## APPENDIX TO

# "THE EFFECTS OF NAMING AND SHAMING ON PUBLIC SUPPORT FOR COMPLIANCE WITH INTERNATIONAL AGREEMENTS: AN EXPERIMENTAL ANALYSIS OF THE PARIS AGREEMENT"

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## I. QUESTIONNAIRE

The questionnaire had three parts. First, respondents answered background questions about their political party affiliation, their beliefs about whether humans were causing climate change, and their preferences about new laws to limit the use of fossil fuels. Second, respondents participated in one of the randomized experiments described in the article. Finally, respondents answered basic demographic questions.

## A. BACKGROUND QUESTIONS

Generally speaking, do you think of yourself as a....?

- o Republican
- o Democrat
- Independent
- o Another party, please specify
- No preference

## If Republican:

Would you call yourself a ...

- o Strong Republican
- Not very strong Republican

### If Democrat:

Would you call yourself a ...

- o Strong Democrat
- Not very strong Democrat

## If Neither Republican or Democrat:

Do you think of yourself as closer to the ...

- o Republican Party
- Democratic Party
- Neither party

There is much discussion about whether humans are causing climate change. Which of the following statements comes closest to your own opinion?

- o Humans are causing climate change
- o Humans are not causing climate change
- o Don't know

In your opinion, should the U.S. government pass new laws that would require Americans to reduce their use of fossil fuels, including coal, oil, and gas?

- o Yes
- o No

#### B. RANDOMIZATION FOR EXPERIMENT 1

Randomly assign each respondent to ENERGY = 4 or ENERGY = 10. The value of this variable is piped into some conditions, below.

Randomly assign each respondent to one of the following sets of experimental conditions:

ACTION = NONE

ACTION\_TEXT = Over the next few years, the government did not pass any new laws to reduce carbon dioxide emissions. Because it did not pass any new laws, the government did not affect U.S. energy prices or U.S. carbon emissions.

RHETORIC = NONE

- or -

ACTION = NONE

ACTION\_TEXT = Over the next few years, the government did not pass any new laws to reduce carbon dioxide emissions. Because it did not pass any new laws, the government did not affect U.S. energy prices or U.S. carbon emissions.

RHETORIC = SHAMING

RHETORIC\_TEXT = Many countries said the U.S. should be ashamed of itself. They criticized the U.S. for doing nothing to reduce U.S. emissions, and for violating the promises it made when it joined the Paris Agreement.

- or -

ACTION = CUT 5%

ACTION\_TEXT = Over the next few years, the government passed new laws to reduce carbon dioxide emissions. Experts agreed that the new laws would increase U.S. energy prices by [ENERGY]% and reduce U.S. carbon emissions by 5%.

RHETORIC = NONE

- or -

ACTION = CUT 5%

ACTION\_TEXT = Over the next few years, the government passed new laws to reduce carbon dioxide emissions. Experts agreed that the new laws would increase U.S. energy prices by [ENERGY]% and reduce U.S. carbon emissions by 5%.

RHETORIC = SHAMING

RHETORIC\_TEXT = Many countries said the U.S. should be ashamed of itself. They criticized the U.S. for doing so little to reduce U.S. emissions, and for violating the promises it made when it joined the Paris Agreement.

- or -

ACTION = CUT 25%

ACTION\_TEXT = Over the next few years, the government passed new laws to reduce carbon dioxide emissions. Experts agreed that the new laws would increase U.S. energy prices by [ENERGY]% and reduce U.S. carbon emissions by 25%.

RHETORIC = NONE

- or -

ACTION = CUT 25%

ACTION\_TEXT = Over the next few years, the government passed new laws to reduce carbon dioxide emissions. Experts agreed that the new laws would increase U.S. energy prices by [ENERGY]% and reduce U.S. carbon emissions by 25%.

RHETORIC = SHAMING

RHETORIC\_TEXT = Many countries said the U.S. should be ashamed of itself. They criticized the U.S. for doing so little to reduce U.S. emissions.

#### C. RANDOMIZATION FOR EXPERIMENT 2

Randomly assign each respondent to ENERGY = 4 or ENERGY = 10. The value of this variable is used in some conditions, below.

Randomly assign each respondent to one of the following sets of experimental conditions:

#### ACTION = NONE

ACTION\_TEXT = Over the next few years, the government did not pass any new laws to reduce carbon dioxide emissions. Because it did not pass any new laws, the government did not affect U.S. energy prices or U.S. carbon emissions.

RHETORIC = SHAMING

RHETORIC\_TEXT = Many countries said the U.S. should be ashamed of itself. They criticized the U.S. for doing nothing to reduce U.S. emissions, and for violating the promises it made when it joined the Paris Agreement.

REBUTTAL = CONTRITION

REBUTTAL\_TEXT = The U.S. government responded by saying that other countries were right. It apologized for not doing more and said it would work to reduce U.S. emissions in the future.

- or -

#### ACTION = CUT 5%

ACTION\_TEXT = Over the next few years, the government passed new laws to reduce carbon dioxide emissions. Experts agreed that the new laws would increase U.S. energy prices by [ENERGY]% and reduce U.S. carbon emissions by 5%.

RHETORIC = SHAMING

RHETORIC\_TEXT = Many countries said the U.S. should be ashamed of itself. They criticized the U.S. for doing so little to reduce U.S. emissions, and for violating the promises it made when it joined the Paris Agreement.

REBUTTAL = CONTRITION

REBUTTAL\_TEXT = The U.S. government responded by saying that other countries were right. It apologized for not doing more and said it would work to reduce U.S. emissions in the future.

## ACTION = CUT 25%

ACTION\_TEXT = Over the next few years, the government passed new laws to reduce carbon dioxide emissions. Experts agreed that the new laws would increase U.S. energy prices by [ENERGY]% and reduce U.S. carbon emissions by 25%.

## RHETORIC = SHAMING

RHETORIC\_TEXT = Many countries said the U.S. should be ashamed of itself. They criticized the U.S. for doing so little to reduce U.S. emissions.

## REBUTTAL = CONTRITION

REBUTTAL\_TEXT = The U.S. government responded by saying that other countries were right. It apologized for not doing more and said it would work to reduce U.S. emissions in the future.

#### D. RANDOMIZATION FOR EXPERIMENT 3

Randomly assign each respondent to ENERGY = 4 or ENERGY = 10. The value of this variable is used in some conditions, below.

Randomly assign each respondent to one of the following sets of experimental conditions:

#### ACTION = NONE

ACTION\_TEXT = Over the next few years, the government did not pass any new laws to reduce carbon dioxide emissions. Because it did not pass any new laws, the government did not affect U.S. energy prices or U.S. carbon emissions.

RHETORIC = SHAMING

RHETORIC\_TEXT = Many countries said the U.S. should be ashamed of itself. They criticized the U.S. for doing nothing to reduce U.S. emissions, and for violating the promises it made when it joined the Paris Agreement.

REBUTTAL = DEFIANCE

REBUTTAL\_TEXT = The U.S. government responded by saying that other countries had no right to meddle in our affairs. It said other countries were trying to hurt or control the United States.

- or -

#### ACTION = CUT 5%

ACTION\_TEXT = Over the next few years, the government passed new laws to reduce carbon dioxide emissions. Experts agreed that the new laws would increase U.S. energy prices by [ENERGY]% and reduce U.S. carbon emissions by 5%.

RHETORIC = SHAMING

RHETORIC\_TEXT = Many countries said the U.S. should be ashamed of itself. They criticized the U.S. for doing so little to reduce U.S. emissions, and for violating the promises it made when it joined the Paris Agreement.

REBUTTAL = DEFIANCE

REBUTTAL\_TEXT = The U.S. government responded by saying that other countries had no right to meddle in our affairs. It said other countries were trying to hurt or control the United States.

## ACTION = CUT 25%

ACTION\_TEXT = Over the next few years, the government passed new laws to reduce carbon dioxide emissions. Experts agreed that the new laws would increase U.S. energy prices by [ENERGY]% and reduce U.S. carbon emissions by 25%.

## RHETORIC = SHAMING

RHETORIC\_TEXT = Many countries said the U.S. should be ashamed of itself. They criticized the U.S. for doing so little to reduce U.S. emissions.

## REBUTTAL = DEFIANCE

REBUTTAL\_TEXT = The U.S. government responded by saying that other countries had no right to meddle in our affairs. It said other countries were trying to hurt or control the United States.

#### E. RANDOMIZATION FOR EXPERIMENT 4

Randomly assign each respondent to ENERGY = 4 or ENERGY = 10. The value of this variable is piped into some conditions, below.

Randomly assign each respondent to one of the following sets of experimental conditions:

ACTION = CUT 5%

ACTION\_TEXT = Over the next few years, the government passed new laws to reduce carbon dioxide emissions. Experts agreed that the new laws would increase U.S. energy prices by [ENERGY]% and reduce U.S. carbon emissions by 5%.

RHETORIC = NONE

- or -

ACTION = CUT 5%

ACTION\_TEXT = Over the next few years, the government passed new laws to reduce carbon dioxide emissions. Experts agreed that the new laws would increase U.S. energy prices by [ENERGY]% and reduce U.S. carbon emissions by 5%.

RHETORIC = SHAMING

SHAMER = many countries

RHETORIC\_TEXT = Many countries said the U.S. should be ashamed of itself. They criticized the U.S. for doing so little to reduce U.S. emissions, and for violating the promises it made when it joined the Paris Agreement.

- or -

ACTION = CUT 5%

ACTION\_TEXT = Over the next few years, the government passed new laws to reduce carbon dioxide emissions. Experts agreed that the new laws would increase U.S. energy prices by [ENERGY]% and reduce U.S. carbon emissions by 5%.

RHETORIC = SHAMING

SHAMER = many U.S. allies

RHETORIC\_TEXT = Many U.S. allies said the U.S. should be ashamed of itself. They criticized the U.S. for doing so little to reduce U.S. emissions, and for violating the promises it made when it joined the Paris Agreement. There were no comments from countries that were not U.S. allies.

- or -

ACTION = CUT 5%

ACTION\_TEXT = Over the next few years, the government passed new laws to reduce carbon dioxide emissions. Experts agreed that the new laws would increase U.S. energy prices by [ENERGY]% and reduce U.S. carbon emissions by 5%.

RHETORIC = SHAMING

SHAMER = many countries that were not U.S. allies

RHETORIC\_TEXT = Many countries that were not U.S. allies said the U.S. should be ashamed of itself. They criticized the U.S. for doing so little to reduce U.S. emissions, and for violating the promises it made when it joined the Paris Agreement. There were no comments from U.S. allies.

- or -

ACTION = CUT 5%

ACTION\_TEXT = Over the next few years, the government passed new laws to reduce carbon dioxide emissions. Experts agreed that the new laws would increase U.S. energy prices by [ENERGY]% and reduce U.S. carbon emissions by 5%.

RHETORIC = SHAMING

SHAMER = many U.S. allies and many countries that were not U.S. allies

RHETORIC\_TEXT = Many U.S. allies and many countries that were not U.S. allies said the U.S. should be ashamed of itself. They criticized the U.S. for doing so little to reduce U.S. emissions, and for violating the promises it made when it joined the Paris Agreement.

## F. INTRODUCTION TO ALL EXPERIMENTS

The Paris Agreement is an international agreement about climate change.

Every country that joins the agreement promises to contribute to the worldwide goal of fighting climate change, by developing and carrying out a plan to reduce its emissions of carbon dioxide as quickly as possible.

o Please click here after you have read this page carefully

– new page –

In the future, the U.S. government must decide whether to join the Paris Agreement, and whether to pass new laws to reduce U.S. emissions of carbon dioxide.

On the following screens, we will describe one approach the U.S. government could take <u>in the future</u>, and ask whether you approve or disapprove.

o Please click here after you have read this page carefully

– new page –

#### Here is the situation:

• In 2021, the U.S. government announced that it would join the Paris Agreement. When it officially joined later that year, the U.S. said: "As a member of the Paris Agreement, we pledge to reduce U.S. emissions of carbon dioxide by 25% within ten years."

Before continuing, we need to make sure you read this page carefully.

In the passage you read, what did the U.S. government announce?

- o It would join the Paris Agreement
- o It would not join the Paris Agreement
- Not sure
- No information given

In the passage you read, did the government pledge to reduce U.S. emissions of carbon dioxide?

- o Yes
- o No
- Not sure
- o No information given

In the passage you read, the government pledged to reduce U.S. emissions of carbon dioxide by

- •••
- 0 5%
- 0 15%
- 0 25%
- 0 35%
- None of the above
- new page –

Here is what happened next:

• [ACTION TEXT]

Before continuing, we need to make sure you read this page carefully.

In the passage you read, did the U.S. government pass new laws to reduce carbon dioxide emissions?

- o Yes
- o No
- Not sure
- o No information given

*Programming: display this question if ACTION = NO ACTION* 

In the passage you read, did the government take steps to affect U.S. energy prices?

- o Yes
- o No
- o Not sure
- o No information given

Programming: display this question if ACTION = NO ACTION

In the passage you read, did the government take steps to affect U.S. carbon emissions?

- o Yes
- o No
- Not sure
- No information given

Programming: display this question if ACTION = CUT 5% or ACTION = CUT 25% Experts agreed that the new laws would increase U.S. energy prices by ...

- 0 4%
- 0 6%
- 0 8%
- 0 10%
- None of the above

Programming: display this question if ACTION = CUT 5% or ACTION = CUT 25% Experts agreed that the new laws would reduce U.S. carbon emissions by ...

- 0 5%
- 0 15%
- o 25%
- 0 35%
- None of the above

– new page –

#### G. CONCLUSION TO EXPERIMENT 1

Programming instructions: Display this page if RHETORIC = SHAME. Do not display this page if RHETORIC = NONE.

Here is what other countries said:

• [RHETORIC\_TEXT]

Before we continue, we need to make sure you read this page carefully.

In the passage you read, did other countries criticize the United States?

- o Yes
- o No
- Not sure
- o No information given

In the passage you read, what did other countries say about the United States? Answer as completely and as accurately as possible. [open-ended response]

– new page –

Just to review:

- In 2021, the U.S. government announced that it would join the Paris Agreement. When it officially joined later that year, the U.S. said: "As a member of the Paris Agreement, we pledge to reduce U.S. emissions of carbon dioxide by 25% within ten years."
- [ACTION TEXT]
- [RHETORIC TEXT Do not display this bullet if RHETORIC = NONE]

Taking into account <u>all the decisions</u> the U.S. government made in the passage you read, would you approve or disapprove of what U.S. government did overall?

- Approve strongly
- Approve somewhat
- Neither approve nor disapprove
- Disapprove somewhat
- o Disapprove strongly

## H. CONCLUSION TO EXPERIMENT 2

Here is what other countries said:

- [RHETORIC TEXT]
- [REBUTTAL TEXT]

Before we continue, we need to make sure you read this page carefully.

In the passage you read, did other countries criticize the United States?

- o Yes
- o No
- Not sure
- o No information given

In the passage you read, what did other countries say about the United States? Answer as completely and as accurately as possible. [open-ended response]

In the passage you read, did the U.S. government respond by saying that other countries were right?

- o No
- o Yes
- Not sure
- o No information given

In the passage you read, did the U.S. government apologize for not doing more and say it would work to reduce U.S. emissions in the future?

- o No
- o Yes
- Not sure
- o No information given

<sup>–</sup> new page –

## Just to review:

- In 2021, the U.S. government announced that it would join the Paris Agreement. When it officially joined later that year, the U.S. said: "As a member of the Paris Agreement, we pledge to reduce U.S. emissions of carbon dioxide by 25% within ten years."
- [ACTION TEXT]
- [RHETORIC TEXT]
- [REBUTTAL\_TEXT]

Taking into account <u>all the decisions</u> the U.S. government made in the passage you read, would you approve or disapprove of what U.S. government did overall?

- Approve strongly
- Approve somewhat
- Neither approve nor disapprove
- o Disapprove somewhat
- Disapprove strongly

## I. CONCLUSION TO EXPERIMENT 3

Here is what other countries said:

- [RHETORIC TEXT]
- [REBUTTAL TEXT]

Before we continue, we need to make sure you read this page carefully.

In the passage you read, did other countries criticize the United States?

- o Yes
- o No
- o Not sure
- o No information given

In the passage you read, what did other countries say about the United States? Answer as completely and as accurately as possible. [open-ended response]

In the passage you read, did the U.S. government respond by saying that other countries had no right to meddle in our affairs?

- o No
- o Yes
- Not sure
- o No information given

In the passage you read, did the U.S. government say that other countries were trying to hurt and control the United States?

- o No
- o Yes
- o Not sure
- o No information given

<sup>–</sup> new page –

## Just to review:

- In 2021, the U.S. government announced that it would join the Paris Agreement. When it officially joined later that year, the U.S. said: "As a member of the Paris Agreement, we pledge to reduce U.S. emissions of carbon dioxide by 25% within ten years."
- [ACTION TEXT]
- [RHETORIC\_TEXT]
- [REBUTTAL\_TEXT]

Taking into account <u>all the decisions</u> the U.S. government made in the passage you read, would you approve or disapprove of what U.S. government did overall?

- Approve strongly
- Approve somewhat
- Neither approve nor disapprove
- o Disapprove somewhat
- o Disapprove strongly

#### J. CONCLUSION TO EXPERIMENT 4

Programming instructions: Display this page if RHETORIC = SHAME. Do not display this page if RHETORIC = NONE.

Here is what [SHAMER] said:

• [RHETORIC TEXT]

Before we continue, we need to make sure you read this page carefully.

In the passage you read, did [SHAMER] criticize the United States?

- o Yes
- o No
- Not sure
- o No information given

In the passage you read, what did [SHAMER] say about the United States? Answer as completely and as accurately as possible. [open-ended response]

– new page –

Just to review:

- In 2021, the U.S. government announced that it would join the Paris Agreement. When it officially joined later that year, the U.S. said: "As a member of the Paris Agreement, we pledge to reduce U.S. emissions of carbon dioxide by 25% within ten years."
- [ACTION\_TEXT]
- [RHETORIC TEXT Do not display this bullet if RHETORIC = NONE]

Taking into account <u>all the decisions</u> the U.S. government made in the passage you read, would you approve or disapprove of what U.S. government did overall?

- Approve strongly
- Approve somewhat
- Neither approve nor disapprove
- Disapprove somewhat
- o Disapprove strongly

## K. DEMOGRAPHIC QUESTIONS

Are you male or female?

- o Male
- o Female

What racial or ethnic group best describes you?

- o White
- o Black or African American
- Hispanic or Latino
- o Asian or Asian American
- o Native American
- Middle Eastern
- Mixed Race
- Some other race Type in race

In what state do you currently reside? Select response from drop-down list

Please enter your age on your last birthday. Select response from drop-down list

What is the highest level of school you have completed?

- o Did not graduate from high school
- High school graduate
- Some college, but no degree (yet)
- o 2-year college degree
- o 4-year college degree
- o Postgraduate degree (MA, MBA, MD, JD, PhD, etc)

#### II. SAMPLE

#### A. RECRUITMENT PROCEDURES

We administered our online surveys to 5,392 respondents in September–October 2018, and 2,878 respondents in January 2021. Respondents were recruited by Lucid, which used quota sampling to approximate the U.S. adult population with respect to gender, age, race/ethnicity, and geographic region.

#### B. DEMOGRAPHIC AND ATTITUDINAL ATTRIBUTES OF THE SAMPLE

The table below compares the attributes of the sample to the attributes of the U.S. adult population. Target percentages for gender, age, region, race, education of people age 18 or older were obtained from the U.S. Census. Target percentages for party affiliation in September 2018 were obtained from the Pew Research Center. 2

We weighted the sample to ensure that it matched the distribution of party affiliation in the U.S. population. In addition to matching the party benchmarks exactly, our sample closely approximated the U.S. population with respect to gender, age, region, and race. The sample underrepresented people with no more than a high school degree, while overrepresenting people who had completed some college but not earned a four-year bachelor's degree. This pattern did not affect our conclusions, however.

<sup>-</sup>

<sup>&</sup>lt;sup>1</sup> Annual Estimates of the Resident Population by Sex, Single Year of Age, Race, and Hispanic Origin for the United States, April 1, 2010 to July 1, 2018 (June 2019), https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk#, Accessed August 4, 2019; and Current Population Survey, Annual Social and Economic Supplement, 2018, https://www.census.gov/cps/data/cpstablecreator.html?#, accessed August 4, 2019.

<sup>&</sup>lt;sup>2</sup> Pew Research Center, "September 2018 Political Survey. Final Topline. September 18-24, 2018. N=1,754." https://www.pewresearch.org/politics/wp-content/uploads/sites/4/2018/09/Topline-for-release3.pdf, Accessed October 6, 2020.

Table A1: Attributes of the Sample and the U.S. Population

	Sample (%)	U.S. (%)	Difference
Gender			
Male	46.5	48.7	-2.2
Female	53.5	51.3	2.2
Age			
18 to 24 years	11.3	12.0	-0.7
25 to 44 years	35.2	34.3	0.9
45 to 64 years	34.7	33.1	1.6
65+ years	18.8	20.7	-1.9
Region			
Midwest	19.5	20.8	-1.3
Northeast	20.1	17.8	2.3
South	37.4	37.7	-0.3
West	23.0	23.8	-0.8
Race			
White	73.9	77.7	-3.8
Black	9.8	12.9	-3.1
Other	16.3	9.4	6.9
Education			
High school or less	23.9	39.5	-15.6
Some college	39.3	28.2	11.1
Bachelor's degree	36.8	32.3	4.5
Party			
Democrat	32.7	32.7	0.0
Independent	41.8	41.8	0.0
Republican	25.5	25.5	0.0

## C. NUMBER OF RESPONDENTS BY EXPERIMENTAL CONDITION

We administered **Experiment 1** to 2,945 respondents, who were randomly assigned to an action condition and a rhetoric condition. We assigned a higher fraction of respondents to scenarios in which the government cut by 25% and foreign countries shamed, to increase statistical power for comparisons with other experiments. The table below shows the number of respondents in each experimental condition.

Table A2: Respondents by Experimental Condition in Experiment 1

	Respondents
No action, No shaming	405
No action, Shaming	387
Cut 5%, No shaming	415
Cut 5%, Shaming	386
Cut 25%, No shaming	428
Cut 25%, Shaming	924

We administered **Experiment 2** to 1,190 respondents, who were randomly assigned to an action condition. All respondents in Experiment 2 read that foreign countries shamed the U.S., which responded with contrition. In the article, we compare data from Experiment 2 to data from Experiment 1.

Table A3: Respondents by Experimental Condition in Experiment 2

	Respondents
No action, Shaming + Contrition	371
Cut 5%, Shaming + Contrition	401
Cut 25%, Shaming + Contrition	418

We administered **Experiment 3** to 1,257 respondents, who were randomly assigned to an action condition. All respondents in Experiment 3 read that foreign countries shamed the U.S., which responded with defiance. In the article, we compare data from Experiment 3 to data from Experiment 1.

Table A4: Respondents by Experimental Condition in Experiment 3

	Respondents
No action, Shaming + Defiance	403
Cut 5%, Shaming + Defiance	405
Cut 25%, Shaming + Defiance	449

We administered **Experiment 4** to 2,878 respondents, who were all assigned to scenarios in which the government cut emissions by 5%. Some respondents were assigned to a no-shaming condition. Others were assigned one of four shaming conditions, which varied in the description of which countries did the shaming. We assigned a higher fraction of respondents to the no-shaming condition, to increase the ability to compare no-shaming with each of the shaming conditions.

Table A5: Respondents by Experimental Condition in Experiment 4

	Respondents
Cut 5%, No shaming	1,282
Cut 5%, Shaming by many countries	409
Cut 5%, Shaming by allies	389
Cut 5%, Shaming by non-allies	385
Cut 5%, Shaming by allies and non-allies	413

## D. BALANCE ACROSS EXPERIMENTAL CONDITIONS

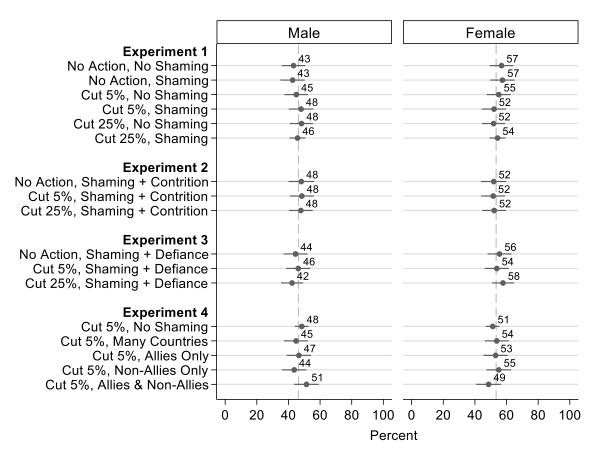
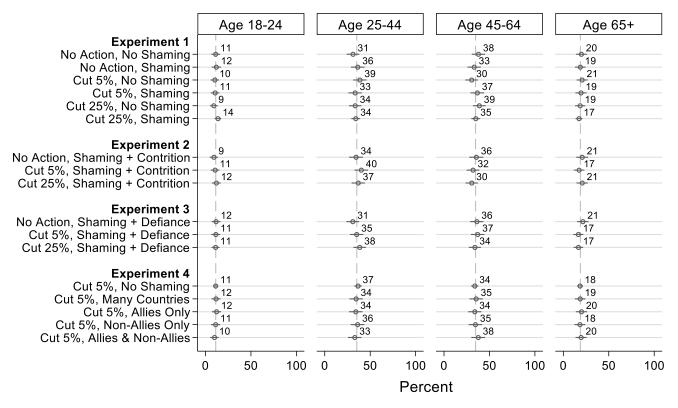
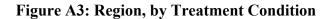
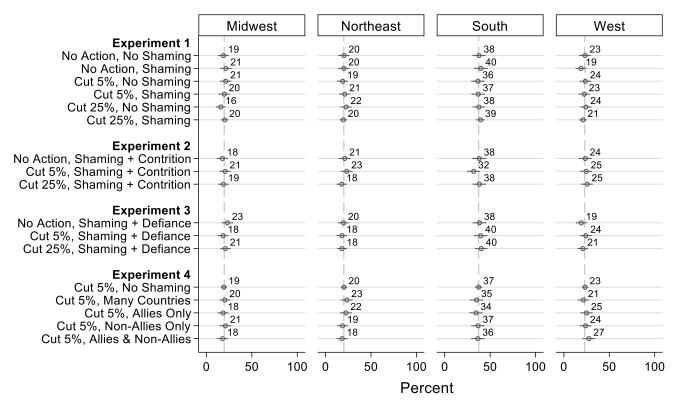


Figure A1: Gender, by Treatment Condition

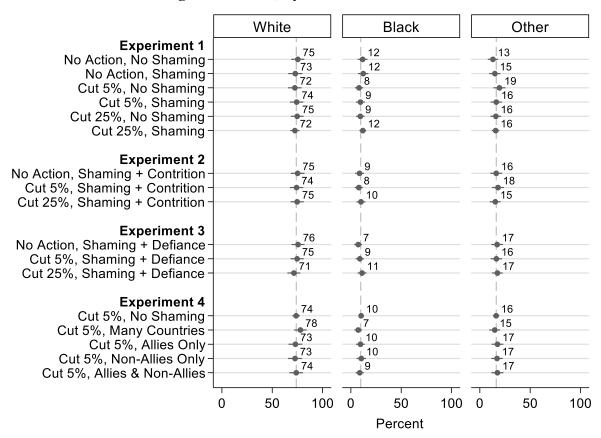


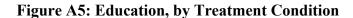


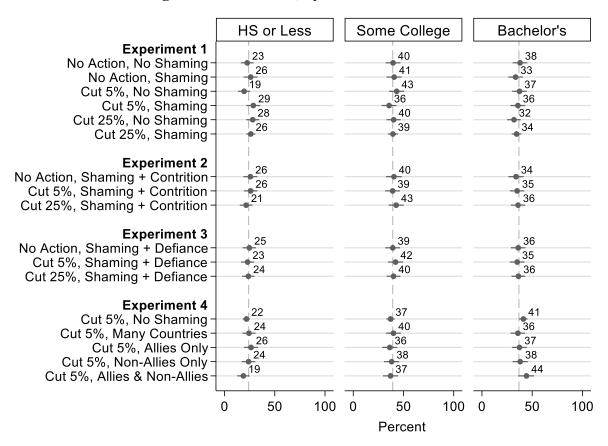












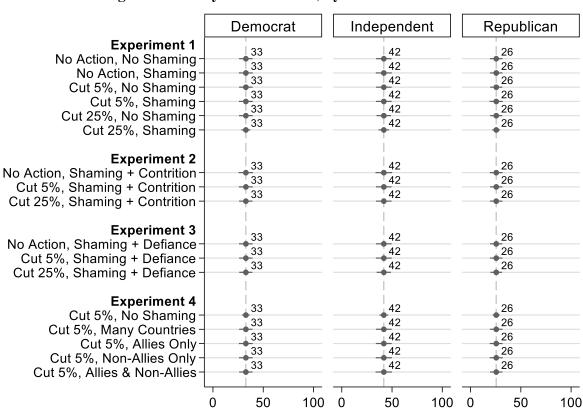


Figure A6: Party Identification, by Treatment Condition

*Note*: We weighted the sample to match the distribution of party affiliation in the U.S. population: 32.7% Democrat, 41.8% Independent, and 25.5% Republican.

Percent

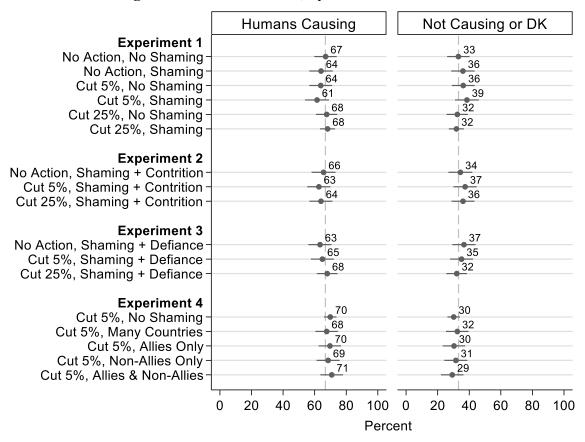


Figure A7: Climate Beliefs, by Treatment Condition

*Note*: Graph summarizes how participants responded when asked, "There is much discussion about whether humans are causing climate change. Which of the following statements comes closest to your own opinion? Humans are causing climate change; Humans are not causing climate change; or Don't know."

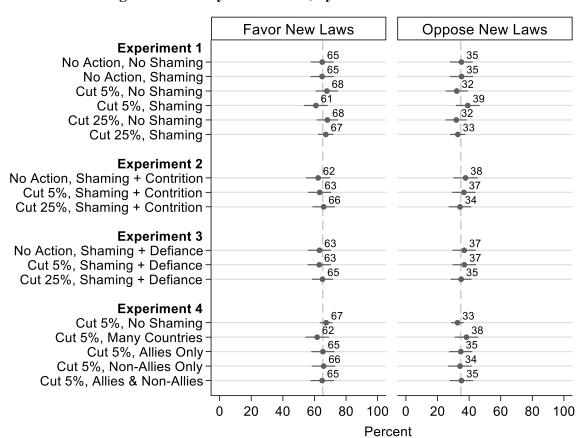


Figure A8: Policy Preferences, by Treatment Condition

*Note*: Graph summarizes how participants responded when asked, "In your opinion, should the U.S. government pass new laws that would require Americans to reduce their use of fossil fuels, including coal, oil, and gas?" Response options were Yes or No, which we label as "Favor New Laws" and "Oppose New Laws", respectively.

# III. EFFECTS OF SHAMING

Figure 1 of the article displays the percentage of Americas who approved of how the U.S. government behaved. Below, we use the data from Figure 1 to summarize how shaming affected public approval, given each of the three U.S. policies in our vignettes.

Cut 5% -22 -3 -10 0 10

Effect on Approval (%)

Figure A9: Effects of Shaming on Approval

## IV. ESTIMATES USING FIVE-POINT SCALES

We asked: "Taking into account all the decisions the U.S. government made in the passage you read, would you approve or disapprove of what the U.S. government did overall?" The response options were approve strongly, approve somewhat, neither approve nor disapprove, disapprove somewhat, or disapprove strongly.

For simplicity, the article focused on a natural and easily interpretable quantity of interest, the percentage of respondents who approved. In this section of the appendix, we show that our conclusions held when we analyzed the full five-point scale, expressed as 0, 25, 50, 75, 100.

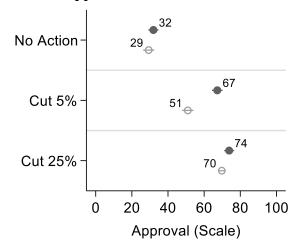


Figure A10: Approval without and with Shaming

Note: Solid dots show approval without shaming, hollow dots show approval with shaming.

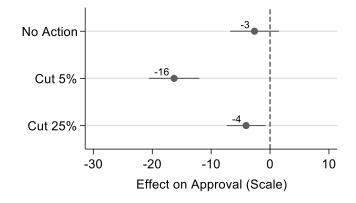


Figure A11: Effects of Shaming on Approval

Figure A12: Incentive to Comply without Shaming and with Shaming

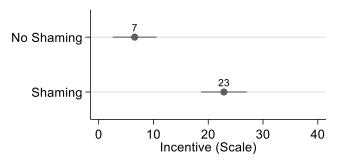
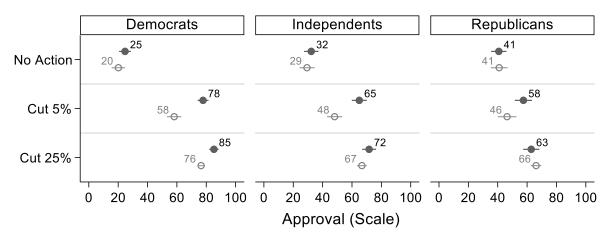
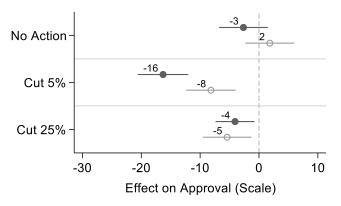


Figure A13: Approval without and with Shaming, by Party



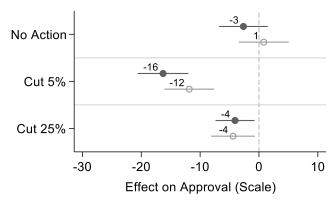
Note: Solid dots show approval without shaming, hollow dots show approval with shaming.

Figure A14: Effects of Shaming Without a Rebuttal and with Contrition



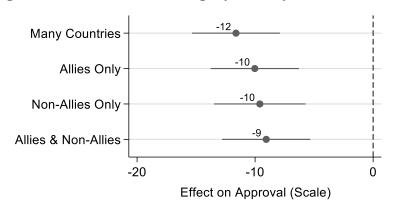
Note: Solid dots show effects without a rebuttal; hollow dots show effects with contrition.

Figure A15: Effects of Shaming Without a Rebuttal and with Defiance



Note: Solid dots show effects without a rebuttal; hollow dots show effects with a defiant rebuttal.

Figure A16: Effects of Shaming, by Identity of the Shamers



## V. DETAILED ESTIMATES BY POLITICAL PARTY

In this section, we report the results of experiments 1–4, by the political party affiliation of respondents.

### Estimates by Party in Experiment 1

Figure A17: Effects of Shaming on Approval, by Party

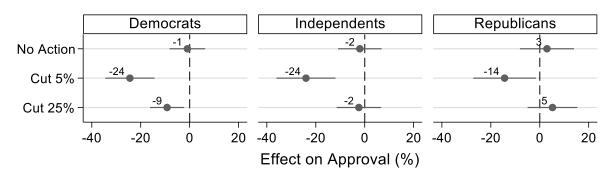
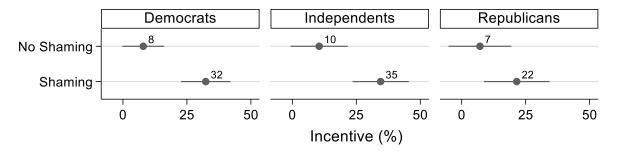


Figure A18: Incentive to Comply without Shaming and with Shaming, by Party



#### Estimates by Party in Experiment 2

We estimated reactions to contrition within each partisan group. Consider the middle row, which shows how the public reacted when the government cut emissions by 5%. Shaming alone tended to reduce approval within each group. Surprisingly, though, contrition was more effective in countering the effects of shaming on Republicans and Independents, than on Democrats. This again suggests that governments—especially ones catering to Republicans and Independents—could minimize the effects of shaming by apologizing and promising to do more in the future.

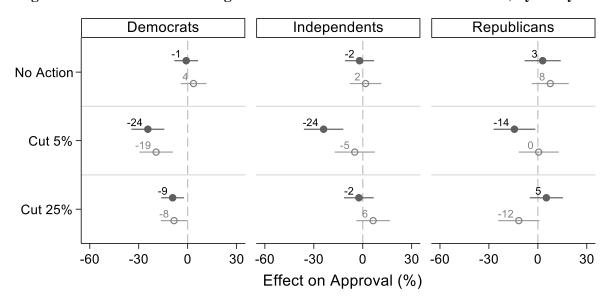


Figure A19: Effects of Shaming Without a Rebuttal and with Contrition, by Party

Note: Solid dots show effects without a rebuttal; hollow dots show effects with contrition.

### Estimates by Party in Experiment 3

When also estimated reactions to defiance within each partisan group, which shows how the public reacted when the government cut emissions by 5%. Among Republicans, defiance counteracted most of the effects of shaming. The impact fell from 14 points to only 4 points, an effect that was statistically indistinguishable from zero. Defiance also persuaded Independents; the effect of shaming among that group shrank from 24 points to only 9 points. But defiance backfired among Democrats, who reacted more negatively to the combination of shaming and defiance than to shaming alone. Our experiments suggest that defiant rebuttals would be effective when pandering to Republicans and Independents, counterproductive when courting Democrats, and of little consequence on average.

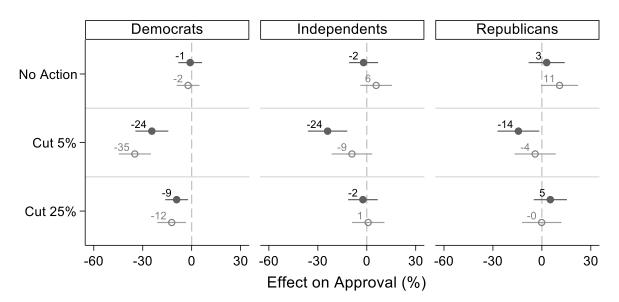


Figure A20: Effects of Shaming Without a Rebuttal and with Defiance, by Party

*Note*: Solid dots show effects without a rebuttal; hollow dots show effects with a defiant rebuttal.

### Estimates by Party in Experiment 4

The figure below summarizes the effects of shaming in experiment 4, by the party of the respondent. For each partisan group, the effect of shaming was approximately the same, regardless of how we characterized the countries that were shaming. Curiously, shaming had no effect on Republican respondents in experiment 4, which was conducted in January 2021. This finding differs from our earlier experiments, in which shaming affected not only Democrats and Independents, but also Republicans. Future research should continue to examine how Republicans respond to shaming, and how those responses might vary over time and across political contexts.

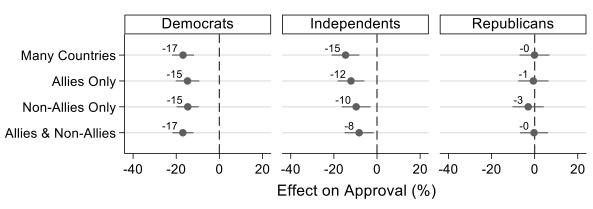


Figure A21: Effects of Shaming, by Shamer and Party

#### VI. ESTIMATES BY CLIMATE BELIEFS

In this section, we report the results of experiment 1, conditional on the climate beliefs of respondents. We asked: "There is much discussion about whether humans are causing climate change. Which of the following statements comes closest to your own opinion? Humans are causing climate change; Humans are not causing climate change; or Don't know." Based on this question, we split the sample into two groups: those who thought humans were causing climate change, and those who thought humans were not causing climate change or didn't know. In most cases, shaming had a bigger effect on respondents who thought humans were causing climate change.

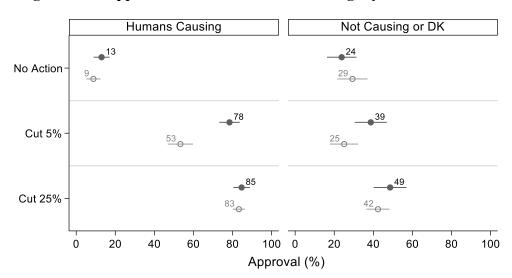


Figure A22: Approval without and with Shaming, by Climate Beliefs

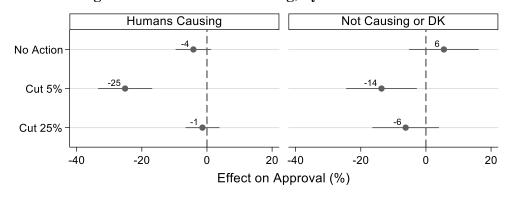
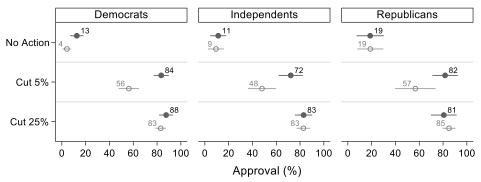


Figure A23: Effects of Shaming, by Climate Beliefs

Figure A24: Approval without and with Shaming, by Climate Beliefs and Party

## **Humans Causing**



## **Humans Not Causing or DK**

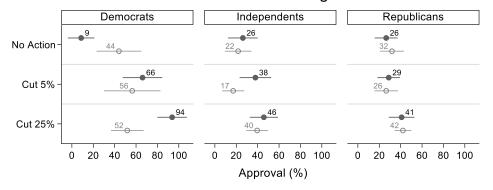
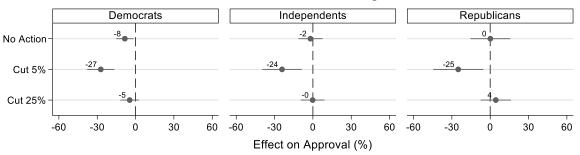
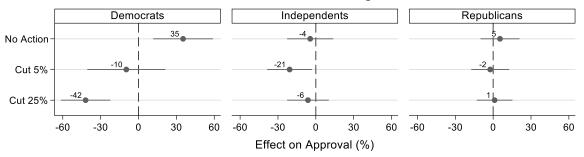


Figure A25: Effects of Shaming, by Climate Beliefs and Party

# **Humans Causing**



# **Humans Not Causing or DK**



#### VII. ESTIMATES BY POLICY PREFERENCES

In this section, we report the results of experiment 1, conditional on the policy preferences of respondents. We asked, "In your opinion, should the U.S. government pass new laws that would require Americans to reduce their use of fossil fuels, including coal, oil, and gas?" Response options were Yes or No, which we used to split the sample into two groups: respondents who favored new laws, and respondents who opposed new laws. In most cases, shaming had a bigger effect on respondents who favored new laws to reduce the use of fossil fuels.

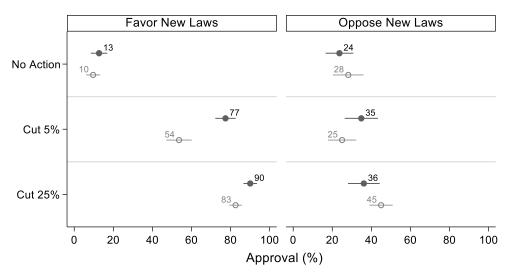


Figure A26: Approval without and with Shaming, by Party and Policy Preferences

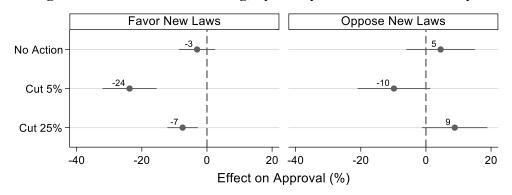
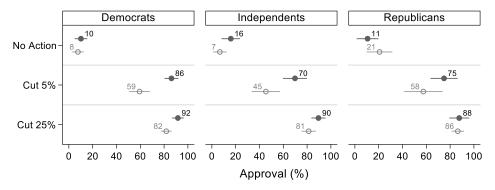


Figure A27: Effects of Shaming, by Policy Preferences and Party

Figure A28: Approval without and with Shaming, by Policy Preferences and Party

### **Favor New Laws**



## Oppose New Laws

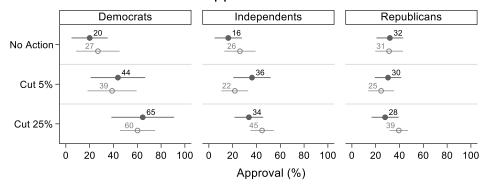
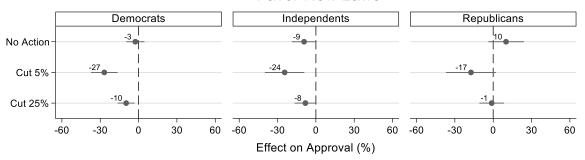
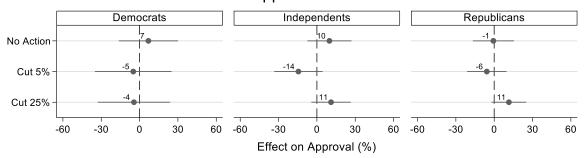


Figure A29: Effects of Shaming, by Policy Preferences and Party

# **Favor New Laws**



# Oppose New Laws



#### VIII. ESTIMATES INCLUDING INATTENTIVE RESPONDENTS

In the article and in earlier sections of this appendix, we restricted the sample to attentive respondents, defined as those who correctly answered at least 80% of the comprehension questions. The table below shows that, in each experiment, more than 4 out of every 5 respondents met this threshold.

Table A6: Attentive and Inattentive Respondents, by Experiment

	Attentive	Inattentive
Experiment 1		
Number of respondents	2,945	702
Percentage of respondents	81%	19%
Experiment 2		
Number of respondents	1,190	266
Percentage of respondents	82%	18%
Experiment 3		
Number of respondents	1,257	300
Percentage of respondents	81%	19%
Experiment 4		
Number of respondents	2,878	647
Percentage of respondents	82%	18%

The figures below show the effects of shaming on all respondents, whether attentive or not. Our main conclusions held, even after including respondents who did not provide correct answers to at least 80% of the comprehension checks.

Figure A30: Approval without and with Shaming

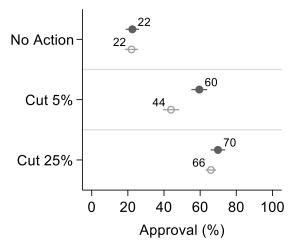


Figure A31: Effects of Shaming on Approval

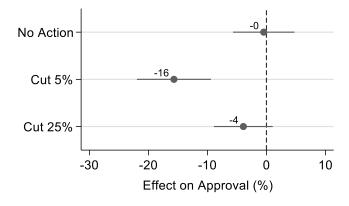
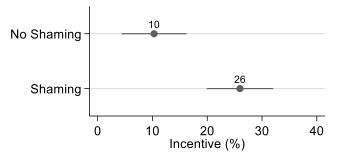


Figure A32: Incentive to Comply without Shaming and with Shaming



Democrats Independents Republicans No Action **Cut 5%** 56 Cut 25% 60 80 100 0 20 40 60 80 100 0 20 40 60 80 100 40 Approval (%)

Figure A33: Approval without and with Shaming, by Party

Note: Solid dots show approval without shaming, hollow dots show approval with shaming.

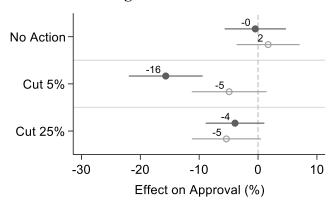


Figure A34: Effects of Shaming Without a Rebuttal and with Contrition

Note: Solid dots show effects without a rebuttal; hollow dots show effects with contrition.

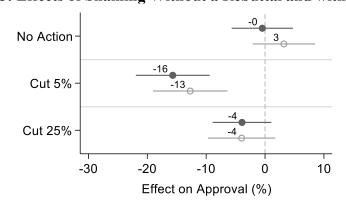


Figure A35: Effects of Shaming Without a Rebuttal and with Defiance

*Note*: Solid dots show effects without a rebuttal; hollow dots show effects with a defiant rebuttal.

Figure A36: Effects of Shaming, by Identity of the Shamers

