# Online Appendix

A   Data

This section presents visualizations of the raw data during the 24 hours before and after the treatments were sent out. Figure A1 plots the number of messages, respondents, and times respondents sent out the party slogan and symbol in the groups by hour for the groups assigned to the anger and enthusiasm appeals:

Figure A1: Participation by hour around treatment

(a) Messages   (b) Respondents

(c) Slogan   (d) Symbol
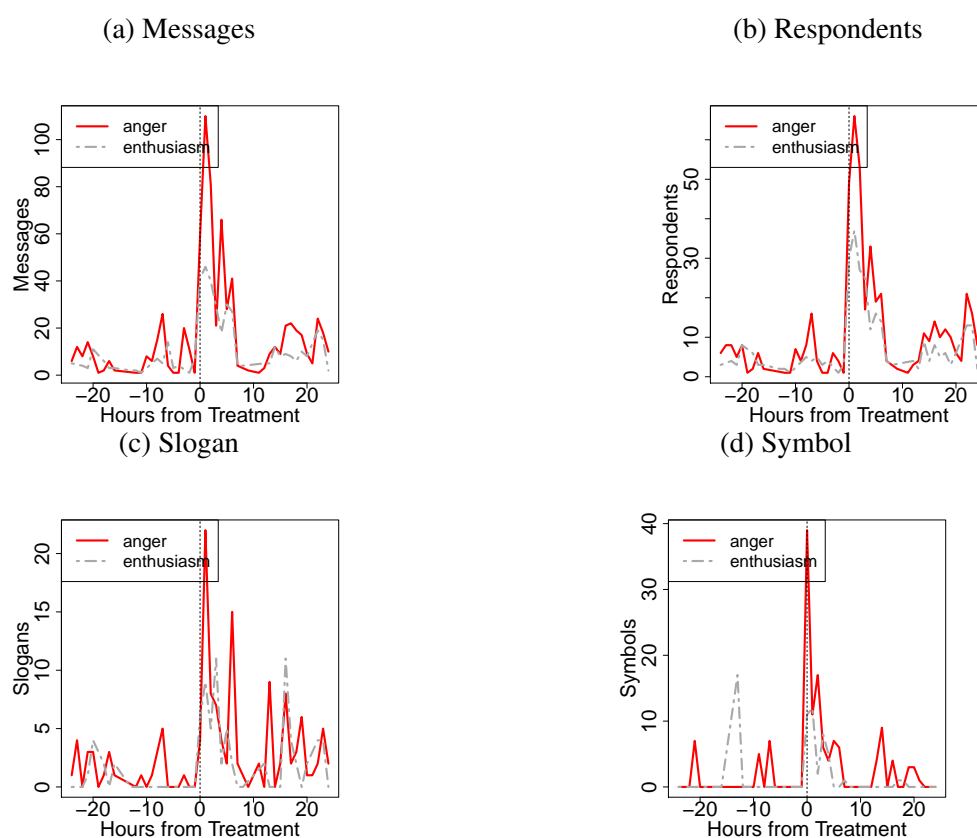
These figures show that at the moment of both treatments, there are large and immediate increases in the activity in the groups. The total volume of activity is reasonably high. In terms of the number of messages, the 78 groups assigned to the anger appeal sent out 745 non-admin messages in the 48 hours around treatment. The 72 enthusiasm appeal groups sent out 427 messages. In terms of respondents, 231 individual party supporters participated in the anger appeal discussions,

while 150 participated in the enthusiasm appeal discussions. Most of the discussion occurred right after the appeal was sent out. There is a lull between 8 and 16 hours after treatment – this is the period between approximately 10pm and 6am on a Friday night. The anger groups sent out 132 party slogans and 133 party symbols, while the enthusiasm groups sent 78 and 58, respectively.

B Balance tests

Table A1: Balance tests across treatment and control

	Enthusiasm Mean	Anger Mean	p-value
Pre-Treatment Messages	1.15	2.04	0.31
Pre-Treatment Respondents	0.58	0.81	0.43
Pre-Treatment Slogans	0.15	0.35	0.21
Pre-Treatment Symbols	0.24	0.33	0.76
Poverty	-74.28	-75.00	0.89
Violence	0.60	0.72	0.12

Table A1 shows that there are no significant pre-treatment differences across groups that were assigned to receive the anger and enthusiasm appeals.

C   Treatments

Figure A2: Emotion Treatments for Round 1

(a) Anger

(b) Enthusiasm

Figure A3: Anger Treatment for Round 2

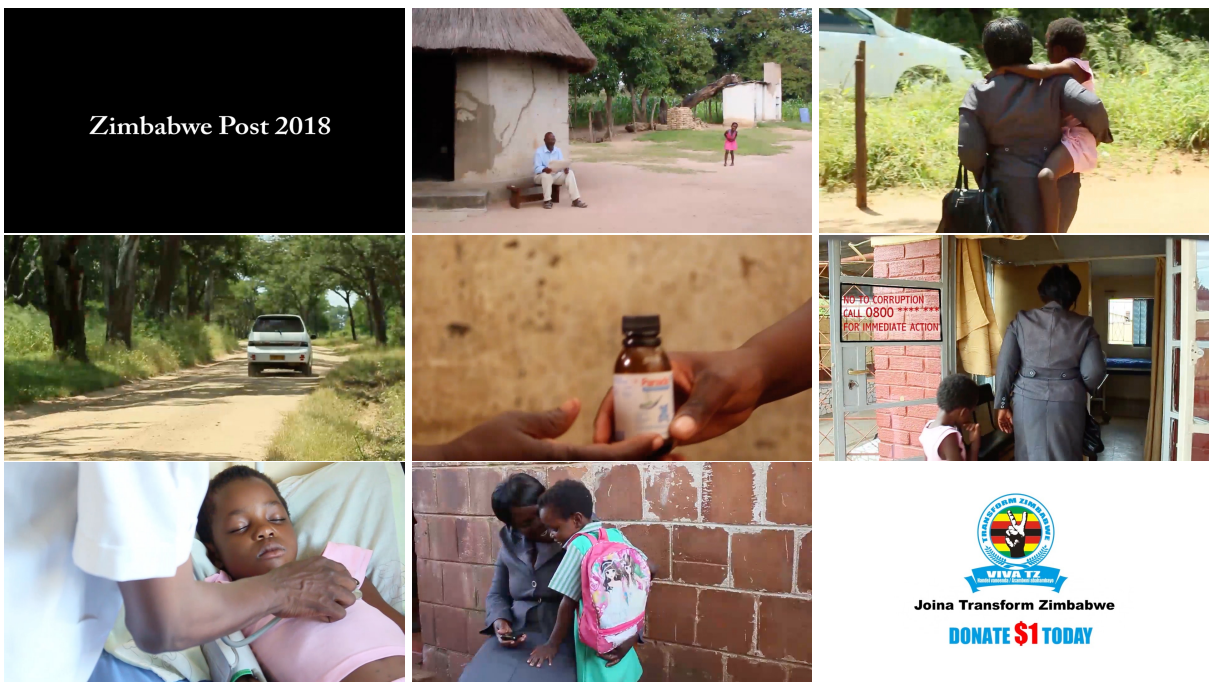Figure A4: Enthusiasm Treatment for Round 2

Table A2: Campaign appeals by treatment arm and round

		Enthusiasm	**Anger**
	3pm	Secondary treatment (power/lack of power)	
Round 1	4pm	**Pothole** Image	**Good Road** Image
	4pm	**"We deserve roads that are paved and well-maintained so our economy can thrive.** Service Delivery and Infrastructure Development will be President Ngarivhume's top priority in his first term in 2018. Join Transform Zimbabwe now!"	**"Our leaders have given us roads that are unpaved and full of potholes.** Service Delivery and Infrastructure Development will be President Ngarivhume's top priority in his first term in 2018. Join Transform Zimbabwe now!"
	5pm	"Are you **hopeful** yet? Join Transform Zimbabwe today!"	"Are you **angry** yet? Join Transform Zimbabwe today!"
	3pm	Secondary treatment (power/lack of power)	
Round 2	4pm	**Bad** Health Video	**Good** Health Video
	4pm	**"In a transformed Zimbabwe, everyone will have access to quality healthcare from clinics and hospitals.** Service Delivery and Infrastructure Development will be President Ngarivhume's top priority in his first term in 2018. Join Transform Zimbabwe now!"	**"Today, Zimbabweans die of treatable diseases because our health system is broken.** Service Delivery and Infrastructure Development will be President Ngarivhume's top priority in his first term in 2018. Join Transform Zimbabwe now!"
	5pm	"Are you **hopeful** yet? Join Transform Zimbabwe today!"	"Are you **angry** yet? Join Transform Zimbabwe today!"

D Heterogeneous effects

In this section I present the full tables behind the heterogeneous effects analysis presented in Section 4.3.2.

Table A3: The effects of the anger appeal do not vary across constituency type or in conjunction with a second treatment

	Index		Messages		Participants		Slogans		Symbols	
Anger Appeal	0.42	0.32	3.99	2.92	0.54	0.23	0.98	0.95	0.51	0.37
	(0.28)	(0.28)	(2.81)	(2.57)	(0.67)	(0.62)	(0.68)	(0.71)	(0.61)	(0.66)
Power Treatment	0.07	0.02	1.28	0.84	−0.21	−0.24	0.95**	0.94*	−0.34	−0.47
	(0.19)	(0.19)	(1.56)	(1.51)	(0.39)	(0.37)	(0.48)	(0.49)	(0.54)	(0.54)
Pre-Treatment Outcomes		0.13		0.25		0.27		0.44		0.11
		(0.13)		(0.25)		(0.18)		(0.41)		(0.12)
Any Violence	−0.10	−0.13	−1.33	−1.42	−1.10***	−1.03**	0.25	0.22	0.17	0.04
	(0.22)	(0.23)	(1.82)	(1.78)	(0.42)	(0.40)	(0.55)	(0.59)	(0.65)	(0.67)
Poverty	0.07	0.04	−0.26	−0.59	0.01	−0.12	0.04	0.004	0.36	0.35
	(0.10)	(0.10)	(0.83)	(0.81)	(0.21)	(0.20)	(0.23)	(0.23)	(0.29)	(0.30)
Log(Group Size)		0.34*		3.15**		0.98***		0.44		0.29
		(0.18)		(1.53)		(0.37)		(0.38)		(0.38)
Anger Appeal ×	−0.33	−0.27	−2.73	−2.23	−0.06	0.15	−1.12	−1.17	−0.45	−0.36
Power Treatment	(0.36)	(0.37)	(3.37)	(3.46)	(0.76)	(0.75)	(0.93)	(0.98)	(0.79)	(0.84)
Anger Appeal ×	−0.05	0.001	0.05	0.69	0.12	0.26	0.06	0.08	−0.34	−0.32
Poverty	(0.16)	(0.16)	(1.30)	(1.26)	(0.35)	(0.32)	(0.40)	(0.39)	(0.36)	(0.35)
Anger Appeal ×	0.19	0.27	−0.81	−0.04	0.32	0.42	−0.15	−0.15	0.97	1.19
Any Violence	(0.33)	(0.33)	(3.35)	(3.12)	(0.77)	(0.72)	(0.79)	(0.79)	(0.74)	(0.74)
Block FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Constant	0.65	1.14*	2.91	6.92**	2.07***	3.19***	−0.08	0.53	4.63	5.12*
	(0.55)	(0.59)	(2.25)	(2.96)	(0.69)	(0.83)	(1.37)	(1.48)	(2.99)	(3.06)
Observations	150	148	150	148	150	148	150	148	150	148
R^2	0.45	0.47	0.39	0.43	0.47	0.56	0.28	0.30	0.48	0.48

Robust standard errors in parentheses
*p<0.1; **p<0.05; ***p<0.01
The unit of analysis is the WhatsApp group. Anger Appeal is an indicator variable that takes a value of 1 if the group was assigned to receive the anger appeal. Power Treatment is an indicator variable that takes a value of 1 if the group was assigned to receive the power appraisal message. Any Violence is an indicator variable that takes a value of 1 if Sokwanele recorded any political violence in the 2008 election. Poverty is a standardized average of the weight-for-height z-scores of children in a constituency during the last DHS survey. The outcome in Columns 1-2 is a total mean effects index based on the number of post-treatment participants, messages, symbols and slogans, while the outcomes in Columns 3-10 are the respective components of that index. Control variables in the even columns include the logged number of group members and the pre-treatment outcome. The ITTs are estimated using OLS with block fixed effects and weights based on the inverse propensity of being assigned to the unit's realized treatment status.

E Adherence to pre-registered analysis

	Registered	Implemented	Justification
Hypotheses	"H1: In a repressive environment, messages that induce anger will be more effective than hopeful messages in generating political action."	H1: In a repressive environment, messages that induce anger will be more effective than hopeful messages in generating political action.	No change.
	"H2: Anger inducing messages will be more effective compared to hopeful messages with populations who have experienced more past repression."	H2: Anger inducing messages will be more effective compared to hopeful messages with populations who have experienced more past repression.	No change.
	"H3: Anger inducing messages will be more effective compared to hopeful messages with populations that have higher socioeconomic status."	H3: Anger inducing messages will be more effective compared to hopeful messages with populations that have higher socioeconomic status.	No change.
	"H4: Anger inducing messages will be more effective in conjunction with messages that emphasize personal power and control."	H4: Anger inducing messages will be more effective in conjunction with messages that emphasize personal power and control.	No change.
Measurement	"The main outcome variables will be the proportion of group members who respond to the party's message and the volume of the response in number of words. Last, I will count the number of times people send emoticons representing the party's symbol of a hand making a 'V for victory' sign and the number of emoticons used in general."	I constructed a mean effects index out of the four standardized measures of political action: number of respondents, number of messages, number of party symbols, and number of party slogans.	I substituted the number of messages for the number of words after looking at the messages because when members got excited they tended to use language that used fewer words with either bad spelling or by switching to Shona. I created the mean effects indices to avoid multiple comparisons.
	"We also plan to use donations as an outcome measure, although the donation system was only recently set up and the party is skeptical that many people will make donations from these mostly poor groups of supporters. If there are fewer than 20 donations in total from the groups during each round of the experiment, we will not use the donations as an outcome. If there are more than 20, we will again look at the change in donations by group from the 24 hours before to the 24 after the messages are sent out."	There were fewer than 20 donations and I therefore do not analyze the donation data.	No change.
	"All of these [outcomes] will be calculated as the change from the 24 hours before the messages are sent out to the 24 hours after they are received."	The main tests are all based on the 24-hour window, and I show robustness to three-hour windows from 3 to 24.	No change.

	"Socioeconomic status (SES) will be measured using the average weight-for-height z-scores for children under 5 in the constituency from the 2011 DHS for Zimbabwe."		No change.
	"Past repression will be measured for the months preceding the elections in 2000, 2002, and 2005 with data from the Zimbabwe Human Rights NGO Forum at the constituency level for the three months preceding each of those elections. For 2008 I will use both the Voice for Democracy constituency-level data on major violent events and the Sokwanele data by constituency."	I use the Sokwanele data on violence in 2008 by constituency as my main measure of past repression. As a secondary measure I use geo-referenced ACLED data aggregated up to the 2008 constituency boundaries.	Because the constituency boundaries have changed in a significant and politicized way from 2005 to 2008, it is not possible to match violence in 2000-2005 to constituency boundaries in 2015. The VfD data has significant missingness in the constituencies where we ran the experiment, unlike the Sokwanele data.
Rounds	"The data for this study will be pooled from two experiments with largely the same population of groups participating. I will include a dummy for the round of the experiment in all regressions and also test for whether the treatments had different effects across the two rounds."	I pool data from two experiments for a total $N = 150$.	No change.
Specifications	"This hypothesis will be tested by comparing the mean of the group assigned to the anger treatment to the mean of the group assigned to the hopeful control. This will be done both with a t-test and using regression analysis. Regression will be done both as a bivariate and with SES, group size, and past repression as controls."	I show all hypothesis tests with both an uncontrolled regression that only includes block fixed effects, and a controlled regression.	All specifications have block fixed effects and I added pre-treatment measures of the outcomes to the controlled regressions.
	"This hypothesis will be tested using regression analysis with the interaction of treatment assignment and past violence [socio-economic status]. Regression will be done both with and without SES [past repression], group size, and past repression as controls."	The main test of heterogeneous effects are with interactions terms. I also show treatment effects calculated using difference-in-means tests by subgroup after dividing groups into high, medium and low SES and past violence as a secondary analysis.	No change.

| Manipulation check | "As a manipulation check, I will have two Shona speakers read the transcripts of each group and code them from 1 to 3 (low, medium, high) for anger, fear, and enthusiasm. First, I will translate the . I predict that people assigned to the anger treatment will be higher than those in the hope treatment on the anger scale. I have no prior over which group will be higher on the enthusiasm scale." | Two native Shona speakers read the transcripts and coded for anger, fear, sadness, and enthusiasm. Instead of a 3-point scale we used a binary coding. | Coders felt that the 3-point scale was too arbitrary. Native Shona speakers were better able to analyze the emotions in slang and nuances of untranslated text. |