All Style and No Substance?

The Strategic Calculus of Campaign Advertising to Minority Voters*

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Abstract

We study the strategic choices of candidates to convey verifiable information about their policy positions and/or messages that are designed to appeal to minority voters through non-policy stylistic elements. We argue that existing formal models which either assume all advertising is informative or uninformative miss an important strategic element of campaigns. We develop a simple formal model that we use for an empirical study of Congressional incumbent campaign advertising in the 2000 election. We find that the closer incumbents’ policy choices in office are to the preferences of the voters in their districts the more likely they are to advertise verifiable information about their policy choices. This suggests that incumbents do feel constrained to be truthful in campaign advertising. We also find that incumbents are use stylistic messages to appeal to minority voters. While for Latino voters the increase in stylistic messages from candidates does not decrease the percentage of substantive messages they receive, candidates appear to substitute style for substance when communicating to non-Latino minority voters. However, we find less of a substitution effect when the candidate representing non-Latino minority voters is also a minority member.

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Introduction

During the 2004 presidential primary in Ohio Massachusetts Senator John Kerry ran a television ad featuring a Navy crewmate of his in Vietnam, Del Sandusky, lauding the Senator’s bravery, and accompanied it with footage of Kerry in a Vietnamese jungle. But when Kerry’s campaign ran the same ad in South Carolina, there was a difference – the crewmate highlighted was Rev. David Alston. Some pundits speculated that the ad change had something to do with the fact that in South Carolina almost 50% of the Democratic voters were African-American while only 11.5% of Ohioans are African-American (Sandusky is white, Alston is black). Presidential candidate North Carolina Senator John Edwards made a similar change – running an ad about an unemployed mill worker who was shown as black in South Carolina and white in Ohio. Both campaigns denied that the ad changes were related to demographic differences in the states – Edwards’ campaign pointed out that the later ad with the shot of the white worker was more effective since the worker was shown close up while the black worker was in profile and Kerry’s campaign contended that Aston was used in South Carolina because he was from that state.¹

Edwards and Kerry weren’t the only candidates in spring of 2004 showing ads that varied stylistically. On Thursday March 4, 2004, President George W. Bush unveiled his first campaign ads for reelection. The ads were controversial because some showed images of the wreckage at the World Trade Center following the 2001 terrorist attacks. However, most did not notice another distinction of the ads, that some contained the same information and images but were instead in Spanish and aired in media markets in heavily Latino parts of the country – Las Vegas, Albuquerque, Miami, Orlando, Tampa, Phoenix, and Tucson.² Yet, surveys show that eight out of ten Hispanics in the United States speak English and most whose family migrated to the U.S.

¹ Rutenberg (2004).
² See Anderson, Nick, “The Race to the White House; Parties Seeking to Speak Language of Latino Voters; Both Democrats and Republicans unveil TV ads targeting a crucial constituency,” Los Angeles Times, Saturday, March 6, 2004.
in their grandparents’ generation or earlier speak only English. In the 2000 election both Bush and Gore campaigns broadcast Spanish language ads even though they knew that sometimes the target did not understand the message. Al Gore spokesman Alejandro Cabrera argued: “It’s a sign of respect, and Latinos are pleased he’s making the extra effort to connect to a part of their culture that is important to them.” USA Today reporter Maria Puente summarized what she was told by the Bush and Gore campaigns: “Even if Hispanic voters only vaguely understand what Bush and Gore are saying, it’s the thought that counts, along with their positions on the issues.”³

As the simultaneous roll out of Spanish language ads with English ones in March 2004 demonstrates, it is evident that Bush was again reaching out to Latino voters as his quest for reelection approached. In January 2004 he proposed significant changes in immigration laws to expand guest worker programs and more opportunities for undocumented workers to get green cards. With about 60% of illegal immigrants in the United States from Mexico, the suggestion of who would benefit from such policies was relatively clear. But Cecilia Munoz, vice president for policy at the National Council of La Raza, a Latino advocacy group, worried whether Bush was really implementing a policy change that would benefit Latino voters: “Are they going to issue a press statement that is going to run in their campaign ads, or are they going to try to flesh out the details and move something forward?” she asked.⁴ Was the message Bush was sending to Latino voters just style or did it have substance? Furthermore, do candidates like Kerry, Edwards, and Bush gain votes by using stylistic elements such as images of minorities in areas where minorities are higher percentages or providing messages in Spanish? Are they substituting style for substance and are voters losing out on substantive representation as a result?

Understanding what is conveyed in campaign advertising to all voters, not just minorities, is fundamental to understanding the role of election campaigns in the political process and how

⁴ Alonso-Zaldivar, Ricardo, “Bush to Frame Migrant Policy,” Los Angeles Times, Tuesday, January 6, 2004
campaign advertising affects voters’ choices. Many formal theoretical models of campaign advertising black-box the effect it has on voters and focus instead on the strategic game between candidates and contributors, assuming that more money spent in campaigns leads to more votes without explicitly modeling voter choice. Attempts to get inside the black box have taken two general approaches: 1) campaign advertising provides voters with direct information about a candidate’s policy positions; or 2) campaign advertising does not provide voters with policy information but either directly adds some small utility to voters independent of policy, i.e. voters are impressionable or persuadable, or the size of campaign advertising expenditures provides a signal to voters about candidate qualities known to contributors but unknown to voters which increases voter utility while the ads themselves are uninformative (or they only inform about non policy valence issues such as candidate abilities).

The rationale for assuming that campaign advertisements are not informative about policy in themselves rests on two contentions: 1) casual empirical observation suggests that ads are mostly vague on issues and they are often not mentioned and 2) since candidates’ speech is protected constitutionally and they cannot be prosecuted for broken promises, then campaign messages are not credible. On the other hand, researchers who assume that ads are informative about policy make opposite arguments: 1) empirical analysis of campaign ads shows that policy issues are discussed in a large number of ads and 2) interested third parties such as the news media have an incentive to “police” campaign ads for truthfulness, allowing for them to be credible. A third argument is that simple campaign ads that appear not that directly informative

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5 This literature is reviewed in Morton and Cameron (1992) and Austen-Smith (1997).
9 See the discussion in Prat (2002), page 1000, for example.
11 See the discussion in Coate (2002), pages 5-6, for example.
convey cues or shortcuts that voters use to infer candidate policy positions from what appear to be low information messages, so style can be informative.\textsuperscript{12}

Whether campaign ads are informative to voters about candidate policy positions has implications for the social welfare consequences of campaign finance reform. Most models that assume campaign advertising is uninformative about policy find that limiting contributions can increase voter welfare,\textsuperscript{13} while analyses that assume campaign contributions are informative about policy suggest that limits can reduce social welfare.\textsuperscript{14} Part of the reason has to do with what contributors gain from contributions in these models; models where advertising is informative on policy typically assume that contributors give to elect while those which assume advertising is not informative on policy issues assume that contributions are given for special non-policy private favors or services.\textsuperscript{15} These results make intuitive sense – when campaign advertising is informative about policy and contributors are giving to elect candidates based on policy then limiting how much candidates can spend reduces the information that voters have about candidate policy positions and makes it more difficult for voters to choose the candidate they most prefer. When campaign advertising only provides information about non-policy factors and contributions are generated by giving out special private favors, then limiting contributions reduces how many favors candidates give out without affecting voter information about candidate policy positions significantly, therefore not affecting much the likelihood voters choose candidates close to them ideologically.

In this paper we make a number of contributions to the theoretical and empirical debate over how campaign ads affect voters. First we note that campaign advertising varies by the degree of policy information provided and the appeals to non-policy aspects of voter utility, what we call “style” messages. Style messages can take various forms, as often noted, many campaign

\textsuperscript{13} See Grossman and Helpman (1996), Prat (2003), Coate (2003b)
\textsuperscript{15} Again, Ashworth (2003) is an exception. See Morton and Cameron (1992) for a discussion of the reasonableness of assuming campaign contributions are given for these reasons.
ads emphasize candidate qualities or abilities that all voters’ generally value such as honesty, integrity, intelligence, etc., (typically called valence issues). Because they are easy to measure and identify and we also want to consider how style advertising affects minority representation, in this paper we focus in particular on style messages directed at minority voters which are used to suggest to these voters that candidates respect and value them by using minority actors or showing knowledge of ethnic culture or language in ads they are likely to see.

Using extremely simple and straightforward assumptions about voter utility and candidate competition, we point out what is fairly obvious – that if we assume that incumbents can send credible policy messages that are constrained to be truthful, i.e. advertise substance, (as is assumed in models where campaign advertising is informative) as well as messages that contain non-policy elements that voters also value, i.e. style, incumbents will strategically choose whether to emphasize substance and/or style depending on how close their policy positions are to the median voters in their electorates, the degree of competition they face, and the weight that voters place on the valence issue. Specifically, we contend that incumbents who have chosen policy positions close to their median voters are more likely to convey informative messages about their positions that are verifiable and that those who have chosen policy positions far from their median voters are more likely to emphasize style. Furthermore, competition leads to more advertisement of non-policy stylistic messages even by incumbents close to their median voters’ preferences.

We then consider the implications of the predictions about candidate strategy for the campaign ad choices made by all Congressional incumbents in the 2000 race. We find that as predicted, incumbents’ whose past policy positions are far from the ideal points of their respective median voters are significantly less likely to advertise verifiable policy positions and more likely to advertise style. In addition ads are significantly more likely to contain style the greater the percentage of Hispanic and minority voters in their district, which suggests that candidates believe that these voters value style independent of substance. Ads with style and no
substance are likely when policy positions are far from the median voter and the percentage of Hispanics and minorities in the district are high. Our results show that campaign advertising is a strategic choice by candidates and should be considered so in future models of campaign advertising.

The relationship between the likelihood of advertising policy positions and the distance between the candidates and their median voters also suggests that candidates perceive some cost to lying about their policy positions in campaign ads and that freedom of speech in elections does not necessarily imply that candidates will babble. Our results show that a common assumption made in some formal models of campaign advertising, that these messages are always uninformative in themselves, is false. This indicates that limiting campaign contributions may reduce social welfare as those models where campaign advertising is informative sometimes find, although since we ignore what is given by candidates in return for the contributions in our theory, this implication should be considered highly preliminary.

Finally, our results show that candidates do strategically try to appeal to minority voters using style and that there is some evidence that the candidates trade style for substance in their communications with these voters – although not in communicating with Hispanic voters. We find surprisingly that incumbents are more likely to provide Latino voters with substantive policy information than other voters (including other minority voters). The implication of these results for the ability of Latino and other minority voters to receive substantive representation is discussed further in the conclusion.

The next section reviews the relevant previous formal theoretical and empirical literature, section three presents the model that serves as the foundation of our empirical analysis, data and estimation issues are discussed in section four, section five contains the empirical results, and section six concludes.
Relevant Literature

The Formal Literature on Campaign Advertising and Voters

As noted in the introduction, many models of campaign advertising black box how the advertising affects voters [see for example Snyder (1989), Baron (1989)]. The first attempt to get inside the black box formally assumed that campaign advertising provided voters with information about a candidate’s true policy position by reducing voter uncertainty [see Austen-Smith (1987), Hinich and Munger (1989), Bailey (2002)]. However, since voters were assumed to know a priori the expected policy position of the candidates (i.e. they know the distribution of possible positions), which was assumed equal to the true position, voters could figure out the true positions based on that knowledge without the campaign ads. Coate (2003a) and Ashworth (2003) provide models with informative campaign advertisements that avoid this difficulty. In the equilibria in Coate’s model parties mix in choosing between candidates who are moderate and extreme on policy and Ashworth assumes an exogenous draw in candidate policy positions. Thus campaign advertising that conveys truthful information on candidate policy positions increase voter knowledge and utility.

An alternative approach to campaign advertising has assumed that such ads are largely uninformative – either campaign advertising of the winning candidate is assumed to add some small utility to the voter independent of policy, i.e. voters are impressionable [see Morton and Myerson (2003), Grossman and Helpman (1996)]; or the amount of money spent on campaign advertising provides voters with a signal of candidate abilities (a valence issue) which voters value independent of policy and is generally unknown to voters [see Gerber (1996), Potters, Sloof, and van Winden (1997), Prat (2002)]. Simon (2002) is an exception, he assumes that campaign advertising affects the weights that voters place on different policy issues such that candidates can increase voters’ likelihood of supporting them by emphasizing in ads those policy issues where they are closest to voters. Another hybrid model is Coate (2003b) where candidates use advertising to directly provide valence information on abilities (candidate quality).
The Empirical Literature on Policy in Campaign Ads

While the formal literature on whether advertising is informative to voters about policy positions of candidates is a bit agnostic, the empirical literature is more suggestive of policy-oriented than non-policy advertising. Jamieson (1996) analyzes prominent ads from presidential elections 1952 to 2000 and finds that policy issues are more prevalent than messages relating to a candidate’s personal qualities (e.g. leadership, trustworthiness, compassion). West (2000), in a study of the 2000 election, found that 60% of ads contained messages pertaining to domestic policy matters and only 31% mentioned a candidate’s personal qualities. Spillotes and Vavreck (2002) in a study of over 1,000 ads by 290 candidates in 153 elections in 37 states in 1998 find that in 92% of the ads candidates mentioned issues and 52% of the ads were predominantly issue driven. Although most of the discussion of issues was vague according to their analysis, a significant minority, 32%, of the candidates made at least one ad that could be classified as adopting a specific position on an issue.

With all the talk about policy in campaign ads, is there evidence that these ads actually inform voters? Early work by Atkin, et al (1973) and Atkin and Heald (1976) found that voters were more likely to be informed about candidates if they had seen television ads. Brains and Wattenberg (1996) find that survey respondents who recall campaign advertisements are more likely to know a candidate’s issue positions, relative to those who read newspapers or watch television news.16 Given that campaign ads do sometimes contain policy information and that some evidence exists that voters gain information from these ads, the presumption that campaign advertising is all style by some formal modelers is problematic. However, since ads do sometimes focus more on style than substance, the assumption that all ads are informative on policy is also suspect. The evidence that ads vary in their substantive and stylistic content suggests that candidates make a strategic choice in choosing how much substance to place in their ads.

16 There is a rather large and growing literature on the effects of campaign ads on voter evaluations of candidates and knowledge of candidate positions, see Abrajano (2004) for a review.
To our knowledge little previous research has examined the strategic choices candidates make in advertising. Vavreck (2001) using data on 1998 elections focuses on the strategic choices candidates make in conveying simple party or ideological cues to voters in campaign ads – under the assumption that voters use these cues to infer policy positions as discussed in Downs (1957), Popkin (1991), and Riker (1988).\(^{17}\) She finds surprisingly that only approximately one-third of candidates use a party label in any of their ads, although challengers are slightly more likely to, which makes sense if we consider that voters are less likely to have knowledge about challengers prior to a campaign, so party labels may be more meaningful and that challengers don’t have as extensive a policy record to serve as a basis for advertisements. She finds that incumbents are 12% more likely than challengers to use specific issue rhetoric. Interestingly, Vavreck also finds some evidence that all candidates use party labels strategically in that candidates are less likely to use them in open primaries where voters do not need to be affiliated with a party to participate and the candidates want to reach voters whose preferences may be at variance with the average party member. While suggestive that candidates are using information strategically, Vavreck does not consider the determinants of when candidates choose to provide more informative, verifiable messages, versus messages that are all style.

**A Simple Model of Advertising Style and Substance**

**Assumptions**

Our purpose in theorizing about candidate strategy in advertising in this paper is to provide some simple predictions for candidate behavior, which we can then use straightforwardly in an empirical analysis of candidate advertising choices in the 2000 Congressional election. We see our empirical analysis as providing basic information that can inform future, more

\(^{17}\) Snyder and Ting (200x) formalize how party labels may serve as an information shortcut to voters in elections. Silliotes and Vavreck (20002) use the same data to consider how party influences which issues candidates discuss in their ads and the positions they take. They find evidence that candidates from different parties do choose to emphasize different issues and policy positions in campaign advertising. Simon (2002) provides similar evidence of issue emphasis divergence.
theoretically satisfying, modeling on campaign advertising and as such worth the cost of taking a simplistic approach. Therefore, we devise a bare bones model of candidate advertising strategy and voters, which captures some of the more salient features of models where candidates provide informative messages and existing empirical evidence on campaign advertising and we can take to the data straightforwardly.

We assume that there are two candidates in a winner-take-all election who we identify by their policy positions, \( x_D \) and \( x_R \). Policy is unidimensional between 0 and 1, inclusive. The two candidates are from different political parties and can be of two types, extremists or moderates. Specifically, \( x_D = 0 \) and \( x_R = 1 \) when he or she is extremist. The moderate position is defined as .5 for both candidates. \textit{Ex ante} the probability that a given candidate is moderate or extreme is a random draw. We assume that one of the candidates is an incumbent \( x_D \). Candidates know their own types. While in office the incumbent has made policy choices that signals her type (we will use female pronouns for incumbents and male pronouns for voters). That is, nature provides a signal \( \theta = (0,.5) \). The posterior probability that \( x_D = 0 \) when a signal of \( \theta = 0 \) is observed by a voter is assumed to be given by \( p > .5 \) and the posterior probability that \( x_D = .5 \) when a signal of \( \theta = .5 \) is observed by a voter is also given by \( p \).

Before the election the incumbent chooses whether to advertise \( \theta \), or what we call substance. We assume that the incumbent cannot provide false information about \( \theta \) and that the challenger cannot advertise (we relax this assumption below). One way to think about the signal is that it is on how the incumbent voted in Congress on certain bills or information about legislation that he or she supported. The signal is imperfect because voters do not know precisely

\[18\] This is similar to the assumption in Ashworth (2003) and the equilibrium prediction in Coate (2003a).

\[19\] Symmetric results follow if we assume that the incumbent is \( x_R \).

\[20\] As in Ashworth (2003) these posterior probabilities are derived using Bayes Rule from appropriate assumptions about the underlying probability distributions of the signals and candidate types.
how the incumbent’s vote translates into an actual policy outcome. We assume that the incumbent cannot lie about the signal since it is verifiable.

The incumbent also chooses whether to convey her campaign messages to voters in Spanish and/or emphasize her links to minority voters in her campaign messages (by using minority actors, endorsements by prominent non-political individuals with ties to minority communities), i.e. whether to convey style as well as or in place of substance. Specifically, we assume that \( m = 1 \) if the incumbent chooses to make her campaign messages have stylistic elements that are minority related, 0 otherwise. Incumbents advertise in order to maximize their expected probability of winning but if they can win without advertising or by advertising less (i.e. only policy or style only), they will choose to do so. Moreover, advertising “style” is more costly to the incumbent than revealing her signal on her policy position since she will have to manage the translation of the ad into Spanish and/or hire minority actors or otherwise expend resources to incorporate minority aspects into the ad. We assume that candidates do not choose weakly dominated strategies (i.e. if there is a chance they can win by advertising given any strategy their opponent takes, they will do so).

We summarize the electorate by assuming a representative voter who cares primarily about policy and whose ideal point over policy is 0.5. We also assume that if the voter is a minority, the voter gets additional utility from campaign advertising by the winner, which has minority related stylistic elements. We assume that non-minority voters are not negatively impacted by style messages directed at minority voters.\(^{21}\) That is, the voter’s utility from the winning candidate \( j \) is given by the following function:

\[^{21}\text{Of course, research from political psychology has shown that candidates can use minority related stylistic elements in a quite different fashion and towards a different audience. Tali Mendelberg in her book, The Race Card: Campaign Strategy, Implicit Messages, and the Norm of Equality, (2001) argues that candidate use minority actors to convey racist messages by using pictures and other stylistic elements to prime non-minority voters’ racial prejudices and induce them to vote for the candidates, as many argue was done in the first president George Bush’s use of a picture of Willie Horton, an African-American convicted of murder who escaped from a prison furlough program in Massachusetts and raped a woman while his opponent Michael}\]
\[ U(x_j) = -w \left| x_j - 0.5 \right| - (1 - w) |m - 1| \]

where \( j = D, R \) and \( w \) is the weight the voter places on policy and \( 1 - w \) is the weight the voter places on minority related style elements. We assume that \( 0 < w \leq 1 \) that is, when \( w = 1 \) the voter receives no utility from style and as \( w \) declines the relative utility the voter receives from style messages increases. The voter chooses the candidate who will maximize his expected utility and if he is indifferent, he randomizes. Finally, we assume that voter knows that incumbents have received a signal and expect that campaign advertisements will convey that signal if it shows that the candidate is moderate. One way to think of this is that voter knows the incumbent has voted on bills in Congress, has sponsored legislation, and has otherwise taken policy positions because she is an incumbent. The voter knows that the incumbent can reveal this information in her ads. Thus, the voter believes that no signal must mean a bad signal.

We ignore in our simple formulation where the resources for campaign ads come from and the strategic game between contributors and the candidate. Such an assumption has obvious limitations. If contributors are giving for policy motivations and know the incumbent’s signal or more precisely his or her type and give for that reason, then voters might be able to discern an incumbent’s type if they know the size and the ideological positions of the contributors. Alternatively if contributors give in order to receive special favors or services which voters dislike this may reduce voter utility from campaign advertising. Obviously, future theoretical work should consider candidate strategy in advertising in a model that incorporates both the game between contributors and electoral competition. As noted above, our goal here is to set out a simple straightforward empirically estimable theory of candidate advertising strategies that we can take to the data to gain insight to inform future theoretical and empirical research.

Dukakis was governor. In our empirical analysis we code only messages that highlight minorities designed to appeal to minority voters as style. To the extent that these message may have a negative effect on non-minority voters, turning them against the advertising candidate, we would expect them to be used less when the electorate has a lower percentage of minority voters, which we control for in the analysis.
Predictions

When Only Incumbents Can Advertise

Our simple model provides the following rather obvious predictions concerning incumbent advertising:

Result 1: When only incumbents advertise and the incumbent’s signal suggests she is a moderate she will always advertise that signal without style and the incumbent will always win.

The proof of this result is straightforward. If the incumbent does not advertise at all, she will lose since the voter thinks she is an extremist and the randomly drawn challenger will provide the voter with greater expected utility. But if the incumbent advertises her signal then the voter will expect that there is a greater probability the incumbent is a moderate than the randomly chosen challenger and will choose the incumbent. This is true regardless of whether the candidate incorporates style in her ad. Since advertising style costs additional money the incumbent should only advertise her signal. Should she choose style instead of substance? If the incumbent advertises style messages without the policy signal, then she wins if the expected utility to the voter of an incumbent with an extremist signal advertising style, \( U(x_D) = -0.5wp \), is greater than the expected utility of a randomly determined challenger, \( U(x_R) = -0.25w - (1 - w) \).

\[
U(x_D) > U(x_R) \text{ if } \left( \frac{2}{w} \right)^{-1.5} > p.
\]

But since advertising style is more expensive than advertising her signal she should choose her signal over style. Therefore, incumbents with moderate signals should advertise substance without style.

Result 2: When only incumbents advertise and the incumbent’s signal suggests she is an extremist then the incumbent will never advertise substance. The incumbent will advertise style if the weight voters place on style is high, ceteris paribus, or the quality of the policy signal is low, ceteris paribus. Under these conditions she will win.

As above, the proof of this result is also simple. As noted above, if an incumbent does not advertise her signal, the voter assumes that the incumbent has an extreme signal. In this case,
if the incumbent does not advertise style messages, then the incumbent will lose for sure since the expected utility for the voter of a randomly chosen challenger is higher given that there is a greater than random probability in the voter’s mind that the incumbent is an extremist. If the incumbent advertises style messages without the policy signal, then she wins if the expected utility to the voter of an incumbent with an extremist signal advertising style, \( U(x_D) = -0.5wp \), is greater than the expected utility of a randomly determined challenger, \( U(x_R) = -0.25w - (1 - w) \).

\[
U(x_D) > U(x_R) \text{ if } \left( \frac{2}{w} \right) - 1.5 > p.
\]

Thus the higher the relative weight voters place on style (the smaller \( w \)) and the lower the quality of the signal (the lower \( p \)), the more likely the incumbent will advertise style without substance and will win as a consequence.

In summary, incumbents who receive moderate signals will always advertise that signal without additional costly style messages and will win. Incumbents who receive extremist signals will never advertise that signal but under some circumstances will advertise style messages. One important implication of the theory is that all advertising is informative to the voter – that is, since incumbents with moderate signals have an incentive to advertise those signals – voters expect to receive information on what the incumbent has accomplished in office, the voter is always able to infer the incumbent’s signal, even though not all incumbents advertise about policy. The style advertisement does not “fool” the voter about the incumbent’s signal and is only used when voters receive utility from such messages themselves and the signal’s reliability as a predictor of the incumbent’s policy position is low. However, because the voter values style in campaign messages, the voter is willing to elect an incumbent who has a higher probability of being an extremist than a randomly chosen challenger, i.e. the voter is willing to trade style for substance.

**Incumbents and Challengers Advertise**

Consider the situation where both incumbents and challengers can advertise, maintaining the assumption that advertisements about signals must be truthful and that challengers do not have independent signals on their own policy positions they can provide to voters. The
competition from challengers increases the likelihood that the incumbent will advertise style but not substance. Specifically:

Result 3: If both incumbents and challengers can advertise the incumbent’s signal and use style in their ads, then if the incumbent has a moderate signal the challenger will advertise style and the incumbent will advertise both style and substance if the voter has a high value on style, ceteris paribus, or the quality of the policy signal on the incumbent is low, ceteris paribus. Otherwise only the incumbent will advertise and will advertise only her signal. In both cases the incumbent always wins.

The proof of this result is also straightforward. As discussed above, if only the incumbent is advertising and she has a moderate signal, she should advertise that signal and not spend the extra resources on style advertisement. However, if the incumbent is not advertising style, the challenger can win by advertising style if \( U(x_k) > U(x_D) \) which is true if \( \left( \frac{2}{w} \right)^{-1.5} > p \). Thus, in this case the challenger will advertise style and the incumbent must also advertise style in order to win. If this condition does not hold, the challenger will not advertise style and only the incumbent will advertise her signal as above.

What happens if the incumbent’s signal is extremist? Above we noted that, if \( \left( \frac{2}{w} \right)^{-1.5} > p \) the incumbent will advertise style and no substance since voters can already infer that her signal is extremist. But the challenger can also advertise style and defeat the incumbent. So if \( \left( \frac{2}{w} \right)^{-1.5} > p \) both will advertise style without substance and otherwise neither will advertise (since there is no message the incumbent can send that can keep the challenger from winning) as summarized below:

Result 4: If both incumbents and challengers can advertise the incumbent’s signal and use style in their ads, then if the incumbent has an extremist signal both the incumbent and challenger will
advertise style without substance if the voter has a high value on style, ceteris paribus, or the quality of the policy signal on the incumbent is low, ceteris paribus. Otherwise neither candidate will advertise. In both cases the challenger will always win.

With competition in advertising from the challenger, the incumbent never wins when she has an extremist signal. Yet, it is under certain conditions an equilibrium for her to advertise style because if the challenger does not, she could win. Similarly, when the incumbent has a moderate signal, the challenger never wins, yet it is under certain conditions an equilibrium for the challenger to advertise style because if the incumbent only advertises substance, the challenger can win. Furthermore, even though the candidates are competing largely over style (only so when the incumbent is extremist), because of competition in style, the voter always chooses the candidate whose expected policy position is closest to his own. With competition in stylistic messages, the voter does not trade style for substance. The key is that the voter knows the incumbent can reveal to him information on her choices while in office and by not revealing that information, the voter can infer that the incumbent is an extremist. Since the challenger can compete equally with the incumbent on style, the voter does not have to trade substance for style.

An important implication of our analysis of candidate campaign strategy is that empirical evidence on the impact of campaign ad type on voter choice should not be interpreted as providing evidence on how much voters weigh in their utility functions the factors advertised. Specifically, when \( \frac{2}{w} - 1.5 > p \) and the incumbent’s signal is extremist both candidates advertise on style (all ads are stylistic) but the voter chooses the challenger because he believes that there is a higher probability that the challenger is a moderate. Campaign ads are all style, no substance, but the voter is basically unaffected by the stylistic messages and is choosing solely on substance even though it does not appear in the ads!

Our simple model assumes that advertisements always truthfully reveal the signal about incumbents’ policy positions in their campaign ads when they choose to advertise about policy
and that voters infer that if an incumbent does not advertise her signal, she has an extremist signal. If voters were myopic and did not expect incumbents to provide them with verifiable policy positions, then challengers might have an incentive to advertise incumbent extremist signals as well as style, making campaign ads more policy oriented. Conversely if both challengers and incumbents can engage in nontruthful advertising about the incumbent’s signal, then while campaign messages might have a great deal of substance, voters would be likely to ignore all substantive messages since they will be babbling and primarily focus on stylistic elements. In these cases we would expect that voters will be forced to trade style for substance since it will be difficult for them to determine the true policy positions of the incumbent.

**Data and Estimation Issues**

**Our Unit of Analysis**

In order to empirically test the predictions from our simple model, we examine all 2000 congressional elections where an incumbent ran an ad in the dataset (119 incumbents). Our analysis suggests that the decisions about style and substance in campaign ads are made jointly and are a function of the distance between the incumbent’s policy position and the representative voter’s ideal point, the weight that the voter places on style, and the quality of the information available about the candidate’s policy position.

The data containing the broadcast and content information of an ad is from the Campaign Media Analysis Group (CMAG). The information for this data set was gathered by Competitive Media Reporting (CMR), and more specifically, the company’s “Ad Detector” product. In 2000, this system monitored the satellite transmissions of the national networks (ABC, CBS, NBC, and FOX), as well as 25 national cable networks such as CNN, TBS, and ESPN. The advertisements were monitored in the top 75 media markets. The data set records each time the ad was broadcasted, as well as the station, length of ad, cost of broadcasting an ad, and show that it was aired on. Each observation in the data set denotes each time an ad was broadcasted. While there
are over 200 media markets in the U.S., the 75 media markets selected cover more than 80% of the U.S. population. This data was then coded by researchers at the University of Wisconsin.22

Of course, candidates air the same ad more than once. That is, while incumbents broadcast over 78,000 commercials during the election season, the number of distinct ads was 273. This raises concerns over what should be our unit of analysis in our study – should we examine the percentage of ads of particular types by candidate or should we examine each unique ad or should we use broadcast commercials? As noted by Vavreck (2002), using percentages of ads is problematic because the greater the number of ads a candidate runs the greater the possibilities of the variation in the percentage. Her solution in studying the likelihood that candidates mention party labels is to use as a dependent variable whether any ad the candidate ran mentioned party. Since we wish to investigate the potential trade-off between advertising substance versus style or a combination of both, we are concerned with the likelihood that a message is aired, not just whether it was aired at least once.

Our solution is to use as the unit of analysis each commercial but to include control variables that are specific by commercial and we argue have a causal effect on the type of ad run in the commercial. Specifically, we use as controls whether the commercial is run in prime time and the length of the commercial in seconds. The presumption is that candidates have a stock of ads of various types, which they draw from strategically after purchasing the commercial time. For example, according to Segal (2002): “Bill Knapp (Gore’s campaign advisor who produced most of his Spanish-language ads) said Gore filmed one big shoot early in the campaign with California Lieutenant Governor Cruz Bustamante and Gloria Molina, a member of the Los Angeles County Board of Supervisors and a DNC Vice Chair” (Segal, p. 20). We also control for

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22 These materials are based on work supported by the Pew Charitable Trusts under a grant to the Brennan Center for Justice at New York University and a subsequent sub-contract to the Department of Political Science at the University of Wisconsin-Madison. For more information regarding the coding process and the reliability of this data, please refer to: Ridout, Travis N., Michael Franz, Kenneth Goldstein and Paul Freedman, 2002. ”Measuring Exposure to Campaign Advertising” www.polisci.wisc.edu/~tvadvertising/reliability.pdf
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the fact that incumbents with more campaign resources are more likely to be able to run ads of all
types – i.e. they have more degrees of freedom. We do so by including as a control variable in
most of the analysis incumbent campaign spending.

**Estimation Issues**

We use two different empirical models to examine the style/substance strategies of the
incumbents – bivariate probit and mutlinominal logit. In the bivariate probit model we estimate
the decision on whether an advertisement contains substance simultaneously with the decision on
whether an advertisement contains style and the method allows the error terms for each of the
estimates, one estimate on whether to advertise policy and the other on advertising style, to be
correlated with one another. The bivariate probit model can be viewed as a pair of binary probit
models where \( d \) indexes stylistic messages and \( s \) indexes substantive messages:

\[
\begin{align*}
  z_{id} &= \beta_d x_{id} + \varepsilon_{id}, y_{id} = 1 \text{ if } z_{id} > 0, y_{id} = 0 \text{ otherwise}, \\
  z_{is} &= \beta_s x_{is} + \varepsilon_{is}, y_{is} = 1 \text{ if } z_{is} > 0, y_{is} = 0 \text{ otherwise}, \\
  [\varepsilon_{id}, \varepsilon_{is}] &\sim \text{bivariate normal } [0,0,1,1, \rho]
\end{align*}
\]

If we let \( q_{ij} = 2y_{ij} - 1 \), where \( j = d,s \) then the log-likelihood function for the
bivariate probit model is given by (where \( \Phi_2 \) denotes the bivariate standard normal CDF):

\[
\ln L = \sum_i \ln \Phi_2(q_{id} \beta_d x_{id}, q_{is} \beta_s x_{is}, q_{id}, q_{is}, \rho)
\]

If there is no correlation between the error terms, so that \( \rho \) is not statistically significant
from zero, the bivariate probit model is equivalent to two independent binary probit models. But,
if advertising style is related to advertising substance as we contend, and it is not captured by our
explanatory variables, then the estimate of \( \rho \) could be significantly different from zero.

An alternative way to see the decision facing an incumbent is that she has four
advertising choices: 1) advertise both style and substance 2) advertise only style 3) advertise only
substance 4) advertise neither style nor substance. An incumbent’s choice of what to advertise
serves as our dependent variable in a mutlinominal logit analysis. That is, we can assume that the
incumbent has the following preferences over the four advertising combinations where $V$ denotes the incumbent’s utility:

\[
\begin{align*}
V(d = 0, s = 0) &= \beta_{00}x_{00} + \epsilon_{00} \\
V(d = 1, s = 0) &= \beta_{10}x_{10} + \epsilon_{10} \\
V(d = 0, s = 1) &= \beta_{01}x_{01} + \epsilon_{01} \\
V(d = 1, s = 1) &= \beta_{11}x_{11} + \epsilon_{11}
\end{align*}
\]

Observed $Y = \text{choice } j$ if $V(\text{alternative } j) > V(\text{alternative } k)$ all $j \neq k$.

The disturbances are assumed to be independently and identically distributed with extreme value distribution (commonly called the IIA condition). The choice probabilities for the incumbent then are given by:

\[
\Pr[\text{choice } j] = \frac{e^{\beta_{d,s}x_{d,s}}}{\sum_j e^{\beta_{d,s}x_{d,s}}}, \text{ all } j
\]

It should be noted that multinomial logit’s assumption of IIA implies that the ratio of the probability of choosing alternative $j$ to the probability of choosing alternative $k$ is not changed if more advertising choices than the four combinations we have focused on are added to or subtracted from the choice set facing the incumbent. In our analysis we assume that incumbents only have the four choices available to them.\(^{23}\)

**Data Sources**

As noted above, our ad data comes from CMAG. While these researchers coded ads on content, given our particular focus, we performed our own content coding. In coding whether an ad has substance we determined whether it was informative, if it contains policy information that could be verified, e.g. a candidate stating that he voted for a particular bill, etc. We use then informativeness as one of our dependent variables, and it is coded as a 1 if the ad contained this verifiable information, 0 otherwise.\(^{24}\)

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\(^{23}\) See Alvarez and Nagler (1998).

\(^{24}\) The researchers at CMAG coded content as to whether policy was mentioned in the ad. We actually found some sizeable discrepancies between their measure of policy content and ours –
We use four different proxies for style in our analysis – 1) whether the ad contained descriptive representation of Latinos or other minorities; 2) whether the ad contained descriptive representation of non-Latino minorities; 3) whether the ad contained descriptive representation of Latinos; and 4) whether the ad was in Spanish or English (1 if Spanish, 0 if English). Note that as with the coding on informativeness, we performed the descriptive representation coding of the ads ourselves. Thus we run four bivariate probits varying our measure of style. We also run four separate multinomial logits as well.

The independent variables are gathered from a number of different sources. Most importantly we expect that candidates are less likely to advertise substance when they are ideologically distant from their voters. To measure candidates’ ideology, we use their 2000 DW-Nominate scores. In order to measure the candidate’s ideological distance from her district, it was necessary to create a scale for district ideology based on the DW-nominate scores. We therefore estimated the candidate’s nominate score as a function of the Democratic vote share of the two party vote in the 1996 Presidential elections, the household median income of the district, the percentage of the district with a high school degree, and whether the district is in a southern state. We then took the absolute value of the predicted value of each estimate subtracted from the candidate’s actual DW-Nominate score. This gives us our distance measure.

As a proxy for the weight that the median voter places on style, we use 2000 Census data for the percentage of Latinos in the district, percentage of other minorities (e.g. African-Americans, Native Americans, Asians) in the district. In our theory we assumed that stylistic messages are more expensive than substantive ones. However, for minority candidates we expect this not to be true. Thus, we expect that minority candidates may be more likely to use stylistic elements than non-minority candidates either as a substitute for substance or in addition to

specifically, 31.73% of ads that we coded as informative on policy issues were coded as non-policy messages by CMAG. Since we had the original ad scripts and detailed information, we were able to perform all the ad coding ourselves.

25 Data for districts’ median household income and percent with a high school degree are from the Census web site: http://fastfacts.census.gov/home/cws/main.html
substance. As noted above, we also control for the time of day the commercial ran, the length of the commercial, and in the analysis using descriptive representation as style, incumbent campaign spending. Because of the limited number of Spanish language ads in our data set we were not able to include incumbent campaign spending in our estimations, which use this as a proxy for style. The following section presents a discussion of our empirical tests.

**Empirical Results**

**Descriptive Statistics**

In order to gain a better understanding of the data, we present several basic descriptive statistics. Table 1 provides descriptive statistics on television advertisements and candidate and district characteristic. As noted above, there were 273 ads created by House incumbents and they were broadcasted 70.658 times. The average percentage of Latinos across congressional districts is 9.49%, while the average number of minorities is slightly higher, 13.89%. The average value for distance from district ideology is .337.

[Table 1 Here]

Table 2 breaks down the ads by our measures of substance and style by candidate type. From the second column of the table we find that more than one-third of the campaign ads in our sample, 37.39%, contained informative policy messages. However, the number of ads featuring descriptive representation directed to minority voters is much smaller, only 12.81% and only 7.23% of ads contain both substance and style (broadly defined). Columns three and four break down ad types by whether the incumbent is a moderate or extreme on policy relative to her district. Extreme candidates are defined as those whose policy distance from their voters is greater than one standard deviation higher than the mean across incumbents (in our data set 15 candidates fit this definition). As our theory predicts, extreme candidates are less likely to advertise substance than moderate candidates. 40.61% of the ads aired by moderate candidates have substance while only 20.12% of ads aired by extreme candidates have substance. There is some evidence of substitution of style as we measure it for substance – 5.18% of moderate
candidates’ ads contain style only while 7.75% of the extreme candidates’ ads contain style only. However, when style is measured as descriptive ads for Latinos or as Spanish language ads, extreme candidates actually air a smaller percentage of messages with style than moderate candidates.

[Table 2 here]

We also find in Table 2 that minority candidates are much more likely to advertise style than non-minority candidates (81.37% of ads aired by minority candidates compared to only 10.75% of ads aired by non-minority candidates) as shown in the last two columns of the table. Minority candidates rarely advertise substance without style (only 0.92% of their ads). Yet, the extent that they advertise substance depends on ethnicity. While non-Latino minority candidates air a greater percentage of ads with substance than non-minority candidates combined (47.23% to 37.44%), Latino candidates air zero ads with substance in our dataset. Importantly, in our dataset we only have 4 non-Latino minority candidates and two Latino candidates who aired together only 2.93% of all the ads in the sample, so we cannot draw many conclusions based on this comparison by candidate ethnicity.

Bivariate Probit Analysis

While the descriptive statistics provide us with some understanding of the data, a multivariate analysis is necessary to determine if these differences are important. The bivariate probit estimates are presented in Table 3. We find robust evidence that incumbents’ who have made policy decisions at variance with their constituents’ preferences are less likely to advertise substance, that is, an incumbent’s decision to advertise verifiable information on policy (substance) is significantly negatively influenced by her ideological distance from her district’s ideology regardless of how we measure style. Surprisingly, we find that the decision to advertise substance is positively affected by the percent Latinos in the district but negatively effected by the percent of other minority voters. This suggests that incumbents communicate different types of messages to Latino voters than they do to other minority voters. In fact we find that
incumbents appear to be more likely to advertise verifiable information on policy to Latino voters than non-minority voters. Interestingly, we find the opposite effects for candidate ethnicity – i.e. non-Latino minority candidates are more likely to advertise substance as compared to a non-minority candidate while Latino candidates are less likely to – as noted above, these results reflect the actions of only a few candidates and thus should not be over emphasized.

In an incumbent’s decision to advertise style, we find that as predicted the further an incumbent’s policy positions are from their voter preferences, the more likely they advertise style when style is measured in terms of descriptive representation in the three different ways we measure the variable. However, we find that ideological distance has a significant negative effect on the likelihood that the ad is in Spanish suggesting that incumbents who are more likely to be ideologically close to their voters are more likely to advertise in Spanish. Since only a few incumbents advertise in Spanish in our data set this result may simply reflect unmeasured variables with respect to these candidates (only five candidates ran Spanish language ads and two of whom were also Latino). It appears that there is little evidence that Spanish language ads are used to substitute for substance in our data.

Our control variable, incumbent campaign spending, is highly significant in all the probits although the effect varies. In general, campaign spending increases the likelihood that a candidate will advertise substance and style as measured by descriptive representation of Latinos, while it decreases the likelihood an incumbent advertises style as measured by descriptive representation of non-Latino minorities. The empirical results also demonstrate that the error terms for each bivariate probit estimate are correlated; suggesting that there is something in a candidate’s decision to advertise policy and descriptive representation/Spanish-language ads which causes this relationship (and is not captured by any of our explanatory variables).

[Table 3 here]
Multinominal Logit Analysis

We now turn to the multinominal logit estimates presented in Table 4. Note that there were no Spanish language ads that provided verifiable information. We find robust significant evidence in support of our most important prediction in our theory – that the further ideologically an incumbent’s policy choices have been in office from the preferences of her voters, the less likely she is to advertise substance only regardless of how we measure style. Also, ideological distance increases significantly the likelihood an incumbent advertise both style and substance (in all the ways we measure style) and that an incumbent advertises style as measured by representation of Latinos (distance is insignificant in affecting the decision to advertise style directed to non-Latino minorities). Similar to the result found in the probit above, distance has a barely significant negative effect on the use of Spanish in ads.

[Table 4 here]

The proxies that we used to capture the weight that the median voter places on style were highly influential on the likelihood that a candidate advertises style. The coefficients for the percent of Latinos in a district as well as the percent of other minorities in a district were statistically significant for every type of advertising strategy. As the percentage of minorities and Latinos in a district increase, the probability that an ad only contains style increases. Likewise, a large percentage of Latinos and minorities increase the likelihood that a candidate will advertise both style and substance. Both of these empirical findings support the theoretical contention that the weight a voter places on style is something that candidates must take into consideration. However, in the decision to advertise only substantive messages, the percentage of minorities/Latinos has mixed effects, similar to what we found in the bivariate probits. While a higher number of minorities reduces the probability that an ad contains substance only, a large percentage of Latinos in a district actually increases the likelihood that an ad will feature informative policy messages. These results show that incumbents are more likely to provide
verifiable information on their policy choices to Hispanic voters than both other minority voters and non-minority voters.

In order to assess the magnitude of these effects, first difference estimates are calculated for the primary explanatory variables of interest: a candidate’s ideological distance from her district and the percent of Latinos in a district. Table 5 presents these estimates. The first difference estimates were computed by holding all other independent variables at their mean or mode. The average length of an ad was 30.7 seconds, and the majority of ads were not aired during prime time. The average percentage of other minorities in a district was 13.89% while the mean for the percent of Latinos in a district was 9.49%. And finally, the mean for distance was .337. Since we are interested in the effect of distance and percent Latinos in a district, we shift each of these variables from their minimum value to their maximum value.

[Table 5 here]

As shown in Table 5, a shift in a candidate’s ideological distance from his voters from the minimum value to the maximum is predicted to reduce the percentage of ads she airs that only contain substance by 23.45%. Thus, the incumbents whose policy choices have been furthest from their voters are 1/4 less likely to advertise verifiable information about those choices without style accompaniments than those who have chosen positions closest to their voters. Most of the reduction leads to ads which do not contain either style as measure it or substance (a predicted 15% increase). We predict a much smaller increase in ads containing both style and substance (5.71%) and only style (2.74%). We find a similar relationship between changes in distance using our other measures of style. The results indicate some substitution of style for substance, as ideological distance increases, but a much larger substitution of vague ads without style for substance. The result that incumbents far ideologically from their voters choose to advertise less verifiable information on those choices support our hypothesis that the incumbents

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26 First difference estimates were calculated using the CLARIFY command in STATA.
are constrained to convey truthful information when they present verifiable information to their voters on their records.

Markedly, we find that the largest and most prominent substitution of style for substance occurs when we compare Congressional districts with the lowest percentage of minorities with those with the highest percentage of minorities. When using descriptive messages directed to non-Latino minorities as our measure of style, incumbents with the minimum percent of non-Latino minority constituents choose to air 33.6% more of their ads on substance than incumbents with the maximum non-Latino minority constituents. This decrease appears to entirely go to ads with style and without substance (which increase by 36.04%). Interestingly, we find that when the incumbent is a member of the minority group and the percent other-Latino minority is at its mean, messages with both style and substance are predicted to increase by almost 40%, making up for the substitution effect. Thus, the substitution effect seems to be limited to non-minority incumbents.

A less worrisome effect occurs with style measured as descriptive representation directed at Latinos occurs when we compare the uses of substance and style as the percentage of Latinos increases from the minimum to the maximum. That is, messages with substance alone decrease by 22.56% and messages with only style increase by 30.01%. But messages that combine substance and style increase by 40.08%. The difference occurs because as the percentage of voters who are Latino increases the percentage of messages with no style or substance also fall by almost 50%. Thus, it appears that the percentage of minorities in a district have very different effects on incumbent advertising of style and substance depending on whether the minority is primarily Latino or not. These results suggest that substitution of style for substance is more of a problem when voters are non-Latino minorities than for districts with Latino minorities. However, since we are unable to include a variable for Latino incumbents in our analysis and the similarity between the figures here and the analysis above with respect to non-Latino minorities
when the ethnicity of the incumbent varies as well it may be that for all minorities, substitution of style for substance is primarily a factor when candidates are non-minority

Concluding Remarks

Our findings provide a number of important insights regarding candidates and their television advertising strategies. First, we find robust evidence using a variety of estimation procedures that when an incumbent’s policy position is close to her district’s ideal point, there is a high probability that she advertises informative messages about her policy choices. This suggests that incumbents’ attempt to convey policy information in their advertisements and that they are more likely to do so when that information will increase their probabilities of winning. Moreover, the evidence implies as well that incumbents feel constrained to be truthful in these messages since those who might be likely to expose choices voters would dislike are less likely to advertise verifiable information about their policy choices. This evidence supports models of campaign advertising that allow for the messages in themselves to provide voters with policy position information about incumbents that is truthful and assume that incumbents are constrained to be honest in their messages.

Our result on the relationship between ideological distance and informativeness of advertising has important implications as well for theories of campaign advertising that suggest that candidates primarily use low-information shortcuts and cues to communicate with voters rather than precise information about their policy choices. As noted in the discussion of the empirical literature, a large percentage of most campaign messages do contain references to policy issues as Vavreck found, although the percentage that is verifiable is just a little more than a third. When candidates appear to want to communicate about policy positions to voters, they are specific and give voters verifiable information that directly communicates their policy positions. When they don’t, they are vague. Our theory argues that voters are not fooled by this lack of communication, although of course our data cannot tell us that for sure it certainly implies that the incumbents do not expect to get away with lying.
Second, we find evidence that when an incumbent’s policy choices are far from her district’s ideal point she is more likely to use stylistic, non-policy messages to appeal to voters which, when the size of the minority population is large, will include stylistic messages targeted to minority voters. We find some evidence of substitution of style for substance as well as unpredicted evidence of supplementing style with substance when candidates’ policy positions are far from their median voters.

Third, we find that incumbents, regardless of policy positions, target stylistic messages of descriptive representation as well as Spanish language ads to minority voters both Latino and other minorities. Surprisingly we find that candidates are more likely to advertise substance when the percentage of Latino voters is high which may imply that incumbents feel the need to communicate more substantively to these voters. We find the opposite relationship between advertising substance and the percentage of other minority voters although not when the incumbent is a member of the minority group.

These last results show that the extent that voters receive verifiable substantive information about incumbents through campaign advertising does vary by voter and candidate demographics. They also suggest that even though incumbents appear to believe that Latino voters value style, they are also communicating substance to these voters as well. Stylistic messages directed to Latinos in themselves do not appear to be a problem, however, for other minority voters the apparent substitution of style for substance in campaign advertisements by non-minority incumbents is troubling.

In the theoretical analysis we argued the voters will infer if incumbents do not advertise verifiable information on their records that the incumbents therefore have taken positions these voters dislike. But we find that advertising of substance is less in districts with high percentages of non-Latino minority voters controlling for the closeness of the candidate’s policy position to her voters. Non-minority incumbents instead substitute stylistic messages with little direct policy content. This suggests that these candidates, even when they are close to their voters
ideologically, are not providing their voters with as much information about their policy choices as in districts with high percentages of non-minority voters and/or Latino voters. Without this information it may be that these voters are less able to distinguish between those candidates who have chosen positions close to them ideologically and those who have not. As a consequence non-Latino minority voters may be less effectual in using elections to hold non-minority incumbents accountable than non-minority or Latino voters.
References


Anderson, Nick, “The Race to the White House; Parties Seeking to Speak Language of Latino Voters; Both Democrats and Republicans unveil TV ads targeting a crucial constituency,” Los Angeles Times, Saturday, March 6, 2004.


All Style and No Substance?


Table 1: Basic Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Frequency/Value</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Television Ads</strong></td>
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<td></td>
</tr>
<tr>
<td>Number Broadcasted</td>
<td>70,658</td>
<td></td>
</tr>
<tr>
<td>Number Created</td>
<td>273</td>
<td></td>
</tr>
<tr>
<td><strong>District Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Percentage of Latinos in District (standard deviation)</td>
<td>9.49% (0.136)</td>
<td></td>
</tr>
<tr>
<td>Average Percentage of Other Minorities in District (standard deviation)</td>
<td>13.89% (0.098)</td>
<td></td>
</tr>
<tr>
<td>Average Distance in Candidate Ideology (standard deviation)</td>
<td>0.338 (0.166)</td>
<td></td>
</tr>
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</table>
Table 2: Distribution of Ad Types in Percentages by Candidate Type

<table>
<thead>
<tr>
<th></th>
<th>All Candidates</th>
<th>Moderate Candidates*</th>
<th>Extreme Candidates*</th>
<th>Non-Minority Candidate**</th>
<th>Minority Candidate**</th>
</tr>
</thead>
<tbody>
<tr>
<td>As With No Style No Substance</td>
<td>57.03%</td>
<td>54.22%</td>
<td>72.13%</td>
<td>58.22%</td>
<td>17.71%</td>
</tr>
<tr>
<td>As With Only Style</td>
<td>5.58%</td>
<td>5.18%</td>
<td>7.75%</td>
<td>4.34%</td>
<td>46.83%</td>
</tr>
<tr>
<td>Ads With Only Substance</td>
<td>30.15%</td>
<td>32.25%</td>
<td>18.93%</td>
<td>31.03%</td>
<td>0.92%</td>
</tr>
<tr>
<td>As With Both Style and Substance</td>
<td>7.23%</td>
<td>8.36%</td>
<td>1.19%</td>
<td>6.41%</td>
<td>34.54%</td>
</tr>
<tr>
<td>Total Ads</td>
<td>100%</td>
<td>84.28%</td>
<td>15.72%</td>
<td>97.07%</td>
<td>2.93%</td>
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*Measuring Style As Descriptive Other Minority

<table>
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<th>All Candidates</th>
<th>Moderate Candidates*</th>
<th>Extreme Candidates*</th>
<th>Non-Minority Candidate**</th>
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</thead>
<tbody>
<tr>
<td>As With No Style No Substance</td>
<td>58.67%</td>
<td>56.16%</td>
<td>72.13%</td>
<td>59.54%</td>
<td>19.91%</td>
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<tr>
<td>As With Only Style</td>
<td>3.94%</td>
<td>3.23%</td>
<td>7.75%</td>
<td>3.29%</td>
<td>32.86%</td>
</tr>
<tr>
<td>Ads With Only Substance</td>
<td>32.57%</td>
<td>35.12%</td>
<td>18.93%</td>
<td>33.27%</td>
<td>1.22%</td>
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<tr>
<td>As With Both Style and Substance</td>
<td>4.81%</td>
<td>5.49%</td>
<td>1.19%</td>
<td>3.89%</td>
<td>46.01%</td>
</tr>
<tr>
<td>Total Ads</td>
<td>100%</td>
<td>84.28%</td>
<td>15.72%</td>
<td>97.80%</td>
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*Measuring Style As Descriptive Latino

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<th>Moderate Candidates*</th>
<th>Extreme Candidates*</th>
<th>Non-Minority Candidate**</th>
<th>Minority Candidate**</th>
</tr>
</thead>
<tbody>
<tr>
<td>As With No Style No Substance</td>
<td>60.77%</td>
<td>57.38%</td>
<td>78.94%</td>
<td>61.38%</td>
<td>85.54%</td>
</tr>
<tr>
<td>As With Only Style</td>
<td>1.85%</td>
<td>2.02%</td>
<td>0.95%</td>
<td>0.42%</td>
<td>14.46%</td>
</tr>
<tr>
<td>Ads With Only Substance</td>
<td>34.71%</td>
<td>37.44%</td>
<td>20.11%</td>
<td>37.01%</td>
<td>0%</td>
</tr>
<tr>
<td>As With Both Style and Substance</td>
<td>2.67%</td>
<td>3.17%</td>
<td>0%</td>
<td>1.19%</td>
<td>0%</td>
</tr>
<tr>
<td>Total Ads</td>
<td>100%</td>
<td>84.28%</td>
<td>15.72%</td>
<td>99.62%</td>
<td>0.38%</td>
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*Measuring Style As Spanish Language Ad

<table>
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<th></th>
<th>All Candidates</th>
<th>Moderate Candidates*</th>
<th>Extreme Candidates*</th>
<th>Non-Minority Candidate**</th>
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</thead>
<tbody>
<tr>
<td>As With No Style No Substance</td>
<td>61.79%</td>
<td>58.42%</td>
<td>79.89%</td>
<td>61.80%</td>
<td>0%</td>
</tr>
<tr>
<td>As With Only Style</td>
<td>0.82%</td>
<td>0.98%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Ads With Only Substance</td>
<td>37.39%</td>
<td>40.61%</td>
<td>8.46%</td>
<td>38.20%</td>
<td>0%</td>
</tr>
<tr>
<td>As With Both Style and Substance</td>
<td>There are no Spanish language ads with substance in our data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Ads</td>
<td>100%</td>
<td>84.28%</td>
<td>15.72%</td>
<td>99.62%</td>
<td>0.38%</td>
</tr>
</tbody>
</table>

*Candidates are defined as moderates if their distance from the estimated voter preferences in their districts is less than the mean distance plus one standard deviation from the mean. Candidates are defined as extreme if their distance is greater than this value.

**Candidates are defined as minority depending on the measure of style; i.e. when style is descriptive Latino non-minority candidates are non-Latino, etc.
### Table 3: Bivariate Probit Estimates

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Descriptive Minority Combined</th>
<th>Descriptive Non-Latino Minority</th>
<th>Descriptive Latino Minority</th>
<th>Ad in Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equation 1: Probability Ad Contains Style</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance from District Ideology</td>
<td>0.481*** (0.037)</td>
<td>0.544*** (0.041)</td>
<td>0.271*** (0.057)</td>
<td>-1.319*** (0.220)</td>
</tr>
<tr>
<td>Percent Latinos in District</td>
<td>2.474*** (0.042)</td>
<td>-2.009*** (0.119)</td>
<td>5.007*** (0.062)</td>
<td>4.438*** (0.0963)</td>
</tr>
<tr>
<td>Percent Other Minority</td>
<td>0.965*** (0.064)</td>
<td>1.626*** (0.066)</td>
<td>-0.177 (0.128)</td>
<td>Insufficient variation in data to support estimation with these independent variables</td>
</tr>
<tr>
<td>Non-Latino Minority Candidate</td>
<td>2.009*** (0.041)</td>
<td>1.995*** (0.038)</td>
<td>-4.509*** (0.045)</td>
<td></td>
</tr>
<tr>
<td>Latino Candidate</td>
<td>1.178*** (0.077)</td>
<td>2.432*** (0.089)</td>
<td>-0.733*** (0.063)</td>
<td></td>
</tr>
<tr>
<td>Incumbent Campaign Spending</td>
<td>-4.69e-08*** (8.30e-09)</td>
<td>2.19e-08*** (7.88e-09)</td>
<td>-4.34e-08*** (1.46e-08)</td>
<td></td>
</tr>
<tr>
<td>Ad Aired in Prime Time</td>
<td>-0.388** (0.019)</td>
<td>0.015 (0.021)</td>
<td>-0.060* (0.031)</td>
<td>0.137*** (0.052)</td>
</tr>
<tr>
<td>Length of Ad</td>
<td>-0.058*** (0.003)</td>
<td>-0.074*** (0.002)</td>
<td>0.015*** (0.002)</td>
<td>0.002*** (0.001)</td>
</tr>
<tr>
<td><strong>Equation 2: Probability Ad Contains Substance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance from District Ideology</td>
<td>-0.593*** (0.031)</td>
<td>-0.606*** (0.031)</td>
<td>-0.575*** (0.031)</td>
<td>-0.382*** (0.029)</td>
</tr>
<tr>
<td>Percent Latinos in District</td>
<td>0.947*** (0.039)</td>
<td>0.946*** (0.038)</td>
<td>0.940*** (0.038)</td>
<td>0.601*** (0.035)</td>
</tr>
<tr>
<td>Percent Other Minority</td>
<td>-1.731*** (0.057)</td>
<td>-1.729*** (0.057)</td>
<td>-1.754*** (0.057)</td>
<td>Insufficient variation in data to support estimation with these independent variables</td>
</tr>
<tr>
<td>Non-Latino Minority Candidate</td>
<td>0.794*** (0.038)</td>
<td>0.792*** (0.038)</td>
<td>0.784*** (0.038)</td>
<td></td>
</tr>
<tr>
<td>Latino Candidate</td>
<td>-6.694*** (0.023)</td>
<td>-6.649*** (0.024)</td>
<td>-6.791*** (0.022)</td>
<td></td>
</tr>
<tr>
<td>Incumbent Campaign Spending</td>
<td>1.32e-07*** (4.76e-09)</td>
<td>1.33e-07*** (4.78e-09)</td>
<td>1.33e-07*** (4.83e-09)</td>
<td></td>
</tr>
<tr>
<td>Ad Aired in Prime Time</td>
<td>0.023* (0.014)</td>
<td>0.024* (0.014)</td>
<td>0.024* (0.014)</td>
<td>0.027*** (0.014)</td>
</tr>
<tr>
<td>Length of Ad</td>
<td>-0.073*** (0.002)</td>
<td>-0.075*** (0.002)</td>
<td>-0.074*** (0.002)</td>
<td>-0.070*** (0.002)</td>
</tr>
<tr>
<td>$\rho$</td>
<td>0.318*** (0.008)</td>
<td>0.277*** (0.009)</td>
<td>0.396*** (0.012)</td>
<td>-0.999*** (0.001)</td>
</tr>
<tr>
<td>N</td>
<td>69863</td>
<td>69863</td>
<td>69863</td>
<td>70658</td>
</tr>
<tr>
<td>Log-likelihood</td>
<td>-64809.632</td>
<td>-60154.34</td>
<td>-50868.712</td>
<td>-46954.618</td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>1430.26</td>
<td>885.38</td>
<td>907.716</td>
<td>100.65</td>
</tr>
</tbody>
</table>

Robust standard errors are in parentheses. Significance Levels: * means 10%, ** means 5%, *** means 1% or lower. Some ads are omitted because of missing campaign expenditure data.
### Table 4: Multinomial Logit Estimates (Base category is an ad without substance or style)

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Style Measured As:</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Descriptive Minority</td>
<td>Combined</td>
<td>Descriptive Non-Latino Minority</td>
<td>Descriptive Latino Minority</td>
<td>Ad in Spanish</td>
</tr>
<tr>
<td>Equation 1: Style No Substance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance from District Ideology</td>
<td>0.534***</td>
<td>(0.104)</td>
<td>-0.054</td>
<td>(0.124)</td>
<td>3.120***</td>
</tr>
<tr>
<td>Percent Latinos in District</td>
<td>5.927***</td>
<td>(0.096)</td>
<td>2.062***</td>
<td>(0.158)</td>
<td>11.171***</td>
</tr>
<tr>
<td>Percent Other Minority</td>
<td>4.286***</td>
<td>(0.159)</td>
<td>5.776***</td>
<td>(0.154)</td>
<td>2.911***</td>
</tr>
<tr>
<td>Minority Candidate (Depend. On style)</td>
<td>2.743***</td>
<td>(0.071)</td>
<td>2.093***</td>
<td>(0.067)</td>
<td>Insufficient Data Variation</td>
</tr>
<tr>
<td>Incumbent Campaign Spending</td>
<td>1.25e-07***</td>
<td>(3.10e-08)</td>
<td>3.14e-07***</td>
<td>(2.47e-08)</td>
<td>-1.38e-08***</td>
</tr>
<tr>
<td>Ad Aired in Prime Time</td>
<td>-0.0843</td>
<td>(0.053)</td>
<td>-0.014</td>
<td>(0.059)</td>
<td>-0.164*</td>
</tr>
<tr>
<td>Length of Ad</td>
<td>0.002</td>
<td>(0.005)</td>
<td>-0.039***</td>
<td>(0.111)</td>
<td>0.090***</td>
</tr>
<tr>
<td>Equation 2: Substance No Style</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance from District Ideology</td>
<td>-1.293***</td>
<td>(0.057)</td>
<td>-1.264***</td>
<td>(0.054)</td>
<td>-0.968***</td>
</tr>
<tr>
<td>Percent Latinos in District</td>
<td>1.171***</td>
<td>(0.70)</td>
<td>1.603***</td>
<td>(0.060)</td>
<td>0.396***</td>
</tr>
<tr>
<td>Percent Other Minority</td>
<td>-2.505***</td>
<td>(0.107)</td>
<td>-2.995***</td>
<td>(0.110)</td>
<td>-1.979***</td>
</tr>
<tr>
<td>Minority Candidate (Depend. On style)</td>
<td>-1.964***</td>
<td>(0.239)</td>
<td>-1.688***</td>
<td>(0.242)</td>
<td>Insufficient Data Variation</td>
</tr>
<tr>
<td>Incumbent Campaign Spending</td>
<td>2.79e-07***</td>
<td>(8.21e-09)</td>
<td>2.76e-07***</td>
<td>(8.28e-09)</td>
<td>2.29e-07***</td>
</tr>
<tr>
<td>Ad Aired in Prime Time</td>
<td>0.049**</td>
<td>(0.024)</td>
<td>0.039</td>
<td>(0.024)</td>
<td>0.046**</td>
</tr>
<tr>
<td>Length of Ad</td>
<td>-0.101***</td>
<td>(0.003)</td>
<td>-0.103***</td>
<td>(0.003)</td>
<td>-0.123***</td>
</tr>
<tr>
<td>Equation 3: Both Style and Substance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance from District Ideology</td>
<td>0.768***</td>
<td>(0.079)</td>
<td>1.173***</td>
<td>(0.118)</td>
<td>0.313**</td>
</tr>
<tr>
<td>Percent Latinos in District</td>
<td>4.462***</td>
<td>(0.160)</td>
<td>-17.184***</td>
<td>(0.712)</td>
<td>9.532***</td>
</tr>
<tr>
<td>Percent Other Minority</td>
<td>-0.896***</td>
<td>(0.160)</td>
<td>-0.307*</td>
<td>(0.158)</td>
<td>-10.007***</td>
</tr>
<tr>
<td>Minority Candidate (Depend. On style)</td>
<td>3.020***</td>
<td>(0.087)</td>
<td>3.922***</td>
<td>(0.074)</td>
<td>Insufficient Data Variation</td>
</tr>
<tr>
<td>Incumbent Campaign Spending</td>
<td>-1.13e-07***</td>
<td>(1.37e-08)</td>
<td>-7.07e-08***</td>
<td>(1.33e-08)</td>
<td>-4.89e-08***</td>
</tr>
<tr>
<td>Ad Aired in Prime Time</td>
<td>-0.043</td>
<td>(0.046)</td>
<td>0.053</td>
<td>(0.057)</td>
<td>-0.096***</td>
</tr>
<tr>
<td>Length of Ad</td>
<td>-0.218***</td>
<td>(0.005)</td>
<td>-0.243***</td>
<td>(0.004)</td>
<td>-0.056***</td>
</tr>
<tr>
<td>N</td>
<td>69863</td>
<td>69863</td>
<td>69863</td>
<td>69863</td>
<td></td>
</tr>
<tr>
<td>Log-likelihood</td>
<td>-64612.703</td>
<td>-59701.425</td>
<td>-51122.653</td>
<td>-45104.012</td>
<td></td>
</tr>
</tbody>
</table>

Robust standard errors are in parentheses. Significance Levels: * means 10%, ** means 5%, *** means 1% or lower. Some observations are omitted due to missing data on campaign spending.
Table 5: First Difference Estimates (changes in probabilities)

<table>
<thead>
<tr>
<th>Variable of Interest</th>
<th>No Style or Substance</th>
<th>Only Style</th>
<th>Only Substance</th>
<th>Both Style and Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distance from District’s Ideology Shifts from Min to Max</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance from District’s Ideology Shifts from Min to Max</td>
<td>15.00% (0.01)</td>
<td>2.74% (0.004)</td>
<td>-23.45% (0.009)</td>
<td>5.71% (0.004)</td>
</tr>
<tr>
<td>Percent Latinos Shifts from Min to Max</td>
<td>-42.82% (0.007)</td>
<td>31.22% (0.009)</td>
<td>-7.84% (0.007)</td>
<td>19.44% (0.009)</td>
</tr>
<tr>
<td>Percent Other Minorities from Min to Max</td>
<td>4.74% (0.014)</td>
<td>24.01% (0.0135)</td>
<td>-26.77% (0.007)</td>
<td>-1.99% (0.004)</td>
</tr>
<tr>
<td>Effect of Minority Candidate</td>
<td>-33.01% (0.014)</td>
<td>19.92% (0.008)</td>
<td>-29.08% (0.005)</td>
<td>42.18% (0.016)</td>
</tr>
<tr>
<td><strong>Distance from District’s Ideology Shifts from Min to Max</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance from District’s Ideology Shifts from Min to Max</td>
<td>19.85% (0.010)</td>
<td>0.81% (0.003)</td>
<td>-22.92% (0.009)</td>
<td>2.27% (0.003)</td>
</tr>
<tr>
<td>Percent Other Minorities from Min to Max</td>
<td>-2.44% (.0153)</td>
<td>36.04% (0.015)</td>
<td>-33.34% (0.006)</td>
<td>-0.26% (0.001)</td>
</tr>
<tr>
<td>Percent Latinos Shifts from Min to Max</td>
<td>-22.75% (0.018)</td>
<td>12.04% (0.007)</td>
<td>-29.04% (0.009)</td>
<td>39.75% (0.017)</td>
</tr>
<tr>
<td><strong>Distance from District’s Ideology Shifts from Min to Max</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance from District’s Ideology Shifts from Min to Max</td>
<td>16.93% (0.009)</td>
<td>1.46% (0.001)</td>
<td>-18.86% (0.009)</td>
<td>0.47% (0.001)</td>
</tr>
<tr>
<td>Percent Latinos Shifts from Min to Max</td>
<td>-47.53% (0.007)</td>
<td>30.01% (0.010)</td>
<td>-22.56% (0.005)</td>
<td>40.08% (0.010)</td>
</tr>
<tr>
<td><strong>Distance from District’s Ideology Shifts from Min to Max</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance from District’s Ideology Shifts from Min to Max</td>
<td>19.01% (0.009)</td>
<td>-3.93e-06% (5.33e-06)</td>
<td>-19.01% (0.009)</td>
<td></td>
</tr>
<tr>
<td>Percent Latinos Shifts from Min to Max</td>
<td>-24.93% (0.010)</td>
<td>7.95% (0.008)</td>
<td>16.99% (0.010)</td>
<td></td>
</tr>
<tr>
<td>Percent Other Minorities from Min to Max</td>
<td>25.60% (0.009)</td>
<td>0.002% (7.28e-06)</td>
<td>-25.60% (0.009)</td>
<td></td>
</tr>
</tbody>
</table>

Entries are first difference estimates computed using Clarify with 1000 simulations assuming values of other independent variables are at their mean values. Entries in parentheses are the standard errors of the first difference estimates.