ECONSTOR
Make Your Publications Visible.

A Service of

ZBW Leibniz-Informationszentrum Wirtschaft
Leibniz Information Centre for Economics

Gennaioli, Caterina

Working Paper

Go divisive or not? How political campaigns affect turnout

CESifo Working Paper, No. 3298

Provided in Cooperation with:
Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

Suggested Citation: Gennaioli, Caterina (2010) : Go divisive or not? How political campaigns affect turnout, CESifo Working Paper, No. 3298, Center for Economic Studies and ifo Institute (CESifo), Munich

This Version is available at:
https://hdl.handle.net/10419/46361

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

WWW.ECONSTOR.EU

Mitglied der Leibniz-Gemeinschaft

CESifo Working Papers
www.cesifo.org/wp

Go Divisive or Not?
How Political Campaigns Affect Turnout

Caterina Gennaioli

CESIFO WORKING PAPER NO. 3298
CATEGORY 2: PUBLIC CHOICE
DECEMBER 2010

An electronic version of the paper may be downloaded
- *from the SSRN website: www.SSRN.com*
- *from the RePEc website: www.RePEc.org*
- *from the CESifo website: www.CESifo-group.org/wp*

CESifo *Working Paper No. 3298*

Go Divisive or Not?
How Political Campaigns Affect Turnout

Abstract

This paper studies how political competition can lead candidates to strategically increase the salience of specific issues, in order to influence voting decisions of marginal groups, with non trivial consequences for turnout rates. In my setup issues differ in their divisiveness, to be defined as the extent to which members within a coalition disagree. Political candidates face a trade-off; they can choose to increase the salience of cohesive issues which energize their own (but also their opponent) constituency or divisive issues which alienate the opponent (but also their own) supporters. Using a model of probabilistic voting, I derive equilibrium campaign strategies of the candidates and predictions on turnout. The results are relevant for the literature on political participation, pointing out that it is crucial to analyze campaign effects on different groups of voters, to explain turnout rates actually observed. We also show descriptive evidence on US Presidential campaigns, supporting the model.

JEL-Code: D72, D83.

Keywords: political campaigns, priming, turnout.

Caterina Gennaioli
FEEM, Fondazione Eni Enrico Mattei
Milan / Italy
caterina.gennaioli@feem.it

This draft: December 2010

Post-Doc researcher at Fondazione ENI Enrico Mattei. This paper is based on the third chapter of my PhD thesis. I am indebted to Alberto Alesina, Nicola Gennaioli, Jesse Shapiro and Guido Tabellini for their invaluable support throughout this project and Eliana La Ferrara for her constant encouragement during the PhD. I am also grateful to Richard Holden, Francesco Trebbi and audiances at the 4th Ifo-Political Economy Workshop in Dresden, 21st Jerusalem School in Economic Theory at IAS, IGIER-Brown Bag seminar, Collegio Carlo Alberto and EUDN PhD Workshop, for very helpful comments.

"*Drastic electoral changes can result from changes in the coordinate system of the space rather than changes in the distribution of parties and voters...*" (Donald Stokes, 1963)

"*On the morning after election the country's liberals were astonished to hear that, according to exit polls, "moral values" outranked all other issues in determining voters' choices. Later on that same day, the reelected President Bush set out his legislative objectives for his second term. Making America a more moral country was not a priority. His goals were mainly economic: he would privatize Social Security and reform federal tax code....In official Washington, the values issues themselves seemed to dissipate like so much smoke once the elections were over. After all, more important matters were beckoning....*" (What's the Matter with Kansas? by Thomas Frank, 2005)

1 Introduction

The content of political platforms plays an important role in dividing voters and determines the relevant dimensions of conflict in a society. There is an interesting pattern in politics showing that campaigns which used to be dominated by socio-economic issues are now focusing also on other issues, usually poorly correlated with the former, such as religion, moral values, abortion, ethnicity or the environment. In modern societies individual preferences are highly differentiated and the political conflict might occur along several dimensions. The question we want to answer is: which of these dimensions will be relevant in a political race? In other words, which topics will be selected by a winning motivated candidate? This paper studies how under some circumstances, political competition leads candidates to strategically increase the salience of specific issues in order to influence voting decisions of marginal groups, with non trivial consequences for turnout rates. In particular we derive the conditions under which, perfect competition between politicians generates in equilibrium asymmetric behavior, i.e. different turnout rates for different groups of voters. The results are relevant for the literature on political participation and turnout, pointing out that it is crucial to analyze campaign effects on different groups of voters, to explain turnout rates actually observed. The focus of the analysis is represented by particular groups of voters, namely conflicted partisans who experience some disagreement with their candidate and typically make up their minds in the last stage of campaigns. There is evidence on how undecided voters are particularly subject to persuasion, similarly to the swing voters who "switch for some snotty little reason such as not liking the candidate's wife", as the spokesman for an American advertising agency said in

1952. As a special form of political persuasion we study the role of priming which consists in calling the attention to some matters ignoring others; indeed in our setup the importance voters assign to specific issues depends on the amount of messages received on those issue during the campaign, and individual voting decisions are based on the perceived salience of each issue in the platform. In the last stage of an electoral campaign, candidates focus their efforts on the disagreement groups within coalitions, who untill close to election day are not to sure whether to cast their ballot or stay home. These voters can be easily mobilized or disaffected by candidates, making them to believe that the issues primed are truly the most important in their political agendas. For example, if conflicted partisans perceive an increase in the salience of the policy dimension on which they disagree, they might decide to stay home, not supporting their candidate. As a consequence, given the distribution of preferences in the population, candidates have the incentive to strategically "prime" certain issues ignoring others. In this study we distinguish between *cohesive* and *divisive* issues; the former induce disagreement only between coalitions, while the latter induce disagreement both between and within coalitions. Candidates can affect issues' salience in the electorate deciding the amount of campaign resources to spend in advertising different issues. Typically an increase in the salience of cohesive issues energizes voters and increases turnout, while if divisive issues are perceived as relatively more important, political disaffection increases and voters tend to abstain. Since we are interested in the last days of a campaign, when competition becomes stiffer, we exclude *first best* issues, the ones which are cohesive for one coalition but divisive for the opponent; these issues are usually raised at the very beginning since they generate a net electoral gain for one candidate. Instead we focus on *second best* issues; the logic behind is that, once a candidate has raised any *first best* issue and she is sure about the support of her party stronghold, she is left with two groups of targetable voters, i.e. minorities ("conflicted" groups) within **each** constituency which agree with their candidate on the *cohesive* issue but disagree on the *divisive* issue. Clearly political candidates face a trade-off; they can choose to increase the salience of *cohesive* issues, which activate their own (but also their opponent) constituency, or *divisive* issues, which alienate the opponent (but also their own) supporters. In other words a candidate can invest more campaign resources either to increase participation among his own constituency (but also among the opponent's one), or to decrease the turnout among opponent's constituency (but also among his own constituency). Several elements might render the trade off less severe as the difference in groups' responsiveness, in candidates' ability to campaign in favor of divisive relative to cohesive issues, or the presence of informational barriers among voters due to new information technology and features of the media

market. Using a probabilistic model of electoral competition, I pin down equilibrium campaign strategies of the candidates and interestingly, I derive predictions on equilibrium turnout. First, we show that, whenever one candidate is better able in campaigning divisive issues and she is the candidate of the most partisan group, divisiveness of campaign increases and total turnout decreases. Second, we find that generally the most responsive group is less likely to turnout, which implies a higher political representation of partisans, with non trivial consequences during the following legislature. Overall, the analysis helps to understand which dimensions of conflict emerge in political campaigns, and their effects on political participation of different groups of voters. This paper is linked to the literature on campaigns content and campaigns effects. There is a large literature on campaigns content, developed by political scientists, psychologists and experts in political communication. However these studies are often descriptive and lack theoretical foundations. One branch of this literature extensively described the concept of issue ownership (see Budge and Farlie (1983), Petrocik (1996), and Ansolabehere and Iyengar (1994)), which has been found to affect voting choice; according to this argument, political parties become closely associated with certain issues in a way that citizens take as granted party's competence in handling them. Analyzing political campaigns, Petrocik suggests that the successful candidate will focus public attention on issues that the candidate's party has a better reputation for handling than the opposing party. Petrocik argues that when a party is successful in moving its issues to the top of the agenda, that party's candidates benefit. Regarding the literature on the effecs of political campaigns, there is a long lasting debate on whether campaigns do matter. Some (Campbell et al. (1960), Campbell (2000), Gelman and King (1993)) have supported the "minimal effects" hypothesis according to which voting behavior can be predicted well before the electoral period since voter preferences do not change during campaign. Other studies (Shawn (1999), Gerber and Green (2000), Hylligus and Jackman (2003), Hylligus (2005)) have found that campaigns influence voters preferences through media coverage, advertising and grassroots mobilization. Some contributions have also looked at media as agenda setter (see Denton for a review), analyzing their effect on individuals judgement capacity, through persuasion, with a special focus on priming. Iyengar et al. actually find that in this way, television news influences the standards by which governments, presidents, policies, and candidates for public office are judged. Politicians spend enormous amunt of money in advertising and for teams of experts who design their campaigns taking into account how voters process political messages (see Denton). Then it is important to study how these cognitive mechanisms affect the presence of certain issues in political platforms. In line with this idea, Abramowitz (1985) noticed

that the relation between politicians evaluations and voters choice in elections is affected by the salience voters assign to the issues addressed by the candidates. In my framework candidates try to precisely affect the salience of different political matters by priming. The most related contribution to the literature on campaigns content is the recent work by Hillygus and Shields (2009). They provide a lot of descriptive evidence on the presence of wedge issues in presidential campaigns, describing how the emergence of disagreement groups within coalitions gives candidates the incentive to exploit an extensive margin. Using advanced methods of communication, politicians seek to increase the salience of disagreement issues for these minority groups, trying to get them on their side the day of the election. My attempt is to provide a systematic theoretical foundation to their arguments although I focus on an intensive margin to be exploited by candidates, namely the individual decision to participate and vote. This is very helpful in order to get empirical predictions on candidates campaign strategies and turnout rates. Indeed the empirical evidence on the effect of campaigns on turnout (Bergan et al. (2005), Gerber and Green (2000)) is not conclusive and generally has found small effects. However, as suggested by Hylligus (2005), these results might come from averaging out the effects on different portions of the electorate. My results on turnout precisely account for the effects of campaign activities on different groups of voters. Moreover we also study how the availability of new technologies can shape campaign content. The mechanism of informational barriers among voters, I introduce in fourth section, vaguely resembles the argument of Glaeser et al.(2005), however my study is different in several respects; first, in their model results come from the presence of informational barriers among voters, while in my case the key driver of candidates strategies is the presence of disagreement groups within coalitions. Indeed without informational barriers, Glaeser et al. obtain the standard median voter outcome, explaining moderation in political agendas, while I get non trivial results on the type of issues in the platforms and on turnout rates. Second, in Glaeser et al., political conflict is unidimensional while here is two dimensional; this allows me to explain the presence of both divisive and cohesive issues in political campaigns, not only candidates' political stance on a certain issue. Finally, in their paper the asymmetry of information generates extremism in political platforms, while in my case, it affects the amount of campaign expenditure used for "differential" priming, i.e. for targeting different types of issues to different groups of voters. The paper continues as it follows; in the next section I present the benchmark model, in third section I extend the model considering the concept of issue ownership, fourth section allows for the presence of informational asymmetry, fifth section provides descriptive evidence from 2004 US presidential elections, last section concludes.

2 The Basic Model

To introduce the model I present a piece of anecdotal evidence from Hillygus et al. (2009), to show how the presence of disagreement groups within constituencies affect strategic motivations of candidates in the design of campaigns. In 1976 the president Ford wrote a campaign strategy memo on environmental policy. He was worried that conservationist voters living in the suburbs, perceived him as an anti-environment candidate. Since these voters were leaning toward Republicans on other issues, he was suggesting in the memo to "avoid allowing the environmental issue to become so aggravated that environmentalists will vote against Ford on that issue alone. So wherever we can responsibly lean toward them, it would be politically helpful". Using the logic of our model, the strategy of president Ford would consist in trying to increase the relative salience of cohesive issues, in order to get out the votes of weak republicans. More recently in 2004 US presidential campaign, both candidates, Bush and Kerry, put a lot of effort to target conservative Democrats; the former candidate priming moral issues, the latter priming education and employment. My framework will provide a rationale to explain the observed pattern in 2004 campaign strategies, when Bush played relatively more divisive than Kerry.

2.1 Voters Preferences

This probabilistic voting model is build on Persson and Tabellini (2000). Assume a population divided in four groups: M_R, M_D, m_R, m_D, with measures $\sigma_R, \sigma_D, \upsilon_R, \upsilon_D$ respectively, and $\sigma_R + \sigma_D + \upsilon_R + \upsilon_D = 1$. No group represents the majority of the population, i.e. $\sigma_R, \sigma_D, \upsilon_R, \upsilon_D \in (0, \frac{1}{2})$. Without loss of generality let me also assume that $\sigma_R = \sigma_D \equiv \sigma$ and $\upsilon_R = \upsilon_D \equiv \upsilon$. Groups can be viewed as: majority Republicans (M_R), majority Democrats (M_D), minority (liberal) Republicans (m_R) and minority (conservative) Democrats (m_D). Each group g is characterized by a continuous and concave utility function u_g defined over the policies that are in the platforms such that the relevant policy space is the one individuals face during the campaign and at the time of elections. The policy set is composed by the policies, $x, y \in \{0, 1\}$. At the elections at most two policies can be raised due to time and money constraints faced by the candidates. The utility function of individual i in group g is:

$$u_g^i(i,j) = V_g^i - s_g(S_D, S_R)(g_i - x)^2 - (1 - s_g(S_D, S_R))(g_j - y)^2$$

i.e. individuals want to minimize the weighted distance of the policy from their ideal point. The weight $s_g() \in [0,1]$ captures the importance of the issue x relative to issue y for group g, it is endogenous and depends on S_D, S_R, i.e. candidates optimal strategies. Moreover V_g^i is the utility individual i in group g enjoys, casting his ballot in favor of his party's candidate. Since in this framework individuals can either vote for the candidate representing their party or abstain, V_g^i can be interpreted as the individual utility to vote. The parameter V_g^i measures an idiosyncratic bias in group g for supporting their candidate or, in other words for political participation. I assume that V_g^i has a group specific uniform distribution on $\left[-\frac{1}{2\varphi^g}, \frac{1}{2\varphi^g}\right]$, where a positive value of V_g^i denotes a bias in favor of going to vote.

The ideal policies of the four players are: $(M_{Rx}, M_{Ry}) = (0,0)$; $(m_{Rx}, m_{Ry}) = (0,1)$; $(m_{Dx}, m_{Dy}) = (1,0)$; $(M_{Dx}, M_{Dy}) = (1,1)$, such that groups' utility functions are:

1) $u_{M_R}(x,y) = V_{M_R} - s_{M_R}x^2 - (1 - s_{M_R})y^2$

2) $u_{m_R}(x,y) = V_{m_R} - s_{m_R}x^2 - (1 - s_{m_R})(1-y)^2$

3) $u_{m_D}(x,y) = V_{m_D} - s_{m_D}(1-x)^2 - (1 - s_{m_D})y^2$

4) $u_{M_D}(x,y) = V_{M_D} - s_{M_D}(1-x)^2 - (1 - s_{M_D})(1-y)^2$

Issues (x,y) can be interpreted as redistribution and religion respectively, where the position 0 in the policy space stands for "against to", while 1 stands for "in favor of". Notice that in this example, religion (y) is the divisive issue since it induces disagreement both within Republicans and within Democrats, while (x) is the cohesive issue since disagreement takes place only between parties. The groups m_R and m_D, represent the moderate component of the Republican and Democratic constituency, and they can be identified with liberal Republicans and conservative Democrats. Let D and R denote the Democratic and the Republican candidate, they belong to M_R and M_D , i.e. the majority groups within each constituency. Parties adopt plurality rule to decide which policy to select. Let $\sigma > \upsilon$, such that M_R and M_D represent the majority in their parties. Then the platforms offered by the two candidates are $(0,0)^R$ and $(1,1)^D$ respectively. At the election, voters in both coalitions have to decide whether to cast their ballot and support their candidate or to abstain. In this framework candidates compete for turnout rates; on one hand, they try to get out the votes of the individuals in their coalition, on the other hand, to increase the abstention among the opponent coalition. Voter i in group g will decide to vote for his candidate when:

$$V_g^i \pm \Delta \geq u_g(x,y)^g$$

The parameter Δ measures an idiosyncratic shock to the popularity of the Democratic candidate, the plus in the expression applies to a leaning Democratic voter, while the minus is for a leaning Republican. I assume that Δ is uniformly distributed on $\left[-\frac{1}{2\psi}, \frac{1}{2\psi}\right]$. This shock might be due to an exogenous increase in the salience of an issue a coalition has a better reputation for handling, or a scandal involving one of the candidate. From now on let me consider the voting behavior of the Democratic coalition. By symmetry, the results apply to the Republican coalition. Substituting with the expressions for the utility functions and the platforms, we find that voter i in group M_D will vote for his candidate whenever:

$$V^i_{M_D} + \Delta \geq 0$$

while voter i in group m_D votes for his candidate if:

$$V^i_{m_D} + \Delta \geq 1 - \widehat{s}(S_D, S_R)_{m_D}$$

where $\widehat{s}()$ indicates the relative importance conservative Democrats assign to redistribution relative to religion, or in other words, the relative saliency of the cohesive issue for voters in m_D. Expression (2) says that the more salient is the redistribution issue for the conservative Democrats, the higher their turnout rates, so the Democratic candidate's vote share. The opposite holds if the saliency of religion is higher relative to redistribution.

2.2 Candidates Behavior

In this setup the relative saliency of an issue is endogenous and it depends on the amount of campaign messages received by voters; as a consequence, each candidate has to decide the optimal amount of resources to spend in advertising religion and redistribution, respectively. I will refer to the first type of expenditure as *divisive* strategy and to the second as *cohesive* strategy. I assume that candidate j $(j = D, R)$ has a total amount of resources available for campaign equal to $\theta_j E$, with $\theta_j \in [0, 1]$, such that unless $\theta_D = \theta_R$, one of the candidates can spend more resources; this intends to capture a different ability of the candidates to raise money for campaigning. Let c_j denote the money spent by candidate j in the cohesive strategy and, let d_j denote the resources spent in the divisive strategy. Then the expression for $\widehat{s}$, the salience every voter assigns to the cohesive issue, is the following:

$$s(S_j, S_{-j}) = \frac{1}{2} + \widehat{s}^R + \widehat{s}^D$$

where $\frac{1}{2}$ represents the initial salience assigned to first issue by voters, while $\widehat{s}^R$ and $\widehat{s}^D$ are the effects on issue salience due to the amount of cohesive advertising by Republican and Democratic candidate respectively.

Taking into account the decision of each candidate, the previous expression can be rewritten as it follows:

$$s(S_j, S_{-j}) = \frac{1}{2} + c_j - d_j + (c_{-j} - d_{-j})$$

The salience of the firts issue (redistribution) in the electorate is positively affected by the cohesive advertising and negatively affected by the divisive advertising made by candidates. Candidates face a clear trade off; when they invest resources on advertising the cohesive (divisive) issue, they energize (disaffect) their constituency but also the opponent one. For instance, if the Democratic candidate primes religion, this leads to defections among liberal Republicans but also among conservative Democrats since both of these groups disagree on religion with their candidate. On the other hand, if the Democratic candidate primes redistribution, this leads more voters of both groups to turn out and support their candidate.

2.3 Equilibrium

The timing of the electoral game is the following: (i) The two candidates, simultaneously and non-cooperatively, decide how much resources to spend in cohesive and divisive strategy. At this stage, they know voters policy preferences. They also know the distributions for V_g^i and Δ, but not yet their realized values. (ii) The actual value of Δ is realized and all uncertainty is resolved, (iii) elections are held, the candidate obtaining the majority of the votes wins. Notice that candidates' decision is about the type of message to prime to a certain group and not the degree of moderation of the two policies in the platform. The "swing voter" in group M_D is a voter who is indifferent between going to vote for his candidate and abstain, i.e.:

$$V_{M_D}^i + \Delta = 0$$

while the swing voter in group m_D is defined as:

$$V_{m_D}^i + \Delta = 1 - \widehat{s}$$

Given the distributional assumption on V_g^i, we can determine total turnout within the Democratic coalition, which corresponds to the total number of votes received by candidate D. The turnout T_{M_D} in group M_D is:

$$T_{M_D} = \frac{1}{2} + \Delta\varphi^{M_D}$$

and the turnout in group m_D is:

$$T_{m_D} = \frac{1-\varphi^{m_D}}{2} + \Delta\varphi^{m_D} + \varphi^{m_D}\left(c_D - d_D + (c_R - d_R)\right)$$

By symmetry, one can obtain total turnout in favor of the Republican candidate in group M_R and m_R respectively.

The probability of winning for Democratic candidate is defined as:

$$P^D \equiv \Pr(\upsilon T_{m_D} + \sigma T_{M_D} - (\upsilon T_{m_R} + \sigma T_{M_R})) \geqslant 0$$

Hence in order to win, Democratic candidate solves the following problem:

$$\underset{c_D, d_D}{Max} P^D - \frac{1}{2}(c_D^2 + d_D^2) \tag{1}$$

$$\begin{aligned} s.t.\ \theta_D E &\geqslant c_D + d_D \\ and\ c_D, d_D &\geqslant 0, c_D \leqslant \overline{c}, d_D \leq \overline{d} \end{aligned}$$

In choosing c_D and d_D, the candidate faces a cost of campaigning which is assumed to be an increasing convex function of the total amount of resources spent in c and d respectively. Moreover her decision is subject to a budget constraint which depends on her ability θ_D, to raise campaign funds. Notice that the scope for differential priming arises only for the minority groups, m_D and m_R. Voters in these groups might decide to abstain, not supporting their candidate if the salience of the issue on which they disagree increases. On the contrary, electoral participation of the majority groups M_D and M_R, is only affected by exogenous events and does not depend on political messages received. After substituting with the expressions for turnout rates, given the distributional assumptions for Δ and considering interior solutions, we find the following equilibrium

conditions:

$$\begin{aligned} c_D^* &= \frac{\theta_D E}{2} + \frac{\psi}{\overline{\varphi}}\left(\varphi^{m_D} - \varphi^{m_R}\right) \\ d_D^* &= \frac{\theta_D E}{2} - \frac{\psi}{\overline{\varphi}}\left(\varphi^{m_D} - \varphi^{m_R}\right) \end{aligned} \tag{2}$$

where $\overline{\varphi} \equiv \left[\sigma(\varphi^{M_D} + \varphi^{M_R}) + \upsilon(\varphi^{m_D} + \varphi^{m_R}\right]$ can be defined as the average disposition toward electoral participation in the population or equivalently the average responsiveness of the electorate. The left hand side of the above expression is the marginal cost of "divisive" and "cohesive" advertising, while the right hand side is the marginal benefit, in terms of probability of winning. The Republican candidate solves an identical problem. By symmetry, R's equilibrium strategies are:

$$\begin{aligned} c_R^* &= \frac{\theta_R E}{2} - \frac{\psi}{\overline{\varphi}}\left(\varphi^{m_D} - \varphi^{m_R}\right) \\ d_R^* &= \frac{\theta_R E}{2} + \frac{\psi}{\overline{\varphi}}\left(\varphi^{m_D} - \varphi^{m_R}\right) \end{aligned}$$

2.3.1 Comments

Let $\Phi \equiv \left(\varphi^{m_D} - \varphi^{m_R}\right)$. Then equilibrium strategies depend on the total amount of resources available to candidates and on Φ, i.e. the difference of groups responsiveness, since both candidates try to make an electoral gain by the most responsive group. This is very intuitive; for instance, if conservative Democrats are the less ideologized group, the Democratic candidate will spend relatively more money to advertise redistribution, while the Republican candidate will do exactly the opposite, priming relatively more religion. In other words, the difference between each candidate's equilibrium strategies is increasing in Φ. Indeed if groups are characterized by the same level of partisanship, candidates end up spending an equal share of the budget in the cohesive and divisive strategy. Interestingly, we can derive the total amount of money spent during the campaign in advertising the divisive and the cohesive issue, respectively. This gives an idea of the degree of equilibrium "cohesiveness" and "divisiveness" which characterizes a political campaign. Using the equilibrium conditions we find:

$$Div^* \equiv (d_D + d_R) = \frac{E(\theta_R + \theta_D)}{2} \tag{3}$$

$$Coh^* \equiv (c_D + c_R) = \frac{E(\theta_R + \theta_D)}{2} \tag{4}$$

Notice that $Div^* = Coh^*$, and the expressions only depend on the campaign funds available to each candidate while no role is played by Φ. Since candidates can substitute cohesive and divisive advertising in the same way, their optimal choices are symmetric with respect to the difference in groups' responsiveness Φ, and perfectly offset each other, as it is evident from above. One can let the parameter Φ vary within a country; this might help to better understand the different strategies played by the candidates in different states or regions during the campaign. Moreover one can let Φ vary with TV programs; for instance if there are programs followed by a sufficiently heterogeneous audience (in terms of ideology) but mostly watched by highly partisan conservative Democrats, we might expect a Republican candidate to advertise more cohesive issues, as redistribution, and the Democrat to do the opposite, in order to affect the decision to vote of the more responsive liberal Republicans. This would allow to study the difference in candidates advertising strategies across channels. Assuming conservative Democrats being more responsive than liberal Republicans, especially in the South, this analysis would support the campaign strategies of Bush and Kerry in 2004 US Presidential race, where the former mainly played divisive, priming moral issues, while the latter cohesive, priming health care and education.

2.4 Turnout

This simple model provides interesting implications for total turnout rate and for turnout rates of different groups. Taking into account candidates equilibrium strategies and the distributional features of Δ, we find the expected value of total turnout rate:

$$E(TT')=\frac{1}{2}(1-\upsilon(\varphi^{m_D}+\varphi^{m_R})) \tag{5}$$

This expression tells us that total turnout rate is a decreasing function of the size and responsiveness of the conflicted groups; in each group the higher the partisanship of the voters, the higher the probability they will support anyway their candidate (turning out), regardless the disagreement experienced on the divisive issue. On the other hand, the higher the fraction of the responsive individuals within these groups, the more the disagreement on the second issue will affect their voting decision and so a larger fraction of them will defect, not turning out.

Now we analyze under which condition one of the two conflicted groups turns out more. It is easy to show that the probability conservative Democrats turn out more than liberal Republicans is the following:

$$\Pr(T_{m_D} > T_{m_R}) = \frac{1}{2}\left[1 - \frac{\psi}{\overline{\overline{\varphi}}}\left(\varphi^{m_D} - \varphi^{m_R}\right)\right] = \frac{1}{2}\left[1 - \frac{\psi}{\overline{\overline{\varphi}}}\Phi\right] \tag{6}$$

where $\overline{\overline{\varphi}} \equiv (\varphi^{m_D} + \varphi^{m_R})$, i.e. it is the total fraction of responsive voters in the conflicted groups (or the average degree of responsiveness across groups). Notice this probability is decreasing in the degree of responsiveness of the Democrats relative to the Republicans. Hence we can establish the following result:

Proposition 1 *In equilibrium the conflicted group with a higher fraction of partisans will be more likely to turn out than the group with a larger number of responsive individuals.*

In this section notice that candidates strategies completely offset each other and in equilibrium turnout decisions only depend on the difference between groups responsiveness.

3 The Case of Issue Ownership

In this section I extend the model using the concept of issue ownership which has been studied extensively in the political science literature since Petrocik (AJPS, 1996). According to this theory, a candidate "owns" a certain issue if the electorate believes she is better able to handle the problem than her opponent. A typical example is that Democratic candidates usually enjoy a better reputation to deal with unemployment, jobs and social security, while Republican candidates have a better reputation in dealing with national security, foreign policy and taxes. I introduce this concept through a slight modification of candidates budget constraint; essentially I allow each candidate to be able to spend campaign funds more efficiently to advertise one issue relative to the other; for instance, the Democratic candidate might use more effectively the money to campaign redistribution relative to moral issues. All the previous assumptions still hold except for the budget constraint that now becomes:

$$E \geqslant c_j + \frac{d_j}{\theta_j}, \text{ with } j = D, R \text{ and } \theta_j > 0$$

Notice that parameter θ_j identifies the issue that candidate j is more effective to campaign; if $\theta_j < 1$, the candidate is more able to spend for the cohesive issue, while if $\theta_j > 1$ the opposite is

true. In other words, if $\theta_j > 1$, a dollar spent to advertise redistribution is equal to θ_j dollars spent to advertise religion, or equivalently an ads on cohesive issue is equal to θ_j ads on religion.

In this scenario, candidates solve exactly the same problem as before but subject to the new constraint. Equilibrium conditions become:

$$\begin{aligned} c_j^* &= \frac{\theta_j E}{(1+\theta_j)} + \frac{\psi}{\overline{\varphi}}(\varphi^{m_j} - \varphi^{m_{-j}}) \\ d_j^* &= \frac{\theta_j E}{(1+\theta_j)} - \theta_j \frac{\psi}{\overline{\varphi}}(\varphi^{m_j} - \varphi^{m_{-j}}) \end{aligned} \tag{7}$$

As before, candidates strategies depend on total amount of resources available, on Φ, i.e. the difference of groups responsiveness, but now also on θ_j, i.e. the effectiveness (in terms of money spent) a candidate can campaign for the divisive issue relative to the cohesive issue. Notice that, *ceteris paribus*, a higher θ_j allows the candidate to spend less money on the divisive strategy, since she can obtain the same electoral effect with fewer (but effective) divisive ads.

It is interesting to analyze how the equilibrium level of campaign "cohesiveness" and "divisiveness" change under this scenario. Using the new equilibrium conditions, we find:

$$Div^* \equiv (d_D + d_R) = E\left(\frac{\theta_R}{1+\theta_R} + \frac{\theta_D}{1+\theta_D}\right) + (\theta_R - \theta_D)\frac{\psi}{\overline{\varphi}}\Phi \tag{8}$$

$$Coh^* \equiv (c_D + c_R) = E\left(\frac{\theta_R}{1+\theta_R} + \frac{\theta_D}{1+\theta_D}\right) \tag{9}$$

Notice that now the total amount of divisive messages depends also on the relative responsiveness of the conflicted groups and on the relative ability of candidates to campaign for the divisive issues. We can generalize this result as the following:

Proposition 2 *If $\theta_R > \theta_D$, the equilibrium "divisiveness" of the campaign is an increasing function of Φ, while if $\theta_D > \theta_R$, the equilibrium "divisiveness" of the campaign is a decreasing function of Φ.*

Assuming that Republican candidate is more effective in campaigning the divisive issue than the Democratic candidate, then the level of campaign divisiveness will be higher the less partisan are the conservative Democrats relative to the liberal Republicans. This result is very intuitive; assume a relative increase in the responsiveness of the conservative Democrats, such that this group

will ensure a relatively higher electoral gain. As a consequence, both candidates will attempt to influence its members' voting decision; on one hand, the Republican candidate will try to let them stay home in the election day and so she has the incentive to spend more in advertising the divisive issue, on the other hand, the Democratic candidate will try to make them turn out and so she has the incentive to spend relatively less in the divisive strategy and more in the cohesive strategy. However, while the Republican candidate can spend θ_R dollars more in advertising religion, taking away one dollar from the ads on redistribution, the Democratic candidate needs to take away θ_D dollars from the divisive strategy to be able to increase only by one dollar her spending in the cohesive strategy. Since $\theta_R > \theta_D$, this implies a net increase in the total amount of divisive advertising, while the amount of cohesive advertising remains unaffected.

3.1 Turnout

As before, we derive the expected value of total turnout in the population and turnout rate of each of the conflicted groups. Taking into account equilibrium strategies, we find:

$$\begin{aligned} E(TT'') &= \frac{1}{2}(1-\upsilon(\varphi^{m_D}+\varphi^{m_R})) - \upsilon\frac{\psi}{\overline{\varphi}}(\theta_R-\theta_D)\left[(\varphi^{m_D})^2-(\varphi^{m_R})^2\right] = \\ &= E(TT')-\upsilon\frac{\psi}{\overline{\varphi}}(\theta_R-\theta_D)\left[(\varphi^{m_D})^2-(\varphi^{m_R})^2\right] \end{aligned} \tag{10}$$

Notice that, as long as $\varphi^{m_j} > \varphi^{m_{-j}}$ and $\theta_{-j} > \theta_j$, the expected turnout rate in the population is lower than in the benchmark case. This result directly derives from proposition (2); when campaign divisiveness increases a higher fraction of voters becomes disaffected and decides to not support its candidate, staying home in the election day. As a consequence, equilibrium turnout rate declines. In this case, the probability conservative Democrats turn out more than liberal Republicans is:

$$\Pr(T_{m_D} > T_{m_R}) = \frac{1}{2}\left[1-\frac{\psi}{\overline{\overline{\varphi}}}\Phi\right] = \frac{1}{2} - \frac{\psi}{\overline{\overline{\varphi}}}\Phi\left[\frac{1}{2}+\frac{\psi}{\overline{\varphi}}\Phi(\theta_R-\theta_D)\right] \tag{11}$$

Notice that there is an additional term compare to the probability in (6) which again depends on the difference between candidates' effectiveness in campaigning different issues. The next proposition follows:

Proposition 3 *The conflicted group with a higher fraction of partisans will be more likely to turn out than the group with a larger number of responsive individuals, if the candidate of the former is*

more effective in advertising the divisive issue. The opposite will hold if the candidate of the most responsive group is better in "divisive" campaigning.

3.1.1 Comments

The important difference between proposition (2) and proposition (3) is that the effect described now depends crucially on the sign and the magnituide of $\Delta\theta \equiv (\theta_R - \theta_D)$. Indeed if candidates do not differ in their relative ability in spending in divisive advertising (i.e. $\Delta\theta = 0$), as established in the previous section, the most partisan group will always turn out more then the other. Here we point out that the effect might be the opposite whenever $\Delta\theta \neq 0$. As already said, the more responsive group, is the relevant one, in terms of electoral gain, for candidates strategies; as a consequence, if a candidate enjoys an advantage in advertising a certain issue, she will be able to affect more its members voting decision, obtaining a net electoral gain. Assume as before that Republican candidate is more efficient in campaigning for moral issues than the Democratic candidate, and conservative Democrats becomes more responsive to these issues than liberal Republicans. Under this scenario, the Republican candidate would invest relatively more on divisive campaign, while the Democratic candidate would like to do the opposite, investing relatively more money in cohesive advertising (to get out the vote of conflicted Democrats). However, the Republican candidate can increase the divisive advertising by θ_R dollars, taking away one dollar from cohesive advertising, while the Democratic candidate can increase the ads on redistribution by one dollar taking away θ_D dollars from ads on religion. The net effect will be a higher degree of disaffection and so a lower turnout among the most responsive group, namely conservative Democrats.

4 Information Asymmetry

Untill now we have assumed that candidates do not have the possibility to campaign an issue only for a group of voters, in other words we ruled out any information asymmetry among groups. We know that in the real world this is not always the case and actually informational barriers between voters can arise for several reasons; a fractionalized society where information does not easily spread among different language groups, a segmented market where ideologically homogenous voters consume the same media, or the availability of communication technologies which allow politician to target different messages at the individual level, as emails, door to door visits, sms, etc. Moreover politicians know very well the preferences of the electorate, on consumption, politics,

religion, leisure, and so on, therefore they are able to perfectly identify groups of conflicted partisans. In this section I will show that the availability of new types of media, raising informational barriers among voters, increases the scope for a strategic use of issues by candidates. The crucial assumption here is that voters can hear only some campaign messages and not others; in particular, when a candidate targets the conflicted partisans of the opponent coalition with a divisive issue, the conflicted partisans of her coalition do not hear the message. As a consequence, the relative salience of divisive issue will increase more for the opponent's than for her own's conflicted supporters. Hence only the former will be disaffected by the divisive campaign. In other words, the salience becomes group specific and the trade off faced by politicians in choosing their advertising strategy becomes less severe. Considering the benchmark case, lets assume that the expression for $\widehat{s}$, the salience every voter assigns to the cohesive issue, now becomes:

$$\widehat{s} = \frac{1}{2} + c_j - d_{-j} + \zeta \left(c_{-j} - d_j \right)$$

where the parameter ζ captures exactly the degree of informational asymmetry among voters, indicating the extent to which messages targeted to one group spread (and are known) to the other. The analysis which follows is a generalization of the benchmark case, which can be obtained assuming $\zeta = 1$, i.e. absence of any information asymmetry. A lower value of ζ indicates higher barriers, which in turn implies that candidates face a less severe trade off. It is easy to show that now equilibrium conditions are the following:

$$\begin{aligned} c_j^* &= \frac{1}{2}\left[\theta_j E + \frac{\psi}{\overline{\varphi}}\left(1+\zeta\right)\left(\varphi^{m_j} - \varphi^{m_{-j}}\right)\right] \\ d_j^* &= \frac{1}{2}\left[\theta_j E - \frac{\psi}{\overline{\varphi}}\left(1+\zeta\right)\left(\varphi^{m_j} - \varphi^{m_{-j}}\right)\right] \end{aligned} \tag{12}$$

Notice that the presence of parameter ζ plays an important role for equilibrium strategies; consider the case in which $(\varphi^{m_j} - \varphi^{m_{-j}}) > 0$, then candidate j has the incentive to obtain a net electoral gain among the conflicted partisans of her party. As we have seen before, the way to do that is to invest more in cohesive than divisive advertising. As the informational barriers among voters increase (lower ζ), divisive campaigning becomes relatively more "profitable" for candidate j, therefore she will decrease cohesive advertising. The opposite is true if informational barriers are lower (higher ζ), so that cohesive advertising becomes relatively more attractive for candidate

j. Notice that as information asymmetry increases, candidates have a lower incentive to substitute between strategies since political competition decreases. As a consequence, the difference between optimal investment in cohesive and divisive ads shrinks.

Let us show how the equilibrium level of campaign "cohesiveness" and "divisiveness" change when information asimmetry among voters arises. Using previous conditions, we find:

$$Div^* \equiv (d_D + d_R) = \frac{E(\theta_R + \theta_D)}{2} \tag{13}$$

$$Coh^* \equiv (c_D + c_R) = \frac{E(\theta_R + \theta_D)}{2} \tag{14}$$

The total amount of divisive advertising is equal to the cohesive one and it is the same as in the baseline model. Since candidates can substitute cohesive and divisive advertising in the same way, their optimal choices are symmetric with respect to the difference in groups' responsiveness Φ, and perfectly offset each other, as it is evident from (12).

4.1 Turnout

We now derive the total expected turnout rate in equilibrium, which is the following:

$$E(TT''')=\frac{1}{2}\left[1 - \upsilon(\varphi^{m_D}+\varphi^{m_R}) + \upsilon E\Phi\left[(\theta_D - \theta_R) + \zeta(\theta_R - \theta_D)\right]\right] \tag{15}$$

Notice that similarly to (10), if $\Phi > 0$, the expected turnout is lower than in the benchmark case whenever $\theta_D < \theta_R$. In order to provide the intuition on the role played by ζ, we determine the effect of its marginal increase:

$$\frac{\partial E(TT''')}{\partial \zeta}=\frac{E\upsilon}{2}\Phi(\theta_R - \theta_D)$$

Let $\Phi > 0$, the next proposition follows:

Proposition 4 *Whenever $\theta_R > \theta_D$, then $\frac{\partial E(TT''')}{\partial \zeta} > 0$, i.e. a marginal increase in ζ determines an increase in the total expected turnout. If instead, $\theta_R < \theta_D$, then $\frac{\partial E(TT''')}{\partial \zeta} < 0$, i.e. a marginal increase in ζ determines a decrease in total expected turnout.*

This result is very intuitive; an increase in ζ (lower information asymmetry) implies that, cohesive advertising by the Republican candidate induces a higher number of conservative Democrats to

support their candidate and, as a consequence to turn out. On the other hand, lower informational barriers imply also that divisive advertising by the Democratic candidate disaffects a higher fraction of conservative Democrats, leading them to not turn out. Obviously the first effect tend to increase total turnout, while the second decreases it. The net effect depends on which of the candidate can spend more money in the campaign and so deliver more ads; if more resources are available to the Republican candidate, the first effect would dominate and total turnout would increase. Now the probability conservative Democrats turn out more than liberal Republicans, becomes:

$$\Pr(T_{m_D} > T_{m_R}) = \frac{1}{2}\left[1 - \frac{\psi}{\overline{\overline{\varphi}}}\Phi + \psi E\left[(\theta_D - \theta_R) + \zeta(\theta_R - \theta_D)\right]\right] \tag{16}$$

This expression differs from (5) for the last term in square brackets. The first component captures the direct effect of total expenditure in advertising on the conflicted Democrats, while the second captures the indirect effect of advertising. The term "direct" captures the effect of ads which intend to target a specific group (through sms, mails, etc.) while the "indirect" effect describes the effect of ads which reach a group thanks to a positive ζ (eg. word of mouth). Considering the direct effect of advertising (first component), whenever $\theta_R > \theta_D$, conservative Democrats will be *less* likely to turn out than liberal Republicans, since they receive more divisive than cohesive messages. Instead, considering the indirect effect of campaign (second component), whenever $\theta_R > \theta_D$, conservative Democrats will be *more* likely to turn out than liberal Republicans, since they are reached by a larger number of cohesive messages delivered by the richer Republican candidate, than divisive ads by the Democratic candidate. Which one of these effects will dominate depends on the size of informational barriers. Let $\Phi > 0$ such that conservative Democrats is the most responsive group, then we can generalize the result in the following proposition:

Proposition 5 *Ceteris paribus, conflicted Republicans will be more likely to turn out, if their candidate has a larger budget available for campaign (i.e. $\theta_R > \theta_D$). If instead $(\theta_D - \theta_R) > \frac{\Phi}{\overline{\overline{\varphi}}E(1-\zeta)}$ the opposite will hold.*

Proposition tells us that the most responsive group will turn out more if its candidate has more campaign funds to spend than the opponent *and* the informational barriers are high enough.

4.2 Comments

Previous results might be seen from different points of view, depending on the interpretation of parameter ζ. We propose two main interpretations for ζ:

1) As a measure of the "targeting capacity" of different types of media available to candidates; while direct emails, door to door campaigns, mobile text messages, personal visits can be considered having a low ζ, since they allow to customize messages at the individual level, a speech at a party convention and billboards are characterized by a high ζ;

2) As a measure of the degree of ideological clustering of different media, where media with homogenous audiances in terms of ideology, are characterized by lower values of ζ, while media with a more heterogeneous audiance are characterized by a higher ζ.

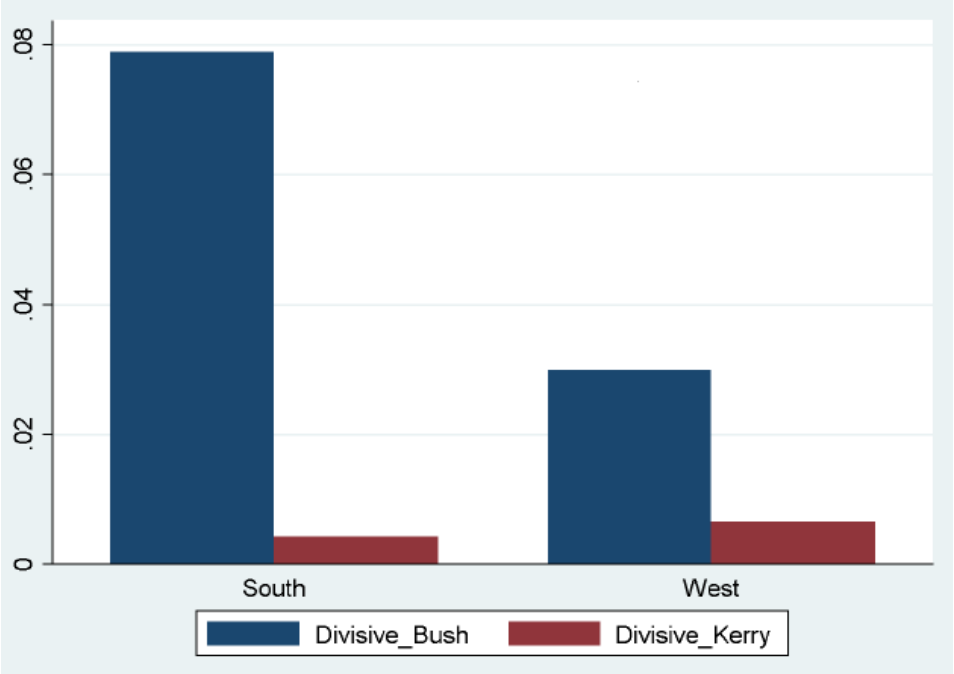
Using the first interpretation my analysis determines which type of issues a candidate would prime in direct emails compare to convention speeches. According to this, we would expect a candidate to mainly focus either in cohesive or divisive advertising (in order to gain among the most responsive group) when using high-ζ type of media as convention speeches, streets ads, etc. Instead we would expect a candidate's strategies to be more similar when using low-ζ type of media as text messages, email and personal visits; through these tools candidates can prime different issues to each of the disagreement groups, therefore they need to substitute less between cohesive and divisive advertising. Indeed, as already mentioned, there is evidence in 2004 presidential campaign, about an extensive use of emails and text messages precisely for priming specific issues such as abortion, minimum wage or social security to specific groups of voters. Using the second interpretation, one can study the link between candidates strategies and the level of ideological homogeneity of the audiances of different TV programs. According to this interpretation, the Rush Limbaugh's radio Shows and the O' Reilly Factor, having a conservative homogenous audiance, can be considered as low- ζ type of programs, compare to CNN and NPR that have a more heterogenous audiance. Hence, we can reformulate the results as the following: when using CNN, both candidates mainly invest in advertising the issue which let them gain among the most responsive disagreement group. On the contrary, when they give an interview or deliver an ad during the Rush Limbaugh's Shows or Larry King Live, they have the incentive to raise specific issues, cohesive or divisive, depending on the ideological leaning of these programs' audiance.

5 Descriptive Evidence

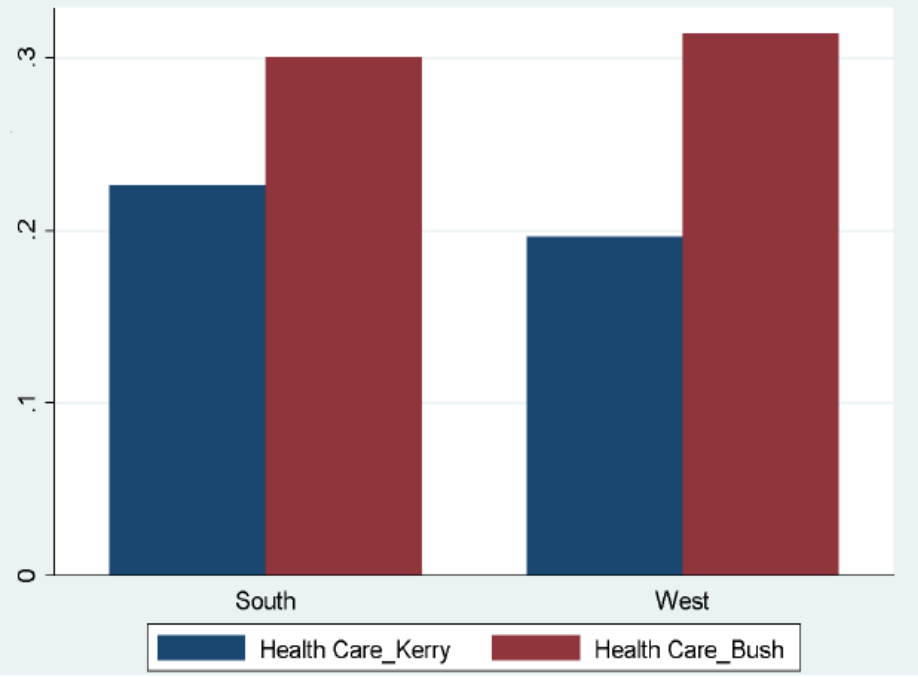
In this section we present descriptive evidence supporting some predictions of the model. We use the data by Wisconsin Advertising Project. These data have detailed informations on each single advertisement broadcasted on television during the entire electoral period; channel, tone of the ad,

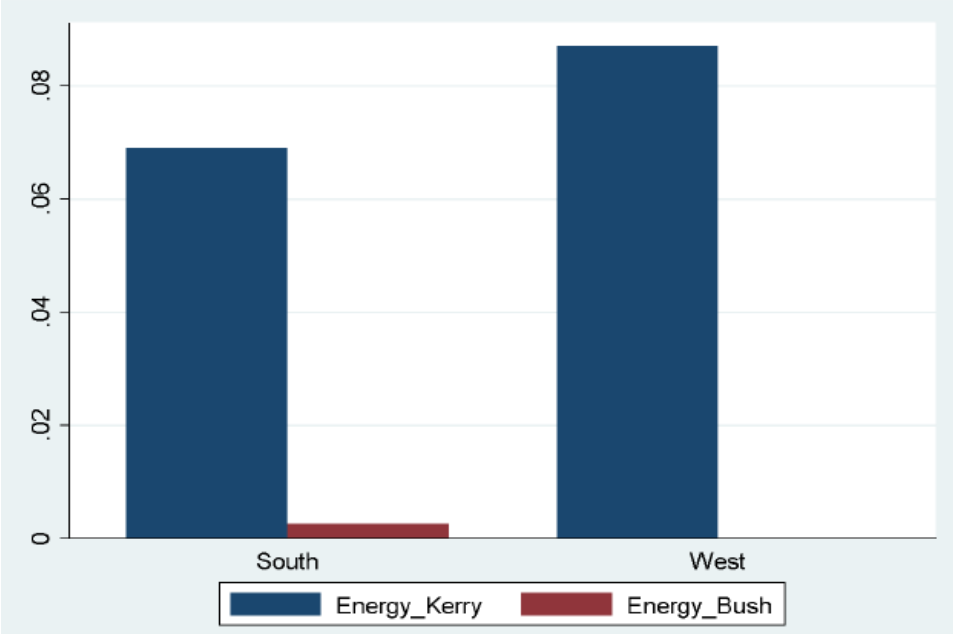
content, estimated cost, etc. Moreover we consider state level turnout rates in 2000 and 2004 by the US Census Bureau. Given the data available, this exercise does not pretend to establish any causal relation but just provide descriptive and suggestive evidence. First of all, issues are defined cohesive or divisive depending on the distribution of voters preferences within and across parties. According to the 2004 Blair Center Survey (Hylligus and Shields, 2009), around 20% of partisans volunteer a policy disagreement with their party on cultural issues, while only 13% on economic issues; more in detail, around 15% of partisans disagree with their party on moral issues, 10% on gun control policy, while only 5% and 4% of partisans disagree with their party on employment issues and education policy, respectively. Moreover the partisans who experience a disagreement with their party on those issues, were the liberal Republicans on one side and the conservative Democrats on the other. In our analysis we define education policy and employment as cohesive issues, while moral issues and gun control policy are considered divisive issues. Looking at the distribution of political preferences across US regions, we found that compare to other regions, the West is characterized by the highest fraction of individuals who define themselves as liberal, while the South has the highest percentage of individuals who define themselves as conservative. This is consistent with the fact that in US the richest area are the most liberal compare to the poorest ones (Gelman, 2008). Indeed according to a recent survey (Gallup Poll, 2009), the majority of liberal Republicans live in the West, while the majority of conservative Democrats is concentrated in the South. Since we are confident on the distribution of individuals preferences in these two regions we focus on candidates strategy in the West and in the South. This exercise can be intended also as comparing more conservative (relatively poor) to more liberal (relatively rich) areas. The analysis applies to the the last five months of the campaign, from June to November 2004. We define as divisive strategy the share of money a candidate spends on advertising moral issues and gun control policy, while we define as cohesive strategy the share of money spent on advertising education policy and labour issues. There is evidence (Gallup poll, 2004) that Kerry was perceived better on economic issues while Bush on terrorism and generally was seen better as a moral leader. As a consequence, we assume that Bush "owned" the divisive issues, while Kerry the cohesive issues, in other words, using the notation in the third section, $\theta_R > \theta_D$. Under this scenario, we expect to find supporting evidence for the following statements: 1) in regions with a higher fraction of liberal Republicans, Kerry would advertise relatively more divisive issues, while Bush would do the opposite; 2) divisiveness of campaign is higher in regions where the candidate of the smaller conflicted group is more able in divisive advertising and, 3) in regions where campaign divisiveness is higher, turnout rate is lower.

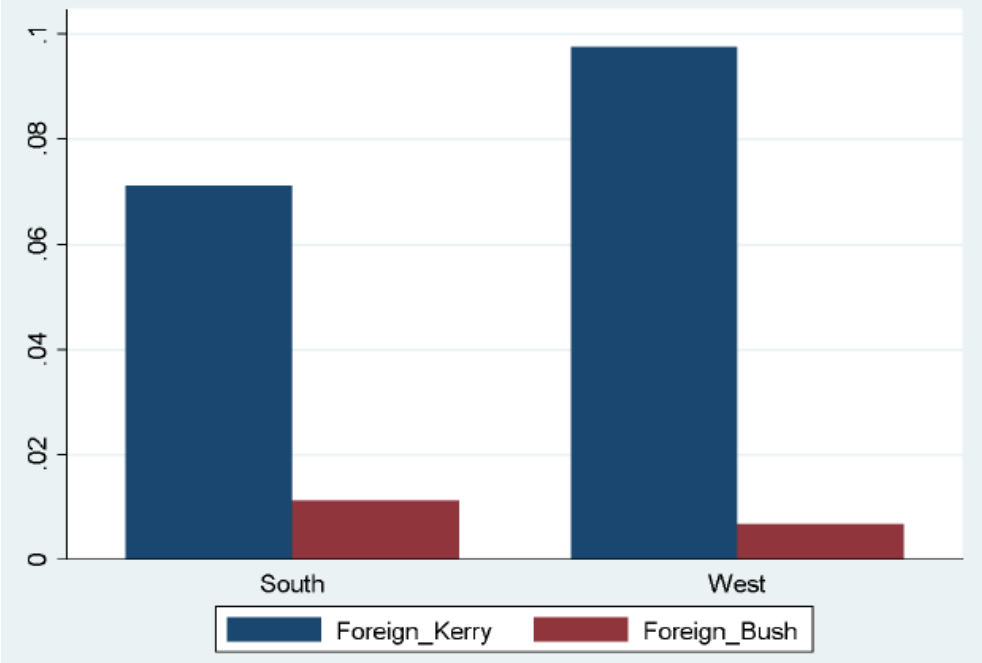
Let me mention that in the model we considered groups responsiveness, while here we take into account the size of disagreement groups; first, the main results of the model could be restated in terms of groups size, since as responsiveness, it renders a group more appealing for candidates. Additionally, it is not easy to measure groups responsiveness (even though there is some evidence on the lower degree of partisanship of conservative Democrats, see People of the Press 2004), so we prefer to use the size to measure how a group is relevant in terms of political competition. Although we are aware that television advertising does not represent the full picture, 76% of respondents in a survey conducted after 2004 elections (People of the Press, 2004) named television as the main source of campaign information. For these reasons we are confident that the following evidence supports the implications of the model. In the graph below we show that in the West, where the liberal Republicans are the relevant conflicted group, Kerry spent relatively more money in advertising gun control policy and moral issues than in the South where conservative Democrats are the relevant group, while Bush did exactly the opposite.



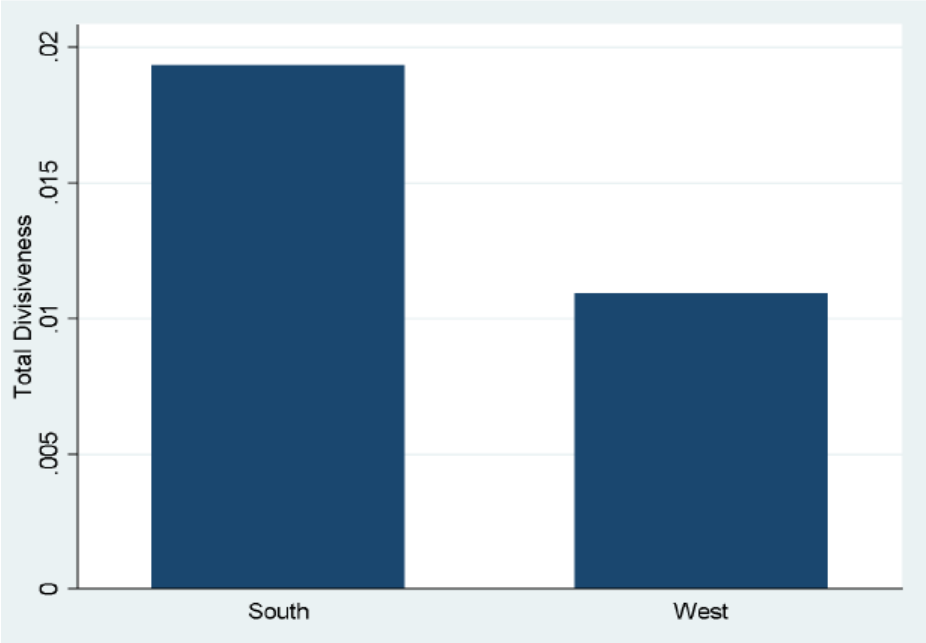
If we analyze other single issues, the scenario remains the same. In the graphs below we report the share of money candidates spent in divisive issues such as energy or foreign policy and cohesive issues such as health care. Overall the evidence supports the first statement, i.e. candidates equilibrium behavior as described in the model.


0
.1
.2
.3
South
West
Health Care_Kerry
Health Care_Bush


0
.02
.04
.06
.08
South
West
Energy_Kerry
Energy_Bush



The graph below supports the second statement showing that the total share of divisive advertising is higher where Bush, perceived as better in divisive issues, is the candidate of the minor conflicted group; this is actually the case in the South where conservative Democrats represent the relevant disagreement group.

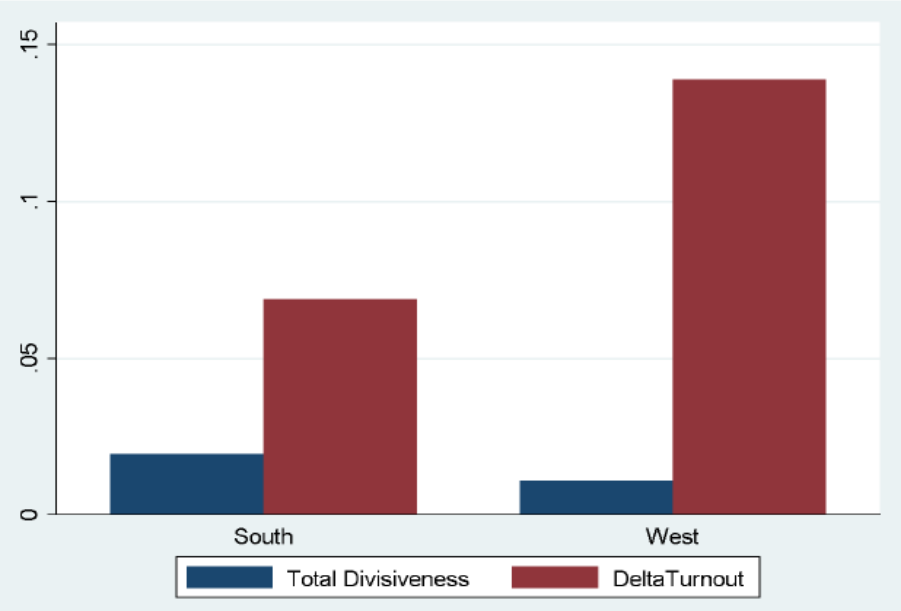


To effectively test the third statement, i.e. the effect of candidates equilibrium strategies on turnout, we would need data on individual exposure to avertising and voting intention before and

after elections. Given the data available we present a general pattern, however further analysis is required to establish a causal relation between the variables of interest. The table below reports for each region, turnout rates in 2000 and 2004 and their variation.

Region	Turnout 2004	Turnout 2000	Delta Turnout
South	62.24	58.23	0.06
West	63.72	55.94	0.13

In the following graph notice that the variation in turnout rate is negatively correlated to the total share of divisive advertising.



In our model divisive messages disaffect disagreement groups, inducing them to stay home in the election day. Moreover divisive messages are more effective if sent by the candidate who "owns" them, as Bush did during 2004 campaign. Since Bush invested in divisive advertising especially in the South, we argue that the lower turnout in the region is perfectly consistent with our model; in particular this can be explained, at least in part, by low turnout rates among conservative Democrats, the largest conflicted group in the South.

6 Conclusions

This paper studies how under some circumstances, political competition leads candidates to strategically increase the salience of specific issues in order to influence voting decisions of marginal

groups and to win exploiting an intensive margin, with non trivial consequences for turnout rates. In this framework issues differ in their *divisiveness*, to be defined as the extent to which members within a coalition disagree. Given the high level of diversity in our societies, we expect wedge issues such as religion, moral values or the environment to become more and more relevant. In the presence of disagreement within coalitions, political candidates face a trade-off; they can either choose *cohesive* issues which energize their own (but also their opponent) constituency or *divisive* issues which disaffect the opponent (but also their own) supporters. Typically the first type of issues energizes voters and increases turnout, while the second type of issues increases disaffection of voters, who tend to stay home in the election day. Using a probabilistic model of electoral competition, we derive the conditions under which, perfect competition between politicians generates in equilibrium asymmetric behavior, i.e. different turnout rates for different groups of voters. The results are relevant for the literature on political participation and turnout, pointing out that it is crucial to analyze campaign effects on different groups of voters, to explain turnout rates actually observed. First we show that, as the difference in groups responsiveness increases, candidates have a higher incentive to substitute between strategies and as a consequence, each candidate ends up investing mainly in one type of advertising. This effect is lower in the presence of high informational asymmetries among voters, which actually decrease political competition and so the scope for substitution between strategies. Second, assuming that one candidate is better able in divisive advertising and she is the candidate of the most partisan group, we find that divisiveness of campaign increases and total turnout decreases. Moreover the most responsive group is generally less likely to turnout. The opposite holds if: a) its candidate is more able in divisive advertising or, b) if its candidate has more money for campaigning and informational barriers are high enough. Interestingly, this analysis provides insights on the role played by new techonologies in influencing equilibrium outcomes, allowing politicians to target campaign messages to particular population subgroups. We also show that these results are consistent with descriptive evidence on 2004 US Presidential campaign. The analysis provides several political implications for environments, such as heterogeneous societies, where the scope for priming is higher; first, we have seen that it can lead to a decrease in political participation of the most responsive voters, which in turn would imply a higher political representation of partisans in the following legislature, with non trivial consequences. Second, since priming is directed toward minority disagreement groups, it might cause a decrease in the overall welfare. Indeed voters in majority groups might suffer a utility loss if the issue they more care about, is disregarded by their candidate (this might translate in a utility

loss at the time of elections or during the legislature). Finally in the presence of informational barriers, priming diverse matters to different groups might lead to unstable governments, not able to implement a fragmented platform; in general, at least a fraction of the voters will see the issue perceived during the campaign, as the most important, completely disregarded by the appointed candidate during the legislature and this might lead to remarkable political tensions. The theory could be empirically tested using individual data on voting intentions before and after elections, as well as individual exposure to different sources of advertising. Finally let me mention that we focus on turnout decision, but the analysis might as well, be applied to undecideds between the candidates, i.e. swing voters.

References

Abbe, O., Goodliffe, J., Herrnson, P. and Patterson, K., (2003) Agenda Setting in Congressional Elections: The Impact of Issues and Campaigns on Voting Behavior, *Political Research Quarterly*, Vol. 56, No

Abramowitz, A. National Issues, Strategic Politicians, and Voting Behavior in the 1980 and 1982 Congressional Elections, *American Journal of Political Science*, Vol. 28, No. 4 (Nov., 1984), pp. 710-72.

Alesina, A. and Cukierman, A. (1990), The politics of ambiguity. *Quarterly Journal of Economics,* 105, 829-850.

Alesina, A. and Holden, R. (2008), Ambiguity and Extremism in Elections.

Ansolabehere, Stephen, and Iyengar, Shanto (1994). Riding the wave and claiming ownership over issues: The joint effects of advertising and news coverage in campaigns. *Public Opinion Quarterly* 58: 335-,357.

Ansolabehere, S. and S. Iyengar, Going Negative: How Political Advertisements Shrink and Polarize the Electorate. Free Press, 1995

Budge, Ian, and Farlie, Dennis J. (1983). Party competition-selective emphasis or direct confrontation? An alternative view with data. In Hans Daadler and Peter Mair (eds.), Western European Party Systems, pp. 267-306.

Bélanger, E. (2003). Issue Ownership by Canadian Political Parties 1953-2001, *Canadian Journal of Political Science*, Vol. 36, No. 3.

Conley, R. (2000), Divided Government and Democratic Presidents: Truman and Clinton Compared, Presidential Studies Quarterly, Vol. 30, No. 2.

Dellis, A. (2009). The Salient Issue of Issue Salience, *Journal of Public Economic Theory*, Association for Public Economic Theory, vol. 11(2).

Denton, R. and Kuypers J. (2008), Politics and Communication in America: Campaigns, Media, and Governing in the 21st Century, Waveland Press.

Frank, T. (2004), What's the Matter with Kansas?: How Conservatives Won the Earth of America,

HP Books.

Gelman, Andrew. (2010), " Red State, Blue State, Rich State, Poor State. Why Americans Vote the Way They Do". Princeton University Press.

Gelman, A., and King, G. (1993), " Why are American Presidential Elections Polls so Variable when Votes Are so Predictable." *British Journal of Political Science* 23(4).

Gerber, Alan S., and Donald P. Green. (2000), "The Effects of Canvassing, Direct Mail, and Telephone Contact on Voter Turnout: A Field Experiment." *American Political Science Review* 94:653–63.

Gerber, Alan S., and Donald P. Green. (2005), "Do Phone Calls Increase Voter Turnout? An Update.", Theme issue, "The Science of Voter Mobilization," ed. Donald P. Green and Alan S. Gerber. *The Annals of the American Academy of Political and Social Science* 601 (September):142–54.

Gerber, Alan S., Donald P. Green, and Matthew N. Green. 2003. "The Effects of Partisan Direct Mail on Voter Turnout." Electoral Studies 22:563–79.

Ghandi, A., Iorio, D. and Urban, C. (2010), Negative Advertising and Political Competition, Unpublished.

Glaeser, E., Ponzetto, G. and Shapiro, J. (2005), Strategic extremism: Why Republicans and Democrats divide on religious values, *Quarterly Journal of Economics.*

Goldstein, Kenneth, and Joel Rivlin. 2007. "Presidential advertising, 2003-2004". Final release. Madison, WI: The University of Wisconsin Advertising Project, The Department of Political Science at The University of Wisconsin-Madison.

Hillygus, S., and Shields, T. (2008), The Persuadable Voter, Princeton University Press.

Holian, D. (2004), He's Stealing My Issues! Clinton's Crime Rhetoric and the Dynamics of Issue Ownership, *Political Behavior*, Vol. 26, No. 2.

Horowitz, D. (1993), Democracy in Divided Societies, *Journal of Democracy*, Vol. 4, No. 4.

Horowitz, D. (2000), Ethnic Groups in Conflict (2d ed.), University of California Press.

Levy, G. (2004), A Model of Political Parties, *Journal of Economic Theory*, Vol. 115(2). See also a companion working paper, Endogenous Parties: Cooperative and Non-Cooperative Analysis.

Murphy, K. and Shleifer, A. (2004), Persuasion in Politics, *The American Economic Review PP*, Vol. 94, No. 2.

Persson, T. and Tabellini, G. "Political Economics. Explaining Economic Policy", (2000) MIT Press.

Petrocik, J. (1983). Issue Ownership in Presidential Elections, with a 1980 Case Study. *American Journal of Political Science*,Vol. 40, No. 3.

Packard V. (1957). The Hidden Persuaders. New York: McKay.

Petrocik, J., Benoit, W., Hansen, G. (2004). Issue Ownership and Presidential Campaigning, 1952-2000. *Political Science Quarterly*, Vol. 118, No. 4.

Riker, W. (1996). The Strategy of Rhetoric. Campaigning for the American Constitution, New Haven: Yale University Press