

The Perils of Polarization: Partisan Conditioning of External Efficacy – A Field Experiment

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Abstract

External efficacy is a core belief of citizens in democracies. Little is known, however, about how to increase it, especially in emerging democracies. The literature shows mixed results: in some studies democratic interventions have a positive effect, while in others there is no effect. In this article, we develop a theory of partisan information processing, where citizens are sensitive only to information that confirms prior beliefs. We test the theory on a field experiment in Kenya, where subjects are randomly assigned to an interactive political information treatment. We hypothesise and then find that government partisans improve their external efficacy, while there is no effect on opposition partisans. The study highlights the challenges for democracy promotion in polarised political environments.

Classification:

Keywords: political efficacy, partisanship, confirmation bias, civic tech.

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Introduction

Is external efficacy manipulable? And, if so, does it impact oppositional supporters in the same way as government supporters? In classic studies, external efficacy is a disposition that arises from the political culture and socialised preferences of a society (Almond and Verba 1963; Campbell et al. 1960), attitudes that have been found to be relatively stable (McPherson, Welch, and Clark 1977). But efficacy may also be malleable, subject to manipulation by governments or non-governmental organizations (NGOs). Citizens may display external efficacy in relation to their awareness of the operation of political institutions, and update their efficacy when exposed to political information. Moreover, some experimental work suggests that citizen interacting with political information websites can increase the sense of external efficacy (Tedesco 2007). Other evidence gives a mixed assessment, as some studies have found no effect on external efficacy (Pennington et al. 2015).

Such contrary findings might be the result of different populations receiving signals to increase their efficacy. It seems plausible to suppose that not all citizens are equally sensitive to manipulation. In particular, that the position of citizens in the political system matters in terms of their overall assessment of their political influence. It has been conventional wisdom since the era of early modern political science that partisanship impacts on how citizens view the government (Campbell et al. 1960). Partisanship has been shown to be a pervasive dynamic force shaping citizens' perceptions of, and reactions to, the political world (Bartels 2002). For instance, evidence shows that partisans display a higher factual knowledge on matters that confirm their worldview and lower for facts that do not (Jerit and Barabas 2012). If partisan identification acts as a "perceptual screen", then surely it would condition the impact of any intervention to increase external efficacy.

The literature on partisanship suggests that efficacy is not neutral, but rather connected to perceptions about the power play and the role of ideology in politics; as it varies according to vote choice or partisan affiliation (Craig, Niemi, and Silver 1990; Merolla et al. 2013). In partisan contests, winning voters experience a positive change in external efficacy in the immediate aftermath of the election (Davis and Hitt 2016). There is therefore good reason to expect that interventions to increase efficacy will be perceived differently according to which side someone is on in the partisan battle. In this article we present a theory on partisan information processing that helps us understand why, under certain conditions, external efficacy is not affected by interventions that seek to bolster it.

To explore partisan conditioning of external efficacy we conducted a randomized controlled trial where we assigned subjects to a website containing pro-democracy (efficacy) civic education messages. We conduct the study in country with a high degree of partisan conflict, Kenya (Mueller 2011), to illustrate how the provision of information about efficacy might be influenced by the partisan context. External efficacy was captured with a survey instrument both before and after the administration of the treatment. We analyse the impact of the treatment conditional on self-reported pro-government orientation (partisanship) using an interaction model. The idea is that providing neutral political information (like election date) and normative pro-democracy messaging (including pro-efficacy messaging) only impacts those who are inclined to support the government, while those that do not remain unaffected.

The paper proceeds as follows. First, we set out a theoretical framework to understand how citizens process information in a polarised environment. Second, we report the details of the experimental design. Third, we present the results. Finally, we discuss the findings, elaborate on policy implications, and identify avenues for further research.

A Theory of Partisan Information Processing

Our claim is that citizens will process political information in their role as partisans, and adjust their level of external efficacy accordingly. We draw on insights from foundational political science (Campbell et al. 1960), which have been strengthened and enhanced in recent research (Bartels 2002; Taber and Lodge 2006; Tilley and Hobolt 2011; Anduiza, Gallego, and Muñoz 2013). In the classic *The American Voter* Campbell et al concluded that partisanship structured attitudes to national politics. These partisan loyalties are formed early in a person’s life and condition attitudes and behaviours (Campbell et al. 1960). As a result, partisanship acts as a filter whereby information is processed to be in accordance with the pre-set belief about the values of the party, and will affect how citizen attributes credit and blame for public policy outcomes (Tilley and Hobolt 2011).

In an influential study on the United States Bartels (2002) argues that evaluations of presidential administrations are impacted by changes in objective economic conditions, but that the impact is conditional on partisanship. When a Republican Party supporter is exposed to information about increases in unemployment their approval of the Republican president H.W. Bush is mitigated by their partisanship. They adjust their perception of Bush downward, but not as much as Democrats do (Bartels 2002, 128). The author further speculates about the mechanisms: ‘Perhaps they [partisans] attach more salience to perceptions consistent with their partisan predispositions than to discordant perceptions’.

Our theory builds on such cases of selective perception. In the case of pro-democracy information, like in our experiment, the treatment might be taken as evidence of the good intentions of the government (in terms of efficacy), and as the theory of confirmation bias would have it, only those that already support the government are nudged by this kind of information. Both government and opposition supporters are impacted by information that confirms their views. When exposed to conflicting (incongruent) information both types of supporters ignore the information (Tilley and Hobolt 2011), i.e. they are insensitive to such treatments.¹ In order to explore the different types of reactions to external factors (objective facts, interventions etc.) we present a non-formal theoretical model. We distinguish between two different types of interventions: pro-outcome treatments, as in our experiment, and anti-outcome treatments, as in Bartels classic study.

Figure 1. A Theoretical Model for Partisan Information Processing with Predictions for Sensitivity to Interventions.

	Pro-outcome treatment (pro-efficacy, econ.growth)	Anti-outcome treatment (unresponsive, corruption, unemployment)
Outcome (efficacy, approval)	Govt: positive effect Opp: weak or no effect	Govt: weak or no effect Opp: negative effect

The outcome of interest could be anything from economic perceptions (Evans and Andersen 2006), presidential approval (Bartels 2002; Lebo and Cassino 2007), or, as in our case, the sense of external efficacy. By treatment we here refer to the thing that is stipulated to affect the outcome. In Bartels case this was new information about (higher) unemployment. The important distinction here is whether the treatment is thought to increase or decrease the outcome of interest. Information that reflects poorly on the econo-

¹ Or ‘partisan resistance’ to mainstream messages (Zaller 1992).

my, like unemployment, is thought to have a negative effect on presidential approval. However, the effect is conditional on partisan orientation, with a much weaker negative impact on supporters whose president is in power (Bartels 2002).

The null, or weak, effect expectation is based on a theory of *selective perception*, which states that when incongruent information is presented it tends to be ignored if it contradicts prior beliefs (Hastorf and Cantril 1954). Building on the model above we hypothesize that:

- H1 - exposure to political information (treatment) will increase external efficacy compared to placebo (control) for government supporters; while
- H2 - exposure to political information will have no effect on external efficacy compared to placebo opposition supporters.

The reason we expect no effect on oppositional supporters, and not a weak effect, is that external efficacy is thought to be a rather stable belief (McPherson, Welch, and Clark 1977). In contrast, presidential approval is a much more sensitive opinion and therefore more easily manipulated.

Research Design

Civic Technology has generated high expectations in the field of governance and development (Patel et al. 2013). Engaging the citizenry using digital information and communication technologies (ICT) can reach a larger number of individuals. The appeal of ICT partly stems from the reduced transaction costs associated with this way of accessing information, and the convenience and immediacy of ICT-enabled forms of engagement. Around the world there are many cases of interventions like Mzalendo in Kenya (World Bank 2016; Peixoto and Fox 2016; McNutt et al. 2016). However, little is known about the impact of such projects.

The case of Kenya, an East African emerging democracy with a population of around 40 million, presents a good case for which to test our hypotheses (Burgess et al. 2015). Kenya is a case of extreme political polarisation where elections are intensively fought, with at times lethal outcomes (Mueller 2011). To some extent partisan affiliation overlaps with ethnicity (Bratton and Kimenyi 2008). Kenya is also a low income country and low-information environment. In spite of abuses of power, there are regular contested elections where the parties do switch: the basics of democracy are in place (Chege 2008).

The intervention in our study is the exposure of recruited citizens of Kenya to a website that resembles the political information website, Mzalendo, <http://info.mzalendo.com>, which is a non-partisan project started in 2005 whose mission is to 'keep an eye on the Kenyan parliament'. The Mzalendo site seeks to promote greater public voice and enhance public participation in politics by providing relevant information about the National Assembly and Senate's activities. Respondents can find out about their Member of Parliament (MP) and voting behaviour in the Parliament. Our treatment introduces respondents to their role in democracy and the role of MPs. The website conveys basic facts about Kenyan democracy and then gets respondents to interact using a quiz. The treatment informs about the registration to vote and encourages respondents to vote. See treatment content in the appendix.

To offer a similar online experience without political content, we designed a placebo, which has the same kind of activities as the treatment, and the same design and spread of text and activities, but is on oceans of the world. The placebo informs the reader about

oceans and then offers a short quiz. The remaining text after the quiz is more information about oceans.

Subjects in the treatment group have to read two pages of information in order to finish the intervention. The text informs the reader about some basic facts about Kenyan democracy, such as the numbers of representatives and what they do. The text conveys the aim of the democrat system, “Their job is to represent the people of their constituencies as well as special interests (youth, women, persons with disabilities and ordinary workers).” It also tells the reader about the responsibilities of the citizens to find out information. Information about Mzalendo is also provided. Segments of text are interrupted by short quizzes, designed to make the experience interactive. Respondents are told about how to register to vote and are urged to do so. A link is provided. Finally, respondents are encouraged to participate, then provided with a link to Mzalendo and encouraged to visit the site.

Overall, the treatment gives a pro-efficacy message by conveying what representatives are doing and talking about the virtues of Kenyan democracy. There are elements of a traditional civic education message by reporting on what representatives do (such as scrutinising budgets), which may also give a sense that the system is responding to citizen concerns, if indirectly.

The placebo condition has the exact same structure, both in terms of length and level of interactivity. The content of the placebo was consciously selected to be far removed from Kenyan politics: Oceans of the world. .

External Efficacy Measure

In both waves of the survey we ask three items on external efficacy:

1. Please indicate whether you agree or disagree with the following statement(s):
Representatives in the National Assembly care what people like me think.
2. Please indicate whether you agree or disagree with the following statement(s):
Representatives in the National Assembly are only interested in people's votes
but not in their opinions

The response-options were a five-point Likert scale, with either strongly disagree, disagree, neutral, agree, or strongly agree as the option (items 1 and 2). These two items were asked as part of a battery of five questions, see appendix for full questionnaire. The third item was asked as a separate stand-alone question:

3. How responsive is your National Assembly Representative to your needs?

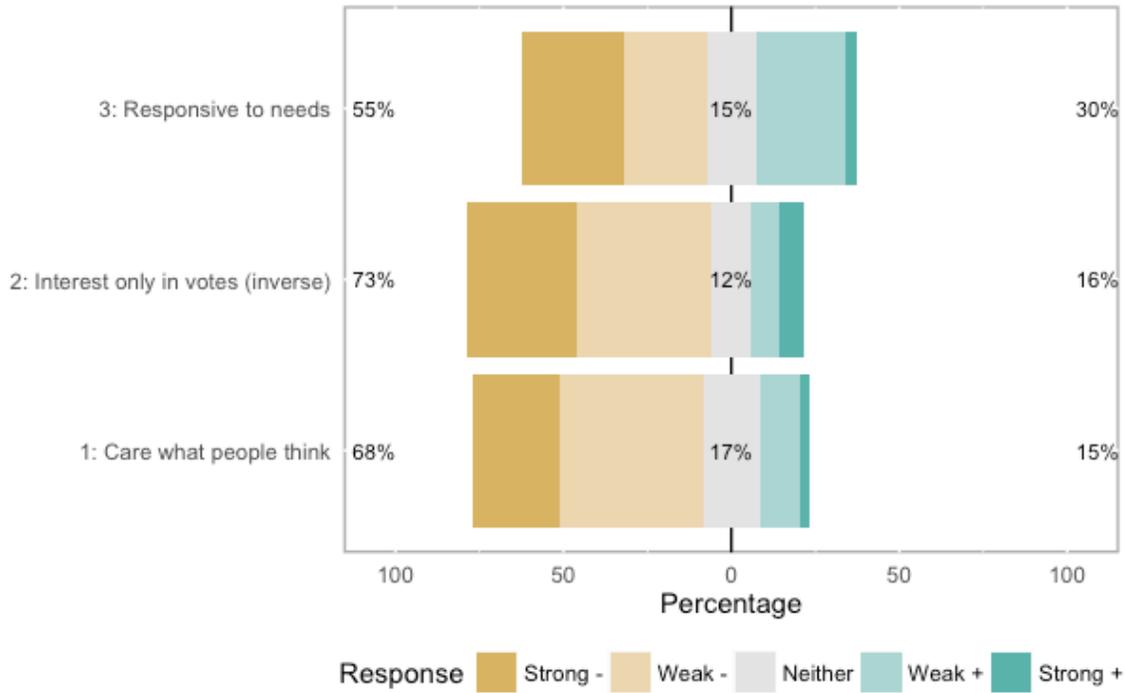
Here too the respondent was asked to pick an answer from a five-point: very unresponsive, somewhat unresponsive, neither responsive nor unresponsive, somewhat responsive, or very responsive.

All three items closely follow standard external efficacy questions (Craig, Niemi, and Silver 1990). However, the questions were adopted to reflect our interest in Members of Parliament (and not the Government or the regime at large). It should be noted that one of the questions is positively worded (1), where the respondent is asked to acquiesce with the external efficacy statement. The second (2) question is worded negatively, in terms of efficacy. Finally, the third question is neutrally worded.

The distribution of the three items in the baseline survey among the subjects that completed the study is shown in Figure 2. The scale for the negatively worded item (2) has

here been inverted in order to capture external efficacy on a five-point scale (from strong negative to strong positive in terms of efficacy).

Figure 2. Response Option Distribution on the External Efficacy Items in the Baseline Survey.



* Notes: Items presented in order of external efficacy.

As specified in the pre-analysis plan,² the external efficacy index was constructed by adding up all three relevant items and dividing it by three, thus arriving at the mean of all items. The resulting external efficacy index has values ranging from 1 to 5 and a mean value of 2.39 in the baseline data, suggesting that overall external efficacy is negative, i.e. below the middle point, 3, on the scale.

Descriptive Statistics

A total of 10,133 subjects were recruited for the baseline survey. 3,463 subjects completed the last leg of the study, the endline survey, 1,759 from the treatment group and 1,704 from the control.

Partisanship was captured by a two-step question, first asking the respondents to say whether they feel close to a particular party or not.³ As a follow-up to those that responded affirmatively ($n=1,748$, 50.4 per cent of all subjects), we asked which of the following categories best describe their party: government, opposition, or neither. In the analysis we label those that picked neither as undeclared partisans.

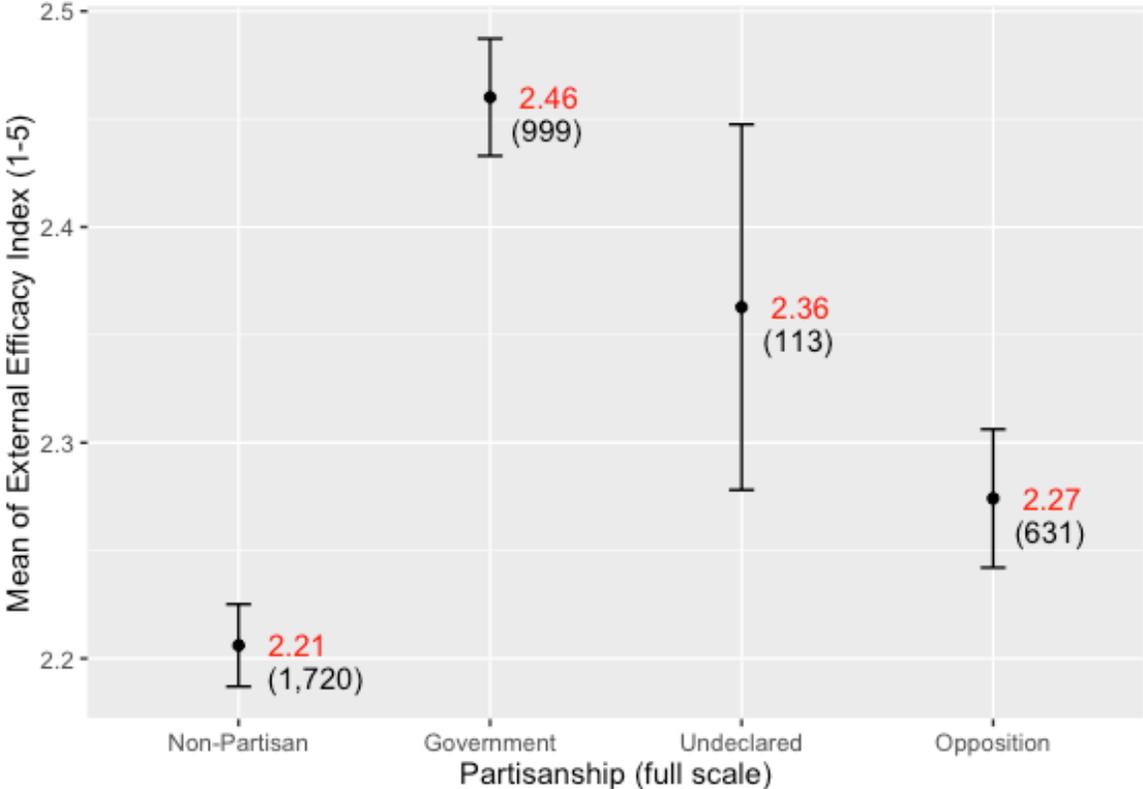
² Registration link and number ..

³ For specific question wording, see questionnaire in the appendix.

Prior to the administration of the treatment the subjects composite external efficacy score varies significantly across the four partisanship categories, see Figure 3. The pro-government partisans score considerably higher in terms of external efficacy compared to oppositional partisans. This is fully in line with the established literature on efficacy (Davis and Hitt 2016):

Drawing on this research, we begin with the basic premise that winners should be more likely to perceive that government is responsive, while those who cast a vote for a losing candidate should be less likely to believe that government will cater to their preferences. Electoral winners should possess more positive perceptions of external efficacy than electoral losers in the post-election period.

Figure 3. Average External Efficacy Index Scores by Partisanship Category at Baseline.



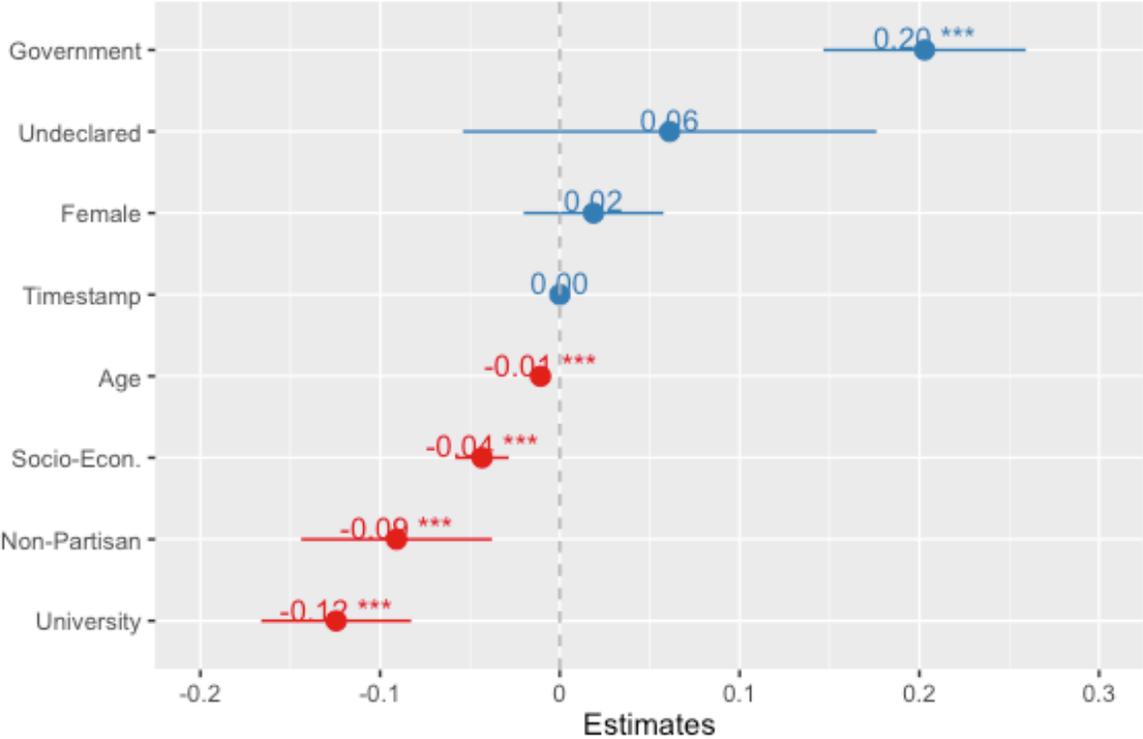
* Notes: standard errors of the mean displayed with error bars.

This difference in base levels of efficacy we believe to be important in explaining the reaction to the treatment in that non-government subjects have already evaluated the system with a level of efficacy that correspond to their perceived views about the operation of democratic institutions, whereas the opposition have a more favourable disposition which we argue can be manipulated.

To analyse further how the full range of covariates is associated with external efficacy in the baseline survey we fit a linear regression with the external efficacy score as the dependent variable. As can be seen in Figure 4, pro-government partisans have a much higher external efficacy, when controlling for a range of theoretically relevant factors. Interestingly, being a non-partisan is negatively associated with external efficacy. Furthermore, the

richer, older, and more educated an individual is, the lower the sense of external efficacy is. Also, gender does not seem to be driving efficacy. These latter four findings conflict with the findings in the external efficacy literature on the West (Verba, Burns, and Schlozman 1997; Kahne and Westheimer 2006).

Figure 4. Predictors of External Efficacy at Baseline (OLS estimates).



* Notes: Opposition is the omitted partisan category.

Before we move to an analysis of treatment effects it should be noted that random assignment was validated through a sample balance test, see appendix.

Results of the Experiment

The Conditional Average Treatment Effect (CATE) is estimated by regressing (OLS) on the endline score on the treatment, including interaction terms for the partisanship categories, while controlling for the baseline score and covariates (age, gender, education, and wealth).⁴ Table 1 provides evidence for the conditional hypothesis. The unadjusted *p*-value of the interaction term Treatment * Government tells us what the effect on external efficacy is compared to the omitted, Opposition, category. The magnitude of the treatment effect on government partisans is 0.15 on the 1-5 point scale, constituting a 3.0 per cent improvement in external efficacy.

⁴ Exactly as specified in the Pre-Analysis Plan.

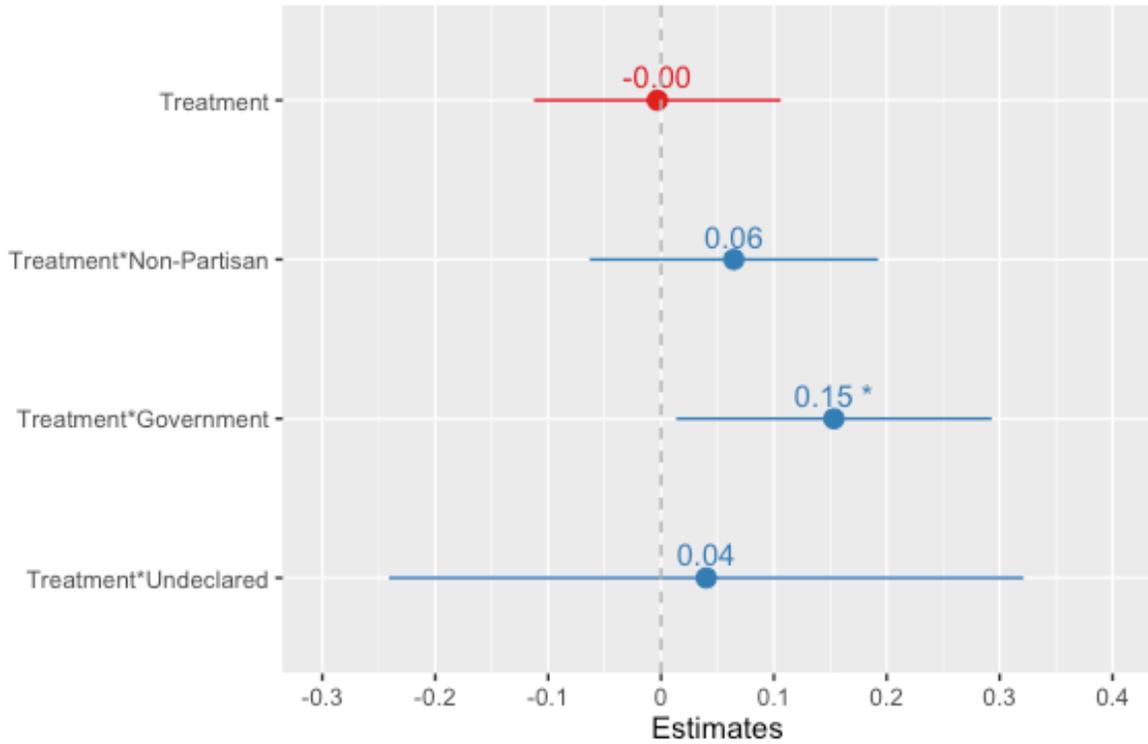
Table 1. Treatment Effect on External Efficacy Index, Linear Model (OLS).

	External Efficacy Index (endline)		
	<i>B</i>	<i>std. Error</i>	<i>P</i>
(Intercept)	1.19	0.06	<.001
Treatment	-0.00	0.06	.954
Partisanship (ref.category: Opposition)			
<i>Non-Partisan</i>	-0.09	0.05	.054
<i>Government</i>	-0.02	0.05	.761
<i>Undeclared</i>	0.08	0.10	.444
Treatment interactions			
Treatment * Non-Partisan	0.06	0.07	.322
Treatment * Government	0.15	0.07	.032
Treatment * Undeclared	0.04	0.14	.780
Covariates			
External Efficacy Score (baseline)	0.56	0.01	<.001
Female	-0.00	0.03	.980
Socio-Economic Index	-0.02	0.01	.061
University educated	-0.01	0.03	.819
Observations	3,456		
R ² / adj. R ²	.315 / .313		

* Notes: The *p*-values reported are unadjusted.

We can also see that the main treatment effect is null, which should be interpreted as the effect on efficacy from the omitted, Opposition, category, i.e. the effect on efficacy when Government (or the other non-omitted terms) is zero. Figure 5 show the main and the interaction terms with 95-confidence intervals.

Figure 5. Visualizing the Main Results – Pro-Government Partisans Have Higher External Efficacy as a Result of the Treatment.



* Notes: The p -values reported are unadjusted. 95% confidence intervals. Model specification identical to Table 1.

It should here be noted that when adjusting p -values to address the multiple comparisons problem, as we said we would do in the pre-analysis plan, the p -value of the Treatment * Government interaction term is 0.1905.⁵ Strictly speaking, therefore, we do not find support for the stipulated conditional hypotheses that pro-government partisans are affected by the treatment. The data does, however, tell us that opposition support's external efficacy is not impacted by the treatment.

Robustness & Extensions

To further explore the data we run the analysis of treatment effects on the individual external efficacy items separately, instead of the additive index. In

⁵ The pre-analysis plan listed six hypotheses to be tested. For a full list of unadjusted as well as adjusted p -values see statistical appendix.

Table 2 we can see that the results are driven exclusively by the second item, the negatively worded statement about MPs only being interested in people's votes and not opinions. This suggests that the negative wording may have triggered the difference in responses across the partisans.

Table 2. Treatment Effect on Individual External Efficacy Items, Linear Model (OLS).

	1: Care what people think			2: Interest only in votes (inverse)			3: Responsive to needs		
	<i>B</i>	<i>std.</i> <i>Error</i>	<i>P</i>	<i>B</i>	<i>std.</i> <i>Error</i>	<i>p</i>	<i>B</i>	<i>std.</i> <i>Error</i>	<i>p</i>
(Intercept)	1.55	0.08	<.001	1.91	0.09	<.001	1.41	0.08	<.001
Treatment	0.06	0.08	0.464	-0.08	0.09	0.377	-0.03	0.08	0.752
Partisanship (ref.category: Opposition)									
Non-Partisan	-0.07	0.07	0.27	-0.11	0.07	0.131	-0.12	0.07	0.095
Government	0.04	0.07	0.536	0	0.08	0.959	0.01	0.08	0.884
Undeclared	0.23	0.15	0.117	0.05	0.17	0.781	0.02	0.16	0.888
Treatment interactions									
Treatm*Non-Partisan	0.02	0.09	0.809	0.1	0.1	0.361	0.1	0.1	0.296
Treatm*Govt	0.09	0.1	0.386	0.29	0.11	0.011	0.12	0.11	0.284
Treatm*Undecl.	-0.21	0.2	0.309	0.16	0.23	0.487	0.15	0.22	0.487
Covariates									
Ext. Eff. (baseline)	0.39	0.02	<.001	0.22	0.02	<.001	0.51	0.01	<.001
Female	0	0.04	0.913	0.02	0.04	0.676	0	0.04	0.902
Socio-Economic	-0.02	0.01	0.199	-0.03	0.01	0.023	-0.03	0.01	0.05
University edu.	-0.05	0.04	0.17	-0.03	0.04	0.456	0.03	0.04	0.453
	3460			3459			3463		
	.153 / .150			.063 / .060			.277 / .275		

* Notes:

Conclusions

In classic studies of democracy efficacy is an important attitude that helps a democracy function by giving citizens a stake in the government through the sense that they – or that people like them – can influence political outcomes (Abramson 1983). By implication, societies get the efficacy they have cultivated in past generations, consistent with their cultures and histories, and reflect past level efficacy and the performance of governments. With such powerful transmitted progenitors, the task of increasing efficacy is daunting as any recipient of a message that says positive things about political system in terms of its responsiveness, will view it in the light of past considerations and collective memories.

Nonetheless, even though some observational and experimental research suggests citizens can be reminded of the democratic process and with the aim of increasing efficacy, we argue that rather than receptiveness to messages, it is conditioned by something far more powerful than national memories and cultures – partisanship. In clientelistic societies, like in Kenya, party affiliation determines who receives benefits in the form of policies and financial allocations. If the other party, as is the case in polarised systems, has a monopoly of favourable political decisions then the other party’s supporters will feel deprived by comparison.

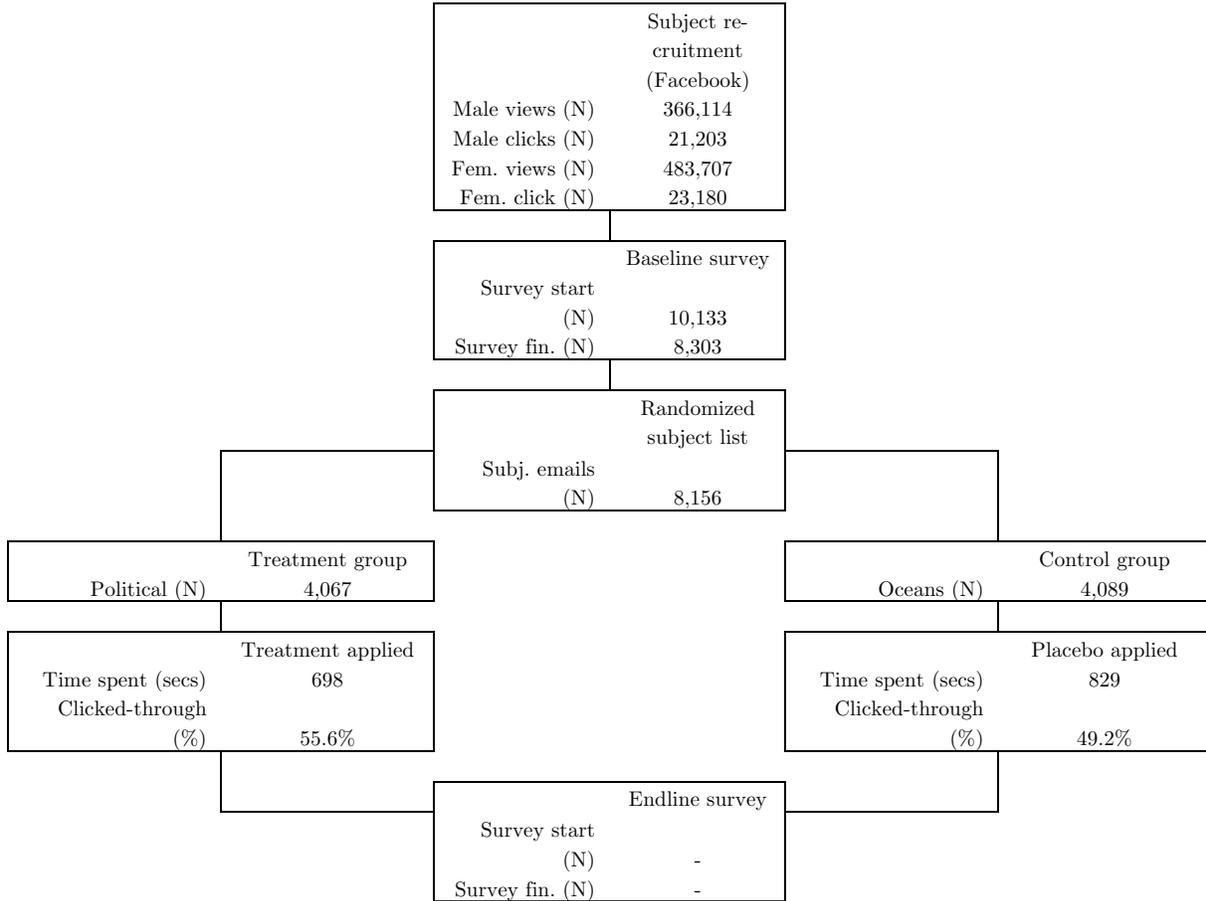
Government partisans get a boost in efficacy as a result of being exposed to information about democracy, while opposition partisans remain unaffected. Opposition partisans exposed to a pro-democracy message fail to be moved since they do not agree with the prop-

osition. These results show that democracy promotion is not a neutral activity, but depends on ideology and position in a society. Our findings provide an extension of classical work in political science, that addresses attitudes, but not so far efficacy, which is our contribution. Whereas partisan conditioning is easily applicable to policy positions that are quite rightly the subject of partisan disagreement, the partisan conditioning of a key building block of a democracy, which should be beyond partisan views, is in fact interpreted as such.

Appendix 1: Research Design

Subjects were recruited via paid adverts on Facebook and offered 500 shillings on completion of the second wave survey. Figure 6 gives a flow diagram of the course of the subjects through the experiment.

Figure 6. Flow Diagram of Subjects Over the Course of the Experiment.



Randomization

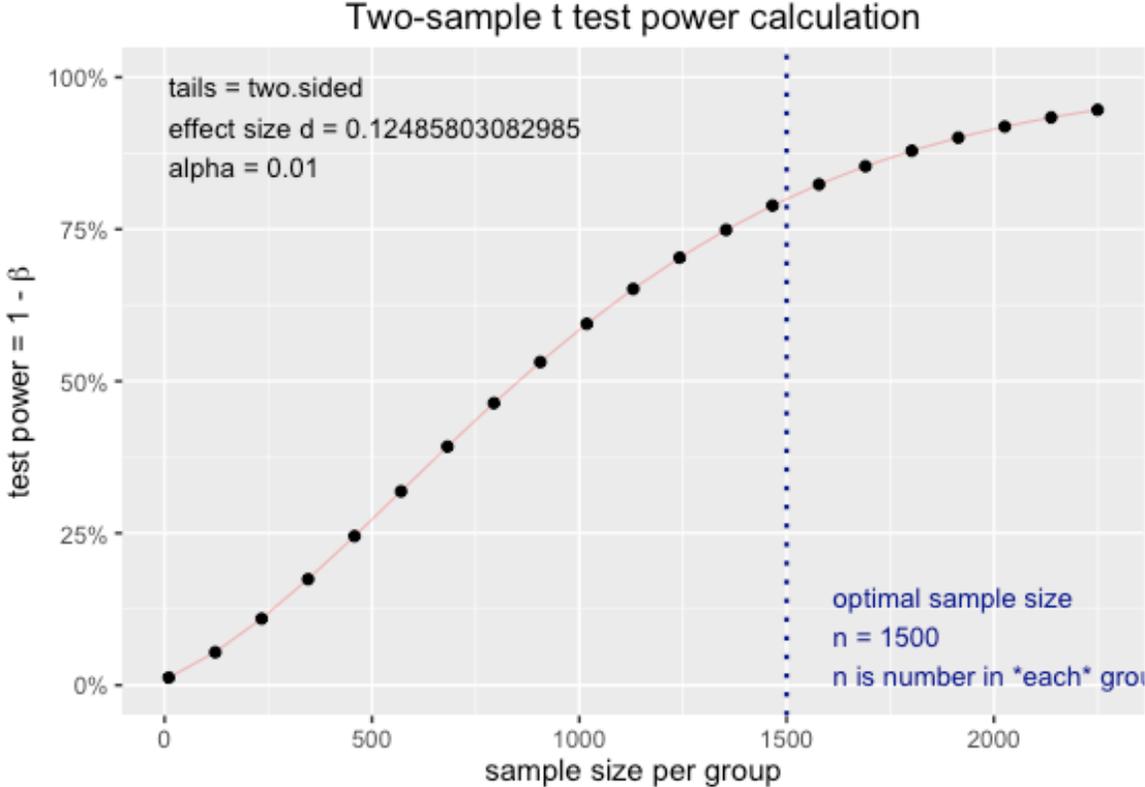
The viewing of the sites is randomised by the partner organisation mySociety into treatment and placebo. The randomisation is using the php rand function. It randomly chooses a number between 1 and 100 and then assigns that number to two branches based on a 50:50 allocation. Users are assigned a group completely at random the moment they confirm acceptance of the survey terms and consent into the treatment.

Power Analysis

We carried out power calculation to show that the experiment is capable of detecting an effect size of .12 (Cohen's d , see Figure 7) between placebo and control, a two-sided test at 80 per cent power. We use information from the pilots we know that the mean internal efficacy score is 3.454 and the standard deviation is 0.777. As a point of reference for the

effect size (d) that we would be able to detect, a 0.1 point increase (which would mean a 3% increase to 3.554) in the internal efficacy score is a d of 0.113. Here we do not account for the fact that using covariates (with an explanatory power, R^2 , of 0.064) will further increase the power.

Figure 7. Power Analysis Visualization.



Attrition

Attrition is expected between baseline and follow up. If attrition is two-sided we propose to report and then ignore it on the basis that the sample is a convenience sample as it is not worth while re-weighting the estimates to the population at wave one. It is possible that attrition is one-sided in which case we will use Lee bounds analysis to examine the impact of attrition on the results.

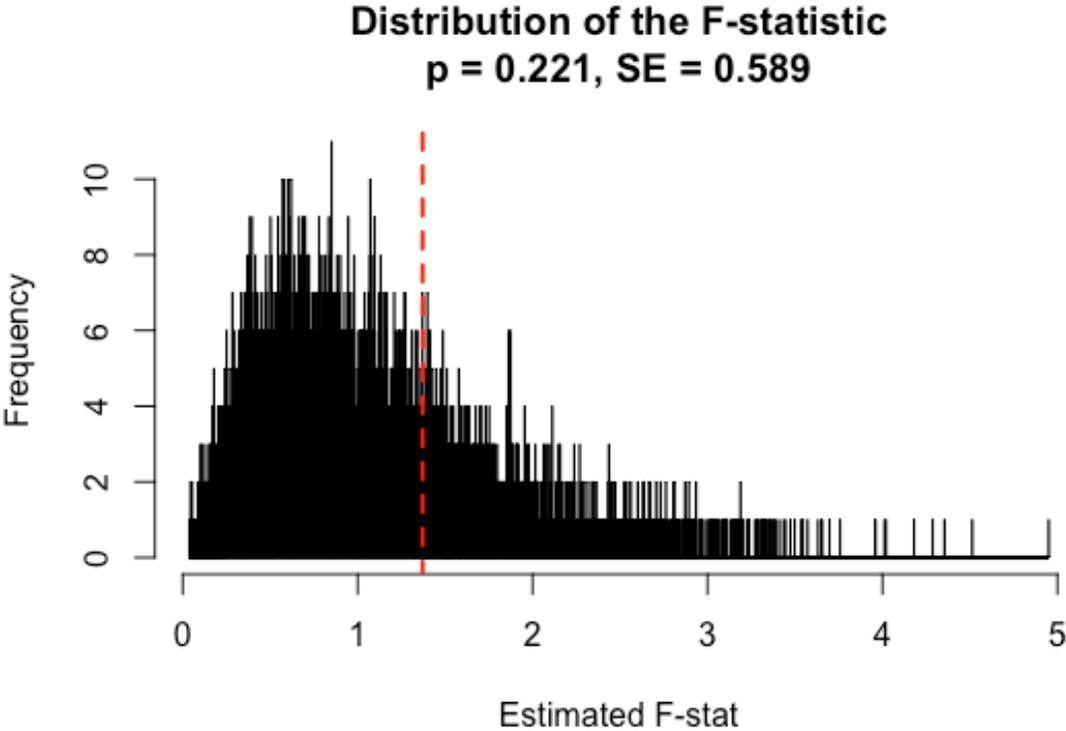
Covariates

We will carry out a pre and post treatment survey (see appendices), which will harvest the following covariates: age (in years), gender, attend university or not, ownership (one point each for Refrigerator, TV, Car, Smart phone, Bicycle, Motorcycle, and employed (Employed by the government, Self-employed, Employed by some other person or organisation) or unemployed (Unemployed, A student, Housewife, Retired, Prefer not to answer). Covariates will be used for checking of the balance of the sample and for regression analysis as known predictors of the outcome variables.

Randomization check

To test the null hypothesis of random assignment we regressed treatment on the full set of covariates. We then simulated 10,000 randomizations to get the sampling distribution under the null hypothesis of random assignment. The histogram in Figure 8 shows the sampling distribution of the F-statistics (in black) from the simulation and the F-statistic from the actual data (in red). As can be seen we fail to reject the null, which suggests that the random allocation we observe is unlikely to have occurred by chance.

Figure 8. Covariate Balance - F-Test Simulations To Assess The Null Hypothesis That The Covariates Predict Random Assignment (Z) No Better Than Would Be Expected By Chance.



Appendix 2: Treatment Pages Text Content

Treatment Pages Content

Page 1

Eye on Kenyan Parliament [banner]
Your Vote Your Representative!

Did you know that the National Assembly of Kenya is made up of 350 members? Their job is to represent the people of their constituencies as well as special interests (youth, women, persons with disabilities and ordinary workers).

The duty of members of parliament is to:

- Debate and make laws
- Determine where public money is spent
- Review the actions of the President

The duty of members of parliament does not include:

- Oversight over the Governor
- Attending funerals
- Maintaining county roads

Note we will be having a short quiz later so do pay attention!

Your Role In Democracy

Kenyan citizens are expected to find out how politicians are performing to ensure high standards of leadership and integrity are respected and maintained.

As a Kenyan citizen, you have the opportunity to hold your representatives to account in the national elections scheduled to take place in August 2017.

You can use websites like Mzalendo to find out how well your elected representative is doing, to check if they have attended the national assembly and to get news and information too, such as what is said in Parliament. You can follow Mzalendo on Facebook and Twitter. You can hear about the elections next year and who is standing for office.

Placebo Pages Content

Page 1

[no banner]
The Oceans of the World

An ocean is a body of saline water that makes up much of the planet, covering almost 71% of its surface. These are the Pacific, Atlantic, Indian, Southern (Antarctic), and Arctic Oceans. The word sea is often used interchangeably with "ocean".

Here some facts about oceans in general:

- Less than 5% of the ocean has been explored
- Total volume is 1.35 billion cubic kilometers
- The average depth is nearly 3,700 meters

Here are some facts about particular oceans:

- The Pacific Ocean is the largest ocean
- The Atlantic Ocean separates the continents of North America and South America from the European and African continents

Note we will be having a short quiz later so do pay attention!

Exploration

Ocean travel by boat dates back to prehistoric times, but only in modern times has extensive underwater travel become possible.

The deepest point in the ocean is the Mariana Trench, located in the Pacific Ocean near the Northern Mariana Islands. Its maximum depth is 10,971 meters.

You can use science websites to find out more about water and oceans, and learn more facts. On such sites you can get updates about new findings and research, such as on fish and squid. You can find out more by following Twitter sites on oceans and postings on Facebook.

(Treatment continued)

Now take this short Quiz

- How many members of Parliament are there? [drop-down list]
- Do members of Parliament exercise oversight over the Governor? [drop-down list]

Registering to Vote

In order to vote, you must be registered. To be eligible to register to vote you must be:

- A Kenyan citizen
- Aged 18 years and above
- Have a national ID or a Passport

To register, you must go to your nearest registration centre.

Have you already registered to vote? It is not too late to do your civic duty!

If not, find your nearest registration centre!

Type part of your constituency name and select it from the list:

Constituency [drop-down list]

Next page [button]

Page 2

Eye on Kenyan Parliament [banner]

Thanks for responding.

We will send an email to the address you provided in the survey in 2 weeks time, which will include more information on how you will receive payment.

Your active participation makes democracy work in Kenya. Keep an eye on the Parliament - visit mzalendo.com.

Find your Representatives and see what they say while in Parliament!

Click here to go there [button]

(Treatment continued)

Now take this short Quiz

- How much of the world's surface is covered by oceans? [drop-down list]
- Which ocean has the Mariana Trench? [drop-down list]

Oceans around Africa

Africa, the world's second-largest continent, is bounded by:

- The Atlantic Ocean - Africa's longest coastline
- In the East, Africa faces the Indian Ocean
- The Southern oceans
- Tectonic forces are pulling much of East Africa away from the main continent.

Guess the deepest point

The Ocean that makes up the waters of the Kenyan coast is the Indian Ocean.

Can you please guess what the deepest point of the Indian Ocean is? [drop-down list]

Next page [button]

Page 2

[no banner]

Thanks for responding.

We will send an email to the address you provided in the survey in 2 weeks time, which will include more information on how you will receive payment.

Learning more about the Oceans of the world can be very interesting. Please visit the United Nations site for Ocean monitoring.

Find an ocean of the world you are interested in.

Click here to go there [button]

Appendix 3: Treatment Pages as Viewed by Subjects

Figure 9. First (out of two) Page of the Treatment Group.

 **MZALENDO** Eye on Kenyan Parliament

Your Vote Your Representative!

Did you know that the National Assembly of Kenya is made up of 350 members? Their job is to represent the people of their constituencies as well as special interests (youth, women, persons with disabilities and ordinary workers).

The duty of members of parliament is to:

- Debate and make laws
- Determine where public money is spent
- Review the actions of the President

The duty of members of parliament does not include:

- Oversight over the Governor
- Attending funerals
- Maintaining county roads

Note we will be having a short quiz later so do pay attention!

Your Role In Democracy

Kenyan citizens are expected to find out how politicians are performing to ensure high standards of leadership and integrity are respected and maintained.

As a Kenyan citizen, you have the opportunity to hold your representatives to account in the national elections scheduled to take place in August 2017.

You can use websites like Mzalendo to find out how well your elected representative is doing, to check if they have attended the national assembly and to get news and information too, such as what is said in Parliament. You can follow Mzalendo on Facebook and Twitter. You can hear about the elections next year and who is standing for office.

Now take this short Quiz

How many members of Parliament are there?

Do members of Parliament exercise oversight over the Governor?

Have you already registered to vote?

Figure 10. First (out of two) Page of the Placebo Group.

The Oceans of the World

An ocean is a body of saline water that makes up much of the planet, covering almost 71% of its surface. These are the Pacific, Atlantic, Indian, Southern (Antarctic), and Arctic Oceans. The word sea is often used interchangeably with "ocean".

Here some facts about oceans in general:

- Less than 5% of the ocean has been explored
- Total volume is 1.35 billion cubic kilometers
- The average depth is nearly 3,700 meters

Here are some facts about particular oceans:

- The Pacific Ocean is the largest ocean
- The Atlantic Ocean separates the continents of North America and South American from the European and African continents

Note we will be having a short quiz later so do pay attention!

Exploration

Ocean travel by boat dates back to prehistoric times, but only in modern times has extensive underwater travel become possible.

The deepest point in the ocean is the Mariana Trench, located in the Pacific Ocean near the Northern Mariana Islands. Its maximum depth is 10,971 meters.

You can use science websites to find out more about water and oceans, and learn more facts. On such sites you can get updates about new findings and research, such as on fish and squid. You can find out more by following Twitter sites on oceans and postings on Facebook.

Now take this short Quiz

How much of the world's surface is covered by oceans?

Which ocean has the Mariana Trench?

Oceans around Africa

Africa, the world's second-largest continent, is bounded by:

- The Atlantic Ocean - Africa's longest coastline
- In the East, Africa faces the Indian Ocean
- The Southern oceans

Tectonic forces are pulling much of East Africa away from the main continent.

Guess the deepest point

The Ocean that makes up the waters of the Kenyan coast is the Indian Ocean.

Appendix 4: Questionnaires

Facebook ad copy: Help Kenya develop and earn money.

Baseline intro text (incl. consent form)

Kenya's Next Generation

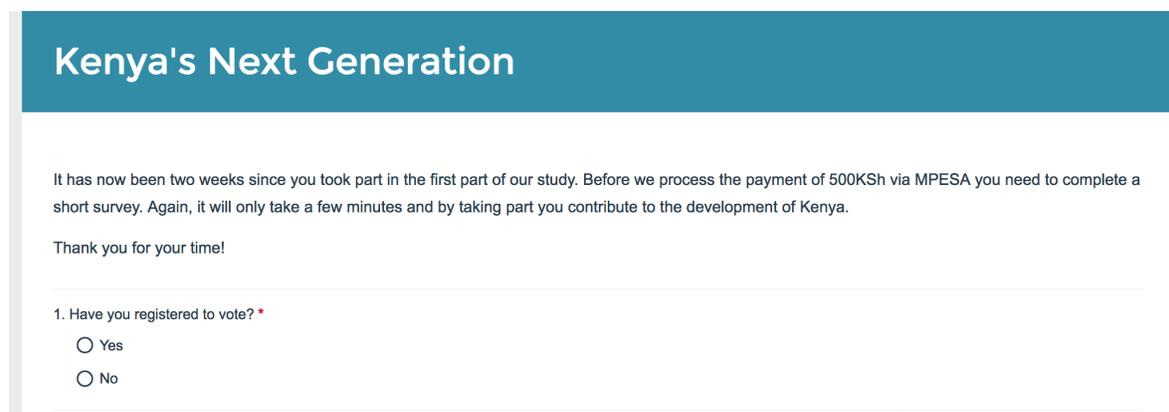
Thank you for your interest in taking part in this research! It will only take a few minutes and by taking part you contribute to the development of Kenya. There are two stages to this study:

Part 1 (Today): Complete a short survey and interact with a web page.

Part 2: Complete another short survey in weeks time.

When you are done with the second survey, you will be paid 500KSh via MPESA. This payment will be made within 15 days of you completing the second survey. All information will be treated as confidential and used only for the purposes of this research study. If, at any time, you wish to withdraw your consent to participate, email us at the below address and your data will be deleted.

If you would like to learn more about any of these points please contact mzalendo-research@mysociety.org. This study has been approved by the UCL Research Ethics Committee (Project ID Number): 3949/006.



The screenshot shows a survey form with a teal header containing the text "Kenya's Next Generation". Below the header, there is a paragraph of text: "It has now been two weeks since you took part in the first part of our study. Before we process the payment of 500KSh via MPESA you need to complete a short survey. Again, it will only take a few minutes and by taking part you contribute to the development of Kenya." This is followed by "Thank you for your time!". Below this is a question: "1. Have you registered to vote? *". There are two radio button options: "Yes" and "No".

Follow-up intro text

[Sender:]

[Subject line: Payment survey]

Kenya's Next Generation

It has now been two weeks since you took part in the first part of our study. Before we process the payment of 500KSh via MPESA you need to complete a short survey. Again, it will only take a few minutes and by taking part you contribute to the development of Kenya. Thank you for your time!

Questions

The endline questionnaire only contained questions with an asterisk.

1. What is your age?

[open number field 0-100]

2. What is your gender?

Male

Female

Prefer not to answer

3. Have you attended university?

Yes

No

4. Have you registered to vote?*

Yes

No

5. Please indicate whether you agree or disagree with the following statements*

[Strongly disagree:1 Disagree:2 Neutral:3 Agree:4 Strongly agree:5]

[Random order]

Representatives in the National Assembly care what people like me think.

I believe I can affect legislation in the Kenyan parliament

I feel that I have a good understanding of the political system in Kenya

I consider myself to be well-informed about the Parliament in Kenya

Representatives in the National Assembly are only interested in people's votes but not in their opinions

6. How likely is it that you will contact your Representative in the National Assembly in the next six months?*

Very unlikely:1 Somewhat unlikely:2 Somewhat likely:3 Very likely:4

7. How likely is it that you will vote in the upcoming general election?*

Very unlikely:1 Somewhat unlikely:2 Somewhat likely:3 Very likely:4

8. How responsive is your National Assembly Representative to your needs?*

Very unresponsive:1? Somewhat unresponsive:2? Neither responsive nor unresponsive:3? Somewhat responsive:4? Very responsive:5?

9. Do you know the name of your constituency?*

Yes

No

10. Do you know the name of your Representative in the National Assembly?*

Yes

No

11. Which of the following are [formal] duties of National Assembly Representatives?*

[Random order]

Attend funerals in the constituency

Enact legislation

Determine the allocation of national revenue (budget)

Exercise oversight over the Governor

Responsible for maintaining county roads

Exercise oversight over the President (and his Cabinet)

12. When is the next general election?*

[Random order]

August 2017

December 2017

May 2018

November 2018

13. What is the monthly salary of a Representative in the National Assembly in Kenya (including allowances)?*

KSh

12. On average, what is the annual CDF budget each Representative in the National Assembly gets to allocate to their own constituency?*

KSh

14. Do you feel close to any particular political party?*

Yes

No

14b. [if yes follow-up] Which of the following best describes the party you are close to?

Opposition*

Government

Neither

15. Is the Representative in the National Assembly from your constituency in the ruling party coalition?*

Yes

No

16. Do you own any of the following items? This question is required.*

Tick all that apply.

Motorcycle

Car

TV

Refrigerator

Smart phone

Bicycle

None of these

17. Are you currently... This question is required.*

[Random order]

Employed by the government

Self-employed

Employed by some other person or organization

Unemployed

A student

Housewife

Retired

Prefer not to answer

18. What is your email address?

We need this to send you the second survey and to pay you once you have completed the second survey.

Appendix 4: Additional Statistical Material

Table 3. Covariates Descriptives

Statistic	N	Mean	St. Dev.	Min	Max
Female	3,463	0.36	0.48	0	1
Socio-Econ.	3,463	2.00	1.29	0	6
University	3,462	0.75	0.43	0	1

Table 4. FDR-adjusted P-values for All Hypotheses in the Pre-Analysis Plan.

Hypotheses	un-adjusted p	FDR- adjusted p
Knowledge	0.1081	0.2161
Int efficacy	0.0643	0.1929
Ext efficacy (Govt)	0.0318	0.1905
Ext efficacy (Opp.)	0.9541	0.9541
Participate (Govt)	0.5043	0.6388
Participate (Opp.)	0.5323	0.6388

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