The Moderating Effect of Debates on Political Attitudes*

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Abstract

In theory, candidate debates can influence voters by providing information about candidates' quality and policy positions. However, there is limited evidence about whether and why debates influence voters in new democracies. We use a field experiment on parliamentary debates during Ghana's 2016 elections to show that debates improve voters' evaluations of candidates. Debates have the strongest effect on partisan voters, who become *more* favorable toward and more likely to vote for opponent-party candidates and less likely to vote for co-partisans. Experimental and unique observational data capturing participants' second-by-second reactions to the debates show that policy information was the most important causal mechanism driving partisan moderation, especially among strong partisans. A follow-up survey shows that these effects persist in electorally competitive communities, while they dissipate in party strongholds. Debates have the potential to reduce partisan polarization in new democracies, but the local political context conditions the persistence of these effects.

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Candidate debates are an increasingly prevalent aspect of electoral campaigns around the world.[1] Yet we lack evidence on how they influence voters in new democracies. On the one hand, debates could help citizens choose representatives based on their qualifications or policy positions, which may enhance accountability (Besley, 2006). Alternatively, debates could reinforce ethnic voting or encourage voters to evaluate politicians on the basis of their appearance (Lawson et al., 2010). Further, it is unknown whether, in the context of newer democracies, debates moderate partisan opinions or polarize the electorate by entrenching the preferences of partisan voters (Levendusky, 2013).

To address the fundamental questions of *whether* and *why* debates influence voters, we conducted a field experiment analyzing the impact of parliamentary debates held ahead of Ghana's 2016 elections.[2] The debates, organized by Ghana's National Commission for Civic Education (NCCE) and the Center for Democratic Development (CDD-Ghana), included all of the *parliamentary* candidates competing in the constituencies where we conducted the research.[3] The debates were real campaign events that were organized locally, which enhances the external validity of the study. Candidates were in the same location, answered the same questions from a moderator, and were able to engage with the statements made by their competitors; in short, they were almost identical to debates held in older democracies, such as the United States. We videotaped the debates in three electoral constituencies and randomly assigned study participants (N=1,991) to view either the debate or a control video; we surveyed them immediately afterward. To determine whether the effects of the debate persisted, we conducted a follow-up survey two days later with a randomly selected subsample of 10 percent of the initial participants.

We argue that debates could influence voters through two theoretical channels: information about candidates' *policy positions* and information about candidates' *quality*. To assess these causal mechanisms, the debates were organized into a personal background segment, in which candidates did not discuss policies but could convey information about their their quality, and a policy segment, in which candidates discussed education and unemployment policy. We randomly assigned participants to view either only the personal background segment, only the policy segment, or to view the whole debate. To

[1] Debates are conducted in over 60 countries, including Cambodia, Canada, Colombia, Ghana, Haiti, Kenya, Liberia, Iraq, Peru, Sierra Leone, and the USA (National Democratic Institute, 2014).

[2] Our hypotheses, measurement strategies, and analyses were pre-specified in a pre-analysis plan. Table A in the Appendix details all pre-specified hypotheses and associated results.

[3] The NCCE is a constitutionally mandated, non-partisan institution that promotes the spread of democratic values, and CDD-Ghana is a domestic non-governmental organization.

assess the importance of physical attributes, which could be interpreted as a signal of candidate quality (Lawson et al., 2010), we also randomly assigned some participants to watch the debates and others to listen to them. Figure 1 displays each of the treatment conditions. By comparing the effects of these separate treatment arms, we can make inferences about the causal mechanisms through which debates affect voters' attitudes. This approach to experimentally testing causal mechanisms, known as implicit mediation analysis (Gerber and Green, 2012), distinguishes this study from prior research on debates and other candidate-centered events.[4]

To gain a more in-depth understanding of how debates can shape voter attitudes, we also collected unique observational data that captures participants' real-time, second-by-second positive and negative reactions to the debates. Using these data, we identify the specific moments that generated reactions from participants. To our knowledge, this study is the first to present data of this kind gathered from a new democracy.

Our results show that debates *do* influence voters — by improving their evaluations of candidates. The experimental data suggests that this effect is driven by information about both candidates' personal qualities and their policy positions. For all types of candidates, we find no evidence that physical attributes or visual cues are important.

We further show that debates have the largest impact on partisans and no average effect on swing voters. Rather than entrenching their pre-existing preferences, the debates made partisan voters more favorable to opposition politicians and less likely to want to vote for their party's candidate. In short, the debates *moderated* the political attitudes of partisans. Regarding the causal mechanisms driving the moderation effect, the experimental evidence demonstrates that policy-related information is of greater importance than information on candidates' personal backgrounds, particularly among the most strongly committed partisans. Consistent with this, the real-time response data shows that partisans were highly polarized in their reactions to the personal background segment — providing positive reactions to co-partisans and negative reactions to other candidates. In the policy segments, this partisan polarization

[4]Bidwell, Casey and Glennerster (2016) also attempt to distinguish the policy mechanism from personal background mechanism. They do so by presenting participants with news reports that discuss the policy contents of the debates and "get to know you" videos that focus on the candidates' personal attributes. This design simultaneously alters the content *and* the delivery format. In comparison, we hold the debate format constant and change only the content in order to determine whether differences in content drive differences in treatment effects.

decreased substantially and partisans reacted positively to a number of policy-specific appeals made by opponent-party candidates.

Finally, we examine whether these effects persist. We show that the moderation effect persisted among partisans who live in electorally competitive communities; the effect dissipates among those who live in politically homogeneous communities. This finding highlights that while debates may promote political moderation in the short term, the political context of a voter's local community conditions the extent to which they lead to more durable changes in voter attitudes.

With these results, we make three main contributions. First, we contribute to the literature on how partisan identities shape voter responsiveness to candidate debates and other types of political information (Carlson, 2016; Bolsen, Druckman and Cook, 2014; Taber and Lodge, 2006). The American politics literature suggests that swing voters and those with weak partisan attachments are more likely to be influenced by debates (Geer, 1988; Hillygus and Jackman, 2003). However, prior research on debates in new democracies have been unable to detect differences between swing and partisan voters.[5] The moderating effect of debates that we find implies that debates may have different effects in old versus new democracies. We suggest that this is because partisan identity in new democracies is often based on factors other than ideological attachments, which allows partisans to switch their opinions about parties when they receive new information about their candidates, especially information about policy positions. While our findings complement prior research which shows that exposure to partisan radio in urban Ghana moderated political attitudes (Conroy-Krutz and Moehler, 2015), it extends these results by demonstrating that moderation effects may only persist in certain local contexts.

Second, the study contributes to the literatures on candidate messages (Resnick, 2014) and voter behavior in new democracies (Weghorst and Lindberg, 2013). Existing research suggests that political parties in sub-Saharan Africa tend to rely on valence appeals to attract votes (Bleck and Van de Walle, 2013; Lupu and Riedl, 2013) — non-contentious policies such as a commitment to improving living standards. By contrast, we show that debates motivate parliamentary aspirants to stake out distinct positions concerning how they plan to achieve developmental goals in their constituencies. Importantly, we provide evidence that voters are responsive to policy-specific campaign appeals.

[5] Bidwell, Casey and Glennerster (2016) was statistically underpowered to detect differences in effects between swing and partisan voters.

Finally, the results advance the literature on candidate debates and related candidate-centered events in developing countries. Consistent with other studies that investigate candidate-centered events across a range of electoral contexts (see Fujiwara and Wantchekon, 2013; Wantchekon et al., 2017; Bidwell, Casey and Glennerster, 2016; Platas and Raffler, Forthcoming), we show that these types of campaign events can impact voter preferences. We advance this literature by focusing explicitly on causal mechanisms, which have important theoretical and normative implications for the role of debates in promoting policy-based campaigning and enhancing the quality of democratic elections.

1 Theoretical Background and Hypotheses

The theoretical literature on political accountability and selection highlights that voters often judge political candidates along two dimensions: their *policy positions* and their *quality* (Besley, 2006). Voters in many new democracies struggle to access credible information about candidates along these two dimensions (Keefer and Vlaicu, 2008; Pande, 2011), which can make it difficult to hold leaders accountable and select better representatives. Existing research suggests that, in the absence of credible information about candidate quality and policy positions, voters often rely on ethnic identity or other heuristics to choose between candidates (Conroy-Krutz, 2012), and candidates also have incentives to establish clientelistic linkages with voters (Keefer and Vlaicu, 2008).

Candidate debates are campaign events that, in principle, can give voters access to information about both candidate quality and policy positions. They do so in a way that is distinct from many other types of campaign events, such as campaign rallies, that are also common in new democracies. For example, the structure of debates forces candidates to discuss similar topics under the same time constraints, which allows voters to directly compare candidates (Owen, 1991). Debates also allow candidates to directly engage with their opponents' arguments and positions. Since voters in many new democracies often lack access to the types of information about candidates that debates convey, we expect that, on average, *debates have a positive effect on voters' evaluations of candidates who participate in them (H1).*[6]

[6]To be consistent with past studies, we also hypothesized that debates would have a bigger impact for candidates who performed well, and for minor and opposition party candidates. We present these results in the Appendix.

1.1 Why Do Debates Influence Voters?

Debates may influence voters through two distinct, though not mutually exclusive, causal mechanisms: information about candidate quality and information about candidates' policy positions. Regarding the former, candidates can use debates to convey a range of information about themselves, including about their personality, values, leadership skills, and qualifications. A candidate's debate performance may signal their competence or increase their likability, regardless of what they say. We therefore hypothesize that *debates influence voters because they provide information about candidates' quality, such as their qualifications, competence, and trustworthiness (H2).* Moreover, debates could influence voters through *non-verbal* (visual) signals and forms of communication. For instance, some candidates may be more physically attractive or visually charismatic, which voters may implicitly (and often incorrectly) interpret as a signal of candidate quality (Lawson et al., 2010). We thus test the hypothesis that *debates influence voters because of non-verbal signals and communication (H3).*

Debates also provide a forum for candidates to outline their policy priorities, positions, and plans. The African politics literature highlights that political parties and candidates often prefer to communicate their policy messages through *valence appeals* (Bleck and Van de Walle, 2013); that is, by couching their messages in terms that almost no one could disagree with, for example by "[saying] they are for something good (like development, education, democratic practices) or against something bad (like corruption or colonial interference)" (Bleck and Van de Walle, 2013, 1414).

However, because valence appeals can make it hard for voters to differentiate between candidates on programmatic grounds, debates may incentivize candidates to stake out specific *policy positions* to distinguish themselves from their competitors. This happened in the debates we study. Although candidates did make valence appeals, they also tried to draw policy distinctions from one another by making specific policy promises. For example, both major parties made the clear valence appeal of promising to expand access to secondary education. The debates revealed real differences in the two parties' policy plans for achieving this objective: one advocated investments in educational infrastructure and the other a plan to eliminate secondary school fees. We thus test the hypothesis that *debates influence voters because they provide information about candidates' policy positions (H4).*

1.2 Which Types of Voters Are Influenced by Debates?

Debates are likely to affect different types of voters in different ways. The literature on debates and other campaign events in the United States illustrates that the strength of voters' prior *partisanship* is likely to condition the impact of debates. This literature provides evidence that independent and undecided voters are more likely than partisans to be influenced by campaign events, including debates (Geer, 1988; Hillygus and Jackman, 2003). There is also evidence that swing voters in some African contexts are more influenced by policy-related information (Weghorst and Lindberg, 2013) and are more likely to change their vote intention during the course of a campaign (Horowitz, 2017). Since swing voters may be the most open to changing their views of candidates and to the types of information conveyed by debates, debates may have a greater positive influence on the attitudes of independent and weak partisans. In particular, *debates should have the greatest positive effect when swing and weak partisan voters evaluate candidates who have performed well in the debates (H5).* By contrast, partisans may be likely to interpret the debate in a manner that reinforces their prior political opinions (Geer, 1988) or to discard information from the debate that is inconsistent with their partisan views (Bolsen, Druckman and Cook, 2014; Taber and Lodge, 2006). Consequently, *among strong partisans, debates may have a greater impact on support for the voter's co-partisan (H6).*

H5 and H6 capture our *ex ante* (pre-specified) expectations. However, there are several reasons why debates could also *moderate* partisan voters' political preferences. First, information about politics is most likely to influence voters when the information differs from their prior beliefs — when the information is new or surprising (Dunning et al., Forthcoming). Since many voters use partisanship as a heuristic with which to assess candidate quality and policy alignment with candidates (Popkin, 1991), committed partisans are likely to have very positive prior beliefs about co-partisans and very negative prior beliefs about candidates from other parties. Committed partisans are also likely to have more prior knowledge of their own candidate. Given these priors, debates are most likely to teach partisan voters new information about candidates from other parties that is positive relative to their very negative priors. Conversely, debates are most likely to teach partisans new information about co-partisans that is negative relative to their very positive priors. For example, partisans may be surprised about how well qualified opponents are or, equally, disappointed that their co-partisan's policy proposals are not as convincing as

they originally believed. Together, these effects produce moderation; partisan voters' attitudes toward candidates become less polarized.

A second and related reason is that in many new democracies, political parties often do not develop strong ideological platforms (Van De Walle and Butler, 1999). Accordingly, partisan loyalties are often based on regional or ethnic identities, or personal attachments to individual politicians, rather than fixed ideological preferences. By providing information about candidate quality and policy positions — in a way that permits comparisons across candidates — debates may provide new information about opposing party candidates that partisan voters find convincing. Since many partisans are not committed to their party because of their ideological positions, they may be more responsive to this new information than they might be in contexts where partisanship is more clearly structured along ideological lines.[7]

2 Parliamentary Elections and Debates in Ghana

We conduct our study around the parliamentary elections held in Ghana in December 2016. These elections were the seventh since the country's return to democracy in 1992. One Member of Parliament (MP) serves each of the country's 275 political constituencies for a four-year term. The parliament is often composed only of MPs from the two major political parties — the National Democratic Congress (NDC) and the New Patriotic Party (NPP) (Fridy, 2007). The prominent minor parties are the Convention People's Party (CPP), the People's Progressive Party (PPP), and the People's National Convention (PNC). Although candidates from the minor political parties usually fail to get elected, these parties receive about 5 percent of the total votes nationally.

Although election campaigns in Ghana often involve clientelistic exchanges (Lindberg, 2003; Nathan, Forthcoming), there is also evidence that voters consider policy issues and the provision of public services when they vote (Harding, 2015; Weghorst and Lindberg, 2013). Civil society organizations are increasingly coordinating programs designed to promote policy-based campaigning and to provide opportunities for voters gather information about parliamentary candidates, especially information on

[7] We also pre-specified hypotheses about how political knowledge would condition the impact of debates and how exposure to debates might influence levels of political tolerance and trust, attitudes toward vote buying, and voter perceptions of electoral and democratic integrity. Due to space constraints, and because these outcomes are theoretically distinct from the outcomes we examine in this paper, we present these hypotheses and the corresponding results in the Appendix.

policy issues that may not get attention in national level policy discussions. CDD-Ghana, one of the two organizations that we partnered with in this study, began holding parliamentary debates during the 2012 election campaign. These debates are modeled on the televised presidential debates that have been held since 2000.[8] Our study therefore evaluates the effect of real debates organized by a Ghanaian government institution and a civil society organization.

3 The Debates

CDD-Ghana and the NCCE organized parliamentary debates in a nationally representative sample of 50 constituencies across Ghana's 10 regions during the 2016 elections.[9] We conducted our study in three: Effutu, Komenda-Edina-Eguafo-Abirem (KEEA), and Mfantseman in the Central Region. We selected these constituencies because they are a microcosm of Ghana's partisan landscape; each comprises communities that strongly support either the NDC or the NPP, as well as communities that are competitive. The Central region is also home to swing voters (Fridy, 2007). Thus, while these constituencies are more electorally competitive than the average constituency in Ghana,[10] they are ideal locations to test hypotheses about the effect of debates on partisan and swing voters.

Table 1 displays the candidates' names and party affiliations. The debates were held in public locations and were attended by ordinary voters as well as party members, traditional authorities, and leaders of community organizations. The debates were broadcast on local radio stations and were covered in local newspapers. We videotaped the debates and then transferred the videos to smartphones to show study participants.

[8] The presidential debates are organized by the Institute for Economic Affairs.

[9] See Appendix Table B.1 for the distribution across regions.

[10] The Central region is among Ghana's most electorally competitive regions, although the level of competition in parliamentary races is comparable to other regions. During the prior election (2012), the average margin of victory in parliamentary races was 11 percentage points. This figure is comparable to other competitive regions in the country. In Brong Ahafo, the average margin of victory was 12 percent, while it was 15-16 percent in Upper East, Western, and Northern. The Central region is also typical in terms of the parliamentary voteshare of minor parties: about four percent compared to an average of six percent across the other nine regions.

Table 1: Names and party affiliations of parliamentary candidates in the debates

Party	Constituency		
	Effutu	KEEA	Mfantseman
NDC	Eric Don-Arthur	Samuel Atta Mills*	James Essuon
NPP	Alexander Afenyoh-Markin*	Stephen Nana Ato Arthur	Ekow Hayford*
PPP	Nana Ofori Owusu	John Sterlin	Kwabena Amu Quandoh Okyere
CPP	Ebenezer Rolance Akumbea-Sam	Rose Austin Tenadu	Pius Ebo Dughan
PNC	Murtala Muhammed Umar		

Notes: * Denotes the winners of the 2016 election.

Candidates spoke in the language of their choice. While most spoke exclusively in Fante (the dominant language in the Central Region), some spoke partly in English.[11] Each debate had an identical structure. Candidates were in the same location and on the same stage when answering the moderator's questions, and often engaged with the statements and positions of the other candidates. This study focuses on two of the three main debate segments. First, each candidate had two minutes to describe their personal background, qualifications, and values. We refer to this as the *Personal Background segment*. Second, the moderator asked each candidate to discuss their plans in two policy areas: education (2 minutes) and unemployment (2 minutes). We refer to this as the *Policy segment*.[12]

3.1 Personal Background Segment

In this segment, candidates discussed three broad topics: their familial heritage, their motivation to enter politics, and their qualifications. Most sought to establish their local credentials as well as their familial connections to communities in their constituencies. For example, Ato Arthur (NPP), emphasized his roots in the constituency, stating that he is "a proud son of Komenda; my mother and my father are from Abram-Boase, the former chief family head." Quandoh Okyere (PPP) noted that "[he] was born in Mankessim, [his] mother is from Mankessim-Twafo, [his] father was also born in Mankessim and so when they are talking about the indigenous people of Mankessim [he is] also part of them."

Many also articulated why they got involved in politics and how their prior work qualified them to become an MP. The NPP candidate in Effutu, and incumbent in the district, Alex Afenyoh-Markin, articulated his reasons for getting into politics: "Nobody introduced me to politics, I started politics on

[11] The study used only the candidates' original language; no translations were provided to participants.

[12] Candidates also fielded questions from audience members. To ensure uniform treatment across constituencies, our experiment did not include these discussion sessions.

my own because growing up I saw the hardships we face here in Winneba, I see what poverty has done to people and so I promised myself that if God saves me from poverty, I will also come and save my people. That is why I joined politics."

All candidates detailed their academic qualifications and their professional experience. To demonstrate their commitment to local issues, most highlighted their involvement in local organizations or their past work to help the community. For example, Ebenezer Akumbea-Sam (PNC) claimed that "I am part of every group that is doing anything to help the community."

3.2 Policy Segment

The policy segment focused on two salient issues in the 2016 campaign: education and unemployment.[13] Although prior studies suggest that candidates in Ghana and other new democracies often avoid staking out specific policy positions and instead rely on valence appeals (Bleck and Van de Walle, 2013; Lupu and Riedl, 2013), the candidates in the debates employed a mix of valence and policy-specific discourse.

Regarding valence appeals, one CPP candidate said, "When the CPP comes into power, the constant power instability will be a thing of the past ... the light problem is fixed: we will work and be comfortable." Another candidate said, "There will be a new era for entrepreneurship in Effutu. We will encourage entrepreneurs to establish their businesses in Winneba." These vague statements lack specifics on the actions that candidates plan to take, and are difficult to disagree with.

However, most candidates proposed specific policy plans (summarized in Table 2). For example, the NDC and NPP candidates offered relatively distinct policies to improve access to secondary education. The opposition NPP candidates, along with candidates from the CPP and PPP, promised to eliminate school fees for secondary school. For example, Ato Arthur (NPP, KEEA) argued that "the paramount reason why the children are unable to complete is the hardship that the parents face to pay for their school fees." By contrast, the NDC candidates emphasized their commitment to infrastructure development as a way to increase public access to secondary school. NDC candidates also challenged the NPP's proposal for universal free secondary school. For example, the NDC candidate in KEEA re-

[13] While corruption was another major issue, it was less relevant for parliamentary races. For more specifics on the campaign see, ''9 things you should know about Ghana's election," *Washington Post*, 7 December 2016, last accessed 15 May 2017.

Table 2: Candidates' position issues during the policy segment

Education	Employment
• Construct more schools, and build toilets and libraries in every school • Free education up to age 18 • Set up a constituency fund to pay for mock examination fees and extra classes • Organize inter-school quiz competition to encourage reading • Institute a constituency-wide Best Teacher Award • Institute inter-school reading competitions	• Construct a new harbor at Winneba • Re-open processing factory at Ampem • Re-open factory at Abokrom • Re-open poultry factory at Pomadze

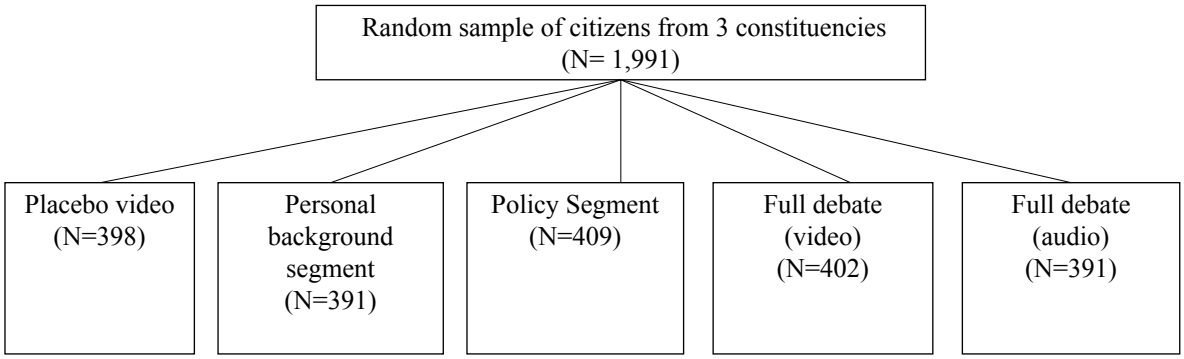
sponded to the NPP candidate's education proposal by asking "if any government comes here to say that SHS [secondary school] is free, what school is here for the children to go to?"

Education policy discussions also touched on teacher training, the challenge of teacher absenteeism, and support for school feeding and scholarship programs. Regarding employment policies, several candidates discussed the importance of providing skills training for young people. Others emphasized the need to re-open specific local factories to process poultry and locally grown cassava. Since the constituencies in the study are located on Ghana's southern coast, many candidates also highlighted their plans to support the fishing industry by constructing a new harbor and transitioning to lighter fiberglass boats.

4 Research Design

We designed the study to experimentally test hypotheses about *why* debates influence voters' attitudes. To test our hypotheses about the causal mechanisms linking debates to voter preferences, we employ implicit mediation analysis (Gerber and Green, 2012). The design entails randomly assigning participants to different components of the treatment – in our case, different segments of debates – which correspond to different potential causal channels. Comparing the causal effect of each segment allows us to identify which mechanism (or mechanisms) is responsible for the treatment effects that we identify. Importantly,

Figure 1: Distribution of participants across treatment conditions



Notes: Each respondent had a 20 percent chance of being randomized into each of the five treatment conditions.

this approach avoids concerns about the potential bias involved in using intermediate variables to assess mechanisms (Gerber and Green, 2012; Imai et al., 2011).[14]

Randomization was at the individual level. In one treatment condition, participants watched only the personal background segment; they learned about candidate quality, but not policy positions. In another treatment condition, participants only viewed the policy segment. In another condition, participants watched both segments. In the final condition, participants *listened* to both segments. Participants in the control group watched a non-political, placebo video that was roughly equal in length to the debate.[15] Figure 1 displays the five treatment conditions and the number of respondents in each.

This design permits experimental inferences about causal mechanisms. For example, if the policy segment has a larger impact than the personal background segment, this would provide evidence that policy information is a more important mechanism than information about candidate quality, because those in the personal background segment do not learn about policy positions. Alternatively, if the full debate video condition has a larger effect than the full debate audio condition, this would suggest that visual information is important.

As we note, the debates that we analyze were real campaign events. Accordingly, some respondents in our sample had heard about or seen them before we contacted them. About fifteen percent of

[14]Changes in levels of the variables believed to be linking the treatment and effect (i.e., intermediate variables) might be confounded with changes in other observed or unobserved factors that may be affected by the treatment. The possibility of these confounding factors may lead to misleading conclusions about the proposed relationship between the intermediate variable and the outcome.

[15]The video was an extract from a show by a popular Ghanaian comedian.

respondents had pre-treatment exposure to the debates. Importantly for our analyses, these respondents are distributed equally across the control and treatment groups (see Appendix Tables D.1 and D.2). Our results are also robust to excluding respondents who had prior exposure to the debates.

4.1 Sampling and Interview Procedure

Our sampling procedure was guided by our goal to determine how partisanship conditions the impact of debates on voters. To ensure that the sample contained partisans of both major parties, as well as swing voters, we first stratified Electoral Areas (EAs) within each constituency.[16] We classify EAs as being NPP strongholds, NDC strongholds or electorally competitive.[17] We then randomly selected respondents from EAs within each of these three blocks. Appendix Tables D.1 and D.2 present descriptive information about the sample, including covariate balance across treatment and control groups.

After completing a short survey, participants watched (or listened to) the debate (or placebo video) associated with their treatment condition. Respondents viewed the debate on a smartphone.[18] Enumerators gave the participant as much privacy as possible.

4.2 Main Outcome Measures

Our main outcome measures were collected through a survey conducted immediately after each participant viewed the debate (or control video). The first dependent variable is a continuous measure, ranging from one to seven, of the participant's *overall evaluation* of each candidate in the debate: [What is] your overall assessment of [*candidate name*], who is the [*political party name*] candidate for parliament in [*constituency name*].

Second, we analyze a dichotomous (0/1) measure of *vote choice.* To limit response bias, the smartphone displayed pictures and labels for each participating political party. Participants then privately selected which party's candidate they would vote for by tapping on the party logo. The exact wording of the prompt was: *Please click on the party that you would vote for if the upcoming parliamentary elections were held today in [*constituency name*].*

[16] EAs are sub-constituency units in Ghana.
[17] See Appendix C for further details on EA classification and sampling.
[18] A random number generator in the survey program assigned participants to one of the five conditions.

These outcome measures capture distinct but related outcomes. The evaluation measure allows us to determine whether the debates lead voters to alter their assessments of candidates. The vote choice outcome assesses whether, in addition to influencing evaluations of candidates, debates impact intended voting behavior. We emphasize that whether and how debates change citizens' evaluations of candidate is important even if debates do not change intended vote choice. For example, in polarized political contexts it is important to understand whether debates reduce — or increase — voters' relative preferences for co-partisan candidates, as this can have implications for inter-personal trust and political stability.

4.3 Coding Partisans and Swing Voters

To measure partisanship, we use pre-treatment survey questions similar to "feeling thermometers."[19] To construct the partisan thermometer, we asked participants (pre-treatment) to rate, on a 1–7 scale, how close they feel to each of the major parties. We added these evaluations to produce a continuous scale. Voters with larger negative scores are closer to the NDC, and higher positive scores closer to the NPP. As pre-specified, we coded voters by cutting the distribution of this continuous variable at the 33rd and 66th percentiles, such that the bottom third of the distribution are NDC partisans, the top third of the distribution are NPP partisans, and the middle third are swing voters.

A potential concern with generalizability is that partisans in Central may be different from partisans elsewhere, especially those in "stronghold" regions. We note that while our sample contains a significant number of swing voters, it also contains a large proportion of very "strong partisans": those who evaluate their party with the maximum score and opponent parties with the minimum score on the partisan feeling thermometer.[20] The results are robust and stronger in analyses that only contain these strong partisans — the types of partisans that may be present in greater numbers in other regions of the country. In short, while our experimental sample is confined to the Central region — which we selected to ensure that we had the statistical power to assess our hypotheses on voter types — the results are likely to generalize to other areas of the country.

[19] We also pre-specified that we would produce a count measure of swing voters, adapting the measure of Weghorst and Lindberg (2013). Because many of our participants had no voting history or missingness in their voting history — because of their age or because they did not vote in past elections — the count measure is not applicable to our full sample. We therefore focus on the partisan thermometer measure. None of the results presented below change if we use the count measure in the analyses.

[20] About 42 percent of the sample is a strong partisan by this definition.

4.4 Model Specification

We created a dataset in which the unit of analysis is the participant–candidate dyad. Our baseline specifications are as follows:

$$Y_{ijk} = \alpha + \beta_0 * T_{ij} + \gamma_j + \theta X_{ij} + \varepsilon_{ijk} \tag{1}$$

and

$$Y_{ijk} = \alpha + \beta_1 * T1_{ij} + \beta_2 * T2_{ij} + \beta_3 * T3_{ij} + \beta_4 * T4_{ij} + \gamma_j + \theta X_{ij} + \varepsilon_{ijk} \tag{2}$$

Y_{ijk} is the 7-point evaluation or vote choice for participant i in electoral area j for candidate k. In Equation 1, we estimate the causal effect (β_0) of receiving any of the debate treatments (T_{ij}). In Equation 2, we separate by treatment condition. $T1_{ij}$ indicates the personal background treatment, $T2_{ij}$ indicates the policy treatment, $T3_{ij}$ indicates the full debate video treatment, and $T4_{ij}$ indicates the full debate audio treatment. γ_j are fixed effects for each EA (our sampling units). The EA fixed effects ensure that our inferences are driven by differences between voters who have the same candidate choices (and view the same debates), and should increase the efficiency of our estimates by controlling for differences across constituencies and local communities. As pre-specified and to improve precision (Gerber and Green, 2012), we also include the following pre-treatment covariates (X): age, gender, education, and employment status. Since participants enter into the data multiple times, we cluster standard errors on participants.

5 Results

5.1 Average Treatment Effects in the Full Sample

Table 3 presents the mean evaluation of each candidate (1-7 scale) in each of the five experimental conditions. The mean in the control group is 3.38, and this increases to 3.59 in the pooled treatment group. The mean in each treatment group is also higher than in the control group: 3.56 for the Personal Background segment, 3.64 in Policy, 3.59 in Full Debate (video), and 3.58 in Full Debate (audio).

Table 3: Average treatment effects (ATE) in full sample across all candidates all candidates

	Control (1)	Any treatment (2)	Personal background (3)	Policy segment (4)	Full debate (video) (5)	Full debate (audio) (6)
Mean	3.382	3.593	3.562	3.640	3.592	3.580
	(0.057)	(0.027)	(0.053)	(0.053)	(0.055)	(0.054)
ATE		0.190***	0.160**	0.230***	0.180***	0.180**
		(0.050)	(0.070)	(0.070)	(0.070)	(0.070)

Notes: Observations are at the individual-candidate dyad ($N = 8,186$). The dependent variable is on a 1-7 scale with higher numbers indicating more positive evaluations of candidates. ATEs are estimated using linear regression including individual-level pre-treatment covariates and sampling area fixed effects (corresponding to Equations 1 and 2). Standard errors clustered by individual in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 3 also presents average treatment effects, estimated using Equations 1 and 2. Column 2 presents the average treatment effect pooling across all treatment conditions. Consistent with *H1*, debates have a positive and statistically significant effect on voters' evaluations of candidates. The magnitude of the coefficient (0.19 on a 7-point scale) is modest: about one-tenth of a standard deviation, or about a 6 percent increase from the control group mean.

Appendix Figure H.1 shows the effect of the debates on evaluations for each candidate separately. We find positive effects for 12 of the 13 candidates. In the full sample, respondents' evaluations of candidates from the CPP and the PPP increased the most after watching the debates.[21] In summary, in the full sample, debates lead to modest improvements in respondents' evaluations of all candidates, especially those from minor political parties (see Appendix J for further analysis of minor party candidates).

To investigate the mechanisms that drive the pooled average treatment effect in the full sample, we compare the magnitudes of the effects for respondents in the policy treatment condition versus the personal background treatment. Because participants are randomly assigned to these conditions and only learn information about policy or personal background, but not both, this comparison provides a causal estimate of the relative importance of these potential mechanisms. The results are presented in columns 3-6 of Table 3. Each treatment has a positive and statistically significant effect, providing evidence that both information about candidate policies and characteristics have a causal impact. While the effect of the Policy segment (0.23) is larger than that of the Personal Background segment (0.16), the coefficients are

[21] Appendix Table H.1 presents the results aggregated at the party level. The treatment effects for each party on a 7-point scale are as follows: 0.08 (NDC), 0.06 (NPP), 0.33 (CPP), 0.27 (PPP), and 0.06 (PNC).

Table 4: Average Treatment Effects by Partisanship

	(1) Swing	(2) Swing	(3) Partisans	(4) Partisans
Any treatment	0.03		0.26***	
	(0.12)		(0.06)	
Personal background		0.04		0.22***
		(0.14)		(0.07)
Policy		0.07		0.33***
		(0.14)		(0.07)
Full debate (video)		0.13		0.22***
		(0.14)		(0.07)
Full debate (audio)		-0.07		0.28***
		(0.14)		(0.08)
Constant	3.51***	3.51***	3.41***	3.41***
	(0.34)	(0.35)	(0.20)	(0.20)
Observations	2,496	2,496	5,690	5,690
R-squared	0.03	0.03	0.03	0.03

Notes: All models include individual controls and sampling unit fixed effects. Standard errors clustered by individual in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

not statistically different from one another. In short, in the full sample, information on both candidates' personal qualities and policy positions explain the positive effect of debates.

To distinguish the effect of visual communication from the information contained in what candidates say, we compare the effect of the Full Debate Video treatment to the Full Debate Audio treatment (*H*3). There are no significant differences between the effects of these two conditions (Table 3); respondents who watched versus listened to the debates had similar reactions. This suggests that visual signals are not central to driving the effects that we identify.

5.2 Results by Partisanship

We next disaggregate the sample between partisans and swing voters. Table 4 presents the results. Columns 1 and 2 show that, on average, the debates had no impact on swing voters. By contrast, the debates have a positive and significant impact on partisans (columns 3 and 4). Thus, the positive effects that we identify above appear to be driven mainly by the impact of debates on partisan voters.

Nevertheless, we hypothesized that debates would lead swing voters to support candidates who performed well in the debates ($H5$). If swing voters reward good performers and punish poor performers, this would explain the small average effect in Table 4. Yet further analysis shows that swing voters are no more likely to support the debate winner (see Appendix Table E.2 and E).[22]

Regarding partisans, we hypothesized that debates would further increase their support for co-partisan candidates. To test this hypothesis, Panel A of Table 5 presents treatment effects among all partisans. Columns 1 and 2 show the results for overall evaluations. The coefficient in row 1 is the treatment effect on evaluations of the co-partisan candidate, while the coefficient on the interaction term (row 2) shows how the effect changes when partisans evaluate opponents. To calculate the marginal effect on evaluations of opponent-party candidates, we add the coefficient in row 1 to the interaction coefficient in row 2. Contrary to our expectations, the debates did not affect partisans' evaluations of their co-partisan candidate.

Instead, we find a positive and significant effect on partisans' evaluations of opponent candidates. Using the results in column 1, we estimate that the debates increased partisans' evaluations of candidates from other parties by about 14 percent. In column 2, we restrict the sample to NDC and NPP candidates to assess whether this moderation effect is driven by changes in evaluations of minor party candidates, or whether NPP (NDC) partisans are becoming more favorable toward NDC (NPP) candidates. The magnitude of the effect remains positive but decreases in magnitude. While the coefficient is less precisely estimated because of the decreased sample size (p=0.19), the results suggests that the moderation effect is not driven entirely by minor party candidates.

Panel A of Table 5 also shows that the treatment also significantly influenced the intended vote choice of partisans: debates made partisans 6 percentage points *less* likely to say they will vote for their party's candidate (column 3, row 1). In addition, partisans become about 2 percentage points *more* likely to report an intention to vote for another party.[23] Given the strength of partisanship in Ghana, and that national and legislative races are often decided by one or two percentage points, these effects are substantively large. Indeed, in 2016, about 17 percent of electoral constituencies had a margin of victory of less than 5 percent.

[22] We code the debate winners using an expert survey and the survey of study participants. See details in Appendix E.

[23] The estimate represents the marginal effect of treatment on partisans' preferences for the opponent candidates.

To show that these results are not being driven by the more moderate partisans in the sample, we further restrict our sample to strong partisans (see above for coding). Panel B of Table 5 shows that the moderation results remain the same or even larger among these strong partisans. Notably, column 2 shows that strong partisans of the NDC/NPP become significantly more supportive of the candidate from the other major party,[24] while column 4 shows that they are about 2.5 percentage points more likely to intend to vote for the candidate from the other major party, a marginal effect that is statistically significant.[25]

In summary, we find that partisanship strongly conditions the effect of debates, although not in the way that we predicted. Debates make partisans both more favorable and more likely to vote for candidates from opposing parties, and less likely to vote for their co-partisan candidate.

5.3 What Drives Partisan Moderation?

To investigate the drivers of partisan moderation, we first draw on our experimental design to estimate the effect of the personal background segment and the policy segment on partisan moderation. We restrict our analysis to include only partisans evaluating candidates from other parties. Table 6 reports the results. In column 1, the personal background and policy coefficients are both positive and significant. The coefficient for the policy treatment is larger in magnitude, but is not statistically different from the personal background treatment coefficient (0.45 versus 0.34). Thus, information on both candidate qualities and policy lead to increases in partisans' evaluations of opponent-party candidates.

Column 2 again restricts the analysis to strong partisans.[26] Here, the personal background and policy coefficients are both positive and significant, but the policy coefficient is more than twice as large in magnitude (0.50 versus 0.22). The magnitude of the policy coefficient is also substantively meaningful: a half a point increase on a 7-point scale. Furthermore, the policy coefficient is significantly larger than the personal background coefficient ($p = 0.008$). Thus, for the strongest partisans in the sample, the policy mechanism plays a larger role in shaping their evaluations of opponent-party candidates.

[24] The marginal effect on evaluations is 0.39 and is statistically significant.

[25] One potential concern with Table 5 is that partisans already have extremely high evaluations of their co-partisan candidate. However, while co-partisans evaluations in the control group are high (a mean of 6.15), and the majority of partisans in control say they will vote for their co-partisan candidate (86 percent), both of these control group means have the potential to increase post-treatment. These levels of baseline support mitigate concerns of possible ceiling effects.

[26] This analysis was not pre-specified and so is exploratory.

These results highlight the potential for policy-centered debate to reduce partisan polarization in a new democracy.

Columns 3 and 4 present the results on intended vote choice. Among all partisans (column 3), none of the treatments increased the likelihood that they would vote for an opposition candidate. However, information about policy positions increases the share of strong partisans who intend to vote for opponent candidates by 3 percentage points – a roughly 30 percent increase over the control group mean (column 4). In contrast, information on candidates' personal background has no effect on vote intentions.[27] In summary, the experimental evidence shows that policy appeals played a greater role than information on candidates' backgrounds in moderating the attitudes of committed partisans.

[27] These two coefficients are not statistically significantly different, however.

Table 5: Treatment effects among NDC and NPP partisans

PANEL A: All Partisans	(1) Evaluation (All)	(2) Evaluation (NCD/NPP)	(3) Vote (All)	(4) Vote (NDC/NPP)
Any treatment	-0.01	-0.00	-0.06*	-0.05*
	(0.17)	(0.12)	(0.03)	(0.02)
Any treatment x opponent candidate	0.39*	0.26	0.08**	0.05*
	(0.20)	(0.20)	(0.04)	(0.03)
Opponent candidate	-3.35***	-3.58***	-0.80***	-0.83***
	(0.18)	(0.18)	(0.03)	(0.03)
Constant	6.15***	6.56***	0.86***	0.88***
	(0.24)	(0.22)	(0.03)	(0.04)
Observations	5,690	2,640	5,742	2,632
R-squared	0.37	0.49	0.60	0.64

PANEL B: Strong Partisans	(1) Evaluation (All)	(2) Evaluation (NCD/NPP)	(3) Vote (All)	(4) Vote (NDC/NPP)
Any treatment	-0.17	-0.14	-0.06***	-0.06***
	(0.11)	(0.10)	(0.02)	(0.02)
Treatment x opponent candidate	0.56***	0.45**	0.08***	0.08***
	(0.16)	(0.19)	(0.02)	(0.02)
Opponent candidate	-4.56***	-4.71***	-0.97***	-0.97***
	(0.14)	(0.17)	(0.02)	(0.01)
Constant	6.80***	7.08***	0.97***	0.94***
	(0.28)	(0.29)	(0.01)	(0.04)
Observations	3,435	1,596	3,532	1,622
R-squared	0.56	0.71	0.83	0.84

Notes: Partisanship is coded in reference to the respondent: that is, opponents candidates are those who are not aligned with the respondent's preferred party (pre-treatment). Observations are at the individual-candidate dyad. Columns (1) and (3) include all candidates. Columns (2) and (4) only include candidates from the NPP and NDC. The evaluation variable is on a 1-7 scale with higher numbers indicating more positive evaluations of candidates. The vote choice variable is dichotomous. All models include individual controls and sampling unit fixed effects. Standard errors clustered by individual in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 6: Analysis of mechanisms when partisan voters evaluate candidates from other parties.

	(1) Evaluation (All partisans)	(2) Evaluation (Strong partisans)	(3) Vote (All partisans)	(4) Vote (Strong Partisans)
Personal background	0.34***	0.22**	0.01	0.01
	(0.10)	(0.11)	(0.01)	(0.01)
Policy	0.45***	0.50***	0.00	0.03**
	(0.10)	(0.11)	(0.01)	(0.01)
Full debate (video)	0.31***	0.33***	0.01	0.02
	(0.10)	(0.11)	(0.01)	(0.01)
Full debate (audio)	0.39***	0.28**	0.01	0.00
	(0.11)	(0.12)	(0.01)	(0.01)
Constant	2.78***	2.76***	0.04**	0.10***
	(0.27)	(0.29)	(0.02)	(0.03)
Observations	4,199	3,129	4,291	3,223
R-squared	0.10	0.05	0.04	0.01

Notes: The sample is restricted to include only partisan voters evaluating candidates from other parties. Observations are at the individual-candidate dyad. Models include pre-treatment controls and EA fixed effects. Standard errors clustered by individual in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

5.3.1 Examining Partisan Moderation using Real-Time Response Data

We further explore the drivers of partisan moderation by analyzing real-time data capturing voters' evaluations of candidates as they watched one of the debates.[28] The respondents in this sample (N=244), who are separate from the main survey sample, watched the full debate on a tablet using a platform that records responses in real time.[29] Figure 2 displays an image of the platform. Respondents were instructed to click to indicate every time that they either *approved* or *disapproved* of what the candidate was saying. Participants (irrespective of their partisanship) were actively engaged in this exercise throughout the debate.[30] These data are descriptive and illuminate which elements of the debates provoked a reaction from voters.

We aggregate positive and negative responses for each individual to construct an overall assessment of each candidate during each debate segment. A positive overall score indicates that the respondent had more positive than negative reactions. We average these scores across NDC and NPP partisans. Figure 3 displays the results. The y-axis represents the average response of partisans during each segment; for example, a value of two shows that partisans had on average two more positive clicks than they did negative. The left plot displays the reactions of NDC partisans, while the right plot displays the reactions of NPP partisans.

Figure 3 suggests that partisan moderation occurred mainly during the policy segment. This is illustrated by trends in the gap between partisans' evaluations of their co-partisan candidate compared to the opponent candidate. In the personal background segment, partisans are quite polarized: their reactions are very positive toward their co-partisan and very negative toward the opposing party candidate. In the policy segments, this partisan gap decreases substantially.[31]

The real-time response data also allow us to examine which statements provoked particularly positive or negative responses from participants. In the personal background segment, NDC partisans

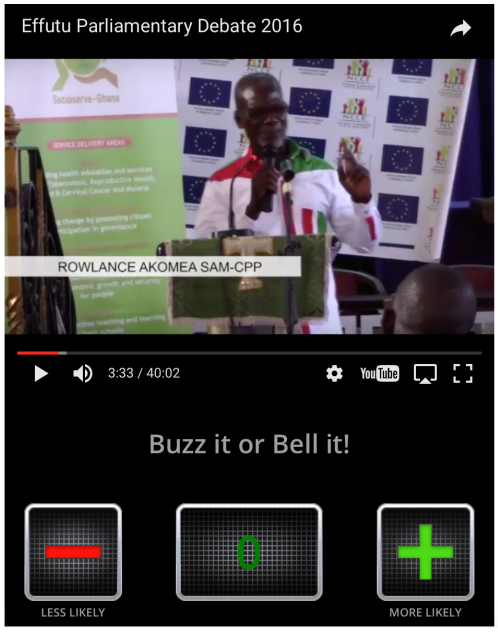
[28] We use the debate from the Effutu constituency. To collect these data, we partnered with *G2 Analytics.*

[29] For this exercise, we provided only a video of the debate. These data were collected at the same time as the larger survey and in the same three constituencies.

[30] With roughly 35 unique respondents, on average, clicking during any particular 30-second interval of the 40-minute debate. See Appendix Figures L.1 and L.2).

[31] In the personal background section, the average net positive clicks to co-partisans is 3 compared to a 1.5 net negative clicks for opponents; a difference of 4.5. In comparison, in the education section, this difference is 1.5, and in the employment section it is 1. The corresponding figure for NPP partisans is a difference of 4 in the background section, and 1.75 and 1.5 in the two policy segments.

Figure 2: Real time response platform



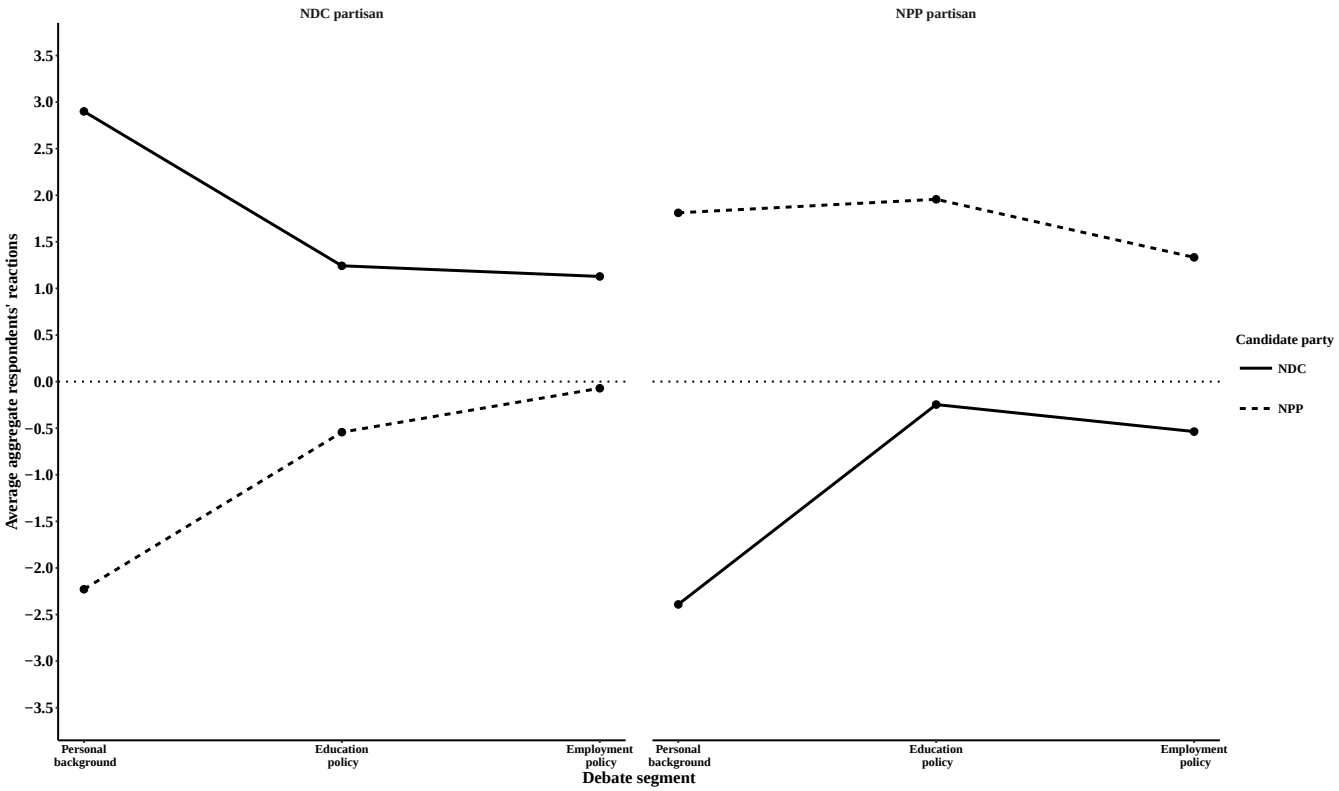
Notes: Photo of G2 Analytics real-time response platform.

responded very negatively when the NPP candidate discussed, rather immodestly, his sacrifice to the community when he became an MP instead of pursuing a career in the United Nations. Similarly, NPP partisans reacted negatively when the NDC candidate praised President John Mahama and rallied to crowd for a "one touch" (first-round) NDC win in the presidential election.

In the policy segments, partisans tempered their attitudes toward candidates from the other major party. For example, the NPP candidate's employment policies proved popular with NDC partisans. Similarly, the NPP candidate's proposal to encourage young entrepreneurs to set up businesses and bid for government contracts, and to boost the constituency's renowned but faltering theater arts and choral music industry, gained support from NDC partisans.[32] In sum, respondents seemed better able to assess candidates on the merit of their proposals when watching the policy segments.

[32]The constituency prides itself on the Winneba Youth Choir, which was established in 1989 and is arguably the country's premier choral music group. See *Modern Ghana*, "The Untold Story of Winneba Youth Choir," 18 September 2007, accessed January 22, 2018.

Figure 3: Aggregate real-time evaluations of co-partisan and opponents candidates (partisans only)



Notes:

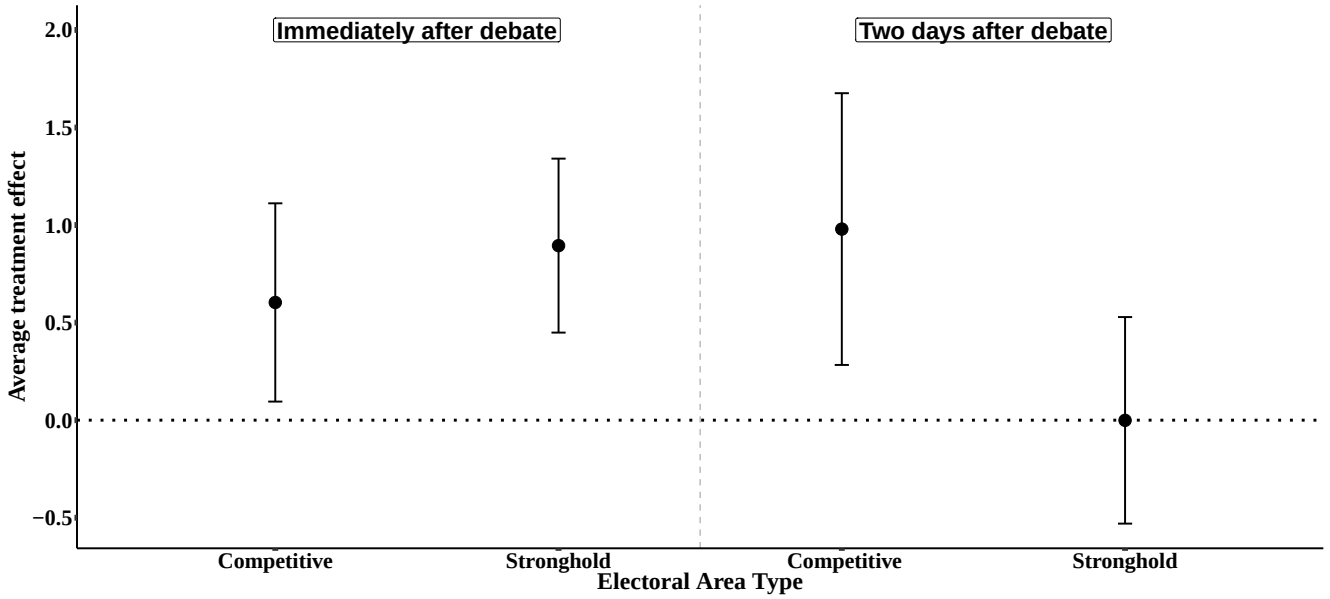
6 Do the Effects of Debates Persist?

Finally, we assess whether the effects of debates persist over time. To do so, we conducted a follow-up survey with a random 10 percent of respondents from our original sample. This survey was conducted two days later with the same survey enumerator.[33]

Using this sub-sample, we first replicate the main results and find that the moderation effect is larger in magnitude in this sub-sample (see Appendix Table N.1). However, in the full sub-sample, the moderation effect dissipates after two days. Thus, while debates make partisan voters more positive toward candidates from competing parties immediately after a debate, on average, these effects diminish quickly. Further analysis reveals, however, that this decay is not universal but rather confined to voters who live in politically homogeneous communities.

[33]Participants for the follow-up survey were selected using a random number generator in the survey program. Appendix Table P.1 presents descriptive information about this sample, which was balanced between the treatment and control groups.

Figure 4: Moderation effects by partisan composition of the electoral area



Notes: Figure displays the treatment effect of debates when partisan voters evaluate candidates from opposing parties. Results are separated by electorally competitive and party stronghold EAs. The results correspond to the regression results in Columns 5 and 6 of Table N.1.

To demonstrate this, we separate the sub-sample between those living in EAs (sub-constituency units) we classified as competitive versus party strongholds.[34] Figure 4 displays the results.[35] The left panel displays the moderation effect immediately after the debates in both competitive and party stronghold EAs. The right panel shows the same results two days later. The moderation effect persists, and actually increases, on average, for partisan voters living in electorally competitive EAs, while it is short-lived in party strongholds. In short, the durability of debates' influence appears to be conditioned by where voters live, a finding that we discuss further in the next section.

7 Discussion and Conclusion

Using an experimental research design and unique observational data, we investigate whether and why political debates influence voters' attitudes toward parliamentary candidates in Ghana. Our findings advance the literature on debates, other candidate-centered events, and election campaigns more generally

[34] See Appendix C. This analysis was not pre-specified and should be considered exploratory.

[35] These results correspond to Columns 5 and 6 of Appendix Table N.1.

by showing that these types of campaign events can influence voters. Importantly, we also advance this literature with a research design that permits inferences about causal mechanisms.

We find that debates moderated the political attitudes of partisans, making them more favorable toward candidates from other parties and less likely to want to vote for candidates from their party. Although this finding differs from some of the literature on debates and political communication in the United States (e.g., Levendusky, 2013), the result complements Conroy-Krutz and Moehler (2015), which shows that partisans moderate their political positions in response to opposition-party radio programs in Ghana. We suggest that there are two related explanations for this moderation effect. First, because information is most likely to have an impact when it differs from what voters already believe, debates are most likely to provide new information that is positive about opponent party candidates and negative about co-partisans (relative to priors). Consistent with this, the moderation effect is larger among the strongest partisans: for these voters, debates are likely to provide information that is most different from their priors. A second explanation is the sources of partisan identification in Ghana — namely, that partisanship is often not driven by ideology, but rather by regional, ethnic, and social dynamics. As a result, when partisans learn about the quality and policy proposals of opposing party candidates through debates, they may become more open to them. Better understanding why debates, and other forms of partisan information, moderate attitudes in new democracies, as well as in electoral authoritarian regimes (Platas and Raffler, Forthcoming), is an important area for future research.

Our findings on partisan moderation also contrast with recent research has found evidence of ethnic and partisan motivated reasoning in African contexts (Adida et al., 2017; Carlson, 2016; Horowitz and Long, 2016). Thus, it will also be important for future research to examine how the type of information and the mode of dissemination shapes the influence of political information on voter attitudes. Our evidence shows that the debate format, where voters hear directly from candidates and watch them engage with one another, encourages partisans to be more open to candidates from other parties. An important area for future research will be to directly compare the impact of debates to other types of candidate centered campaign events, such as town hall meetings (Fujiwara and Wantchekon, 2013; Wantchekon et al., 2017) and rallies, and information from the news media or civil society led information campaigns.

Regarding mechanism, the moderation effect that we find is mainly driven by information on candidates policy positions, especially for strong partisans. This result suggests that debates can play a role in increasing policy-based campaigning in new democracies. While parliamentary aspirants did engage in valence discourse, the format of the debates – with candidates on one stage and pitted against each other – encouraged them to highlight the specific actions they planned to take to improve the livelihoods of constituents. The real time data that we collect suggests that voters are responsive to this type of localized policy information. Future research could more explicitly test the relative impact of valence versus policy-specific appeals in the context of candidate-centered events.

Finally, on average, debates' influence on voters does not persist, a finding that is consistent with studies on campaign advertising in the United States (Gerber et al., 2011; Hill et al., 2013). However, these results also suggest that the longer-run impact of campaign events is conditional on the political environment in which voters live. Indeed the moderation effect persisted in electorally competitive communities, while it dissipated in non-competitive areas. There may be multiple explanations for this result. Those living in competitive communities may be exposed to (or select into) more diverse media and points of view, which could help reinforce the influence of debates. By contrast, those in party stronghold communities may only be exposed to highly partisan information or to social pressure to support the dominant party, which could overtake the information absorbed in the debates. Alternatively, political parties may be able to respond more effectively to counteract the influence of debates in communities where they are electorally dominant (Arias et al., 2018; Bhandari, Larreguy and Marshall, 2018; Humphreys and Weinstein, 2013). It will be important for future research to assess the potential mechanisms driving these contextual effects more explicitly. Such research will be important for determining the conditions under which debates have a durable influence on voters.

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Online Appendix

A Overview of pre-specified hypotheses

Table A.1: Overview of pre-specified hypotheses

Hypothesis	Outcome	Where
H1: Debates have a positive effect on voters'evaluations of candidates who participate in the debates	Corroborated	Table 3
H2a: Debates have a larger positive effect on evaluations of non-incumbent candidates	Null	Table I.1
H2b: Debates have a larger positive effect on evaluations of minor candidates	Corroborated	Table I.1
H3: Debates have a larger positive effect on evaluations of candidates who performed well in the debate	Null	Table E.2
H4: Debates have a larger positive effect on evaluations for debate winner among independent and weak partisans	Null	Table E.2
H5: Debates have a stronger positive effect on evaluations of co-partisan candidates for strong partisans	Opposite direction	Table 5
H6: Debates have a stronger positive effect on evaluations of debate winner among politically less informed voters	Null	Table K.1
H7: Debates influence voters because they provide information about candidates' policy positions	Corroborated	Table 3, 6
H8: Debates influence voters because they provide information about candidates' personal quality - qualifications, experience, and personality	Corroborated	Table 3, 6
H9a: Debates influence voters because they provide information about candidates' *local* policies and programs	Null	Table M.1
H9b: Debates influence voters because they provide information about candidates' *national* policies and programs	Null	Table M.1
H10: Debates influence voters because of non-verbal (visual) signals and communication	Null	Table 3, 6
H11: Voters who view debates are more tolerant and trusting of political opponents	Null	Tables O.2, O.1
H12: Voters who view debates are more likely to reject clientelistic politics	Null	Table O.3
H13: Voters who view debates are more likely to have positive perceptions of the efficacy of the election and the legitimacy of the election outcome	Null	Table O.4

Notes: Table A.1 summarizes all of the hypotheses that were in the pre-analysis plan, the outcome derived from the analyses, and their location in the article.

B Distribution of candidate debates across Ghana in 2016

Table B.1: Number of debates disaggregated by region

Region	Number of parliamentary debates
Ashanti	6
Brong Ahafo	4
Central	5
Eastern	7
Greater Accra	6
Northern	3
Upper East	3
Upper West	3
Volta	7
Western	6
TOTAL	50

C Sampling procedure

Our sampling procedure was guided by our goal to determine how partisanship conditions the impact of debates on voters. To sample participants, we enumerated the Electoral Areas (EAs) in each constituency.[36] Using results from the last election at the polling station level, we categorized EAs as NPP stronghold, NDC stronghold, or competitive. We classified EAs as an NPP (NDC) stronghold if the NPP (NDC) candidate's margin of victory in the EA was greater than 10 percentage points. We coded the other EAs as electorally competitive.[37] In each constituency, we used stratified sampling to randomly select 12 EAs: six electorally competitive and six strongholds.[38]

Within an EA, we randomly sampled participants using a random walk technique. Randomly sampled polling stations were the starting points for the random walk, and enumerators began at a different polling station each day.[39] About 54 participants were sampled in each EA.[40] To ensure a balance of male and female respondents, each enumerator alternated between males and females.

[36] EAs are sub-constituency units from which members of local government assemblies are elected.

[37] The sampling frame included 18 EAs in Effutu, 37 EAs in KEEA, and 36 EAs in Mfantseman.

[38] We selected three NDC strongholds and three NPP strongholds in each constituency.

[39] EAs usually contain 2–7 polling stations.

[40] Survey teams of three enumerators spent three days in each EA. Each enumerator sampled 18 participants over the three days.

D Descriptive statistics and covariate balance

Table D.1: Balance statistics

Variable	Treatment	Control	*P-value*
Female	0.53	0.50	0.24
Age	36.28	36.95	0.41
Education	3.90	3.97	0.50
Job	0.70	0.68	0.29
Owns Phone	0.86	0.86	0.85
Owns Radio	0.59	0.61	0.45
Owns TV	0.61	0.63	0.51
Owns Blender	0.15	0.16	0.62
Owns Car	0.04	0.03	0.14
Information	2.98	3.03	0.38
NDC Partisan	0.38	0.35	0.28
NPP Partisan	0.30	0.33	0.23
Swing (rating)	0.32	0.32	0.91
Swing (count)	0.29	0.36	0.19
Saw Debate	0.14	0.16	0.20

Notes: Table D.1 displays the mean value across a set of covariates. P-values are the result of a two-tailed t-test.

Table D.2: Balance statistics (disaggregated by treatment arm)

	Treatment condition					
Variable	Personal Background (I)	Policy (P)	I &P (Video)	I &P(Audio)	Control	*P-value*
Female	0.53	0.50	0.48	0.49	0.51	0.72
Age	36.28	38.51	37.13	35.89	36.21	0.07
Education	3.90	3.86	3.91	4.10	4.03	0.43
Job	0.70	0.67	0.68	0.65	0.70	0.52
Owns Phone	0.86	0.85	0.88	0.85	0.84	0.73
Owns Radio	0.59	0.60	0.64	0.62	0.60	0.60
Owns TV	0.61	0.62	0.63	0.64	0.63	0.94
Owns Blender	0.15	0.18	0.16	0.15	0.16	0.80
Owns Car	0.04	0.02	0.03	0.04	0.01	0.09
Information	2.98	3.01	3.07	3.02	3.01	0.76
NDC Partisan	0.38	0.35	0.34	0.37	0.35	0.73
NPP Partisan	0.30	0.32	0.35	0.35	0.30	0.29
Swing (rating)	0.32	0.34	0.31	0.28	0.35	0.39
Swing (count)	0.29	0.38	0.36	0.33	0.35	0.68
Saw Debate	0.14	0.18	0.15	0.16	0.17	0.50

Notes: Table D.2 displays the mean values across a set of covariates disaggregated by treatment arms. P-values are the result of an AOV test of difference across all five treatment conditions.

E Coding debate winner

E.1 Participants evaluation of candidates' performance in the debates

Participants answered the following survey question:

- Of all the candidates, which candidate would you say performed best in the debate you just watched?

E.2 Expert evaluation of candidates' performance in the debates

We recruited 17 individuals from the Political Science Department of the University of Ghana and civil society groups to provide their independent (objective) evaluations of the candidates in the debates. Half of our evaluators had completed a bachelor's degree, and the remainder had completed or pursuing a master's qualification. About 40 percent were females. We randomly assigned two debates to each expert. Each of our evaluators then watched the entire debate and provided their judgment on the performance of the candidates. Our judges watched the debates on their own online (we used Google Forms). Before they watched the debate video, we told our experts that the exercise was part of an academic research study, described the structure of the debate, and asked them to put aside any personal partisan leanings in their evaluations.

After watching a debate, we asked our experts to:

1. choose an overall winner of the debate;
2. choose a winner of the personal background segment of the debate;
3. choose a winner of the policy segment (education and employment) of the debate; and
4. rate the overall performance of each candidate on the scale from 1 to 7, where 1 is worst performance, 7 is the best, and 4 is neutral.

Table E.1 shows the results of these evaluations of our experts. Our expert evaluators agreed with constituents on the winner of the debates in two of our study constituencies (Effutu and KEEA) but diverge from one (Mfantseman).

E.3 Treatment Effects Conditional on Performance

Table E.1: Expert evaluation of debate candidates

Party	Name	Overall winner	Personal background Winner	Policy Winner	Average evaluation
Effutu ($N = 12$)					
NPP	Alexander Afenyoh-Markin	75%	50%	50%	5.58
PPP	Nana Ofori Owusu	25%	25%	50%	4.33
NDC	Eric Don-Arthur	0%	8%	0%	3.58
CPP	Ebenezer Rolance Akumbea-Sam	0%	17%	0%	3.25
PNC	Murtala Muhammed Umar	0%	0%	0%	2.33
KEEA ($N = 11$)					
NPP	Stephen Nana Ato Arthur	55%	27%	73%	5.45
NDC	Samuel Atta Mills	9%	36%	9%	5
PPP	John Sterlin	9%	0%	18%	4.27
CPP	Rose Austin Tenadu	27%	36%	0%	4.55
PNC					
Mfantseman ($N = 11$)					
NDC	James Essuon	45%	64%	67%	5.18
NPP	Ekow Hayford	45%	27%	27%	5.09
PPP	Kwabena Amu Quandoh Okyere	9%	9%	0%	4.27
CPP	Pius Ebo Dughan	0%	0%	9%	3.8

Table E.2: Treatment effects by candidate performance

	(1) All	(2) All	(3) Swing voters	(4) Swing voters
Treatment	0.25***	0.21***	0.14	0.09
	(0.07)	(0.07)	(0.14)	(0.14)
Treatment x debate winner (participants)	-0.21		-0.35	
	(0.17)		(0.25)	
Debate winner (participants)	1.60***		1.49***	
	(0.15)		(0.22)	
Treatment x debate winner (experts)		-0.06		-0.18
		(0.18)		(0.25)
Debate winner (experts)		1.31***		0.88***
		(0.16)		(0.22)
Constant	3.11***	3.17***	3.18***	3.32***
	(0.18)	(0.19)	(0.35)	(0.35)
Observations	8,186	8,186	2,496	2,496
R-squared	0.10	0.09	0.09	0.05

Notes: Observations are at the individual-candidate dyad. The evaluation variable is on a 1-7 scale with higher numbers indicating more positive evaluations of candidates. All models include individual controls and sampling unit fixed effects. Standard errors clustered by individual in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

F Treatment Effects among Swing Voters

Table F.1: Treatment Effects among Swing Voters

	(1) Effutu	(2) KEEA	(3) Mfantseman
Received any Treatment	-0.08	-0.22	0.43*
	(0.24)	(0.28)	(0.26)
Treatment x NDC Candidate	0.88***	0.30	-0.31
	(0.29)	(0.36)	(0.39)
Treatment x NPP Candidate	-0.05	0.24	-0.74
	(0.35)	(0.42)	(0.48)
NDC Candidate	-0.27	-1.15***	0.06
	(0.24)	(0.33)	(0.34)
NPP Candidate	2.37***	-0.15	1.60***
	(0.30)	(0.37)	(0.43)
Constant	3.43***	3.89***	3.41***
	(0.57)	(0.45)	(0.37)
Observations	928	862	706
R-squared	0.25	0.06	0.10

Notes: Observations are at the individual-candidate dyad. The evaluation variable is on a 1-7 scale with higher numbers indicating more positive evaluations of candidates. All models include individual controls and sampling unit fixed effects. Standard errors clustered by individual in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

G Manipulation check

After watching the debates (or placebo video), we asked participants to report the names of each of the candidates running for parliament in their constituency. We create a measure that captures the number of correct responses the participant provides. The logic behind the manipulation test is that those who view the debates should be better able to answer these factual questions accurately. The results in Table G.1 show that this is the case: treated participants are able to report the names of more candidates than those in the control condition. The mean in control is 2.05 names, and the mean for treated respondents is 2.51 names. The effect is largest in the full debate video group, and smallest in the full debate audio group, which suggests that the visual presentation of candidates' names may have helped with the retention of this information.

Table G.1: Manipulation check

Variables	(1) Total Correct	(2) Total Correct
Received any Treatment	0.46***	
	(0.07)	
Personal Background		0.48***
		(0.09)
Policy		0.47***
		(0.09)
Full debate (video)		0.61***
		(0.09)
Full debate (audio)		0.31***
		(0.09)
Constant	2.05***	2.05***
	(0.07)	(0.07)
Observations	1,987	1,987
R-squared	0.02	0.03

Notes: Table G.1 displays the results of OLS regressions where the total number of correct answers to factual questions about the candidates is regressed as a function of treatment assignment. Observations are at the individual level. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table G.2: Manipulation check: name recognition disaggregated by party

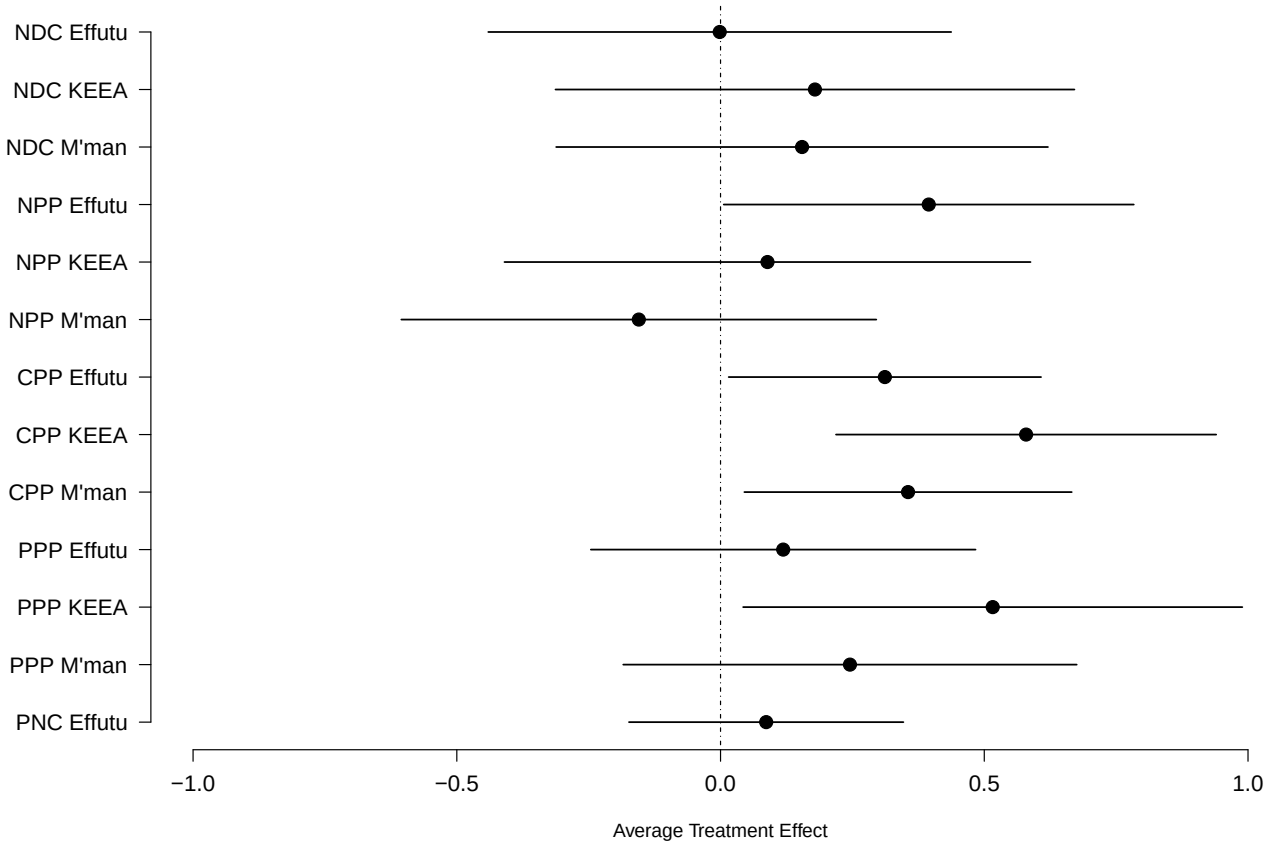
Variable	(1) Total Correct	(2) NDC	(3) NPP	(4) CPP	(5) PPP	(6) PNC
Received any Treatment	0.46***	0.09***	0.06***	0.15***	0.14***	0.08**
	(0.07)	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)
Constant	2.05***	0.73***	0.77***	0.13***	0.46***	0.12***
	(0.07)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)
Observations	1,987	1,991	1,991	1,987	1,990	693
R-squared	0.02	0.01	0.00	0.02	0.01	0.01

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

H Treatment effects disaggregated by candidates and by parties

H.1 Treatment effect by candidate

Figure H.1: Treatment Effect (evaluation) by candidate



H.2 Treatment effect by party

Table H.1: Treatment effects by party (evaluation)

Variables	(1) NDC Evaluation	(2) NPP Evaluation	(3) CPP Evaluation	(4) PPP Evaluation	(5) PNC Evaluation
Received any Treatment	0.08	0.06	0.33***	0.27**	0.06
	(0.14)	(0.13)	(0.09)	(0.12)	(0.12)
Constant	3.87***	4.09***	2.16***	4.17***	1.91***
	(0.26)	(0.25)	(0.18)	(0.23)	(0.26)
Observations	8,242	8,333	8,145	8,216	3,230
R-squared	0.00	0.01	0.02	0.02	0.01

Standard errors clustered by individual in parentheses
*** p<0.01, ** p<0.05, * p<0.1

H.3 Treatment effect for NDC partisans

Table H.2: Treatment effects by party among NDC partisans (evaluation)

Variables	(1) NDC Evaluation	(2) NPP Evaluation	(3) CPP Evaluation	(4) PPP Evaluation	(5) PNC Evaluation
Received any Treatment	-0.08	0.16	0.46***	0.32	0.24
	(0.15)	(0.18)	(0.13)	(0.20)	(0.19)
Constant	5.55***	2.82***	1.67***	3.29***	1.58***
	(0.27)	(0.35)	(0.28)	(0.35)	(0.38)
Observations	2,905	2,905	2,858	2,872	1,150
R-squared	0.01	0.02	0.03	0.03	0.04

Standard errors clustered by individual in parentheses
*** p<0.01, ** p<0.05, * p<0.1

H.4 Treatment effect for NPP partisans

Table H.3: Treatment effects by party among NPP partisans (evaluation)

Variables	(1) NDC Evaluation	(2) NPP Evaluation	(3) CPP Evaluation	(4) PPP Evaluation	(5) PNC Evaluation
Received any Treatment	0.38***	-0.12	0.30**	0.38*	0.09
	(0.14)	(0.11)	(0.14)	(0.21)	(0.21)
Constant	1.85***	6.33***	2.05***	3.55***	1.55***
	(0.32)	(0.25)	(0.29)	(0.42)	(0.43)
Observations	2,613	2,665	2,595	2,613	1,130
R-squared	0.03	0.02	0.03	0.05	0.04

Standard errors clustered by individual in parentheses
*** p<0.01, ** p<0.05, * p<0.1

I Major versus Minor Parties

Table I.1 tests the hypotheses that treatment effects are larger for non-incumbent party and minor party candidates.[41] Columns 1 and 3 provide no evidence that the debates had a more positive effect on non-incumbent candidates. Column 2 shows that debates have a significantly larger effect on voter evaluations of minor party candidates; the interaction between the treatment and minor candidates is positive and significant (consistent with Figure H.1). The treatment effect for minor party candidates represents about a 12 percent increase over the mean in the control group.

However, this increased evaluation does not correspond to associated changes in intended vote choice. Column 4 shows that treatment does not increase the likelihood that participants will vote for minor party candidates. This may be because the improved evaluation of minor party candidates was not large enough in magnitude to change intended vote choice. It could also be because participants are thinking strategically; they may be unwilling to vote for candidates who are not perceived as electorally viable, even if the debates improve their evaluations of them. Therefore, our results provide partial support for *H2*.

Table I.1: Treatment effects by candidate type

	(1) Evaluation	(2) Evaluation	(3) Vote	(4) Vote
Treatment	0.22***	0.07	0.00	-0.01
	(0.07)	(0.07)	(0.01)	(0.01)
Treatment x incumbent	-0.13		-0.01	
	(0.17)		(0.03)	
Incumbent	0.38**		0.17***	
	(0.16)		(0.03)	
Treatment x minor party		0.26**		0.01
		(0.10)		(0.02)
Minor party		-1.44***		-0.34***
		(0.09)		(0.02)
Constant	3.37***	4.28***	0.16***	0.40***
	(0.18)	(0.18)	(0.01)	(0.01)
Observations	8,182	8,182	9,420	9,420
R-squared	0.03	0.11	0.03	0.17

Notes: Observations are at the individual-candidate dyad. The evaluation variable is on a 1-7 scale with higher numbers indicating more positive evaluations of candidates. The vote choice variable is dichotomous. All models include individual controls and sampling unit fixed effects. Standard errors clustered by individual in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

[41] NDC candidates are incumbent party candidates.

J Analysis of Mechanisms Driving Result on Minor Party Candidates

Table J.1: The Effect of Each Treatment Arm For Minor Party Candidates

	(1) Evaluation	(2) Vote
Image	0.12	0.00
	(0.08)	(0.01)
Background x Minor Party	0.10	0.01
	(0.13)	(0.03)
Policy	0.05	0.00
	(0.08)	(0.01)
Policy x Minor Party	0.37***	-0.00
	(0.13)	(0.03)
Full debate (video)	0.05	-0.01
	(0.08)	(0.02)
Full (video) x Minor Party	0.28**	0.02
	(0.13)	(0.03)
Full debate (audio)	0.05	-0.02
	(0.09)	(0.02)
Full (audio) x Minor Party	0.26**	0.05*
	(0.13)	(0.03)
Minor Party	-1.44***	-0.33***
	(0.09)	(0.02)
Constant	4.27***	0.39***
	(0.18)	(0.01)
Observations	8,186	8,196
R-squared	0.11	0.15

Standard errors clustered by individual in parentheses
*** p<0.01, ** p<0.05, * p<0.1

K Treatment Effects Conditional on Political Knowledge

This section tests the hypothesis that less politically informed voters will become more favorable toward the debate winner after watching the debates. We measure political knowledge by asking respondent's to name each party's presidential candidate and taking a count of the number of correct answers.

Table K.1: Political Knowledge

	(1) Evaluation	(2) Vote
Debate Winner (subjects)	2.44***	0.56***
	(0.48)	(0.11)
Informed (count of correct answers)	0.13**	0.02**
	(0.07)	(0.01)
Treatment x Won debate (subjects)	-1.23**	-0.35***
	(0.54)	(0.12)
Treatment x Politically informed	-0.04	-0.02***
	(0.07)	(0.01)
Won debate (subjects) x Politically informed	-0.29*	-0.08**
	(0.15)	(0.03)
Treatment x Won debate (subjective) x Politically informed	0.34**	0.11***
	(0.17)	(0.04)
Constant	2.79***	0.08***
	(0.26)	(0.03)
Observations	8,106	8,095
R-squared	0.10	0.10

Standard errors clustered by individual in parentheses
*** p<0.01, ** p<0.05, * p<0.1

L Real time data using second-by-second evaluations of candidates

Figure L.1: Number of unique respondents per every 30-second of the debate

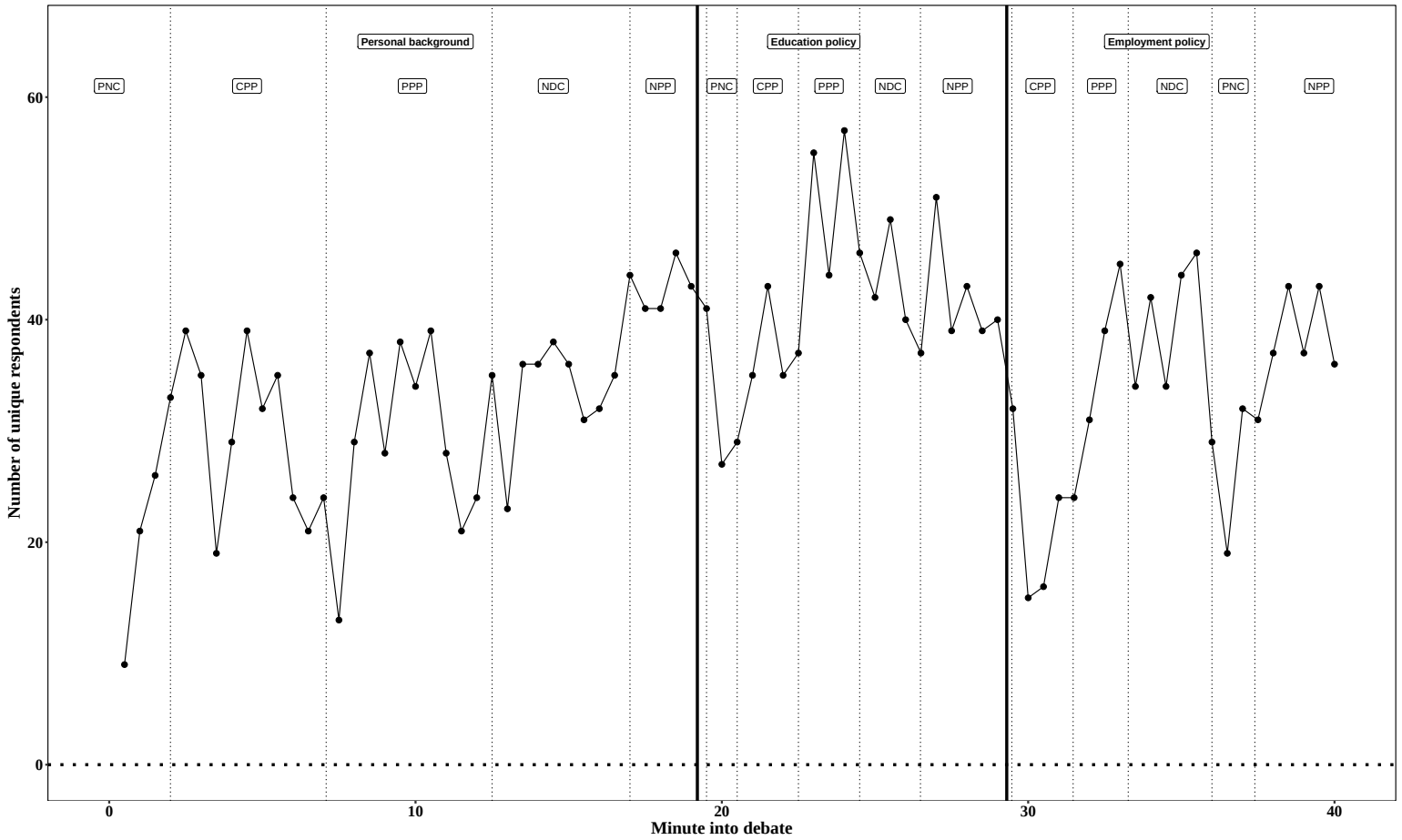
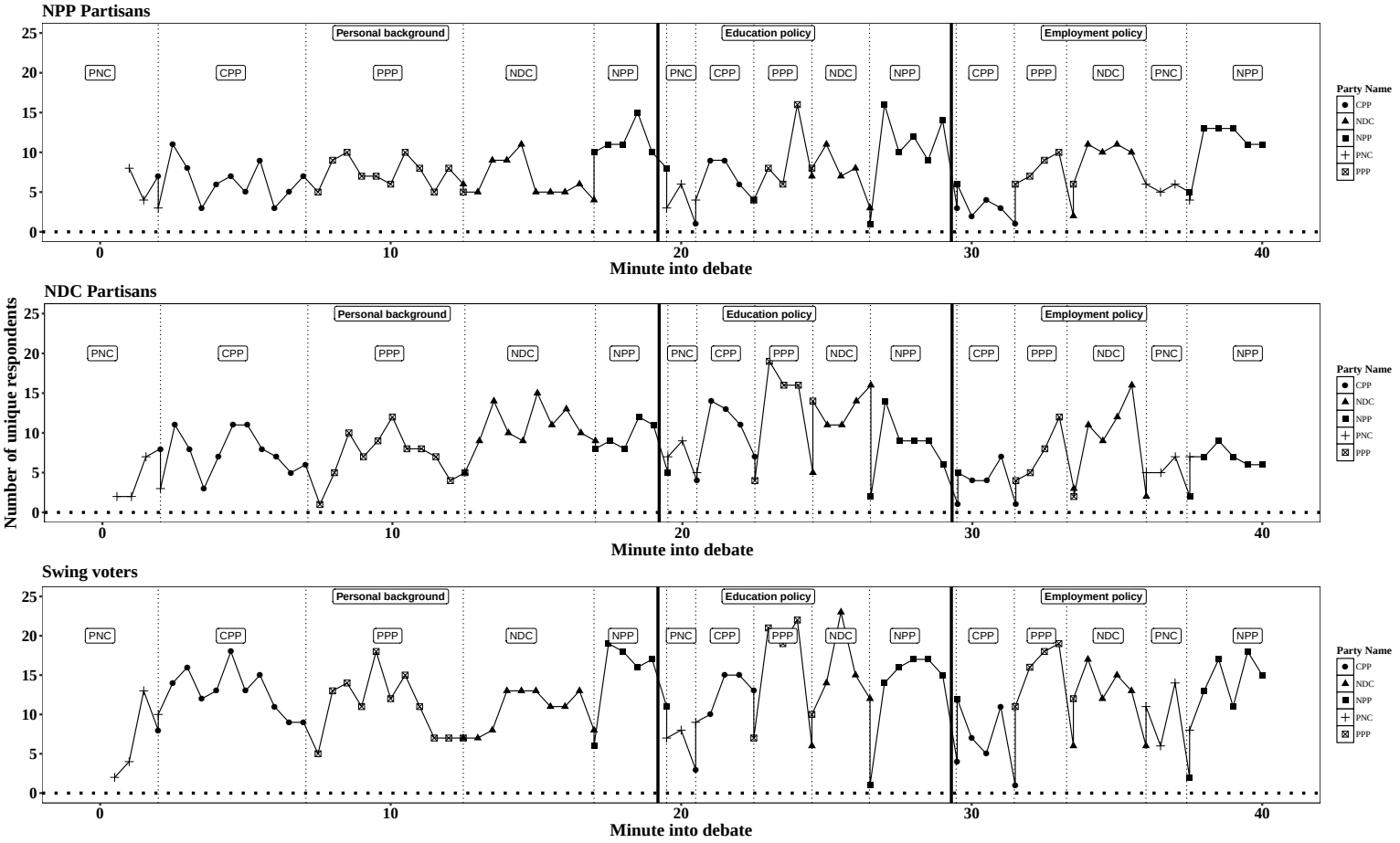


Figure L.2: Number of unique respondents per every 30-second of the debate by partisanship



M Local and national policy concerns

To further examine the potential role of policy information, we also test whether debates have an impact on voter evaluations of candidates' policy positions and potential for good performance if elected. We measure evaluations of both local and national positions, measured on the one to seven scale. The local policy question is as follows: *Thinking about the [party name] candidate, [candidate name]. If elected, to what extent do you agree he will do a good job in implementing programs to improve the lives of people in the constituency?* The national policy question is as follows: *Thinking about the [party name] candidate, [candidate name]. If elected, to what extent do you agree he will do a good job in working in Accra to make good policies for the country?*

Table M.1 presents the results. There is no evidence that any of the debate treatment conditions have an impact on responses to these policy related questions. The coefficients in each model are not statistically significant and, more importantly, are very close to zero.

Table M.1

	(1) National Eval	(2) National Eval	(3) Local Eval	(4) Local Eval
Received any Treatment	-0.02		-0.01	
	(0.04)		(0.04)	
Personal Background		-0.02		-0.01
		(0.05)		(0.04)
Policy		0.01		0.01
		(0.04)		(0.04)
Full debate video		-0.04		-0.05
		(0.05)		(0.04)
Full debate audio		-0.01		-0.01
		(0.05)		(0.05)
Constant	3.23***	3.23***	3.26***	3.26***
	(0.09)	(0.10)	(0.09)	(0.09)
Observations	7,880	7,880	7,965	7,965
R-squared	0.02	0.02	0.02	0.02

N Results in the follow-up sample (10 percent of original sample)

Table N.1: Treatment effects two days later

	(1) After Debate All	(2) Two Days All	(3) After Debate Partisans Eval Non-Copartisan	(4) Two Days Partisans Eval Non-Copartisan	(5) After Debate Partisans Eval Non-Copartisan	(6) Two Days Partisans Eval Non-Copartisan
Treatment	0.22*	0.12	0.73***	0.16	0.62***	0.94***
	(0.13)	(0.13)	(0.19)	(0.23)	(0.23)	(0.35)
Treatment x Stronghold EA					0.21	-0.99**
					(0.34)	(0.43)
Stronghold EA					0.19	2.63***
					(0.55)	(0.46)
Constant	2.90***	3.34***	2.17***	2.58***	2.16***	1.83***
	(0.37)	(0.33)	(0.59)	(0.60)	(0.59)	(0.56)
Observations	979	979	496	496	496	496
R-squared	0.06	0.04	0.23	0.16	0.23	0.21

Notes: Observations are at the individual-candidate dyad. Standard errors clustered by individual in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

O Tests of Additional Outcomes

We also pre-specified a set of hypotheses about the impact of debates on political tolerance, trust, attitudes about clientelism, and attitudes about democracy and perceptions of freeness and fairness of the 2016 election in Ghana. Due to space constraints, we present these results in this section.

To test our hypotheses on political tolerance, trust, the importance of clientelism, and attitudes about democracy, we create a dataset in which the unit of analysis is the individual survey respondent. As above, our models include electoral area fixed effects, and the individual-level pre-treatment controls.

Overall, we find no evidence that debates impact any of these outcomes. For example, as one might expect, we find that NPP supporters are less tolerant and trusting of NDC supporters than they are of other Ghanaians, while NDC supporters are less tolerant and trusting of NPP supporters. But we find no evidence that the debates impacted these attitudes.

Using a list experiment, which reduces response bias on sensitive survey questions, and a direct question about clientelism, we asked voters how important clientelism would be to their voting decision in the upcoming election. If anything, we find that the debates slightly increased the chance that voters would report that clientelism would be important to them, an effect that is bigger among swing voters. But the magnitude of these effects are small and they are not close to being statistically significant.

We also found that the debates had little impact on attitudes about democracy or perceptions of the election in Ghana. We note, however, that voter support for democracy is extremely high in Ghana and most people in our sample had very positive perceptions about the elections. As a result, there was little room for upward movement on any of our indicators. These results should be interpreted with this ceiling effects in mind, as the effects of debates could be different in contexts where voters' baseline perceptions are less positive, which is the case in many new democracies.

In the regressions in Table O.1, we construct a tolerance index using responses to the following question:

- I am going to read you a list with groups of people. Please tell me which ones you would like, dislike, or not care about having as neighbors. A) NDC supporters B) NPP supporters.

We sum the two responses. Responses were on a 1-5 scale, with higher responses indicating a higher degree of approval.

Table O.1: Debates and political tolerance

Variables	(1) Index	(2) Index	(3) Index	(4) Trust in NPP Supporters	(5) Trust in NDC Supporters
Received any Treatment	0.00		0.07	-0.02	0.16
	(0.04)		(0.08)	(0.10)	(0.11)
Personal Background		0.03			
		(0.05)			
Policy		0.03			
		(0.05)			
Full debate video		-0.05			
		(0.05)			
Full debate audio		-0.02			
		(0.05)			
Treatment x NPP Partisan			0.02	0.00	0.03
			(0.11)	(0.14)	(0.16)
Treatment x NDC Partisan			-0.19*	-0.15	-0.22
			(0.10)	(0.13)	(0.15)
NPP Partisan			0.07	0.64***	-0.51***
			(0.10)	(0.13)	(0.14)
NDC Partisan			0.27***	-0.37***	0.91***
			(0.09)	(0.12)	(0.13)
Constant	3.46***	3.46***	3.36***	3.74***	3.00***
	(0.13)	(0.13)	(0.14)	(0.18)	(0.20)
Observations	1,969	1,969	1,903	1,905	1,905
R-squared	0.11	0.11	0.10	0.26	0.23

Notes: Table O.1 displays the average treatment effects on political tolerance. Observations are at the individual level. Tolerance is measured in terms of approval of having i) NDC neighbors ii) NPP neighbors. The index sums responses to both questions. Responses are on a 1-5 scale, with higher responses indicating a higher degree of approval. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

In the regressions in Table O.2, we construct a trust index using the responses to the following question:

- How much do you trust the following people? A) NDC supporters B) NPP supporters.

We sum the two responses. Responses were on a 1-4 scale, with higher responses indicating a higher degree of approval.

Table O.2: Debates and trust in co-partisans and non-copartisans

	(1)	(2)	(3)	(4)	(5)
				Trust in	Trust in
Variables	Index	Index	Index	NPP Supporters	NDC Supporters
Received any Treatment	0.00		-0.07	-0.03	-0.09
	(0.04)		(0.07)	(0.09)	(0.09)
Personal Background		0.00			
		(0.05)			
Policy		-0.01			
		(0.05)			
Full debate video		0.03			
		(0.05)			
Full debate audio		-0.02			
		(0.05)			
Treatment x NPP Partisan			0.10	0.07	0.13
			(0.10)	(0.13)	(0.13)
Treatment x NDC Partisan			0.05	0.01	0.08
			(0.09)	(0.12)	(0.12)
NPP Partisan			0.09	0.71***	-0.51***
			(0.09)	(0.12)	(0.12)
NDC Partisan			0.22***	-0.39***	0.85***
			(0.08)	(0.11)	(0.11)
Constant	2.23***	2.23***	2.19***	2.34***	2.02***
	(0.12)	(0.12)	(0.13)	(0.17)	(0.17)
Observations	1,973	1,973	1,906	1,903	1,903
R-squared	0.13	0.13	0.16	0.31	0.35

Notes: Table O.2 displays the average treatment effects on political trust. Observations are at the individual level. Trust is measured with the question: How much do you trust the following people? i) NDC supporters ii) NPP supporters. Responses were on a 1-4 scale, with higher responses indicating a higher degree of approval. Standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table O.3: Debates and reported importance of clientelism

	(1)	(2)	(3)
Treatment	0.00	0.01	0.01
	(0.03)	(0.04)	(0.03)
Treatment x Swing (count)		-0.07	
		(0.05)	
Swing (count)		0.07	
		(0.05)	
Treatment x Swing (rating)			-0.01
			(0.06)
Swing (rating)			-0.00
			(0.06)
Constant	0.39***	0.32***	0.38***
	(0.09)	(0.11)	(0.09)
Observations	1,962	1,296	1,896
R-squared	0.06	0.07	0.06

Notes: Table O.3 displays the average treatment effects on clientelism. Observations are at the individual level. The dependent variable is constructed from the following post-treatment survey questions: "When deciding how you will vote in the upcoming parliamentary elections, how important will it be the following be in your decision? Whether the candidate has given money or gifts to you or others in your community." Standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

In Table O.4 we construct an index using responses to the following three questions:

- Do you agree with the following statement? Free and fair elections are the best method for selecting political leaders.
- Do you agree with the following statement? It is important for Ghanaians to accept the outcome of the upcoming elections, even if some are not happy with the outcome.
- Do you agree with the following statement? The upcoming parliamentary election offers me a real choice between candidates.

We sum the three responses to create the index. Responses were on a 1-5 scale, with higher responses indicating a higher degree of approval.

Table O.4: Debates and attitudes about democracy

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			Elections	Elections	Accept	Accept	Real	Real
Variables	Index	Index	Best	Best	Outcome	Outcome	Choice	Choice
Received any Treatment	0.02		0.06		-0.00		0.02	
	(0.03)		(0.04)		(0.05)		(0.04)	
Personal Background		0.03		0.04		0.02		0.04
		(0.04)		(0.05)		(0.06)		(0.05)
Policy		0.01		0.06		-0.01		-0.01
		(0.04)		(0.05)		(0.06)		(0.05)
Full debate (video)		0.02		0.06		0.01		0.01
		(0.04)		(0.05)		(0.06)		(0.05)
Full debate (audio)		0.03		0.09*		-0.02		0.04
		(0.04)		(0.05)		(0.06)		(0.05)
Constant	4.31***	4.31***	4.58***	4.58***	4.39***	4.39***	3.94***	3.94***
	(0.09)	(0.09)	(0.12)	(0.12)	(0.15)	(0.15)	(0.13)	(0.13)
Observations	1,962	1,962	1,973	1,973	1,973	1,973	1,969	1,969
R-squared	0.08	0.08	0.09	0.09	0.08	0.08	0.07	0.07

Notes: Table O.4 displays the average treatment effects on attitudes about democracy. Observations are at the individual level. The dependent variables reflect attitudes to the following statements: **Elections Best:** Free and fair elections are the best method for selecting political leaders. **Accept Outcome:** It is important for Ghanaians to accept the outcome of the upcoming elections, even if some are not happy with the outcome. **Real Choice:** The upcoming parliamentary election offers me a real choice between candidates. Responses are on a 1-5 scale, with higher responses indicating a higher degree of approval. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

P Persistence of effects in follow-up sample

Table P.1: Descriptive Statistics and Covariate Balance in the Follow-Up Sample

	Mean Treatment	Mean Control	Difference	*P-value*
Female	0.48	0.55	0.07	0.43
Age	33.62	34.39	0.77	0.73
Education	4.45	4.36	0.08	0.78
Job	0.66	0.75	0.09	0.28
Owns Phone	0.89	0.89	0.00	1.00
Owns Radio	0.64	0.68	0.04	0.59
Owns TV	0.71	0.75	0.04	0.61
Owns Blender	0.22	0.2	0.02	0.81
Owns Car	0.05	0.05	0.00	0.98
Information	3.18	3.11	0.07	0.67
NPP Eval - NPP Eval	1.3	-0.26	1.56	0.03
NDC Partisan	0.31	0.42	0.10	0.19
NPP Partisan	0.37	0.21	0.16	0.04
Swing (rating)	0.31	0.37	0.06	0.46
Swing (count)	0.39	0.3	0.09	0.59

Notes: Table P.1 displays differences in means across treatment conditions, for different covariates among the sample of respondents in the follow-up survey. P-values are the result of a two-tailed t-test for difference in means.