Character Endorsements and Electoral Competition

By Archishman Chakraborty and Parikshit Ghosh

When an elite-controlled media strategically endorses candidates in order to promote its own ideological agenda, office-seeking parties may completely pander to the media, under moderate ideological conflict between voters and the elite. Larger ideological conflict leads to polarization—parties either become media darlings or run populist campaigns. The welfare effects are: (i) delegation by the media owner to a more moderate editor is Pareto improving, (ii) the median voter is never better off delegating voting rights to the informed elite, (iii) a majority of voters may be better off if the informed media did not exist. (JEL D72, D83, L82)

There is widespread belief in most democracies that the media wields a powerful influence on electoral outcomes and policymaking. Moreover, it is often seen as biased toward a particular ideology, party, class, or cultural group. Critics argue that by manipulating public opinion, the media can generate support for policies that serve the interests of an elite minority rather than a majority of voters. Our aim in this paper is to critically examine this claim.

In the United States, charges of media bias are frequently heard from both ends of the political spectrum. A 2009 survey by the Pew Research Center shows that 74 percent of the voting public believe the media’s coverage is biased and one-sided, while only 18 percent believe it to be fair and balanced. The presumed bias and influence of the media pose an analytical challenge to reconcile the two. If the bias is widely known, why is media influence not neutralized by rational voter skepticism? Can the media consistently persuade a majority of voters to vote against their own interests? Since selective information or biased opinion can always be ignored, it seems difficult to argue, on the face of it, that a biased media can reduce the welfare of a majority of citizens.

*Chakraborty: Syms School of Business, Yeshiva University, New York, NY 10033 (e-mail: archishman@yu.edu); Ghosh: Delhi School of Economics, University of Delhi, Delhi 110007 (e-mail: pghosh@econdse.org). We thank Navin Kartik, Rick Harbaugh, Maxim Ivanov, Rene Kirkegaard, Gilat Levy, Marco Ottaviani, Debraj Ray, Jaideep Roy, Joel Sobel, Colin Stewart, and seminar participants at the Indian Statistical Institute, McMaster University, University of Birmingham, University of Guelph, and University of Toronto for helpful comments.

†Go to http://dx.doi.org/10.1257/mic.20140241 to visit the article page for additional materials and author disclosure statement(s) or to comment in the online discussion forum.

1Conservatives and Republicans have accused the mainstream media of liberal bias in polemical bestsellers (Coulter 2003), insider tell-all books (Goldberg 2002), and survey based studies (Lichter, Rothman, and Lichter 1986; Groseclose and Milyo 2005). Liberal and progressive writers, on the other hand, often portray the mass media as relentless promoters of corporate interests (Herman and Chomsky 1988, Franken 2003).

2Suspicion of the media is so deep that several media watchdog groups spend considerable resources scanning news stories for bias virtually round the clock. These include bipartisan groups (e.g., FactCheck.org), as well as partisan (e.g., the conservative Media Research Center or the liberal Fairness and Accountability in Reporting).
Thomas Frank has suggested in *What Is The Matter with Kansas?* (Frank 2005) that a large section of American voters seemingly vote against their economic interests because they have been persuaded—through political propaganda and slanted media coverage—that cultural issues are of greater importance.\(^3\) Such explanations based on preference manipulation do not lend themselves easily to a welfarist critique of American democracy. We provide here an alternative to Frank’s cultural hypothesis. Since our theory is based on information rather than preference manipulation, its welfare implications are unambiguous.

In the context of India, Drèze and Sen (2013) have blamed the Indian media for the country’s “uncertain glory”—high growth rates achieved since the economic reforms of 1991 coexisting with persistent poverty, malnutrition, disease, and illiteracy. In their view, the media’s intense focus on issues that matter primarily to urban and affluent citizens has turned public policy away from the needs of poor, rural populations. The media “fortifies the inequality of lives by an inequality of articulation and attention.”\(^4\) This argument, however, contains an important explanatory gap. In a functional democracy where the vast majority of voters are poor, politicians who focus on poverty reduction should win more votes than those who seek favorable coverage by serving the interests of the elite. Why don’t electoral pressures neutralize media bias?

Evidence suggests voters are sophisticated enough to discount biased news or opinion but are still impressionable to some degree. Using a natural experiment, Della Vigna and Kaplan (2007) find that in those towns where Fox News was introduced into cable programming, Republicans gained 0.4 to 0.7 percentage point vote share in the Presidential election of 2000. Chiang and Knight (2011) find that local newspaper endorsements significantly increase candidates’ vote shares but the effect is dampened (though not eliminated) when a left-leaning newspaper endorses a Democrat or a right-leaning outlet endorses a Republican.

We study the implications of media bias in a Downsian framework with rational voters. Two office motivated parties nominate their respective candidates in a winner-take-all election. Parties also announce policy platforms on a one-dimensional Hotelling line. Voters have additively separable preferences over the policy outcome as well as the character of the elected candidate. Preferences over policy are single-peaked, with voter bliss points distributed on the real line. There is common interest on the character dimension—ceteris paribus, all voters prefer the candidate with superior character. These two dimensional preferences create a potential trade-off for voters—since policy and character are bundled, they may have to choose between a preferred policy and better character.

---

\(^3\) Bartels (2006) argues that the culture wars notwithstanding, Democrats (whose policies are arguably more redistributive) still receive greater support from lower income groups. Nevertheless, the fact remains that a large enough fraction of the bottom income deciles vote for relatively laissez faire policies and against income redistribution.

\(^4\) As reported in Drèze and Sen (2013), only 2 percent of the stories in major Indian newspapers addressed rural issues, a skewed coverage matching the lopsided allocation of public funds. A recent food security bill aimed at the poor and estimated to cost the exchequer 270 billion rupees has been strongly criticized in the press as financially irresponsible, while a proposed import duty on gold and diamonds that would have generated 570 billion rupees in revenue was abandoned without any significant criticism in the media.
All voters are perfectly able to evaluate the effect of different policies on their welfare. But candidate character scores are random draws from some distribution. They are observed by the media but not the voters or the parties who nominate them. This informational advantage is the source of the media’s power and influence in our model. The media has its own preference over policy and shares the voters’ concern for character. Once parties announce their candidates and platforms the media publicly endorses one party and then voters vote. The media is biased in the sense that its policy preference differs from that of the median voter and this is common knowledge.

What we call “character” encapsulates many traits that may be relevant for effective governance. Voters typically care about a candidate’s intelligence, industry, leadership qualities, grasp of issues, and general integrity. These qualities are especially needed while tackling problems on which voters’ interests are more or less aligned such as leading the country in war, maintaining law and order, and running a corruption free administration. Many crises that may arise during a politician’s term in office are also unforeseen future contingencies which campaign promises cannot adequately address. A party’s election manifesto is at best an incomplete contract with voters that only covers well trodden ground, leading the latter to care about what kind of person they are electing to high office. The importance of character in elections is illustrated by Edwin Edwards’ well-known remark during the 1983 Louisiana gubernatorial campaign: “The only way I can lose this election is if I am caught in bed with a dead girl or a live boy.”

In our model, the media’s ideological bias (i.e., its ranking of alternative policies) is exogenous, but its partisan bias (i.e., its ranking of alternative parties or candidates) is endogenous, dependent on platform choices and relative character strengths. Parties face a tension between opposing temptations of pandering to the voter and courting the media. Adopting slightly more elitist policies than the rival induces a slightly higher probability of endorsement and electoral victory—a phenomenon we call elitism creep. On the other hand, adopting vastly more populist policies can discontinuously increase the chances of a party’s electoral victory if the large policy gap encourages most voters to ignore the endorsement and vote for the populist party. We call this campaign strategy a flight to populism.

---

5 Since candidates nominated for office come under intense media scrutiny, parties have strong incentives to research their nominee’s personal history and screen them carefully (in American politics, intra-party maneuvers and primaries serve this screening function). Some information about character will also be in the public record. However, such information is also often incomplete and more news typically comes out in the long course of an election campaign, as captured in the popular term “October surprise.”

6 This is a conservative assumption given that our purpose is to show the media can exert considerable influence on policy. Vallone, Ross, and Lepper’s (1985) “hostile media effect” suggests bias perceptions may be influenced by the viewers’ own biases, and Alterman (2003) makes the point that accusations of bias can have strategic use. Models in which the media’s bias is uncertain is a useful topic for further research.

7 What we call character has considerable overlap with what a strand of the literature in political science calls “valence.” Valence is some private value (Banks and Duggan 2005) or common value (Aragones and Palfrey 2002) payoff a voter derives from electing a candidate that is independent of the latter’s policy platform. Most of this literature treats valence or character as a magnitude known to the voter. Kartik and McAfee (2007), like us, introduce unobservable candidate character into voter preferences to obtain platform divergence and mixed equilibria. However, in their model, candidates’ platform choices themselves act as signals of character rather than endorsements announced by an informed media.
of elitism creep and potential flight to populism implies the game of platform choice may not have a Condorcet winner.\footnote{We use the term “Condorcet winner” in a probabilistic sense since random draws of character strength make outcomes probabilistic. Any policy platform that is more likely than not of beating any other policy platform in a pairwise contest is a Condorcet winner. If a Condorcet winner exists in our model, both parties will choose that policy as their platform.}

Our main results are as follows. The median voter theorem always breaks down due to elitism creep. When the ideological distance between the median voter and the media is small (alternatively, character is much more important than policy), platforms converge to the media’s bliss point. When the ideological distance is large, no pure strategy equilibrium exists. We characterize the mixed equilibrium. For intermediate ideological gaps, its support includes a set of policies close to the median voter’s bliss point, and another set of policies close to the media’s bliss point, \textit{but nothing in between}. We interpret this as \textit{polarization} (albeit in a stochastic sense)—electoral incentives preclude any substantial degree of ideological compromise between the average voter and the media elite. This result is in sharp contrast to some other papers in the literature (Grossman and Helpman 1999; Andina-Díaz 2006).

We present three critical welfare results. First, when the media-owning elite is ideologically very distant from the median voter, a Pareto improvement occurs if the elite can delegate message control to an editor whose most preferred policy is somewhere in between. The optimally chosen editor is such that the parties’ platforms will converge to the editor’s bliss point. Since policy differences are eliminated, the candidate with better character will always be endorsed and elected. Furthermore optimal editorial delegation does not shift the expected policy outcome, merely reduces its variance. Therefore, delegation leaves the voters’ as well as elite’s payoffs unaffected on the policy dimension but improves them on the character dimension by enabling better information transmission and greater efficiency.

What if, conversely, uninformed voters could delegate candidate choice to the informed media elite? Put differently, can the median voter be better off if the elite exercised de jure power (i.e., suspended voting rights and dictated policies directly) rather than de facto power (i.e., influenced policies indirectly through the mass media)? Information asymmetry creates a trade-off—direct elite rule means policies will be distorted further toward elite interests but more capable leaders will be chosen on average. In two person sender-receiver games, Dessein (2002) and Holmstrom (1984) show that this tension between information and authority is often best resolved in favor of information—the receiver is better off delegating decision making. In contrast, we find that delegation is never optimal for the median voter. Democracy has \textit{instrumental} value to voters even when they lack the necessary information to select the most capable leader.

Our final welfare result answers the question—if democracy (whose value is limited by lack of information) is indispensable to the voter, can the same thing be said about the media (whose value is limited by its ideological bias)? Could the voter be better off if the media did not exist in the first place? Surprisingly the answer to this question can go either way. When the ideological conflict between the media and the
average voter is strong enough, existence of the media imposes a net harm on the latter. The media’s presence creates a potential source of character information (the information effect) but also causes campaign platforms to move away from what the median voter prefers (the policy distortion effect). Under some parameter values the policy distortion effect will dominate. In such cases the media supplies a majority of the electorate with immiserizing information.

To put our welfare results in perspective, start from a first-best world where democratically empowered citizens have all relevant information pertaining to candidate character and the median voter theorem prevails. If character information is now held only by an elite-controlled media, voter welfare will monotonically decrease as we move down the following list of alternative institutional arrangements: (i) the elite communicate with voters through the media and a strategically chosen moderate editor, (ii) the elite communicate with voters through a media that always reflects elite opinion, and (iii) the elite directly dictates policies. A fourth scenario—one where democracy is retained but the media is silenced—cannot be unambiguously ranked but we show that in some situations it can be second best, i.e., produce higher payoff for the median voter even compared to (i).

Three points about our analysis are worth emphasizing. First, our conclusions are based on fairly conventional assumptions about rationality—voters are aware of the media’s bias, draw proper Bayesian inferences from its endorsements, and fully understand the effect of various policies on their own well being. In other words, they are not systematically fooled due to an excess of credulity.9

Second, since our model leaves out many important details of reality such as the media’s watchdog role in preventing corruption or abuse of power (Brunetti and Weder 2003), the analytical result on immiserizing information should not be taken as an argument for suppressing press freedom. Nevertheless, it is interesting that we obtain a stark welfare result under mild assumptions. Note that in our model a biased media diminishes voter welfare not relative to the first best (i.e., a world with a well informed but unbiased media) but compared to a world with no media at all. The first comparison is utopian. The second yields a much stronger indictment of the potentially manipulative effects of the media in a democracy.10

Third, our analysis can be applied not just to the mass media but any opinion maker who, voters believe, has information relating to the capabilities of candidates or elected officials and who has the means to address a large section of the electorate. It could include a pundit, expert, celebrity, veteran politician, activist, or mass movement. Richard Nixon’s famous “silent majority” speech illustrates some of our

---

9 Unlike models where voters are uninformed about the consequences of various policies (Grossman and Helpman 1999; Gul and Pesendorfer 2011; Chakraborty, Ghosh, and Roy 2015), and so unable to discern whether policy promises are in their own interests or in the elite’s, our model is characterized by open pandering to the media’s policy preferences. Whenever parties choose platforms that compromise the median voter’s interests, they are unable to hide this fact from voters.

10 In a decision theoretic framework, Blackwell’s theorem establishes the value of information cannot be negative for a rational decision maker. Crawford and Sobel (1982) extend this result to a strategic context—when an uninformed receiver can base his decision on cheap talk messages from an informed but biased sender, every informative equilibrium gives a higher payoff to the receiver compared to the babbling equilibrium (where all messages are ignored). In our setup the media’s presence distorts equilibrium platform choices and this distortion makes the value of information negative for a majority of voters.
themes. Nixon’s strategy was to try and isolate the antiwar movement by portraying it as the creation of a vocal but elite minority who do not share most voters’ values.\footnote{In this speech Nixon says: “If a vocal minority, however fervent its cause, prevails over reason and the will of the majority, this Nation has no future as a free society… And so tonight—to you, the great silent majority of my fellow Americans—I ask for your support.” Who comprises the powerful elite is spelt out for Henry Kissinger’s benefit in a taped Oval Office conversation: “Never forget, the press is the enemy, the establishment is the enemy, the professors are the enemy” (\textit{USA Today} 2008 http://usatoday30.usatoday.com/news/washington/2008-12-03-nixon-disclosures_N.htm).}

The rest of the paper is organized as follows. In Section I, we set up our baseline model. In Section IIA, we characterize the effect of media endorsements on voting behavior. In Section IIB, we use this characterization to identify the outcomes of electoral competition among two office-seeking political parties. Section III contains results on welfare and delegation. In Section IV, we discuss how our conclusions are affected by media diversity. Section V looks at a number of variations of our baseline model as robustness checks. Section VII concludes while the Appendix contains all proofs.

I. Model

A unit mass of voters face a choice between two candidates/parties, $i = 1, 2$, in an election. Party $i$ chooses a policy platform $x_i \in \mathbb{R}$ and a candidate who will implement the platform if the party wins. Party $i$’s candidate has an exogenous attribute $y_i \in \mathbb{R}$, which we call “character.” Voters have diverse preferences over policies but identical preferences over candidates’ characters. The utility to a voter $x \in [-1, 1]$ when candidate $i$ with policy platform $x_i$ and character score $y_i$ is elected, is given by

\begin{equation}
    u(y_i, x_i; x) = y_i - \frac{1}{3\Delta^*} |x_i - x| ,
\end{equation}

where $x$ is the voter’s ideal policy, and $\Delta^* > 0$ is a parameter capturing the importance of character relative to policy distance.\footnote{The coefficient one-third in the payoff function is a scaling term that makes subsequent expressions neater.} Let $G(x)$ denote the (atomless) distribution of voters when they are ordered by their ideal policies and suppose $x_v = 0$ is the median of this distribution.

Each party is purely office-seeking and acts to maximize the probability of electoral victory by simultaneously choosing policy platforms $x_1$ and $x_2$ to which they are committed. These platform choices are observed by all voters. Regarding character scores, we assume $y_2 \equiv 0$, while $y_1 \equiv y$ is uniformly distributed in $[-1, 1]$. This distribution captures all public knowledge about the candidates at the time of nomination. Our distributional assumption implies voters hold uninformative priors about the relative character strengths of the two candidates who are ex ante symmetric in this respect. Our linear distance assumption on preferences implies any possible conflict between the media and the voter is a function only of the policy difference between the candidates and not where they are located individually.

There is a media outlet with preferences like any other voter, i.e., it cares about both policy and character as captured in the payoff function (1). The media has commonly known ideal policy $x_m > 0$, which differs, perhaps substantially, from
that of the median voter due to control by a financial or cultural elite, whose interests and values are very different.\textsuperscript{13} After policy platforms and candidates are chosen but before voters vote, the media privately learns the realization of $y$, the difference in character scores between the two candidates. The media then sends a public cheap talk message $m$ to the electorate from a set of messages $M$ that contains at least two elements.\textsuperscript{14} Lemma 2 will establish that even if a rich message space is allowed, only two distinct messages can arise in equilibrium—the media can credibly convey only an up-down endorsement of its preferred candidate and not the intensity of its preference.\textsuperscript{15} Once the media’s endorsement has been issued, voters vote for their preferred candidate taking into account all the information available to them. The party that has the larger share of votes wins the election and ties are resolved uniformly. The sequence of moves is presented in the Figure 1.

This simple model extends the classical Hotelling-Downs framework in two ways. First, we add a second dimension of interest to voters—character. Unlike on the policy dimension, there is complete common interest on the character dimension but voters are hamstrung by a lack of information. Second, we introduce an electorally insignificant but informed voter, who we call the media (or more generally, an opinion maker). The fundamental question that arises is to what extent information is a substitute for a large block of votes. As we will show, the media’s informational advantage and voice exerts a strong influence on the political process making platforms drift closer to its most preferred policy.

Several points about our assumptions must be underscored. Most of our qualitative results do not depend on specific functional forms for voter utility and distributional assumptions. We discuss these robustness issues in Section V. Nevertheless, the structure imposed on preferences and information, apart from simplifying the analysis, helps to highlight some key conceptual issues. First, by assuming that preferences over character and policy are additively separable, we eliminate the possibility that voters are uncertain about their self interest on the policy dimension. We thus avoid any effect of endorsements on voters’ interim policy preferences, a channel that has been studied elsewhere in the literature (Grossman and Helpman 1999; Gul and Pesendorfer 2011; Chakraborty, Ghosh, and Roy 2015). This also helps to throw in sharp relief the fact that political parties may engage in open pandering to the elite and choose platforms that, everyone agrees, compromise the interests of the median voter. Second, by assuming utility is linear in distance from the bliss point, we identify welfare effects arising purely from platform distortion and information loss rather than risk aversion in the face of potentially random policy outcomes.

For most of the paper, we consider the case where the media is monopolistic. We turn to examining the effect of ideological and informational diversity within the media in Section IV and present arguments why the monopolistic model is not

\textsuperscript{13} We take the presence of such a politically motivated, elite-controlled media as a primitive of the model and focus exclusively on its effect on electoral competition. Questions of how an elite gets to control the media, possible trade-offs between the commercial and political motivations for media owners have been addressed elsewhere in the literature (see the discussion Section VI) and are not considered in this paper.

\textsuperscript{14} As is standard in cheap talk games, a message $m \in M$ does not have any exogenous meaning or cost/benefit associated with it. Rather its meaning is derived endogenously in equilibrium taking into account incentives.

\textsuperscript{15} In Section IV, we consider model variations where the media may reveal more detailed information using a large message space.
knife-edge. The qualitative features of equilibrium are immune to the introduction of small amounts of media diversity. The benchmark monopoly assumption should not be read literally. As long as media organizations are homogeneous and seek to further their common ideological interests, the results are the same even if we allow commercial competition between multiple newspapers and TV channels. A common refrain heard in critiques of media influence is that it speaks in one voice in promoting a specific ideological agenda. For example, the political left complains that corporate ownership of mass media leads to the promotion of corporate interests (Herman and Chomsky 1988), while the political right asserts that the liberal background of journalists and editors means coverage will always be skewed to promote certain cultural values (Coulter 2003). The stylized assumption of monopoly allows us to examine this kind of critique in its sharpest form.

Finally, several interpretations are possible about what constitutes character (intelligence, diligence, temperament, honesty, etc.) and why some information about character is available only to specialists, and not voters or political parties who nominate the candidates. The straightforward interpretation is that relevant traits surface only under prolonged and intense scrutiny, involving interviews, round-the-clock campaign coverage, or investigations into the candidate’s past record or personal life. The parties who are nominating candidates often have a short window of time to make their decision, and may not be able to dig out every piece of damaging news. Candidates themselves are likely to be well-informed about their limitations but they are unlikely to volunteer such information. To the extent they put personal ambition above party interest, their judgment could very well be clouded by self-serving biases. Many voting decisions could be reversed in response to negative information subsequently revealed by the press.

An alternative interpretation of the model is that candidate traits are well known to the public but voters are unsure whether these traits will be a help or hindrance.

---

16 Perhaps the most realistic assumption is that parties know more than voters but less than the media about the character of their candidates, e.g., they may have a noisy private signal of what the media will learn. We have made a stark assumption to avoid the possibility of platforms (in addition to endorsements) signaling candidate character. Nevertheless, the model can be enriched in some ways without too much additional complexity. For example, suppose parties can choose from a large field of potential candidates and receive a crude, binary signal (clean/problematic) of each candidate’s finer character score. Voters can then infer that each party has almost surely chosen a clean candidate and form their prior beliefs accordingly.

17 There is abundant anecdotal account of press revelations (or suppressions) that seriously affected some American presidential candidates’ electoral prospects. The gamut of information includes alleged illnesses (Roosevelt; Kennedy), extramarital affairs (Kennedy; Bill Clinton), driving incidents (George W. Bush; Edward Kennedy), military record (John Kerry), and even grammatical accidents (Dan Quayle; Sarah Palin). In the 1972 presidential campaign, George McGovern’s initial choice as running mate, Thomas Eagleton, was forced to withdraw after his history of mental illness and depression came to light. Eagleton did not disclose his medical records during the vetting process, nor did the McGovern campaign manage to discover them before the nomination.
in the future. For example, an inflexible or resolute character may be an advantage in periods of war but is likely to be a drawback during periods when diplomacy and compromise are desirable, or economic policy assumes greater importance over foreign policy.\footnote{Arguably the most dramatic illustration of a voter outlook that emphasizes “horses for courses” is the loss of Winston Churchill’s Conservative Party in the 1945 British general elections. Churchill was a hero in the eyes of the British public for his leadership during World War II, as reflected in an approval rating of 83 percent at the end of the war. Yet, British voters presumably saw merit in Clement Attlee’s argument during the campaign that Churchill made a “great wartime leader but an ordinary peacetime politician,” resulting in Labour’s surprising landslide victory.}

Similarly, voters may want to see a fiscal conservative in office when inflationary pressures are strong but may consider such a temperament unsuitable in periods of recession. Under this interpretation, the media informs voters not about the candidates’ character traits per se but the environment that is likely to prevail during his term in office and whether his character is suitable for this environment. We leave the choice of interpretation to the reader.

II. Equilibrium

The commonality of interest among voters about candidate character $y_i$ and the conflict of interest among them about policies $x_i$ creates interesting avenues for media endorsements to affect electoral outcomes. Endorsement, voting, and platform strategies interact and influence each other.\footnote{While we focus on the electoral competition, this kind of set-up has other applications as well. For instance, if consumers decide whether or not to watch a film based on the recommendations of a well-known critic, the critic’s tastes may be an important consideration for film producers. Or if the job prospects of candidates depend on the recommendations of a search committee, the committee’s preferences may affect how the candidates position themselves.}

We begin our analysis by focusing on the endorsement subgame that arises when parties have already selected their candidates and committed to their policy platforms $x_1$ and $x_2$. In this proper subgame the media obtains its information and strategically sends its cheap talk message $m$ following which voters vote. The outcome of this subgame will determine the choice of platforms in the first stage.

A. The Endorsement Subgame

Suppose that the two parties have made policy choices $x_1, x_2 \in [-1, 1]$ and, after learning the realization of $y_1, y_2$, the media has sent a (cheap talk) message $m$ following which all voters hold estimates $E[y_i | m]$ of candidates’ characters.

**Lemma 1:** Fix $x_1, x_2, \text{ and } m$. In any equilibrium, if the median voter $x_v = 0$ strictly prefers candidate $i$ to his rival, then candidate $i$ is elected with probability 1.

Lemma 1 says that if the median voter prefers one candidate to the other, so does a majority of the electorate. In effect, the median voter can be thought of as a single decision maker. Since all voters have access to the same information, they share a common estimate of the lagging candidates’ “character deficit.” Given additively separable preferences over policy and character, the median voter’s salient position follows from standard single peaked preferences on the policy dimension.
Henceforth, we will treat the electorate as a single entity—the median voter, or simply, the voter.

We turn now to the media’s endorsement strategy. In any cheap talk game such as our endorsement subgame, there is always a babbling equilibrium where the decision maker (median voter) refuses to ascribe any meaning to the sender’s message and accordingly the sender (media) can do no better than to be uninformative. The more interesting case is one where the sender is informative and influences the behavior of the voter. An equilibrium is influential if the voter votes for the different candidates with probabilities that vary with the media’s message. Since the decision problem faced by our voter is a binary choice, the set of decisions rules that are generated by an influential equilibrium is particularly simple.

**Lemma 2:** Fix $x_1, x_2$. In any influential equilibrium, the media can only reveal the candidate the media prefers, i.e., whether or not the following inequality holds

$$y > \frac{1}{3\Delta^*} [ |x_1 - x_m| - |x_2 - x_m| ].$$

When the media prefers candidate $i$ and communicates this information, we say that its equilibrium message is an endorsement for candidate $i$. An influential equilibrium exists if and only if

$$E[y_i - y_j | i \text{ endorsed}] \geq \frac{1}{3\Delta^*} [ |x_i| - |x_j| ] \geq E[y_i - y_j | j \text{ endorsed}].$$

If the last inequality is violated, the candidate whose platform is closest to the median voter’s ideal policy will be elected regardless of the endorsement.

In an influential equilibrium the median voter (and by Lemma 1, a majority) behaves differently for different messages sent by the media. So the media has an incentive to always send the message that makes the voter elect the media’s own preferred candidate with the highest probability. Voters take this incentive into account. Consequently, in any influential equilibrium, the media can only credibly reveal the candidate the media itself prefers. In effect, the media either endorses one candidate or the other.

The key feature which determines whether or not an influential equilibrium exists is the conflict of interest between the media and the voter, which in turn depends on how far apart the parties’ platforms are. In this sense, the partisan bias of the media (i.e., bias in the sense of a conflict of interest in cheap talk games) is endogenous in our model. For instance, if the candidates choose identical policies $x_1 = x_2$, then there is no partisan conflict at all and an influential equilibrium exists.

To see when an influential equilibrium exists under a partisan conflict, consider the case where $x_1, x_2 \in [0, x_m]$ with $x_1 - x_2 = \Delta > 0$. In this case the media prefers and endorses the candidate closer to the media (candidate 1) whenever $y > -\frac{\Delta}{3\Delta^*}$, in accordance with (2). Following the endorsement, voters update candidate 1’s character score to $E[y | y > -\frac{\Delta}{3\Delta^*}] = \frac{1 - \Delta/3\Delta^*}{2}$. From the perspective of the median voter, the endorsed candidate 1 has a platform disadvantage and
voting for him creates a payoff loss equal to \( \frac{\Delta}{3\Delta^*} \) on the policy dimension. Using Lemma 1, the median voter (and so, a majority) is willing to vote for candidate 1 as long as \( \frac{1 - \Delta/3\Delta^*}{2} \geq \frac{\Delta}{3\Delta^*} \), which holds whenever \( \Delta \leq \Delta^* \). In such a case (3) obtains and an influential equilibrium exists.

When \( \Delta > \Delta^* \), the partisan conflict between the media and a majority of voters is too high and the candidate further away from the median voter will not be elected even if he is endorsed by the media. If instead, the media endorses the candidate 2 who is closer to the median voter, this candidate has both a character advantage and a policy advantage from the perspective of the median voter. So this candidate necessarily wins the election.

The effect of policy platforms on the credibility and persuasiveness of the media is a key determinant of the strategic considerations facing the political parties at the initial stage. Given the possible multiplicity of equilibria in the endorsement subgame however, this effect depends on the equilibrium selection rule that we employ. We assume in what follows that whenever an influential equilibrium exists in the endorsement subgame such an equilibrium is played. This guarantees that the ex ante Pareto dominant equilibrium for a majority of voters (including the median voter and the media) is played in the endorsement subgame. More precisely, we assume that even in cases where (3) holds with equality and the median voter is indifferent between following the media’s endorsement or not, she votes for the endorsed candidate. Such a tie-breaking rule implies that whenever an influential equilibrium exists, the candidate that the media prefers is elected, making ties in vote shares zero probability events.\(^20\)

### B. Platform Choices

Having characterized the behavior of the media and the voters in each endorsement subgame, we turn now to characterizing the equilibrium of the overall game, i.e., the choice of platforms \( x_1 \) and \( x_2 \) by the parties.

Given that the media’s endorsement may sway a majority of the electorate, each party has an incentive to propose a policy closer to the media’s ideal policy relative to the opponent in order to increase the probability of being endorsed. In particular, given a platform \( x \in [0,x_m] \) chosen by party 2, suppose party 1 chooses a platform \( x + \Delta \in (x,x_m] \) with \( \Delta \leq \Delta^* \). From Lemma 2, the candidate of party 1 will be endorsed whenever \( y > -\frac{\Delta}{3\Delta^*} \). Furthermore, since \( \Delta \leq \Delta^* \), an influential equilibrium exists in the endorsement subgame, i.e., the endorsed candidate will win the election. From the ex ante perspective of party 1, the probability of obtaining an endorsement (and hence winning the election) is given by

\[
\Pr \left[ y > -\frac{\Delta}{3\Delta^*} \right] = \frac{1}{2} + \frac{1}{6} \Delta^*,
\]

\(^{20}\)Without selecting the influential equilibrium one can create a large multiplicity of equilibria in the overall game by arbitrarily selecting one or the other equilibrium in particular subgames in an ad hoc manner. We follow the literature in selecting the efficient informative equilibrium in the endorsement subgame (whenever it exists). The particular tie-breaking rule that we employ is in the spirit of selecting the efficient equilibrium but it does not have a bearing on our results as we discuss in the next section.

\(^{21}\)In the Appendix, we show that in all cases equilibrium policy choices will lie in the interval \([0,x_m]\). This allows us to focus on platform choices in between the voter’s and the media’s ideal policies in the main text.
which is greater than 1/2 and increasing in $\Delta$. Thus, increasing $\Delta$ is helpful, but only as long as the voter is swayed by the endorsement, i.e., as long as the platform gap $\Delta$ does not exceed $\Delta^*$. This tendency to appease the elite media a little more than the rival is what we call *elitism creep* and it leads to a break-down of the well-known median voter theorem in our model. For ease of reference, we state this formally as a result.

**PROPOSITION 1:** For any $\Delta^* > 0$, $x_1 = x_2 = 0$ is not an equilibrium.

To gain insight into what actually occurs in equilibrium, it is useful to study a party’s best response platform choice $b(x)$ given a platform choice $x$ of the other party. These best responses are depicted in [Figure 2](#). Figure 2, panel A depicts the case $x_m \leq \Delta^*$ where the media’s ideological bias $x_m$ is moderate relative to the importance of its information $\Delta^*$. Since equilibrium platform choices always lie in between the ideal policies of the voter and the media, the media will always be influential and its endorsed candidate will always win the election. The best response for the parties, then, is to pander completely to the media, i.e., choose the platform $x_m$ regardless of where the opponent is located. Proposition 2 provides the equilibrium outcome for this case.

**PROPOSITION 2:** (Moderate Media). Suppose $x_m \leq \Delta^*$. In the unique pure strategy equilibrium there is total media pandering: $x_1 = x_2 = x_m$.

With a moderately biased media, even if the policy gap is maximum (one candidate chooses the voter’s ideal policy $x_v = 0$ and the other chooses the media’s ideal policy $x_m$), media endorsements still influence the voter. Locating at the media’s ideal policy, $x_m$ is then an ‘unbeatable’ strategy for a candidate since it guarantees a probability of winning the election that is at least $1/2$ regardless of the policy choice of the other candidate. Consequently, both candidates locating at $x_m$ is the unique equilibrium. Since the equilibrium displays complete policy convergence there is no conflict of interest between the media and any voter. As a result, the media’s private information is fully aggregated by the voters before voting.

What is the equilibrium outcome when $x_m > \Delta^*$ and the media has more extreme ideology? Figure 2, panel B depicts the best responses when $\Delta^* < x_m < 2\Delta^*$ and the media has extreme ideological bias. Figure 2, panel C depicts the remaining case where $x_m \geq 2\Delta^*$ and the media has even greater ideological bias. In both figures, if the rival’s platform is within $\Delta^*$ of the voter’s ideal point, the best response is to locate at a platform $\Delta^*$ to the right of the rival or at $x_m$, whichever is lower. Such a choice maximizes the probability of an endorsement without making it noninfluential.

However, if the rival’s platform panders excessively to the media and is more than $\Delta^*$ away from the voter’s ideal, the best response is to choose any platform that is strictly more than $\Delta^*$ to the left of the opponent. The resulting policy distance will lead a majority of voters to ignore the media’s endorsements, guaranteeing an outright victory. We call this latter strategy a *flight to populism*. Of course, flight to populism is the best response for a party only when its rival, in its bid to win the endorsement, has chosen a platform that is too far away from the voter’s ideal point.
Notice that in Figure 2, panel B and panel C, the best response function does not intersect the diagonal and there does not exist a pure strategy equilibrium in platform choices in either case. Our next result characterizes the mixed strategy equilibrium for the case of Figure 2, panel B, where $\Delta^* < x_m < 2\Delta^*$.

**Proposition 3**: (Extreme Media). Suppose $\Delta^* < x_m < 2\Delta^*$. There is a (symmetric) mixed strategy equilibrium, where each candidate chooses a policy $x \in [0, x_m - \Delta^*) \cup [\Delta^*, x_m]$ according to the cdf $H$ given by

$$H(x) = \begin{cases} 
1 - \exp\left[-\frac{x}{4\Delta^*}\right] & \text{if } 0 \leq x < x_m - \Delta^* \\
1 - \exp\left[-\frac{x_m - x}{4\Delta^*}\right] & \text{if } x_m - \Delta^* \leq x < \Delta^* , \\
(1 - \alpha_m) \exp\left[-\frac{x_m - x}{4\Delta^*}\right] & \text{if } \Delta^* \leq x < x_m 
\end{cases}$$

where $H$ has an atom of size $\alpha_m = \frac{1}{2} - \frac{1}{4\Delta^*}$ at $x = x_m$ and another atom of size $\alpha_{\Delta^*} = (2 - \alpha_m) \exp\left[-\frac{x_m - \Delta^*}{4\Delta^*}\right] - 1$ at $x = \Delta^*$. In equilibrium, the expected policy choice of each candidate, as well as that of the elected candidate, is equal to $\Delta^*$.

In the symmetric mixed strategy equilibrium characterized by Proposition 3, the candidates choose among two kinds of policies, elitist or populist. Elitist policies are at least $\Delta^*$ away from the voter’s ideal policy $x_v = 0$ and located in the interval $[\Delta^*, x_m]$. Populist policies are more than $\Delta^*$ away from the media’s ideal policy $x_m$ and located in the interval $[0, x_m - \Delta^*)$. As Figure 2, panel B depicts, the best response to a populist choice by one’s opponent is an elitist policy that is exactly $\Delta^*$ to the right; whereas the best response to an elitist choice by one’s opponent is any populist policy that is more than $\Delta^*$ to the left. The interplay between these conflicting tugs of elitism and populism determines the mixed strategy equilibrium of Proposition 3.

**Figure 3** illustrates the probability weight (density) placed on particular policies in each of the two disjoint intervals $[0, x_m - \Delta^*)$ and $[\Delta^*, x_m]$ that are in the support of $H$. In equilibrium, each policy in the support of $H$ has the same expected probability.
(= 50 percent) of securing the election given the opponent also plays according to $H$. The mixed strategy $H$ described in Proposition 3 puts no weight on intermediate policies in the range $[x_m - \Delta^*, \Delta^*)$. Such policies are neither sufficiently populist nor sufficiently elitist. Each such policy is strictly dominated by the policy $\Delta^*$ when playing against any policy used by the opponent. When the media has a relatively extreme ideological conflict with the median voter, candidate policy choices may not only diverge ex post but may actually be quite polarized.22

Our final result of this section characterizes a similar mixed strategy equilibrium for the remaining case depicted in Figure 2, panel C, where $2\Delta^* \leq x_m$ and the media’s ideological bias $x_m$ is very extreme relative to $\Delta^*$.

**PROPOSITION 4: (Very Extreme Media).** Suppose $2\Delta^* \leq x_m$. There is a (symmetric) mixed strategy equilibrium, where each candidate chooses a policy $x \in [0, 2\Delta^*)$ according to the cdf $H$ given by

\[
H(x) = \begin{cases} 
1 - \exp\left(-\frac{x}{4\Delta^*}\right) & \text{if } 0 \leq x < \Delta^* \\
\exp\left(-\frac{2\Delta^* - x}{4\Delta^*}\right) & \text{if } \Delta^* \leq x \leq 2\Delta^*,
\end{cases}
\]

where $H$ has an atom of size $\alpha_{\Delta^*} = 2 \exp\left(-\frac{1}{4}\right) - 1$ at $x = \Delta^*$. In equilibrium, the expected policy choice of each candidate, as well as that of the elected candidate, is equal to $\Delta^*$.

Similar to the previous result, in the mixed strategy equilibrium of Proposition 4, the candidates do not choose policies that lie outside the interval $[0, x_m]$. A choice in the interval $[0, \Delta^*)$ that is relatively close to the median voter’s ideal policy is a populist policy that is vulnerable to the other candidate pandering to the media and choosing an elitist policy that is at most $\Delta^*$ to the right and in the interval $[\Delta^*, 2\Delta^*)$. On the other hand, an elitist policy in the interval $(\Delta^*, 2\Delta^*)$ is vulnerable to the other

---

22 Similar results obtain if, in addition to being office-seeking, the parties are partially ideologically motivated with a (small) cost of proposing a policy different from their ideological ideal. If instead of simultaneous moves, the two parties pick their platforms sequentially, we obtain policy divergence and polarization in a pure strategy equilibrium. Sequential moves may capture the case where one party is the incumbent and the other party is a challenger. In the sequential move equilibrium, the first mover is always more populist while the second mover panders more to the media. See Chakraborty and Ghosh (2013) for details.
candidate engaging in a flight to populism by choosing any policy that is more than $\Delta^*$ to the left and in the interval $[0, \Delta^*)$. Such a choice eliminates the influence of the media and the populist candidate wins for sure. Neither candidate has an incentive to deviate from the median voter’s ideal policy by an amount more than $2\Delta^*$ since such policies are dominated by the policy choice at the voter’s ideal when evaluated against $H$. Figure 4 illustrates the mixed strategy equilibrium of Proposition 4. In contrast to Proposition 3, there is no hole in the middle of the support of $H$. Rather, the entire probability mass of $H$ is contained in the convex interval $[0, 2\Delta^*)$ with no weight on the interval $(2\Delta^*, x_m]$ (i.e., there is a hole in the ‘side’).

For both Propositions 3 and 4, the atoms in the mixed strategy $H$ imply that ex post policy convergence is also an equilibrium outcome with positive probability. But convergence never occurs at the median voter’s ideal point. These atoms arise because of the discontinuity in the expected probability of electoral victory as the policy difference between the parties crosses $\Delta^*$. Because of this discontinuity, candidate best responses are also discontinuous as depicted in Figure 2, panel B and panel C. Nevertheless an equilibrium exists as we show above.

Is the equilibrium unique, given our selection rule in the endorsement subgame? The reduced game of electoral competition between the two candidates is a two person zero-sum game. Since the equilibrium we construct in each case above is quasi-strict, using the exchangeability property of the Nash equilibrium set in two person zero-sum games one can show that the equilibrium is unique, subject to a ‘regularity’ condition that the mixed strategy $H$ be differentiable at all points of continuity in its support. We can dispense with the regularity condition if we approximate our continuous policy space with a discrete grid of policies. In the resulting finite game we can characterize the unique equilibrium and show that it converges to the equilibrium of our game with a continuous policy space as the grid becomes fine. Since for a generic grid expression (3) cannot hold with equality, this finite approximation approach also shows that our tie-breaking in favor of the media’s endorsements does not eliminate any interesting equilibria.

III. Welfare

The presence of the media has two distinct effects on voter welfare. First, the media potentially informs voters about the relative strengths of the candidates in terms of character, although the extent of information transmission may be limited by credibility constraints. All else equal, this information effect of the media (weakly) benefits voters. Second, since the media’s endorsement potentially influences the

---

23 Any downward deviation that is strictly more than $\Delta^*$ closer to the voter gives rise to certain victory so the best response is a correspondence that is not upper hemicontinuous.

24 An equilibrium is quasi-strict if equilibrium payoffs are strictly higher than payoffs from any policy not used in equilibrium (Harsanyi 1973). The exchangeability property of Nash equilibria for two person zero sum games states that if the strategy profiles $(a_1, a_2)$ and $(b_1, b_2)$ are both Nash equilibria, then so are the profiles $(a_1, b_2)$ and $(b_1, a_2)$ (Raghavan 1994). Quasi-strictness plus exchangeability imply that any other equilibrium must have a support that is a subset of the support of $H$, a possibility ruled out in our proofs.

25 Reny (2011) provides a similar justification for using discrete approximations to explore the ‘empirical relevance’ of equilibria in games with continuous strategy spaces and discontinuous payoff functions. A special case of the finite version of our zero-sum game can be found in Mendelsohn (1946).
electoral outcome, platforms drift toward the media’s preferred policies and away from the median voter’s. This platform distortion effect captures the harm that a biased media may impose on a majority of voters. The key to the welfare results presented in this section lies in a careful evaluation of how alternative institutional arrangements affect the relative sizes of these two effects.

We start by underscoring a point that is well known from the cheap talk literature—speakers’ attempts to manipulate information can be self-defeating in some situations. Consequently, commitments regarding what kind of information will be revealed to voters (Kamenica and Gentzkow 2011) can further the elite’s interest by increasing the media’s persuasive power. We consider the possibility of such persuasion through editorial delegation, i.e., by choosing moderate editors whose preferred policy is closer to that of the median voter.

Suppose at an ex ante stage (i.e., before platform choices by the candidates), the media owner can commit to give access to the information gathering technology to an editor and allow only the editor to send messages to voters. Potential editors have preferences over policy and character similar to voters and the owner publicly chooses the editor’s ideology (i.e., his most preferred policy $x_e$) strategically to maximize his own ex ante payoff. The next result summarizes the effect of such delegation.

**Proposition 5:** Suppose at the ex ante stage the media owner with ideology $x_m$ can commit to delegate to an editor with ideology $x_e$ who obtains the information $y$ and communicates with the electorate. Then all media owners with ideology $x_m > \Delta^*$ will delegate to an editor with $x_e = \Delta^*$, whereas media owners with ideology $x_m \leq \Delta^*$ will not delegate. Optimal delegation by the media leads to policy convergence, perfect information aggregation and an improvement in the ex ante expected welfare of all voters, relative to when delegation is not feasible.

If $x_m \leq \Delta^*$, Proposition 2 states that both candidates will locate at $x_m$, the media’s ideal policy. Since the only payoff relevant difference between the two candidates then arises from character, the media and the voters will have perfectly aligned interests at the endorsement and voting stage. Voters will vote for whichever candidate is endorsed and the media owner will obtain the most desirable outcome—his most preferred policy as well as the better candidate. Clearly delegation cannot improve the owner’s payoff in this case.
When \( x_m > \Delta^* \), Propositions 3 and 4 tell us that the expected policy outcome is \( \Delta^* \). However, candidates employ the mixed strategies characterized by Propositions 3 and 4. In this situation, the candidate with better character will be chosen with probability strictly less than one for two reasons. First, if the realized difference between the two policy platforms is less than \( \Delta^* \), the media will sometimes endorse the inferior candidate, and being influential with voters, have him elected. Second, if the realized platforms are more than \( \Delta^* \) apart, the median voter will ignore the endorsement and the electoral outcome will be independent of character information.

Now suppose the owner delegates to an editor with \( x_e = \Delta^* \). By Proposition 2, both parties will completely pander to the editor and locate their platforms at \( x_e = \Delta^* \). Since the interests of the voters and the editor become completely aligned after this, the best candidate will be endorsed and elected. Ex ante, such delegation does not reduce the owner’s policy payoff (since the expected policy remains at \( \Delta^* \)) but increases his character based payoff (since the character of the winning candidate is now the highest order statistic). The same argument applies for all voters and hence delegation creates a Pareto improvement. Delegating to an editor with \( x_e < \Delta^* \) is not optimal for the owner since candidate selection is already efficient at \( x_e = \Delta^* \).

Our next result concerns the mirror image problem of delegation by the voter. We ask the following question: what if the informed elite who controls the media had de jure rather than de facto power, i.e., could choose a candidate outright instead of trying to merely influence voters’ choices through endorsements? In other words, is universal franchise useful to voters even when they are informationally handicapped and subject to the media’s platform distorting influence? To do this we compare the payoff to the voter in the equilibrium of our model to a benchmark case where the media can directly choose the winner. It is easy to see that under the benchmark both candidates will locate at the media’s ideal point \( x_m \) and the media will choose the candidate with the better character.

**Proposition 6:** If \( x_m \leq \Delta^* \), letting the media directly elect the winner does not alter outcomes. If \( x_m > \Delta^* \), the median voter is strictly worse off by letting the media directly choose the winner, relative to the case where voters elect a candidate after listening to the media’s endorsement.

The first part of the result follows from Proposition 2, which says that when \( x_m \leq \Delta^* \), the equilibrium outcome of the game is as if the media could directly elect the winner. Things are more interesting when \( x_m > \Delta^* \). Since the expected elected policy under democracy equals \( \Delta^* \) and that under elite rule equals \( x_m > \Delta^* \), democracy yields greater payoff to the voter on the policy dimension. However, elite rule always leads to the best candidate being chosen for office, while democracy sometimes selects the inferior candidate for reasons outlined previously. Elite rule improves upon the information effect of the media under democracy, but it

---

26 Notice that delegation reduces the variance of candidate policy choices but not the mean. Because of our linear distance assumption, the resulting Pareto improvement arises out of avoiding information loss and not out of any risk aversion effect.
also exacerbates the platform distortion effect. Proposition 6 says that this trade-off resolves strictly in favor of democracy. Delegating the choice of candidates to the media elite is harmful for the voter when \( x_m > \Delta^* \), and it does not yield any strict benefits when \( x_m \leq \Delta^* \).

Our final result of this section weighs the media’s information effect against its platform distortion effect. In other words, we ask the following question: what is the net value of the elite-controlled media to voters? To arrive at the answer, we compare the welfare of the median voter across two cases. In the first case, there is no media (or there is a ban on media endorsements). Both candidates then locate at the median voter’s ideal point since character becomes irrelevant due to lack of information—we are back in the one dimensional Hotelling-Downs world. We compare this case to the one studied in the previous section, where an informed but biased media influences voters’ choices. In doing so we suppose that the media can optimally delegate to an editor along the lines of Proposition 5 so that candidates locate at either \( x_m \) or \( \Delta^* \), whichever is smaller, and there is perfect information aggregation about character. Even with the information effect pegged at its maximum value, we show that a majority of voters may be worse off due to the media’s platform distorting presence.

PROPOSITION 7: The presence of the media makes a majority of voters worse off ex ante if and only if \( x_m > \frac{3}{4} \Delta^* \), relative to the case with no media, and even under optimal editorial delegation by the media.

To get a rough idea of the proof, consider first the case where \( x_m \simeq 0 \). Here the platform distortion effect is arbitrarily small but the information effect is bounded away from zero. Consequently the median voter is better off due to the media’s presence. Next consider the case where \( x_m = \Delta^* \). Note from (1) that the utility loss due to platform migration from 0 to \( \Delta^* \) is \( \frac{1}{3} \). What is the informational gain? Given that platforms converge to \( x_m = \Delta^* \) and the better candidate is always elected, the expected character score of the winning candidate is one-fourth. Under uninformative voting, it would have been zero. Since \( \frac{1}{3} > \frac{1}{4} \), we have immiserizing information at \( x_m = \Delta^* \).

For \( x_m > \Delta^* \), absent delegation to an editor, the expected disutility of policy distortion is still equal to one-third, but the utility of the information obtained from the media is less than one-fourth since the better candidate is selected with probability less than one in the mixed strategy equilibrium that obtains in this region. This information destruction is avoided by delegation to an editor with ideology \( \Delta^* \), in accordance with Proposition 5. But Proposition 7 establishes that this is not enough to make voters better off from the presence of the media. There is a threshold for \( x_m \) equal to \( \frac{3}{4} \Delta^* < \Delta^* \) above which the media imposes a net harm on voter welfare.

IV. Media Diversity

We now turn to a question that has preoccupied much of the literature: can media diversity and competition restore some or all of the centralizing forces captured
in the classical median voter result? Diversity may take two forms—ideological and informational. Pure ideological diversity arises when all media outlets have the same character information but differ in their policy preferences. Informational diversity arises when various outlets receive independent pieces of private information regarding candidates’ character. One can imagine the media being both ideologically and informationally diverse. Under pure ideological diversity, there are equilibria with full revelation and the consequent restoration of the median voter theorem. However, these constructions are fragile and depend critically on the assumption that various outlets have identical information. Once this is relaxed, the platform distorting effects of the media emerge once more. We demonstrate this point using a simple variant of the baseline model where voters receive independent information from another (nonstrategic) source in addition to any information they obtain from the main media outlet.

A. Ideological Diversity

Consider two media outlets with (possibly distinct) ideal policies $x_m$ and $x_{m'}$, each of whom privately observes the same random variable $y$. We maintain all other assumptions of the baseline model. In particular, candidates choose policy platforms after which both media outlets simultaneously send cheap talk messages and voters vote.

With pure ideological diversity, one can exploit the fact that the two outlets obtain identical signals $y$ to construct equilibria where the outlets perfectly reveal the state. For instance, when $x_m \geq x_{m'} > 0$, given arbitrary platforms $x_1, x_2$ with $x_1 > x_2 \geq 0$, it is an equilibrium for the outlets to reveal the state $y$ perfectly, using voter beliefs that the true state $y$ is the minimum of the messages sent by the two outlets. Because the voter perfectly learns the state regardless of platform choices, the candidates in turn must choose the common platform $x_1 = x_2 = 0$. Even though both outlets are ideologically biased in the same direction relative to the median voter we obtain the median voter theorem with full information revelation.

The median voter theorem with full information revelation is also the outcome when the two outlets are ideologically biased in opposite directions relative to the median voter ($x_m > 0 > x_{m'}$). In such cases, at least one outlet has identical preferences with the median voter and is willing to reveal the state to the voter whenever one candidate chooses a platform distinct from the other’s choice at the voter’s ideal point.

With three or more outlets, one can easily construct equilibria where every outlet fully reveals the state and platforms converge to the voter’s ideal point. If any outlet deviates from the common message sent by the other outlets, voters simply ignore the dissenting voice and believe the majority’s message.

As noted originally by Krishna and Morgan (2001), the construction of these full revelation equilibria may not be robust to the specification of the timing of moves by the different outlets. Furthermore, the assumption of complete nonexclusivity of

27 A message is interpreted as a real number corresponding to the realized value of $y$. See Krishna and Morgan (2001) for the original construction.
information is also unrealistic in the case of soft and unverifiable private information that we focus on. A more plausible scenario is to allow ideological and informational diversity within the media. For instance, different outlets may have different areas of expertise about the candidates and voters may have to aggregate the different pieces of information embedded in possibly conflicting endorsements. To understand the effect of media diversity in both senses (ideological and informational), in the next subsection we analyze a simple case of pure informational diversity.

B. Informational Diversity

We model informational diversity via assuming there is a single media outlet that has some but not all relevant information on candidate character. Voters receive additional information about character from another exogenous (nonstrategic) source. More precisely, we go back to our baseline model and suppose that a candidate is characterized by its policy platform $x_i$ and two (exogenous and vertical) attributes $y_i$ and $z_i$. The value to a voter with ideology $x$ from electing a candidate with platform $x_i$ and attributes $y_i, z_i$ is given by

$$u(y_i, z_i, x_i; x) = y_i - z_i - \frac{1}{3\Delta^*} d(x_i, x).$$

We suppose that the strategic media outlet with ideology $x_m > 0$ privately learns the realization of $y_1 \equiv y$, distributed uniformly in $[-1, 1]$ (and $y_2 \equiv 0$), as in the baseline model. In contrast to the baseline model, we suppose that voters also directly learn a second piece of information $z_i$ about the candidates before they vote. We let $z_1 \equiv z$, normalize $z_2 \equiv 0$ and suppose that $z$ is uniformly distributed in $[-\lambda, \lambda]$ and statistically independent of $y$.

This formulation allows the media to have some degree of informational exclusivity, but also allows the voter to be swayed by other sources of information not obtained through the media. The parameter $\lambda > 0$ measures the relative importance of the two pieces of information $y$ and $z$ held by different sources. By varying $\lambda$ we can compare in a continuous way the effect of introducing informational diversity, starting from the baseline case of $\lambda = 0$, where a single media outlet has the only relevant piece of information about the candidates.\(^{28}\)

Since the strategic media outlet with ideology $x_m > 0$ and information $y$ also directly cares (like any other voter) about the second piece of information $z$, the media has an incentive to convey detailed information about $y$ to the voter. This is in contrast to the baseline model where the media only conveyed a coarse binary endorsement of one candidate or the other. Conveying detailed information is in the media’s interest because it allows the voter to make a better overall assessment of the candidates’ relative strengths. Because of some residual conflict of interest however, the media will not in general reveal all its information but rather disclose

---

\(^{28}\)Given candidate platform choices $x_1$ and $x_2$, the formulation above gives rise to an endorsement subgame that is a cheap talk game with two-sided private information and binary decisions. Such a game has been analyzed by Chakraborty and Yilmaz (2011) and we utilize their characterization in this subsection.
an endogenously determined interval within which \( y \) lies.\(^{29}\) The crucial difference from the baseline model is that here the media may be influential without being decisive, i.e., voting decisions may depend both on the media’s message and the information received from the exogenous source and the voters do not necessarily elect the media’s ideal candidate given all available information.

From the perspective of the candidates and their incentives, it turns out that what matters is the magnitude of \( \lambda \). When \( \lambda < 1 \), the media’s information \( y \) is more important than other information \( z \) (the variance of \( y \) is larger than the variance of \( z \)). This case is similar to our baseline model in that it unleashes the same forces that lead to media pandering. If one party locates at the median voter’s ideal point, the other can raise the probability of electoral victory above one-half by choosing a platform slightly closer to the media’s ideal point \( x_m \). Intuitively, since the media’s information \( y \) carries more weight, the information received from the other source must be sufficiently strong (and hence unlikely) to reverse the impact of a media endorsement. This creates an incentive for political parties to pander to the media in their platform choices.

On the other hand, when \( \lambda \geq 1 \), the voter’s information \( z \) is more important. Even if platforms were differentiated, voting decisions would be much more contingent on the realization of \( z \) than the media’s endorsement. This leads political parties to pander to the average voter, i.e., the median voter theorem is restored. Since platforms are not differentiated on the equilibrium path, no partisan conflict arises between voters and the media and hence the media has the incentive to reveal all its information. The media will have an effect on the electability of a candidate because its information is incorporated in voting decisions. However candidates will not distort their platforms in favor of the media’s ideological interests.

The arguments outlined above show that the media pandering result from our baseline model does not depend on the media having informational monopoly. Rather we merely need the pandered media to have more valuable information (in terms of ex ante variance) compared to other sources. As long as this is true, the results of our baseline model extend in a continuous manner.

This also suggests that the presence of independent strategic sources of information (i.e., ideological as well as informational heterogeneity within the media) may not be enough to make platforms converge back to the median voter’s ideal point. If one media outlet is informationally superior to the others in the above sense, parties will want to shift their platforms towards its ideological interests. A full analysis of ideologically and informationally heterogenous media issuing multiple endorsements is beyond the scope of the current paper. We merely observe that the pandering results of the monopoly case are not knife-edge.

\(^{29}\) The number and location of these intervals is determined by the (partisan) conflict of interest between the voter and the media. All equilibria are interval partitional and somewhat similar to the equilibria in the canonical model of Crawford and Sobel (1982) (cf. Chakraborty and Yilmaz 2011), but the conflict of interest between the voter and the media is determined endogenously by the candidate platform choices.
V. Robustness

In this section we briefly consider several extensions of our baseline model in order to examine the robustness of our main conclusions. Due to space limitations, we will only report on the gist of these exercises and refer the interested reader to Chakraborty and Ghosh (2013) for a more detailed discussion.

A. General Preferences and Priors

As long as preferences are additively separable in character and policy, the same method of analysis can be applied and it yields similar results even under more general priors and single peaked policy preferences. The forces of elitism creep and flight to populism remain in operation—choosing a platform slightly closer to the media’s ideal point compared to the opponent’s platform increases the probability of an endorsement and a win, while discontinuously large shifts toward the median voter’s bliss point may make the media noninfluential and secure victory for the populist party.

For general preferences, the platform gap above which the media loses influence is not a constant $\Delta^*$ but depends on where exactly the two policies lie relative to the media’s own ideal $x_m$. The resultant Condorcet cycles lead to mixed strategy equilibria when there is a large ideological distance between the media and the average voter and full media pandering for smaller distances. If preferences over policy are strictly concave, it generates an additional source of welfare loss due to risk aversion whenever equilibrium platform choices are randomized. This reinforces our welfare results on editorial delegation and immiserizing information.

B. News versus Opinion

The strategic information transmission literature has two strands: cheap talk (Crawford and Sobel 1982) and disclosure games (Milgrom 1981). In the former, the informed sender has soft information and his claims are not verifiable, i.e., he can lie. In the latter, the sender has evidence or hard information he may choose to suppress, i.e., he can be vague or silent but cannot lie. Put differently, cheap talk is appropriate for modeling opinion while disclosure games are apt for analyzing news.

In the benchmark model, we have modeled the communication between the media and voters in the cheap talk framework. In reality, we believe the media uses a combination of news and opinion to influence voters. In many situations the information gathered by the media may be so voluminous and complex that readers or viewers rely on the media itself to draw proper conclusions, i.e., even news becomes opinion in effect. Nevertheless, it is interesting to consider variants of our model where the media’s influence operates through news.

---

30 The Pentagon papers ran into thousands of pages, the Swiftboat controversy involved testimony from several veterans as well as military records, and any candidate’s track record as senator or governor will involve hundreds of votes or executive decisions to parse. For a vast majority of voters, it is impossible to sift through and digest all this information.
Chakraborty and Ghosh (2013) show that if the media chooses to disclose or suppress news after learning character information, there can be multiple equilibria in the endorsement subgame. These equilibria are not Pareto ranked. In one equilibrium, the candidate who is better for the voter gets elected. In another, the media’s preferred candidate is the winner. If the first kind of equilibrium is always selected, the median voter theorem is restored for the overall game. If we select equilibria that favor the media, then policy outcomes are exactly as in our benchmark model, where endorsements come in the form of opinion.

One may also want to analyze news based communication under the assumption that the media can commit to a message strategy before it learns character information, as in Kamenica and Gentzkow’s (2011) model of Bayesian persuasion. This variant leads to full media pandering even for platform gaps larger than $\Delta^*$, thereby reinforcing our findings for the game with soft information or opinion.

VI. Related Literature

Our paper is related to a growing literature on media bias and its effect on political outcomes. One strand of the literature asks the question why biased reporting persists in the face of commercial pressures—a newspaper or TV channel should be able to earn more profits if it provided better quality information. Explanations include confirmation bias in consumer preferences (Mullainathan and Shleifer 2005; Bernhardt, Krasa, and Polborn 2008; Burke 2008), cost savings arising from hiring ideologically motivated editors who are willing to work for lower pay (Baron 2006), and reporters’ career concerns (Gentzkow and Shapiro 2006). None of these papers explicitly model political competition and examine its interaction with reporting bias. In contrast, we assume an ideological (as opposed to profit maximizing) media and study the interaction between political parties’ campaign strategies and the media’s endorsement.

Some papers discuss theories of media bias where the media communicates with voters not through cheap talk messages as in our model but by presenting (or suppressing) verifiable evidence about candidate traits. The existence of concrete evidence is uncertain, which breaks the unraveling result (Milgrom 1981) and makes media manipulation possible. The media engages in manipulation to receive favors from the incumbent (Besley and Prat 2006) or to serve its own ideological interests (Anderson and McLaren 2012). None of these papers endogenize political competition and therefore do not address the issue of how media bias affects policy.

Papers that jointly determine campaign strategies, media behavior and voters’ choices include Grossman and Helpman (1999); Strömberg (2004); Andina-Díaz (2004); Chan and Suen (2008); Carrillo and Castanheira (2008); Gul and Pesendorfer (2011); and Chakraborty, Ghosh, and Roy (2015). In Strömberg (2004), parties choose platforms that appeal to the median consumer of the media, rather than that of the voting population. Chan and Suen (2008) assume coarse messages, and show that voters will listen to ideologically similar news outlets and platforms may diverge as a result. In Andina-Díaz (2004), biased media outlets punish candidates whose platforms are far away from their policy ideal by creating bad publicity or negative valence for such candidates. Unlike that paper, we assume Bayesian voters who are aware of the media’s motives, thereby giving a rational foundation for
media manipulation. Carrillo and Castanheira (2008) generate platform divergence under the assumption that parties make costly, unobservable investments in quality (similar to character). However, the media in their framework has no policy interest and provides information randomly rather than strategically. Grossman and Helpman (1999); Gul and Pesendorfer (2011); and Chakraborty, Ghosh, and Roy (2015) consider a framework where voters are uncertain about which policy best serves their interest, unlike ours where there is open media pandering on the policy dimension (i.e., our voters are perfectly aware that political parties have chosen platforms to suit the interests of the elite rather than ordinary citizens but cannot credibly punish them). Boleslavsky and Cotton (2015) also introduce valence as a second dimension of concern to voters and present an immiserizing information result similar to ours, but their model does not have a biased media. Instead, the political parties themselves have policy preferences and are not office motivated. To the best of our knowledge, the literature has not addressed the central question taken up in this paper—to what extent can an electorally insignificant player like an expert or a newspaper manipulate outcomes when an electorate with sound policy knowledge is served by opportunistic politicians?

Our paper connects two familiar literatures—the Hotelling-Downs model of spatial voting (Hotelling 1929; Downs 1957), and the literature on cheap talk pioneered by Crawford and Sobel (1982). The benchmark result in the voting literature is the median voter theorem, whose empirical validity is questioned by many authors. Policy divergence in the Downsian framework has been obtained by Wittman (1983) and Calvert (1985) with ideologically motivated parties and uncertainty regarding the median voter’s bliss point. We derive policy divergence with office motivated candidates and deterministic positioning of the median voter. With office seeking candidates, Groseclose (2001) and Aragones and Palfrey (2002) obtain policy divergence and mixed equilibria when one candidate has a valence advantage. In our model, the valence advantage is not known to voters and must be inferred from the media’s strategic message. With respect to the literature on cheap talk, the main novelty in this paper is that the sender’s bias is endogenously generated through political competition and platform choices of the parties. We use results from Chakraborty and Yilmaz (2011) to investigate the effect of informational and ideological heterogeneity within the media. The information enhancing effect of media competition also echoes the results of Krishna and Morgan (2001) and Battaglini (2002).

VII. Conclusion

We have analyzed a simple model of electoral competition where voters care about which policies are chosen as well as the character of elected officials. While policy platforms are public knowledge, voters rely on an ideologically biased but informed media for information on candidates’ characters. The media provides information to Bayesian voters albeit coarsely. This encourages parties’ platforms to drift toward the media’s preferred policies up to a point, counteracted by potential gains from a sharp turn toward populist platforms. For moderate ideological distance between the media and the median voter, complete media pandering arises in equilibrium. For
larger ideological distance, there may be divergence and polarization in platform choices. The overall platform drift may swamp any information benefits voters derive from the media—there are parameter values for which an ideological media has a net negative effect on the welfare of a majority of voters, notwithstanding the sophisticated inferences drawn by the latter. However the instrumental value of democracy is always positive—the median voter is never better off delegating policy choices to the media elite. Our qualitative results also arise under a number of alternative model specifications.

APPENDIX

PROOF OF LEMMA 1:

Fix policy positions \( x_1, x_2 \in [-1, 1] \) and the estimates \( E[y_i|m] \) of candidate types given a media message \( m \). A voter \( x \) strictly prefers candidate \( i \) if and only if

\[
E[y_i - y_j|m] > \frac{1}{3\Delta^*}(|x - x_i| - |x - x_j|).
\]

Suppose the median voter \( x_v = 0 \) strictly prefers candidate \( i \). If \( x_i = x_j \), then all voters must prefer candidate \( i \), so suppose that \( x_i < x_j \). If \( x_j \leq 0 \) (resp., \( x_i \geq 0 \)), then all voters \( x > 0 \) (resp., \( x < 0 \)) also strictly prefer candidate \( i \), since \( |x - x_i| - |x - x_j| = x_j - x_i \) does not depend on \( x \) in this case. On the other hand, if \( x_i \leq 0 \leq x_j \) (with one strict inequality), then all voters \( x < 0 \) are closer to \( x_i \) than \( x_j \) compared to the median voter whose \( x = 0 \). Therefore these voters prefer candidate \( i \) if the median voter prefers candidate \( i \).

PROOF OF LEMMA 2:

Follows from the discussion in the text.

PROOF OF PROPOSITION 1:

Follows from the discussion in the text.

PROOF OF PROPOSITION 2:

We show first that any pure strategy equilibrium must exhibit policy convergence. Suppose to the contrary that in an equilibrium the two candidates locate at \( x_1, x_2 \) with \( x_1 \neq x_2 \). If the media is not influential, then the two candidates cannot be equidistant from the median voter since in that case the median voter is indifferent between the two candidates and will find it in her interest to follow the media’s endorsement. Thus, if the media is not influential, one candidate wins the election with zero probability, and this candidate can do better by matching the policy of the other candidate. On the other hand, if the media is influential, both candidates must be equidistant from the media; for otherwise one candidate is endorsed and wins the election with probability less than one-half and can do better by matching the platform of the other candidate. But then one candidate can do strictly better by moving slightly closer to both the media and the voter and raising its probability of endorsement that ensures the election.
Suppose next that in an equilibrium the two candidates locate at $x_1, x_2$ with $x_1 = x_2 \neq x_m$. Then the media will be influential and unbiased and each candidate will win with probability one-half. If one candidate moves slightly closer to the media by an amount less than $\Delta^*$, then the media will still be influential and the deviating candidate will win the election with probability greater than one-half. We conclude that the only candidate for a pure strategy equilibrium is $x_1 = x_2 = x_m$.

We check now that this is indeed an equilibrium. Suppose candidate 2 is located at $x_2 = x_m$. If candidate 1 also locates at $x_1 = x_m$, then the media will be unbiased and influential and each candidate will win with probability one-half. If candidate 1 deviates to any $x_1 > x_m$, then the media will remain influential and the deviating candidate will be endorsed with probability less than one-half and will win the election if and only if he is endorsed, so such a deviation is not profitable. If candidate 1 deviates to any $x_1 \in [0, x_m]$, then the media will remain influential since $x_m < \Delta^*$ and the deviating candidate will be endorsed and win the election with probability less than one-half, so such a deviation is not profitable either. A deviation to $x_1 < 0$ will lead to a media endorsement and only if $y > \frac{1}{3\Delta^*} (x_m - x_1) > 0$ and such an endorsement will be influential at least as long as $x_1 \geq -x_m$. So candidate 1 will win the election with probability less than one-half. On the other hand, if $x_1$ is such that the media is not influential, then $x_1 < -x_m$ and so candidate 1 will win the election with probability zero and such a deviation is not profitable either. 

PROOF OF PROPOSITION 3:

We construct a symmetric equilibrium where each candidate uses a mixed strategy given by a right-continuous cdf $H$ with support on $[0, x_m - \Delta^*) \cup [\Delta^*, x_m]$, possibly with atoms $\alpha_0$ at $x = 0$, $\alpha_{\Delta^*}$ at $x = \Delta^*$ and $\alpha_m$ at $x = x_m$, and derivative $h$ except at atoms.

Let $V(x)$ be the payoff from any policy choice $x$ when playing against $H$ with the typical realized policy of the other candidate denoted by $x'$. For $x \in (0, x_m - \Delta^*)$, we have

$$V(x) = \alpha_0 \frac{1 + x/3\Delta^*}{2} + \int_0^{x-m} \frac{1 + (x-x')/3\Delta^*}{2} h(x') dx' + \alpha_{\Delta^*} \frac{1 + (x-\Delta^*/3\Delta^*}{2} + \int_{\Delta^*}^{x+\Delta^*} \frac{1 + (x-x')/3\Delta^*}{2} h(x') dx' + \int_{x+\Delta^*}^{x_m} h(x') dx' + \alpha_m.$$ 

Setting the first-derivative w.r.t. $x$ equal to zero and simplifying, we obtain

$$\frac{1}{6\Delta^*} H(x + \Delta^*) - \frac{2}{3} h(x + \Delta^*) = 0$$
or equivalently, in terms of \( z = x + \Delta^* \),

\[
\frac{h(z)}{H(z)} = \frac{1}{4 \Delta^*} \text{ for all } z \in (\Delta^*, x_m).
\]

Integrating the last expression, we obtain

\[
H(z) = \exp \left[ \frac{z}{4 \Delta^*} + K_1 \right]; z \in (\Delta^*, x_m),
\]

where \( K_1 \) is an arbitrary constant of integration. Since \( \lim_{z \to x_m} H(z) = 1 - \alpha_m \), we must have \( K_1 = \ln(1 - \alpha_m) - \frac{x_m}{4 \Delta^*} \) yielding in turn

\[
H(z) = (1 - \alpha_m) \exp \left[ -\frac{x_m - z}{4 \Delta^*} \right]; z \in (\Delta^*, x_m). \tag{7}
\]

Similarly, for \( x \in (\Delta^*, x_m) \),

\[
\begin{align*}
V(x) &= \int_{x-\Delta^*}^{x_m-\Delta^*} \frac{1 + (x-x')/3\Delta^*}{2} h(x')dx' + \alpha \Delta^* \frac{1 + (x-\Delta^*)/3\Delta^*}{2} \\
&\quad + \int_{\Delta^*}^{x_m} \frac{1 + (x-x')/3\Delta^*}{2} h(x')dx' + \alpha_m \frac{1 + (x-x_m)/3\Delta^*}{2}.
\end{align*}
\]

Setting the first-derivative w.r.t. \( x \) equal to zero and simplifying, we obtain

\[
\frac{1}{6 \Delta^*} (1 - H(x - \Delta^*)) - \frac{2}{3} h(x - \Delta^*) = 0,
\]

or equivalently, in terms of \( z = x - \Delta^* \),

\[
\frac{h(z)}{1 - H(z)} = \frac{1}{4 \Delta^*} \text{ for all } z \in (0, x_m - \Delta^*).
\]

Integrating, we obtain

\[
H(z) = 1 - \exp \left[ -\left( \frac{1}{4 \Delta^*} z + K_2 \right) \right]; z \in (0, x_m - \Delta^*),
\]

where \( K_2 \) is an arbitrary constant of integration. Since \( \lim_{z \to 0} H(z) = \alpha_0 \), we must have \( K_2 = -\ln(1 - \alpha_0) \) yielding in turn

\[
H(z) = 1 - (1 - \alpha_0) \exp \left[ -\frac{z}{4 \Delta^*} \right]; z \in (0, x_m - \Delta^*). \tag{8}
\]
Next, consider the payoffs of policies \( x = 0 \) and \( x = \Delta^* \):

\[
V(0) = \alpha_0 \frac{1}{2} + \int_0^{x_m - \Delta^*} \frac{1 + (0 - x')/3\Delta^*}{2} h(x') dx' + \alpha_0 \frac{1 + (0 - \Delta^*)/3\Delta^*}{2} + \int_{\Delta^*}^{x_m} h(x') dx' + \alpha_m,
\]

while

\[
V(\Delta^*) = \alpha_0 \frac{1 + \Delta^*/3\Delta^*}{2} + \int_0^{x_m - \Delta^*} \frac{1 + (\Delta^* - x')/3\Delta^*}{2} h(x') dx' + \alpha_0 \frac{1 + (\Delta^* - x_m)/3\Delta^*}{2} + \int_{\Delta^*}^{x_m} \frac{1 + (\Delta^* - x_m)/3\Delta^*}{2} h(x') dx' + \alpha_m.
\]

Setting \( V(\Delta^*) = V(0) \) and simplifying, we obtain

\[
\frac{1}{3} = \int_{\Delta^*}^{x_m} \left( 1 + \frac{x'}{3\Delta^*} \right) h(x') dx' + \left( 1 + \frac{x_m}{3\Delta^*} \right) \alpha_m.
\]

Using (7), integrating by parts and simplifying, we obtain

\[
\alpha_m = \frac{1}{2} - \frac{1}{4} \frac{x_m}{\Delta^*}.
\]

Notice \( \alpha_m \in (0, 1) \) since \( x_m < 2\Delta^* \).

Next, consider the expected payoff from \( x = x_m \):

\[
V(x_m) = \alpha_\Delta \frac{1 + (x_m - \Delta^*)/3\Delta^*}{2} + \int_{\Delta^*}^{x_m} \frac{1 + (x_m - x')/3\Delta^*}{2} h(x') dx' + \alpha_m \frac{1}{2},
\]

and compare with that from \( x = \Delta^* \), \( V(\Delta^*) \) provided above. Setting \( V(\Delta^*) = V(x_m) \) and simplifying, we obtain

\[
\frac{(x_m - \Delta^*)/3\Delta^*}{2} = \frac{1 + \frac{x_m}{3\Delta^*}}{2} \alpha_0 + \int_0^{x_m - \Delta^*} \frac{1 + (x_m - x')/3\Delta^*}{2} h(x') dx'.
\]

Using (8), integrating by parts and simplifying, we obtain

\[
\alpha_0 = 0.
\]
Finally, we must have

\[ \alpha_{\Delta^*} = \lim_{z \searrow \Delta^*} H(z) - \lim_{z \nearrow x_m - \Delta^*} H(z) \]

\[ = (2 - \alpha_m) \exp \left[ -\frac{x_m - \Delta^*}{4 \Delta^*} \right] - 1. \]

Using the expression for \( \alpha_m \) obtained above, it is easy to verify \( \alpha_{\Delta^*} \in (0, 1) \) using \( \Delta^* < x_m < 2\Delta^* \).

It is now easy to verify that all policies in the support must yield the same expected payoff since

\[ \lim_{z \searrow 0} V(x) = V(0) = V(\Delta^*) = V(x_m) = \lim_{x \nearrow x_m} V(x). \]

We now check that any policy \( x_1 \in [x_m - \Delta^*, \Delta^*) \) does strictly worse than the policy \( x_1 = \Delta^* \) when playing against any policy of the opponent \( x_2 \in [0, x_m - \Delta^*) \cup [\Delta^*, x_m] \). To see this, note that if \( x_2 \in [0, x_m - \Delta^*) \), the policy \( x_1 = \Delta^* \) yields a strictly higher probability of winning than any policy \( x_1 \in [x_m - \Delta^*, \Delta^*) \) since the media is influential in either case and favors candidate 1 more when that candidate is closer to \( x_m \), using Lemma 2. The same argument applies against an opponent policy \( x_2 \in [\Delta^*, x_m] \). Similarly, any policy \( x_1 < 0 \) does weakly worse than the policy \( x_1 = 0 \), while any policy \( x_1 > x_m \) does strictly worse than the policy \( x_1 = x_m \) when evaluated against any policy of the opponent \( x_2 \in [0, x_m - \Delta^*) \cup [\Delta^*, x_m] \); and for an open set of \( x_2 \), it does strictly worse. This shows that the mixed strategy \( H \) yields expected payoffs strictly higher than the payoff from any strategy not in the support of \( H \) when playing against \( H \).

It is straightforward to verify that the expected policy according to the strategy \( H \) equals \( \Delta^* \). Furthermore, since each policy in the support of \( H \) has the same probability of winning, the expected policy conditional on winning for any candidate \( i \) is equal to the unconditional expected policy of \( i \), equal to \( \Delta^* \). But then the expected elected policy is also \( \Delta^* \) regardless of which candidate wins.  

**PROOF OF PROPOSITION 4:**

We construct a symmetric equilibrium where each candidate uses a mixed strategy given by a right-continuous cdf \( H \) with support on \([0, 2\Delta^*] \), with atom of size \( \alpha_{\Delta^*} \) at \( x = \Delta^* \) and derivative \( h \) except at atoms. Let \( V(x) \) be the payoff from any policy choice \( x \) against the strategy \( H \) with the typical realized policy of the other candidate denoted by \( x' \). The expected payoff from \( x \in (0, \Delta^*) \) is

\[
V(x) = \int_0^{\Delta^*} \frac{1 + (x - x')/3 \Delta^*}{2} h(x')dx' + \alpha_{\Delta^*} \frac{1 + (x - \Delta^*)/3 \Delta^*}{2} \\
+ \int_{\Delta^*}^{x + \Delta^*} \frac{1 + (x - x')/3 \Delta^*}{2} h(x')dx' + \int_{x + \Delta^*}^{2\Delta^*} h(x')dx'.
\]
Setting the first-derivative w.r.t. $x$ equal to zero and simplifying, we obtain

$$h(z) = \frac{1}{4\Delta^*}; \ z \in (\Delta^*, 2\Delta^*).$$

Integrating

$$H(z) = \exp\left[\frac{1}{4\Delta^*}z + K_1\right]; \ z \in (\Delta^*, 2\Delta^*),$$

where $K_1$ is the arbitrary constant of integration. Since $H(2\Delta^*) = 1$, we have $K_1 = -\frac{1}{2}$ so that

$$(9) \quad H(z) = \exp\left[-\frac{2\Delta^*-z}{4\Delta^*}\right], \ z \in (\Delta^*, 2\Delta^*].$$

Similarly, the expected payoff from $x \in (\Delta^*, 2\Delta^*)$

$$V(x) = \int_{x-\Delta^*}^{\Delta^*} \frac{1 + (x-x')/3\Delta^*}{2} h(x') dx' + \alpha_{\Delta^*} \frac{1 + (x-\Delta^*)/3\Delta^*}{2}$$

$$+ \int_{\Delta^*}^{2\Delta^*} \frac{1 + (x-x')/3\Delta^*}{2} h(x') dx'.$$

Setting the first-derivative w.r.t. $x$ equal to zero and simplifying, we obtain

$$\frac{h(z)}{1-H(z)} = \frac{1}{4\Delta^*}; \ z \in (0, \Delta^*).$$

Integrating

$$H(z) = 1 - \exp\left[-\left(\frac{1}{4\Delta^*}z + K_2\right)\right]; \ z \in (0, \Delta^*),$$

where $K_2$ is the arbitrary constant of integration. Since $H(0) = 0$, we obtain $K_2 = 0$ so that

$$(10) \quad H(z) = 1 - \exp\left[-\frac{z}{4\Delta^*}\right]; \ z \in [0, \Delta^*).$$

Finally,

$$\alpha_{\Delta^*} = \lim_{z \to \Delta^*} H(z) - \lim_{z' \to \Delta^*} H(z)$$

$$= 2 \exp\left[-\frac{1}{4}\right] - 1.$$
It is easy to verify that all policies in the support must yield the same expected pay-off since

\[
\lim_{x \downarrow 0} V(x) = V(0), \quad \lim_{x \to x_m} V(x) = V(x_m),
\]

\[
\lim_{x \to \Delta^*} V(x) = V(\Delta^*) = \lim_{x \downarrow \Delta^*} V(x).
\]

Using Lemma 2 it is now straightforward to check that any policy \( x_1 < 0 \) or \( x_1 > 2\Delta^* \) does at least weakly worse than the policy \( x_1 = 0 \) when evaluated against an opponent policy \( x_2 \in [0,2\Delta^*] \); and it does strictly worse for some choices of \( x_2 \) in this interval. This shows that the mixed strategy \( H \) does strictly better than any policy not in its support when playing against \( H \).

It is straightforward to verify that the expected policy according to the strategy \( H \) equals \( \Delta^* \). Furthermore, since each policy in the support of \( H \) has the same probability of winning, the expected policy conditional on winning for any candidate \( i \) is equal to the unconditional expected policy of \( i \), equal to \( \Delta^* \). But then the expected elected policy is also \( \Delta^* \) regardless of which candidate wins. □

PROOF OF PROPOSITION 5:

Follows from the discussion in the text. □

PROOF OF PROPOSITION 6:

When \( x_m \leq \Delta^* \), Proposition 2 shows that the equilibrium outcome is the same as what would obtain if the media could directly elect the winner. Accordingly, we focus on the case \( x_m > \Delta^* \) in what follows.

Let \( x_w \) be the platform of the winner and \( y_w \) the winner’s character score in equilibrium. From Propositions 3 and 4 we know that \( E[x_w] = \Delta^* \). Using this, the ex ante expected equilibrium payoff of the (median) voter is \( E[y_w] - \frac{1}{3\Delta^*} x_m \). If, instead, the media could directly elect the winner, then both candidates will locate at \( x_m \) and the candidate with the better character will win for sure. In this case the expected character of the winner is \( E[\max\{y,0\}] = \frac{1}{4} \Delta^* \) and so the expected payoff to the voter equals \( \frac{1}{4} - \frac{1}{3\Delta^*} x_m \). We wish to show that for \( x_m > \Delta^* \),

\[
E[y_w] - \frac{1}{3} > \frac{1}{4} - \frac{1}{3\Delta^*} x_m.
\]

Notice now that the expected character conditional on any realized pair of policy choices must be nonnegative, either because the media is not influential and the elected candidate has the ex ante expected character score of zero, or because the media endorsement secures the election either for candidate 1 (with character score \( y_1 = 0 \)) or for candidate 2, who has expected character score \( E[y_1] > -\frac{1}{3\Delta^*} x_1 \) given that he is endorsed and elected. As a result, \( E[y_w] \geq 0 \), which implies that (11) obtains when \( x_m > \frac{7}{4}\Delta^* \).
Since Proposition 3 applies in the remaining case $\Delta^* < x_m \leq \frac{7}{4} \Delta^*$, we can write

$$E[y_w] \geq \alpha \Delta^* + \frac{\alpha_m 1}{4} \left[ 1 - \left( \frac{x_m - \Delta^*}{3 \Delta^*} \right)^2 \right] \geq \frac{1}{4} \left( \alpha \Delta^* + \alpha_m \right)^2 \left[ 1 - \left( \frac{x_m - \Delta^*}{3 \Delta^*} \right)^2 \right] \geq \frac{1}{4} \left[ 2 \exp \left( - \frac{x_m - \Delta^*}{4 \Delta^*} \right) - 1 \right] \left[ 1 - \left( \frac{x_m - \Delta^*}{3 \Delta^*} \right)^2 \right],$$

where $\alpha \Delta^*$ is the atom of $H$ at $\Delta^*$ and $\alpha_m$ the atom at $x_m$. The expression on the right side of the first inequality above is a lower bound for $E[y_w]$ obtained by using Lemma 2 to compute the expected value of $y_e$ conditional on policies equal to either $\Delta^*$ or $x_m$ for each candidate; and setting the expected value of $y_w$ conditional on all other pair of policy choices equal to its lower bound of zero. The two remaining inequalities above follow from the fact that $x_m \geq \Delta^*$ and by using the expressions for $\alpha \Delta^*$ and $\alpha_m$ in Proposition 3. Writing $q \equiv \frac{x_m}{\Delta^*}$, substituting the last lower bound for $E[y_w]$ into (11) and rearranging, it now suffices to show that

$$\frac{1}{4} \left[ 2 \exp \left( - \frac{q - 1}{4} \right) - 1 \right]^2 \left[ 1 - \left( \frac{1 - q}{3} \right)^2 \right] + \frac{q}{3} > \frac{7}{12}.$$

It can be verified that the left side of the last expression is strictly increasing in $q \geq 1$, and it equals the right side at $q = 1$, completing the argument. ■

**PROOF OF PROPOSITION 7:**

When media is absent, both candidates choose policies $x_1 = x_2 = 0$ and the median voter learns no information about types $y$. The expected payoff to the median voter in this case equals zero. In contrast, in the presence of the media and assuming optimal delegation, both candidates locate at $x_1 = x_2 = \min[\Delta^*, x_m]$. The median voter’s expected payoff is then seen to be, using A2,

$$\frac{1}{2} E[y | y > 0] = \frac{1}{3 \Delta^*} \min[\Delta^*, x_m] = \frac{1}{4} - \frac{1}{3 \Delta^*} \min[\Delta^*, x_m] < 0,$$

if and only if either $x_m \geq \Delta^*$ or $\Delta^* > x_m > \frac{3}{4} \Delta^*$. ■

**REFERENCES**


This article has been cited by:


