predicted probabilities, the effects of primed traits are still quite substantial, even for the voter with preferences close to the Democrat. Somewhat surprisingly, at nearly every point where the Republican candidate has a valence advantage on traits over the Democratic candidate (between the values of -2 and -7), the probability of voting for the Democratic candidate is lower than 0.5. Even when the Democratic valence disadvantage is at the value of -1, meaning the Republican is only marginally better on

traits than the Democrat, there is an even chance of the respondent voting for the Republican even though the respondent is much closer to the Democrat. The effect of valence advantages—as measured as traits primed via campaign advertisements—is quite substantial. However, comparing the experimental and control results in Tables 4 and 5, it is clear issue distance does carry more weight in affecting the voter’s choice calculus. The probability of observing “Stokes voters” is lower in Table 5 than in Table 4 as in Table 5 voters ideologically closer to the Democrat relative to the Republican are more likely to vote for the Democrat at the same valence advantage levels (e.g. in Table 5’s control group results, when a Democrat’s valence is -3, the respondent has a 0.64 probability of voting for the Democrat, while this probability is only 0.39 in Table 4’s control group).

## **CONCLUSION**

Can a strong candidate image on traits swing an election? In the November 2006 Senate race between incumbent Republican Conrad Burns and Democratic challenger Jon Tester, Tester ran a campaign advertisement centered around his flattop, buzz-cut hairstyle. The advertisement, which focused almost entirely on Tester’s background, began with an announcer stating “Look around Montana and you’ll see, Jon Tester is catching on,” while Tester is shown climbing into a barbershop chair for a trim. The ad continued noting that Tester was a “third-generation farmer” and that he would “make the U.S. Senate look like Montana,” while the barber trimmed his distinctive hair. Reporter Chris Cillizza, reporting after the November elections described the ad as the best of the 2006 cycle, as “the commercial framed the entirety of the campaign’s message: Tester was a real Montanan while Sen. Conrad Burns...had forgotten his home state roots.” Even though some voters’ perceptions of Tester in the waning days of the campaign suggested they thought he was a little more left of the Montana electorate than Burns, Tester ultimately

won.<sup>22</sup> Some voters who preferred Burns on the issues opted for the more “authentic” (Fenno 2007) Montanan, Tester, due to Tester’s non-policy attributes (Tester’s traits were likely rated higher by most voters also because Burns was implicated in scandals and had a deteriorating public image).

This anecdote—of a Democratic candidate just a tad to the left of many Montana voters though with a superior valence advantage relative to his opponent—is emblematic of our theory and findings. By connecting formal theoretical work on valence with theoretical and empirical work on candidate traits and voting behavior, this study has attempted to offer a theory of the effect of ideological distance, candidates’ valence advantages, and the conditional effect of the two on individual voting behavior. We theorized and found that voters are likely to cast ballots based on both issues and traits, and that the effect of traits is likely to be greater if the voter is relatively distant from both candidates. Using a novel experimental design with survey respondents who viewed candidate trait advertisements, we found that those viewing trait-based candidate advertisements (1) were less likely to express vote decisions based on the ideological positions of the candidates; and yet (2) these trait-based vote decisions were contingent upon the ideological positions of the candidates.

Theoretically and empirically, this work fills an important gap in the research on elections, voting behavior, and political campaigns. Further, it suggests that neither pure rational choice models nor pure behavioral models yield empirically realistic predictions. However, by joining insights from spatial theories of voting in the rational choice tradition with behavioral theories regarding candidates’ non-policy valence characteristics, more realistic theories of voting and human behavior broadly are suggested. Little empirical work has empirically

---

<sup>22</sup> Mary Clare Jalonick, 2006. “Baucus Stumps for Tester in New Television Ad.” *Associated Press State and Local Wire*, October 31.

examined valence theories (though see Grose 2006 for a recent empirical study of valence advantages' effects on senator positioning), while most empirical work on traits and issue voting has specified these two factors as opposed to one another, and not as conditional to one another as we have specified. Further, most theoretical work on valence advantages has not systematically examined the empirical foundations of assumptions of voter behavior nor clearly established precisely what a candidate's valence advantage may be.

Empirical scholars should take from these results that the relationships between candidate positions, candidate valence traits, and voter-level decision-making are not as simple or intuitive as is sometimes suggested. Formal theoretical scholars should consider these empirical results in shaping future models of valence politics and position-taking. We have clearly uncovered evidence of the assumptions supporting many valence models of candidate positioning (e.g., Adams, Merrill, and Grofman 2005; Ansolabehere and Snyder 2000; Groseclose 2001).

There are a number of further extensions. Valence advantages are not simply perceptions of competence or other candidate traits. Other measures of the relative and conditional effects of valence on voting decisions should be determined and examined. Are certain types of valence advantages more or less likely to affect voter decisions? Are certain types of traits more likely than other traits to affect voter decisions? While we have argued that valence advantages can be conceived of as traits, and that these traits have an effect on the vote, other questions regarding specific traits contingent upon voting decisions remain to be examined.

This research also has normative implications. For those concerned with questions of representation, the results can be interpreted either alarmingly or positively. Scholars have already noted concern over the propensity of voters to weigh traits much more than issue preferences. According to these scholars, voters worrisomely make decisions contrary to their

underlying issue preferences. Given that our experimental results show that voters make trait-based decisions, even when the issue distance has already been established by the voter prior to the trait evaluation, this does not suggest that voters are having the “wool pulled over the eyes” by savvy politicians. Instead, voters may simply prefer elected officials with certain characteristics. Mansbridge (2003), arguing for newer normative conceptions of representation, has suggested that there are some voters who prefer “gyroscopic representation.” In gyroscopic representation, voters choose candidates not simply due to dyadic representational expectations, but also based on the representative’s perceived character traits. Traits are relevant, according to Mansbridge (2003), not as information shortcuts, but because voters are delegating and entrusting decisions to legislators whose traits suggest competence and character. Our results support this conceptualization of voter preferences, and also suggest that voter decisions based on both issue preferences, valence traits, and the interaction of the two are not as normatively worrisome as some might suggest.

Our results have practical and scholarly implications for campaigns. Experimental studies of campaign effects have typically found that negative advertisements are much more powerful than positive advertisements at influencing voters and have also argued that issue-based ads are better at informing voters (Geer 2006; though also see Kahn and Geer 1994). While this may be the case, our results suggest that valence-oriented ads—which are mostly positive and lacking in discussion of positional issues—do provide information to those voters regarding the candidate’s valence dimension and traits.

Finally, this research should make clear why campaign consultants spend so much time on communicating both issue positions of their candidates and their candidates’ experiences and backgrounds. Klein (2006, 144) explained how Karl Rove, working on the 2000 Bush campaign,

was concerned with communicating clear conservative positions *and* connecting Bush's traits with voters: "Rove's assumption was that voters had three basic questions about a candidate: Is he a strong leader? Can I trust him? Does he care about people like me? Politics was all about getting the public to answer 'yes' to those three questions...."

This does not mean that modern campaigns are devoid of issue positions or that voters ignore issues. The 2000 campaign for president for instance, was fought over positional issues (e.g., using the budget surplus for tax cuts versus diverting spending to the Social Security "lockbox"). However, if a voter is only marginally in favor of spending on the "lockbox" versus tax cuts, then the ability of Bush to connect on these valence characteristics like "strong leader" and "cares about people like me" may swing some voters to vote against their issue preferences and instead based on their trait preferences. In fact, Fiorina, Abrams, and Pope (2005) showed that in the 2004 presidential election, the margin of victory for Bush was likely due to a small percentage of voters who voted contrary to their issue positions because they felt Bush was more likely to be a strong leader (they also showed that the large bulk of voters voted based on issue positions). In sum, our results suggest that campaign consultants should not forego the "bio" ad, which is a staple of most campaigns. Establishing a clear, positive image via a trait-based ad can enhance a candidate's electoral prospects—though these traits may be relevant only if the issue or ideological incongruence between the voter and the candidate is relatively large.

## References

- Adams, James. 2001. "A Theory of Spatial Competition with Biased Voters." *British Journal of Political Science* 31:121-158.
- Adams, James, Samuel Merrill, III, and Bernard Grofman. 2005. *A Unified Theory of Party Competition: A Cross National Analysis Integrating Spatial and Behavioral Factors*. New York: Cambridge University Press.
- Ansolabehere, Stephen D., and James M. Snyder, Jr. 2000. "Valence Politics and Equilibrium in Spatial Election Models." *Public Choice* 103: 327-336.
- Asher, Herbert. 1988. *Presidential Elections and American Politics*, 4th ed. Homewood, Illinois: Dorsey.
- Campbell, Angus, Philip E. Converse, Warren E. Miller, and Donald E. Stokes. 1960. *The American Voter*. New York: John Wiley.
- Conover, Pamela J. and Stanley Feldman. 1989. "Candidate Perception in an Ambiguous World: Campaigns, Cues and Inference Processes." *American Journal of Political Science* 33:912-940.
- DeClercq, Eugene, Thomas Hurley, and Norman Luttbeg. 1976. "Voting in American Presidential Elections: 1952-1972." In *American Electoral Behavior: Change and Stability*, ed. Samuel A. Kirkpatrick. Beverly Hills, CA: Sage.
- Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper & Row.
- Enelow, James M., and Melvin J. Hinich. 1981. "A New Approach to Voter Uncertainty in the Downsian Spatial Model." *American Journal of Political Science* 25: 483-493.
- Enelow, James M., and Melvin J. Hinich. 1982. "Ideology, Issues, and the Spatial Theory of Elections." *American Political Science Review* 76: 493-501.
- Fenno, Richard F., Jr. 2007. *Congressional Travels: Places, Connections, and Authenticity*. New York: Pearson Longman.
- Fiorina, Morris P., Samuel J. Abrams, and Jeremy C. Pope. 2005. *Culture War? The Myth of a Polarized America*, 2d edition. New York: Longman.
- Funk, Carolyn L. 1999. "Bringing the Candidate into Models of Candidate Evaluation." *Journal of Politics* 61:700-720
- Geer, John G. 2006. *In Defense of Negativity*. Chicago: University of Chicago Press.
- Glass, David P. 1985. "Evaluating Presidential Candidates: Who Focuses on Their Personal Attributes?" *Public Opinion Quarterly* 49:517-34.
- Grose, Christian R. 2006. "Valence Advantages in the U.S. Senate: Why Do Senators Take Positions That Are Different From Their Constituents' Preferences?" Presented at the annual meeting of the American Political Science Association meeting.

- Hayes, Danny. 2005. "Candidate Qualities through a Partisan Lens: A Theory of Trait Ownership." *American Journal of Political Science* 49:908-923.
- Hollard, Guillaume and Stephane Rossignol. "An Alternative Approach of Valence Advantage in Spatial Competition." Typescript, Universite e Marne la Vallee and CES, Universite Paris-I Pantheon-Sorbonne.
- Kahn, Kim Fridkin and John G. Geer. 1994. "Creating Impressions: An Experimental Investigation on Political Advertising on Television." *Political Behavior* 16:93-116.
- Kinder, Donald R. 1986. "Presidential Character Revisited." In *Political Cognition*, ed. Richard R. Lau and David O. Sears. Hillsdale: Lawrence Erlbaum.
- Klein, Joe. 2006. *Politics Lost: How American Democracy Was Trivialized by People Who Think You're Stupid*. New York: Doubleday.
- MacDonald, Stuart Elaine and George Rabinowitz. 1998. "Solving the Paradox of Nonconvergence: Valence, Position, and Direction in Democratic Politics." *Electoral Studies* 17:281-300.
- Mansbridge, Jane. 2003. "Rethinking Representation." *American Political Science Review* 97: 515-528.
- Miller, Arthur H. and Warren E. Miller. 1976. "Ideology in the 1972 Election: Myth or Reality." *American Political Science Review* 70:832-49.
- Miller, Arthur H., Martin P. Wattenberg, and Oksana Malanchuk. 1986. "Schematic Assessments of Presidential Candidates." *American Political Science Review* 80:521-40.
- Miller, Warren E. and J. Merrill Shanks. 1996. *The New American Voter*. Cambridge: Harvard University Press.
- Niemi, Richard G. and Herb Weisberg. 2001. *Controversies in Voting Behavior*. CQ Press:
- Peress, Michael. 2006. "The Spatial Model with Non-policy Factors." Typescript, University of Rochester.
- Peterson, David A.M. 2005. "Heterogeneity and Certainty in Candidate Evaluations." *Political Behavior* 27:1-24.
- Pew Research Center for the People and the Press. 2001. "Bush Gains on Personal Qualities."
- Pierce, Patrick A. 1993. "Political Sophistication and the Use of Candidate Traits in Candidate Evaluation." *Political Psychology* 14:21-35.
- Pomper, Gerald M. 1975. *Voter's Choice*. New York: Harper & Row.
- Popkin, Samuel L. 1991. *The Reasoning Voter: Communication and Persuasion in Presidential Campaigns*. Chicago: University of Chicago Press.
- Rahn, Wendy M., John H. Aldrich, Eugene Borgida, and John L. Sullivan. 1990 "A Social-Cognitive Model of Candidate Appraisal." In *Information and Democratic Processes*, ed. John A. Ferejohn and James H. Kuklinski. Urbana: University of Illinois Press.

- Rapoport, Ronald B., Kelly L. Metcalf, and Jon A. Hartman. 1989. "Candidate Traits and Voter Inferences: An Experimental Study." *Journal of Politics* 51: 917-932
- Rosenberg, Shawn W., Liza Bohan, Patrick McCafferty, and Kevin Harris. 1986. "The Image and the Vote: The Effect of Candidate Presentation on Voter Preference." *American Journal of Political Science* 30:108-27.
- Sniderman, Paul M., Richard A. Brody, and Philip E. Tetlock. 1991. *Reasoning and Choice: Explorations in Political Psychology*. Cambridge, UK: Cambridge University Press.
- Stokes, Donald E., Angus Campbell, and Warren E. Miller. 1958. "Components of Electoral Decision." *American Political Science Review* 52:367-87.
- Stokes, Donald E. 1963. "Spatial Models of Party Competition." *American Political Science Review* 57:368-377.
- Stokes, Donald E. 1966. "Some Dynamic Elements of Contests for the Presidency." *American Political Science Review* 60:19-28.
- Sullivan, John L., John Aldrich, and Wendy Rahn. 1990. "Candidate Appraisal and Human Nature: Man and Superman in the 1984 Election." *Political Psychology* 11:459-484.
- Wattenberg, Martin P. 1991. *The Rise of Candidate-Centered Politics: Presidential Elections of the 1980s*. Cambridge: Harvard University Press.
- Wattenberg, Martin P. 1998. *The Decline of American Political Parties: 1952-1996*. Cambridge: Harvard University Press.
- Wittman, Donald. 1983. "Candidate Motivation: A Synthesis of Alternative Theories." *American Political Science Review* 77:142-157.

Table 1: Trait Ratings of Democratic and Republican U.S. Senate Candidates, Experimental and Control Groups

<i>Respondent Mean</i>	<i>Control Group (no ads; n=242)*</i>	<i>Experimental Group (watched ads; n=82)*</i>
Democratic trait index (-7 to +7 scale)	0.397	2.061
Republican trait index (-7 to +7 scale)	1.054	1.537
Democratic trait advantage (-14 to 14 scale)	-0.657	0.524
Democratic issue advantage <sup>†</sup> (-10,000 to 10,000 scale)	-728	-691

\* The samples include only those respondents who provided answers to all questions used in the logit analyses in Tables 2 and 3. A number of respondents did not answer ideological placement questions and thus are excluded from these summary statistics, even though they did in fact answer the trait questions.

† As noted later in the text, the Democratic issue advantage is measured as  $[(x_R - x_i)^2 - (x_D - x_i)^2]$ , where  $x_i$  is the voter's ideological self-placement,  $x_D$  is the voter's ideological placement of the Democratic senate candidate, and  $x_R$  is the voter's ideological placement of the Republican senate candidate. This measure is thus positive if the Democratic candidate is closer to the voter than the Republican candidate and negative if the Republican candidate is closer to the voter than the Democratic candidate.

Table 2: Logit Estimates of Vote Choice for Senator, Experimental Group Respondents

*Dependent Var.: 1=Vote for Democratic candidate; 0=Vote for Republican candidate*

<i>Independent Variables</i>	<i>Coefficient (s.e.)</i>
Democratic Issue Distance Advantage (in 100s)	0.014 (0.021)
Democratic Trait Advantage	0.977 (0.369)***
Issue Distance * Trait (in 100s)	0.010 (0.005)**
Party Identification	2.238 (1.047)**
Constant	-3.676 (1.859)**
Wald Chi-squared	8.27*
N	82

\*\*\* $p \leq 0.01$  \*\* $p \leq 0.05$ , \* $p \leq 0.10$ , 1-tailed test for all variables except *Issue Distance \* Trait*.

Table 3: Logit Estimates of Vote Choice for Senator, Control Group Respondents

*Dependent Var.: 1=Vote for Democratic candidate; 0=Vote for Republican candidate*

<i>Independent Variables</i>	<i>Coefficient (s.e.)</i>
Democratic Issue Distance Advantage (in 100s)	0.039 (0.039)
Democratic Trait Advantage	0.681 (0.150)**
Issue Distance * Trait (in 100s)	0.001 (0.004)
Party Identification	2.267 (0.861)**
Constant	-3.368 (1.578)*
Wald Chi-squared	26.56**
N	242

\*\* $p \leq 0.01$  \* $p \leq 0.05$ , one-tailed test for all variables except *Issue Distance \* Trait*.

Table 4: The Effect of Valence Advantages on the Probability of Voting Democratic for Senator, Voter is Relatively Distant from both Candidates though Somewhat Closer to Democratic Candidate

<i>Dem. valence disadv./ advantage</i>	<i>Voter ideol. location</i>	<i>Dem. cand. ideol. location</i>	<i>GOP cand. ideol. location</i>	<i>Experimental group voters Predicted probability of voting Democrat*</i>	<i>Control group voters Predicted probability of voting Democrat*</i>
-7	40	20	80	< 0.01 (Stokes voter)	0.04 (Stokes voter)
-6	40	20	80	< 0.01 (Stokes voter)	0.08 (Stokes voter)
-5	40	20	80	0.01 (Stokes voter)	0.14 (Stokes voter)
-4	40	20	80	0.03 (Stokes voter)	0.24 (Stokes voter)
-3	40	20	80	0.09 (Stokes voter)	0.39 (Stokes voter)
-2	40	20	80	0.23 (Stokes voter)	0.56
-1	40	20	80	0.47 (Stokes voter)	0.72
0	40	20	80	0.73	0.84
1	40	20	80	0.89	0.91
2	40	20	80	0.96	0.95
3	40	20	80	0.99	0.98
≥ 4	40	20	80	> 0.99	> 0.99

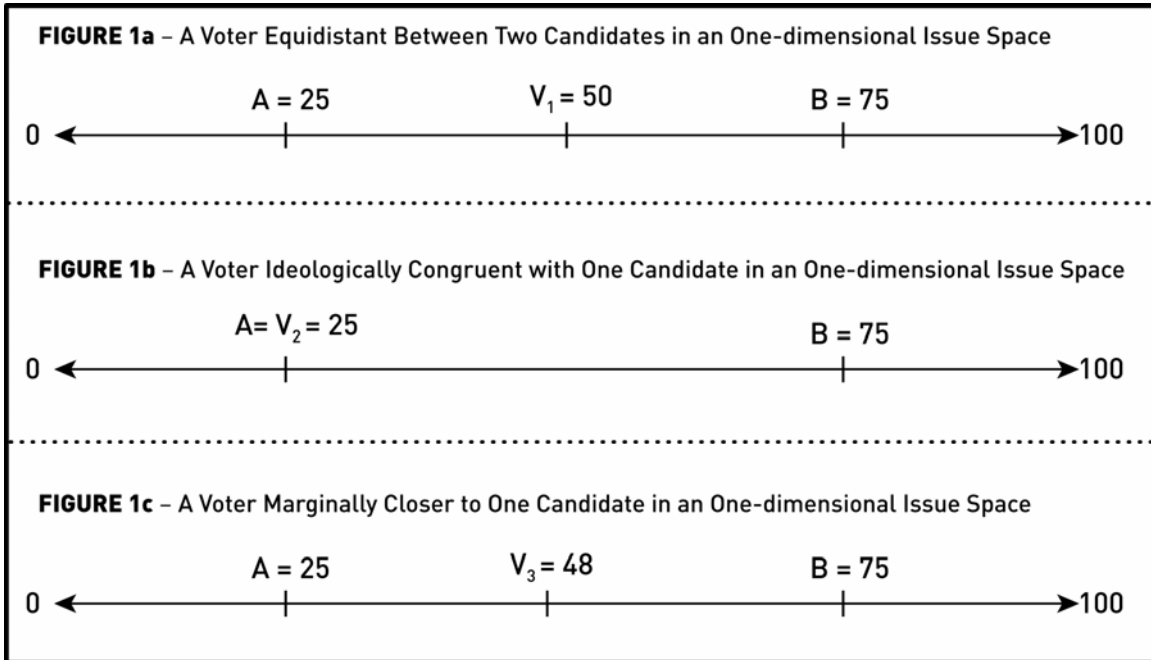
\*These predicted probabilities are based on the results in Table 3 (for the experimental group) and Table 4 (for the control group), holding *Party identification* and *Democratic issue advantage* constant, though varying the *Democratic trait advantage* variable. In both models, *Democratic Issue Advantage* is held constant at 1200, which is the value of the variable, for instance, if the voter is located at 40, the Democratic candidate is located at 20, and the Republican candidate is located at 80. *Party identification* is held at the value for independent voters.

Table 5: The Effect of Valence Advantages on the Probability of Voting Democratic for Senator, Voter is Relatively Closer to Democratic Candidate

<i>Dem. valence disadv./ advantage</i>	<i>Voter ideol. location</i>	<i>Dem. cand. ideol. location</i>	<i>GOP cand. ideol. location</i>	<i>Experimental group voters Predicted probability of voting Democrat*</i>	<i>Control group voters Predicted probability of voting Democrat*</i>
-7	25	10	90	< 0.01 (Stokes voter)	0.10 (Stokes voter)
-6	25	10	90	< 0.01 (Stokes voter)	0.18 (Stokes voter)
-5	25	10	90	< 0.01 (Stokes voter)	0.31 (Stokes voter)
-4	25	10	90	0.02 (Stokes voter)	0.47 (Stokes voter)
-3	25	10	90	0.06 (Stokes voter)	0.64
-2	25	10	90	0.20 (Stokes voter)	0.79
-1	25	10	90	0.50 (Stokes voter w/ p=.5)	0.88
0	25	10	90	0.80	0.94
1	25	10	90	0.94	0.97
2	25	10	90	0.98	0.98
3	25	10	90	> 0.99	0.99
≥ 4	25	10	90	> 0.99	> 0.99

\*These predicted probabilities are based on the results in Table 3 (for the experimental group) and Table 4 (for the control group), holding *Party identification* and *Democratic issue advantage* constant, though varying the *Democratic trait advantage* variable. In both models, *Democratic Issue Advantage* is held constant at 4000, which is the value of the variable, for instance, if the voter is located at 25, the Democratic candidate is located at 10, and the Republican candidate is located at 90. *Party identification* is held at the value for independent voters.

**Figure 1: Three Scenarios of Voter Ideological Distance from Two Candidates, One Candidate has a Valence Advantage (Candidate B)**



## Appendix

### *Trait Measures:*

Trait questions for the experimental group are prefaced by the following:

Think about [CANDIDATE NAME], the candidate in the campaign advertisement you just watched. Based on the impressions you received simply from watching the advertisement, choose the one phrase that best completes each of the following questions:

Trait questions for the control group are prefaced by the following:

[CANDIDATE NAME] is running for the U.S. Senate in your state this November. Based on any knowledge you may have about this candidate, choose the one phrase that best completes each of the following questions.

- Is moral, is not moral, or don't know
- Is competent, is not competent, or don't know
- Is a strong leader, is not a strong leader, or don't know
- Is likable, is not likable, or don't know
- Cares about people like me, does not care about people like me, or don't know
- Is inspiring, is not inspiring, or don't know
- Makes me feel safe, makes me feel less safe, or don't know

The trait measure was coded by assigning score of +1 if respondent views the candidate as having the trait, -1 if not having the trait, and 0 if respondent said “don't know” about the candidate trait; we then summed the seven responses together for each candidate, and then subtracted the Republican trait summary from the Democratic trait summary to create the *Democratic trait advantage* variable used in the empirical models. The scale of the *Democratic trait advantage variable* thus runs from -14 to +14.

### *Issue Distance*

Respondent's ideology is measured by the following item:

One way that people talk about politics in the United States is in terms of left, right, and center, or liberal, conservative, and moderate. We would like to know how you view the parties and candidates using these terms. The scale below represents the ideological spectrum from very liberal (0) to very conservative (100). The most centrist American is exactly at the middle (50). Where would you place yourself? If you are not sure, or don't know, please check here.

Candidate ideologies are measured by the following item:

Using the same scale, think about the Senate election in your state.

Where would you place [SENATE CANDIDATE 1] If you are not sure, or don't know, please check here.  
Where would you place [SENATE CANDIDATE 2]. If you are not sure, or don't know, please check here.

The *Democratic issue advantage* variable coding, using these questions, is described in the text.

### *Party Identification*

Generally speaking, do you think of yourself as a Democrat, Republican, or Independent?

[If Democrat or Republican]: would you call yourself a strong or not so strong [Democrat or Republican]?

[If Independent]: do you think of yourself as closer to the Democratic or Republican party?

As noted in the text, the *Party identification* variable was coded 1 for not so strong Republican or strong Republican; coded 2 for independents; coded 3 for not so strong or strong Republicans