

# Supplementary Materials for “Nationalist Backlash against Foreign Climate Shaming”

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# A Analysis Wave One

## A.1 Descriptive Statistics

In the wave 1 dataset (wave1 R object) we have the following variables:

1. **nquest**: 9-digit Datafolha Respondent Code.
2. **female**: Dummy for Female Respondent.
3. **age**: Age.
4. **religion**: 4-brackets religion levels.
5. **evang**: Dummy for Evangelical respondent.
6. **income**: Income levels.
7. **more5mw**: Respondent More than five minimum-wage salaries.
8. **hsmore**: Dummy for High School or higher levels of education.
9. **outcbin**: Dummy for support for government decision.
10. **trsource**: Treatment status denoting the source of the foreign shaming.
11. **trgovresp**: Treatment status denoting government response to the foreign shaming.
12. **trstatus**: Treatment status as appears in the survey instrument.
13. **natscale**: National attachment scale.
14. **region**: Brazilian region.
15. **wts**: Weights computed by the Datafolha Institute.

Our analysis comes from a sample of 2001 Brazilians administered in January 2020 by the Datafolha Institute as part of a larger, unrelated omnibus survey. We provide a detailed explanation about the sampling methodology in the APSA Experimental Report section of this appendix. Table 1 shows the demographic characteristics of our sample.

Table 1: Sample Characteristics

	[ALL] N=2001	N
Age	42.96 (16.15)	2001
Female:		2001
No	951 (47.53%)	
Yes	1050 (52.47%)	
Income:		1899
BRL 0.00 to BRL 998.00	397 (20.91%)	
BRL 999.00 to BRL 1,996.00	426 (22.43%)	
BRL 1,997.00 to BRL 2,994.00	380 (20.01%)	
BRL 2,995.00 to BRL 4,990.00	345 (18.17%)	
BRL 4,991.00 or more	351 (18.48%)	
Region:		2001
Southeast	853 (42.63%)	
South	299 (14.94%)	
Northeast	521 (26.04%)	
Center-West	163 (8.15%)	
North	165 (8.25%)	
High School or more:		2001
No	844 (42.18%)	
Yes	1157 (57.82%)	
Religion:		2001
Catholic	1015 (50.72%)	
Evangelical Traditional	274 (13.69%)	
Evangelical Pentecostal	370 (18.49%)	
Others/No Relig.	342 (17.09%)	
National Attachment Scale	0.74 (0.27)	1918

## A.2 Pre-treatment Balance

The pre-treatment variables in this wave were:

1. Age
2. Gender
3. Education
4. Region
5. Income
6. Religion

To have a well-balanced sample across the experiment with demographic groups evenly distributed across them, we perform two types of balancing tests. For the continuous variables, we perform an F-test, and for the categorical variables, we run a Chi-Square test. Table 2 shows that the results of these tests are insignificant (p-value above 0.10), meaning that we have a well-balanced sample across all treatment levels.

Table 2: Pre-Treatment Balance Tests

Variable	Statistic	Value	P-Value
Age	F	0.821	0.569
Gender	Chi-Sq	5.058	0.653
Education	Chi-Sq	2.388	0.935
Region	Chi-Sq	1.927	1.000
Income	Chi-Sq	29.604	0.382
Religion	Chi-Sq	26.822	0.177

## A.3 Treatment Effects

We begin our analysis by examining the main effects of our treatment conditions on public support for government responses to foreign shaming, which are displayed in Table 3.

Table 3: Public Support for Responses to Foreign Shaming

	(1)	(2)	(3)
Ally Shaming	0.005 (0.023)		-0.035 (0.043)
Express Regret		0.506*** (0.018)	0.481*** (0.011)
Defy Shaming		-0.109*** (0.017)	-0.143*** (0.014)
Reject Shaming		0.182*** (0.028)	0.155*** (0.023)
Ally Shaming x Express Regret			0.050* (0.028)
Ally Shaming x Defy Shaming			0.068 (0.063)
Ally Shaming x Reject Shaming			0.053** (0.023)
Constant	0.538*** (0.018)	0.394*** (0.009)	0.411*** (0.019)
N	1,955	1,955	1,955

Cluster-robust SEs in parenthesis, clustered at the Brazilian region level.

Reference category: (1) Adversary Shaming; (2) Remain Silent; (3) Silence upon Adversary Shaming.

All estimates should be interpreted relative to their baseline category.

Significance levels: \*p < .1; \*\*p < .05; \*\*\*p < .01

## A.4 Heterogeneous Effects – National Attachment Scale

Table 4 shows how our treatments interact with individuals based on their national attachment scale scores.

Table 4: Effects of National Attachment Scale on Public Support for Responses to Foreign Shaming

	(1)	(2)	(3)
Ally	0.023 (0.046)		-0.090 (0.097)
Express Regret		0.521*** (0.036)	0.522*** (0.017)
Defy Shaming		-0.187** (0.085)	-0.262*** (0.062)
Reject Shaming		-0.047 (0.073)	-0.136** (0.057)
Nat. Scale	0.196** (0.085)	0.058 (0.136)	0.023 (0.103)
Ally x Express Regret			0.011 (0.074)
Ally x Defy Shaming			0.157 (0.172)
Ally x Reject Shaming			0.176 (0.250)
Nat. Scale x Ally	-0.036 (0.065)		0.075 (0.168)
Nat. Scale x Express Regret		-0.017 (0.063)	-0.046* (0.024)
Nat. Scale x Defy Shaming		0.124 (0.136)	0.194** (0.092)
Nat. Scale x Reject Shaming		0.313*** (0.106)	0.395*** (0.078)
Nat. Scale x Ally x Express Regret			0.046 (0.128)
Nat. Scale x Ally x Defy Shaming			-0.148 (0.307)
Nat. Scale x Ally x Reject Shaming			-0.160 (0.342)
Constant	0.394*** (0.064)	0.345*** (0.096)	0.387*** (0.077)
N	1,890	1,890	1,890

Cluster-robust SEs in parenthesis, clustered at the Brazilian region level.

Reference category: (1) Adversary Shaming; (2) Remain Silent; (3) Silence upon Adversary Shaming.

All estimates should be interpreted relative to their baseline category.

Significance levels: \*p < .1; \*\*p < .05; \*\*\*p < .01

## A.5 Robustness Checks

We supplement our main analysis by running robustness checks. We add pre-treatment demographic characteristics that could potentially influence public attitudes toward foreign shaming. We add controls for education, income, gender, age, and religion. Overall, all the results remain similar to the ones presented in the main models.

Table 5: Public Support for Responses to Foreign Shaming (pre-treatments as controls)

	(1)	(2)	(3)
Ally Shaming	0.010 (0.020)		-0.040 (0.045)
Express Regret		0.503*** (0.017)	0.475*** (0.012)
Defy Shaming		-0.118*** (0.017)	-0.154*** (0.020)
Reject Shaming		0.180*** (0.027)	0.144*** (0.026)
Ally Shaming x Express Regret			0.056** (0.027)
Ally Shaming x Defy Shaming			0.073 (0.066)
Ally Shaming x Reject Shaming			0.074*** (0.025)
Constant	0.496*** (0.046)	0.361*** (0.034)	0.380*** (0.027)
N	1,863	1,863	1,863

Cluster-robust SEs in parenthesis, clustered at the Brazilian region level.

Reference category: (1) Adversary Shaming; (2) Remain Silent; (3) Silence upon Adversary Shaming.

All estimates should be interpreted relative to their baseline category.

Significance levels: \*p < .1; \*\*p < .05; \*\*\*p < .01

Control variables: Female, Age, Evangelical, More than 5 Min. Wage, and Schooling.



Table 6: Effects of National Attachment Scale on Public Support for Responses to Foreign Shaming (pre-treatments as controls)

	(1)	(2)	(3)
Ally	0.012 (0.050)		-0.144 (0.093)
Express Regret		0.530*** (0.038)	0.527*** (0.029)
Defy Shaming		-0.165** (0.080)	-0.263*** (0.060)
Reject Shaming		-0.058 (0.069)	-0.191** (0.081)
Nat. Scale	0.187** (0.093)	0.069 (0.136)	0.002 (0.098)
Ally x Express Regret			0.026 (0.091)
Ally x Defy Shaming			0.206 (0.158)
Ally x Reject Shaming			0.262 (0.266)
Nat. Scale x Ally	-0.013 (0.062)		0.142 (0.164)
Nat. Scale x Express Regret		-0.032 (0.066)	-0.058 (0.041)
Nat. Scale x Defy Shaming		0.082 (0.128)	0.180* (0.095)
Nat. Scale x Reject Shaming		0.323*** (0.104)	0.448*** (0.109)
Nat. Scale x Ally x Express Regret			0.032 (0.148)
Nat. Scale x Ally x Defy Shaming			-0.207 (0.298)
Nat. Scale x Ally x Reject Shaming			-0.242 (0.372)
Constant	0.370*** (0.053)	0.313*** (0.086)	0.377*** (0.061)
N	1,806	1,806	1,806

Cluster-robust SEs in parenthesis, clustered at the Brazilian region level.

Reference category: (1) Adversary Shaming; (2) Remain Silent; (3) Silence upon Adversary Shaming.

All estimates should be interpreted relative to their baseline category.

Significance levels: \*p < .1; \*\*p < .05; \*\*\*p < .01

Control variables: Female, Age, Evangelical, More than 5 Min. Wage, and Schooling.

## A.6 Paper Figure

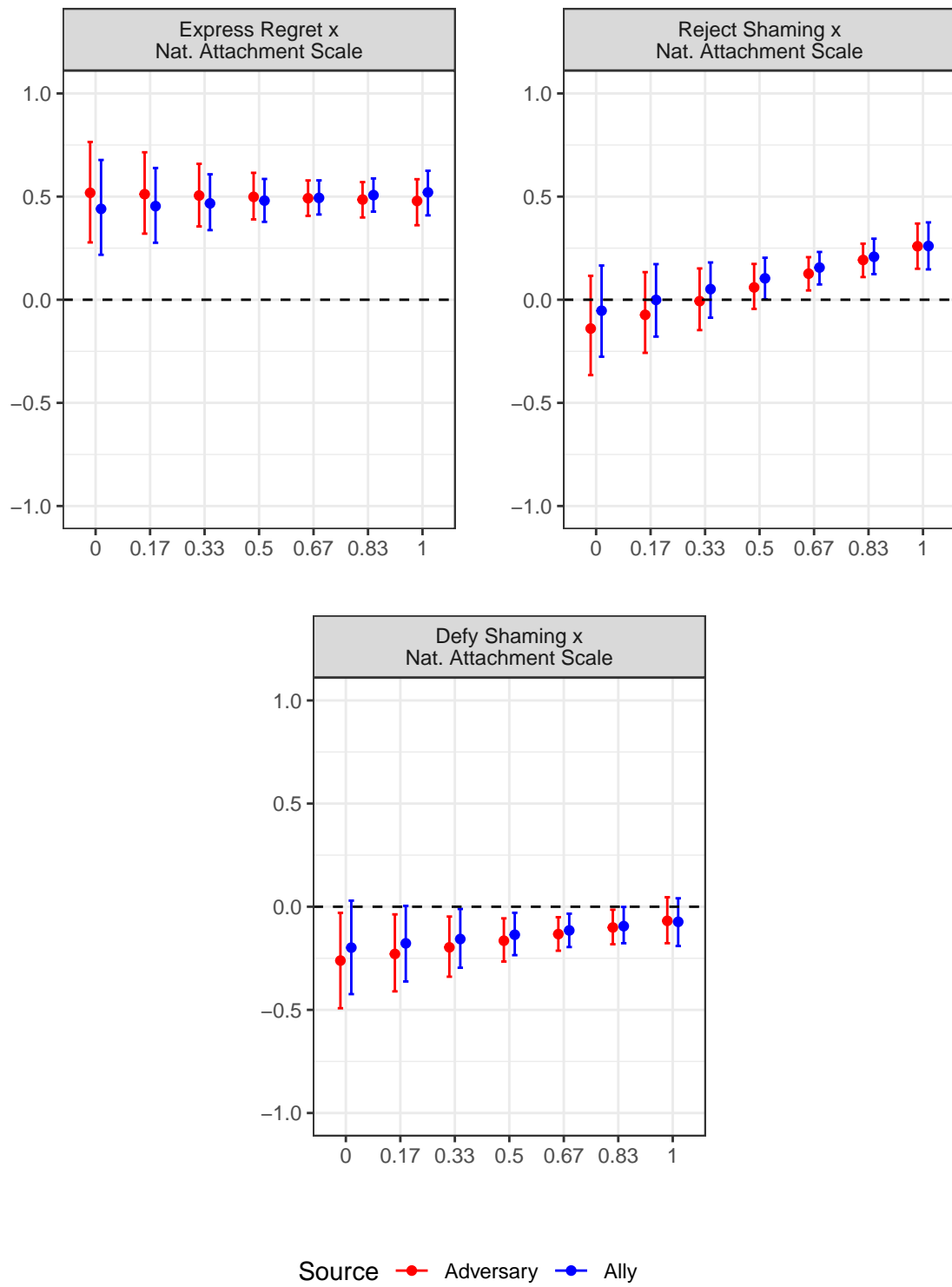


Figure 1: Effects of National Attachment Scale on Public Support for Responses to Foreign Shaming

## B Analysis Wave Two

### B.1 Descriptive Statistics

In the wave 2 dataset (wave2 R object) we have the following variables:

1. **nquest**: 9-digit Datafolha Respondent Code.
2. **female**: Dummy for Female Respondent.
3. **age**: Age.
4. **religion**: 4-brackets religion levels.
5. **evang**: Dummy for Evangelical respondent.
6. **income**: Income levels.
7. **more5mw**: Respondent More than five minimum-wage salaries.
8. **hsmore**: Dummy for High School or higher levels of education.
9. **outcbin**: Dummy for support for the government decision.
10. **trcontent**: Treatment status that contrasted a control (no message) versus a liberal internationalist message.
11. **trgovresp**: Treatment status denoting government response to the foreign shaming.
12. **trstatus**: Treatment status as appears in the survey instrument.
13. **natscale**: National attachment scale.
14. **region**: Brazilian region.
15. **wts**: Weights computed by the Datafolha Institute.

Our analysis comes from a sample of 2126 Brazilians administered in January 2020 by the Datafolha Institute as part of a larger, unrelated omnibus survey. We provide a detailed explanation about the sampling methodology in the APSA Experimental Report section of this appendix. Table 7 shows the demographic characteristics of our sample.

Table 7: Sample Characteristics

	[ALL] N=2126	N
Age	42.76 (16.28)	2126
Female:		2126
No	1011 (47.55%)	
Yes	1115 (52.45%)	
Income:		2033
BRL 0.00 to BRL 998.00	411 (20.22%)	
BRL 999.00 to BRL 1,996.00	527 (25.92%)	
BRL 1,997.00 to BRL 2,994.00	451 (22.18%)	
BRL 2,995.00 to BRL 4,990.00	353 (17.36%)	
BRL 4,991.00 or more	291 (14.31%)	
Region:		2126
Southeast	900 (42.33%)	
South	330 (15.52%)	
Northeast	546 (25.68%)	
Center-West	177 (8.33%)	
North	173 (8.14%)	
High School or more:		2126
No	920 (43.27%)	
Yes	1206 (56.73%)	
Religion:		2076
Catholic	1081 (52.07%)	
Evangelical Traditional	294 (14.16%)	
Evangelical Pentecostal	396 (19.08%)	
Others/No Relig.	305 (14.69%)	
National Attachment Scale	0.73 (0.27)	2032

## B.2 Pre-treatment Balance

The pre-treatment variables in this wave were:

1. Age
2. Gender
3. Education
4. Region
5. Income
6. Religion

Similarly to wave 1, in wave 2 we perform an F-test for the continuous variables and a Chi-Square test for the categorical variables. Table 8 shows that the results of these tests are insignificant (p-value above 0.10), meaning that we have a well-balanced sample across all treatment levels.

Table 8: Pre-Treatment Balance Tests

Variable	Statistic	Value	P-Value
Age	F	1.501	0.162
Gender	Chi-Sq	3.742	0.809
Education	Chi-Sq	5.012	0.658
Region	Chi-Sq	4.644	1.000
Income	Chi-Sq	18.088	0.924
Religion	Chi-Sq	33.482	0.041

As we can see, the results are insignificant (p-value above 0.10) for all variables but religion. We show in the robustness checks that adding religion as a control variable does not alter our results. Under (p-value < 0.1) we still have a 10% chance of a spurious correlation between the treatment and one pre-treatment variable. For instance, in six comparison tests, under a p-value of 0.1, we have  $1 - (1 - 0.1)^6 = 0.469$ , or 46.9% chance of at least one test being significant at random.

Using Benjamini–Hochberg correction (Benjamini and Hochberg 1995), let  $p_k$  the k-th ordered p-value,  $m$  the number of tests, and  $\alpha$  the significance threshold. We have to adjust the p-values using the following formula:

$$p_k < \frac{k}{m}\alpha$$

When we adjust the p-values for multiple comparisons, all coefficients are insignificant.

Table 9: Pre-Treatment Balance Tests (with Multiple Comparison's Correction)

Variable	Statistic	Value	P-Value	Adj. P-Value
Age	F	1.501	0.162	0.486
Gender	Chi-Sq	3.742	0.809	1.000
Education	Chi-Sq	5.012	0.658	1.000
Region	Chi-Sq	4.644	1.000	1.000
Income	Chi-Sq	18.088	0.924	1.000
Religion	Chi-Sq	33.482	0.041	0.246

### B.3 Treatment Effects

We begin our analysis by examining the main effects of our treatment conditions on public support for government responses to foreign shaming, which are displayed in table 10.

Table 10: Public Support for Responses to the Nature of Shaming Message

	(1)	(2)	(3)
Liberal Message	0.005 (0.014)		0.029 (0.037)
Express Regret		0.526*** (0.018)	0.539*** (0.030)
Defy Shaming		-0.093*** (0.030)	-0.083*** (0.029)
Reject Shaming		0.133*** (0.019)	0.148*** (0.038)
Liberal Message x Express Regret			-0.026 (0.044)
Liberal Message x Defy Shaming			-0.020 (0.033)
Liberal Message x Reject Shaming			-0.030 (0.090)
Constant	0.537*** (0.008)	0.398*** (0.016)	0.384*** (0.022)
N	2,093	2,093	2,093

Cluster-robust SEs in parenthesis, clustered at the Brazilian region level.

Reference category: (1) No Liberal Message (control); (2) Remain Silent; (3) Silence upon no Liberal Message.

All estimates should be interpreted relative to their baseline category.

Significance levels: \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$

### B.4 Heterogeneous Effects – National Attachment Scale

Table 11 shows how our treatments interact with individuals based on their national attachment scale scores.

Table 11: Effects of National Attachment Scale on Public Support for Responses to the Nature of Shaming Message

	(1)	(2)	(3)
Liberal Message	0.137*** (0.040)		0.142 (0.105)
Express Regret		0.692*** (0.023)	0.746*** (0.055)
Defy Shaming		-0.075* (0.043)	-0.094** (0.047)
Reject Shaming		0.0003 (0.068)	-0.044 (0.075)
Nat. Scale	0.254*** (0.028)	0.186*** (0.035)	0.268*** (0.064)
Liberal Message x Express Regret			-0.109 (0.104)
Liberal Message Message x Defy Shaming			0.022 (0.060)
Liberal Message x Reject Shaming			0.120 (0.172)
Nat. Scale x Liberal Message	-0.185*** (0.056)		-0.168 (0.142)
Nat. Scale x Express Regret		-0.217*** (0.031)	-0.277*** (0.086)
Nat. Scale x Defy Shaming		-0.012 (0.071)	0.014 (0.076)
Nat. Scale x Reject Shaming		0.199** (0.079)	0.278*** (0.099)
Nat. Scale x Liberal Message x Express Regret			0.118 (0.153)
Nat. Scale x Liberal Message x Defy Shaming			-0.035 (0.101)
Nat. Scale x Liberal Message x Reject Shaming			-0.198 (0.152)
Constant	0.354*** (0.022)	0.255*** (0.024)	0.187*** (0.046)
N	2,012	2,012	2,012

Cluster-robust SEs in parenthesis, clustered at the Brazilian region level.

Reference category: (1) No Liberal Message (control); (2) Remain Silent; (3) Silence upon No Liberal Message.

All estimates should be interpreted relative to their baseline category.

Significance levels: \*p < .1; \*\*p < .05; \*\*\*p < .01

## B.5 Robustness Checks

We supplement our main analysis by running robustness checks. We add pre-treatment demographic characteristics that could change public attitudes toward foreign shaming. We add controls for education, income, gender, age, and religion. Overall, all the results remain similar to the ones presented in the main models.

Table 12: Public Support for Responses to the Nature of Shaming Message (pre-treatments as controls)

	(1)	(2)	(3)
Liberal Message	0.001 (0.015)		0.013 (0.030)
Express Regret		0.521*** (0.021)	0.522*** (0.031)
Defy Shaming		-0.096*** (0.034)	-0.095** (0.046)
Reject Shaming		0.126*** (0.023)	0.143*** (0.043)
Liberal Message x Express Regret			-0.002 (0.035)
Liberal Message x Defy Shaming			-0.003 (0.045)
Liberal Message x Reject Shaming			-0.033 (0.090)
Constant	0.547*** (0.034)	0.416*** (0.015)	0.409*** (0.021)
N	1,956	1,956	1,956

Cluster-robust SEs in parenthesis, clustered at the Brazilian region level.

Reference category: (1) No Liberal Message (control); (2) Remain Silent; (3) Silence upon no Liberal Message.

All estimates should be interpreted relative to their baseline category.

Significance levels: \*p < .1; \*\*p < .05; \*\*\*p < .01

Control variables: Female, Age, Evangelical, More than 5 Min. Wage, and Schooling.



Table 13: Effects of National Attachment Scale on Public Support for Responses to the Nature of Shaming Message (pre-treatments as controls)

	(1)	(2)	(3)
Liberal Message	0.131*** (0.043)		0.145 (0.104)
Express Regret		0.704*** (0.054)	0.749*** (0.086)
Defy Shaming		-0.038 (0.057)	-0.047 (0.067)
Reject Shaming		0.016 (0.103)	0.009 (0.103)
Nat. Scale	0.238*** (0.034)	0.193*** (0.055)	0.296*** (0.081)
Liberal Message x Express Regret			-0.081 (0.113)
Liberal Message Message x Defy Shaming			0.010 (0.074)
Liberal Message x Reject Shaming			0.038 (0.156)
Nat. Scale x Liberal Message	-0.180*** (0.058)		-0.199 (0.138)
Nat. Scale x Express Regret		-0.243*** (0.064)	-0.311** (0.123)
Nat. Scale x Defy Shaming		-0.071 (0.092)	-0.075 (0.103)
Nat. Scale x Reject Shaming		0.164 (0.124)	0.182 (0.150)
Nat. Scale x Liberal Message x Express Regret			0.119 (0.168)
Nat. Scale x Liberal Message x Defy Shaming			0.011 (0.106)
Nat. Scale x Liberal Message x Reject Shaming			-0.074 (0.136)
Constant	0.377*** (0.034)	0.272*** (0.035)	0.196*** (0.034)
N	1,886	1,886	1,886

Cluster-robust SEs in parenthesis, clustered at the Brazilian region level.

Reference category: (1) No Liberal Message (control); (2) Remain Silent; (3) Silence upon No Liberal Message.

All estimates should be interpreted relative to their baseline category.

Significance levels: \*p < .1; \*\*p < .05; \*\*\*p < .01

Control variables: Female, Age, Evangelical, More than 5 Min. Wage, and Schooling.

## B.6 Paper Figure

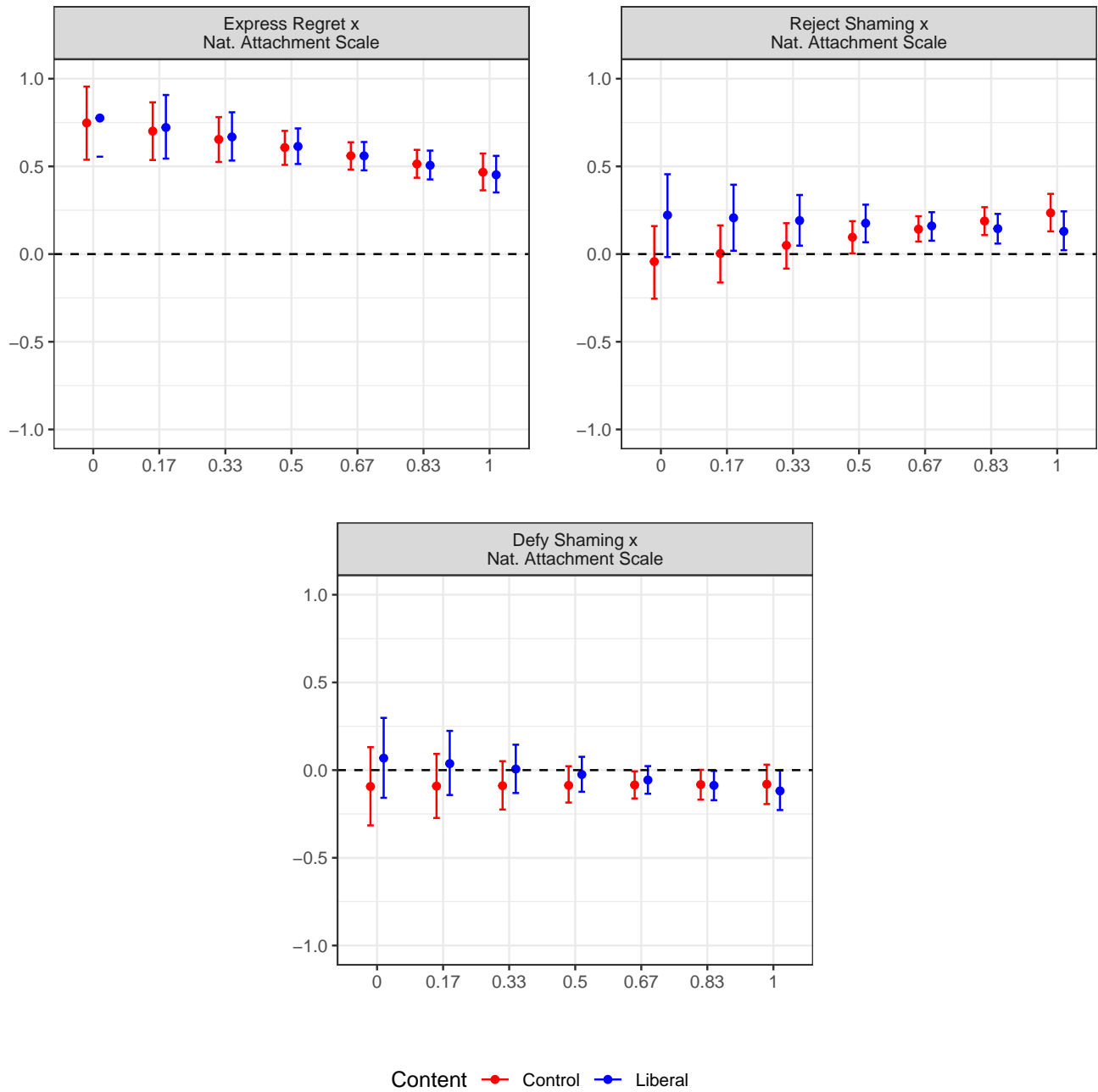


Figure 2: Effects of National Attachment Scale on Public Support for Responses to the Nature of Shaming Message.

## **C APSA Experimental Section Report**

### **C.1 Hypotheses**

- What are the questions the experiment was designed to address?
  - In these two-wave survey, we experimentally test whether the source of the criticism and the nature of the critical message affect how individuals respond to international climate shaming.
- What are the specific hypotheses to be tested?
  - We are testing whether the varying levels of nationalism among members of the public affect how individuals respond to international climate shaming.

### **C.2 Subjects and Context**

- Who was eligible to participate in the study?
  - The target population is comprised of Brazilian citizens over 18 years of age.
- What would result in the exclusion of a participant?
  - Being a foreigner, or younger than 18 years old.
- Procedures used to recruit and select participants
  - The survey company sampled municipalities to match the demographic composition laid out by the national census alongside age, income, education, gender, and region. We used the 2018 quota published by the Brazilian Institute of Geography and Statistics (IBGE) as a reference. Moreover, the survey company allocated enumerators in strategic places with a large influx of people. Around 30 percent of responses were double-checked for consistency.

- Recruitment dates defining the periods of recruitment and when the experiments were conducted.
  - The first and second wave of the experiment occurred between January 13 and January 17, 2020. As this was a face-to-face survey experiment, enumerators recruited respondents at the street level.
- Dates of any repeated
  - Not applicable.
- Settings and locations where the data were collected
  - Enumerators were distributed in approximately 120 municipalities which were randomly selected by a stratum of the region, nature of the municipality (state capital, other metropolitan or interior regions), federal state, and municipality population size. The Datafolha Institute selected municipalities on the basis of the 2018 Brazilian Demographic Census and the population projections issued that year by the Brazilian Institute of Geography and Statistics (IBGE). Enumerators collected the data face-to-face.
- Where? Field? Lab? Etc.
  - Face-to-face survey.
- Survey: Response rate and how it was calculated
  - The first survey wave had 2001 respondents, and the second wave had a response rate of 2126. The company did not supply data on attrition levels during the survey.

### **C.3 Allocation Methods**

- Details of the procedure used to generate the assignment sequence (randomization procedure)
  - We use cluster random assignment, randomizing the vignette of the experiment within each survey quota.

- There were 8 treatment arms in the first wave. The answers ranged from 242 to 256 participants in each treatment status. In the second wave, there were 8 treatment arms. The answers ranged from 256 to 270 participants in each treatment status.
- Random assignment
  - Simple random assignment within the region quota.
- Units of randomization
  - The randomization was performed within region quota at the respondent's level.
- Cluster random assignment
  - Region. We use cluster-robust standard error, with Region as the cluster.
- Evidence for random assignment
  - We checked pre-treatment imbalance between control and the treatments in all the following variables: age, gender, education, region, income, and religion.
- Pre-treatment variables
  - We have six pre-treatment variables:
    - \* Age
    - \* Gender
    - \* Education
    - \* Region
    - \* Income
    - \* Religion
- Characteristics of the population
  - The groups of respondents are representative of the entire Brazilian population based on the 2010 national census including age, income, education, gender, and region issued by the Brazilian Institute of Geography and Statistics (IBGE).
- Block randomization
  - We did not use block randomization.

- Blinding: Were participants unaware of the treatment assignment?
  - Yes. The randomization had an equal chance of drawing any of the vignettes for any given respondent. Respondents could not foresee which vignette would be drawn nor could they see there was more than one vignette for each question. Moreover, the enumerators administering the survey did not inform the experimental nature of the research before the application of the instrument.
- Were those administering the intervention unaware of the random assignment?
  - No. The enumerators were informed about the random nature of the study and trained to read each of the vignette questions that showed up on their tablets without revealing the experimental nature of the research.
- Checked whether blind was successful?
  - Not applicable.

## C.4 Treatments

- Descriptions of the intervention:
  - The intervention will consist of three steps.
    - \* Step 1: Collecting information on the extent to which the respondents agree or disagree with two statements that tap into a national attachment scale.
    - \* Step 2: Applying the survey experiment.
    - \* Step 3: Collecting standard demographic characteristics.
- Describe the treatment and control groups
  - In the first wave of the survey experiment we assigned each respondent to one of the eight treatments. All respondents heard a hypothetical situation in which Brazil suffered shaming accusations by a foreign actor for poorly managing fires and deforestation in the Amazon forest. We then randomized the source of criticism – ally and adversary. Finally, we randomized all four possible reactions to shaming: silence, regret, rejection, and defiance. All the treatment conditions are outlined below.
    - \* Treatment 1: Ally shaming, Remain silent.

- \* Treatment 2: Ally shaming, Express regret.
  - \* Treatment 3: Ally shaming, Reject shaming.
  - \* Treatment 4: Ally shaming, Defy shaming.
  - \* Treatment 5: Adversary shaming, Remain silent
  - \* Treatment 6: Adversary shaming, Express regret.
  - \* Treatment 7: Adversary shaming, Reject shaming.
  - \* Treatment 8: Adversary shaming, Defy shaming.
- In the second wave of the experiment we assigned each respondent to either the control condition or one of the treatment conditions. All respondents continued to hear about a hypothetical situation in which Brazil suffered shaming accusations by a foreign actor for poorly managing fires and deforestation in the Amazon forest. While we mentioned that shaming came from a foreign country, we did not specify whether it was an ally or an adversary. However, we varied whether criticism was couched in liberal internationalist language or no information about the nature of criticism was provided. The range of possible responses to shaming continued to vary in terms of silence, regret, rejection, and defiance.
- \* Treatment 1: Foreign country shaming, Remain silent.
  - \* Treatment 2: : Foreign country shaming, Express regret.
  - \* Treatment 3: Foreign country shaming, Reject shaming.
  - \* Treatment 4: Foreign country shaming, Defy shaming.
  - \* Treatment 5: Foreign country shaming, Liberal internationalist message, Remain silent.
  - \* Treatment 6: Foreign country shaming, Liberal Internationalist message, Express regret.
  - \* Treatment 7: Foreign country shaming, Liberal Internationalist message, Reject shaming.
  - \* Treatment 8: Foreign country shaming, Liberal Internationalist message, Defy sham-  
ing.

- Experimental instructions
  - To introduce the experimental question, the enumerator reads the following instructions: “*Everyone talks about wildfires and deforestation in the Amazon forest. We will read some imaginary scenarios and ask what you think of each*”. Then the enumerator asks the questions.
- How and when manipulations were administered
  - The manipulation will be applied after the measurement of step one (see above), but before the measurement of the demographic variables.
- Method of delivery
  - The delivery was made by the enumerator reading the randomly-selected experimental vignette to the respondent.
- Software used to administer the treatment
  - Datafolha Institute uses the SurveyToGo software on their tablets. Respondents also read cards with the description of the control or one of the treatment conditions.

## C.5 Results

### C.5.1 Outcome measures and covariates

- Outcome measures
  - The outcome measured in both waves is the level of support for different responses to foreign shaming.
- Covariates
  - We use the variables age, income, education, gender, religion, race, and religion as **pre-treatment covariates**.
- Survey Questionnaires
  - First Wave: [English translation](#).
  - Second Wave: [English translation](#).



- Which outcomes and subgroup analysis were specified prior to the experiment?
  - In the paper, we use a **national attachment scale** to measure heterogeneous effects at the individual level. Items are drawn from previous work on national attachment (Herrmann 2017; Rathbun et al. 2019; Bayram 2017). In particular, we test how individuals scoring differently in national attachment on a values scale interact with our treatment conditions. The national attachment scale consists of a combination of the following two questions.
    - \* “When someone says something bad about Brazil, you feel as if they say something bad about you.”
    - \* “Brazil should stand for national honor, even if it compromises its image in the world.”
    - \* The response options for each item are “agree totally,” “agree partially,” “neither agree or disagree,” “disagree partially,” and “disagree totally.”
- Exploratory analysis? What find?
  - No exploratory analysis has been run.

### C.5.2 CONSORT

- Number of subjects initially accessed for eligibility:
  - We fielded a sample of 2001 and 2126 respondents in wave 1 and wave 2, respectively.
- Exclusions prior to random assignment
  - There were no exclusions.
- Subjects initially assigned to each experimental group
  - In the first wave:
    - \* Treatment 1 (Ally shaming, Remain silent): 249 respondents.
    - \* Treatment 2 (Ally shaming, Express regret): 251 respondents.
    - \* Treatment 3 (Ally shaming, Reject shaming): 248 respondents.
    - \* Treatment 4 (Ally shaming, Defy shaming): 256 respondents.
    - \* Treatment 5 (Adversary shaming, Remain silent): 253 respondents.
    - \* Treatment 6 (Adversary shaming, Express regret): 255 respondents.

- \* Treatment 7 (Adversary shaming, Reject shaming): 242 respondents.
  - \* Treatment 8 (Adversary shaming, Defy shaming): 247 respondents.
- In the second wave:
- \* Treatment 1 (Foreign country shaming, Remain silent): 263 respondents.
  - \* Treatment 2 (Foreign country shaming, Express regret): 270 respondents.
  - \* Treatment 3 (Foreign country shaming, Reject shaming): 265 respondents.
  - \* Treatment 4 (Foreign country shaming, Defy shaming): 268 respondents.
  - \* Treatment 5 (Foreign country shaming, Liberal Internationalist message, Remain silent): 269 respondents.
  - \* Treatment 6 (Foreign country shaming, Liberal Internationalist message, Express regret): 256 respondents.
  - \* Treatment 7 (Foreign country shaming, Liberal Internationalist message, Reject shaming): 265 respondents.
  - \* Treatment 8 (Foreign country shaming, Liberal Internationalist message, Defy shaming): 270 respondents.
- Proportion received x not received intervention:
    - In the first wave:
      - \* Treatment 1 (Ally shaming, Remain silent): 12.44 percent.
      - \* Treatment 2 (Ally shaming, Express regret): 12.54 percent.
      - \* Treatment 3 (Ally shaming, Reject shaming): 12.39 percent.
      - \* Treatment 4 (Ally shaming, Defy shaming): 12.79 percent.
      - \* Treatment 5 (Adversary shaming, Remain silent): 12.64 percent.
      - \* Treatment 6 (Adversary shaming, Express regret): 12.74 percent.
      - \* Treatment 7 (Adversary shaming, Reject shaming): 12.09 percent.
      - \* Treatment 8 (Adversary shaming, Defy shaming): 12.34 percent.
    - In the second wave:
      - \* Treatment 1 (Foreign country shaming, Remain silent): 12.37 percent.
      - \* Treatment 2 (Foreign country shaming, Express regret): 12.7 percent.
      - \* Treatment 3 (Foreign country shaming, Reject shaming): 12.46 percent.
      - \* Treatment 4 (Foreign country shaming, Defy shaming): 12.61 percent.

- \* Treatment 5 (Foreign country shaming, Liberal Internationalist message, Remain silent): 12.65 percent.
  - \* Treatment 6 (Foreign country shaming, Liberal Internationalist message, Express regret): 12.04 percent.
  - \* Treatment 7 (Foreign country shaming, Liberal Internationalist message, Reject shaming): 12.46 percent.
  - \* Treatment 8 (Foreign country shaming, Liberal Internationalist message, Defy shaming): 12.7 percent.
- Why did not receive intervention?
    - The study is a case-control study.
  - Number subjects each group dropped experiment
    - No respondent was dropped.
  - Number included and any reason for exclusion
    - Not applicable.

### **C.5.3 Statistical analysis**

- Describe statistical analysis
  - Linear regression analysis (OLS) with cluster-robust standard errors. We used the function `fe1m` from the package `lfe` in R. The package provides a straightforward way to estimate cluster-robust standard errors.

- Means and standard deviations

- For the first wave:

trstatus	Mean.Support	SD.Support	SE.Support
Ally criticizes, Remain Silent	0.372	0.484	0.031
Ally criticizes, Express regret	0.911	0.285	0.018
Ally criticizes, Reject Shaming	0.577	0.495	0.031
Ally criticizes, Defy Shaming	0.301	0.460	0.029
Adversary criticizes, Remain Silent	0.389	0.488	0.031
Adversary criticizes, Express regret	0.894	0.309	0.019
Adversary criticizes, Reject Shaming	0.556	0.498	0.032
Adversary criticizes, Defy Shaming	0.267	0.444	0.028

- For the second wave:

trstatus	Mean.Support	SD.Support	SE.Support
Remain Silent	0.383	0.487	0.030
Express regret	0.933	0.250	0.015
Reject Shaming	0.559	0.497	0.031
Defy Shaming	0.292	0.455	0.028
Liberal Message, Remain Silent	0.408	0.492	0.030
Liberal Message, Express regret	0.921	0.270	0.017
Liberal Message, Reject Shaming	0.535	0.500	0.031
Liberal Message, Defy Shaming	0.318	0.467	0.028

- ITT

- Not applicable.

- If use block randomization, ITT by block or overall means using IPW

- Not applicable.

- Standard errors:

- Cluster-robust standard errors, clustering at the Region level.

- Attrition:
  - Not applicable.
- Analyze pre-treatment variables to check reasons
  - See the pre-treatment balance section.
- Missing data
  - Most of the missing data is generated by the Don ' t know answer in the primary outcomes. This was a voluntary answer that affected 46 out of 2001 responses in the first wave, and 33 out of 2126 responses in the second wave.
- Frequency and percentage missing by group
  - See the descriptive statistics section for each of the waves.
- Method for addressing missing data
  - Not applicable.
- Summary missing data by subgroup
  - For the first wave:

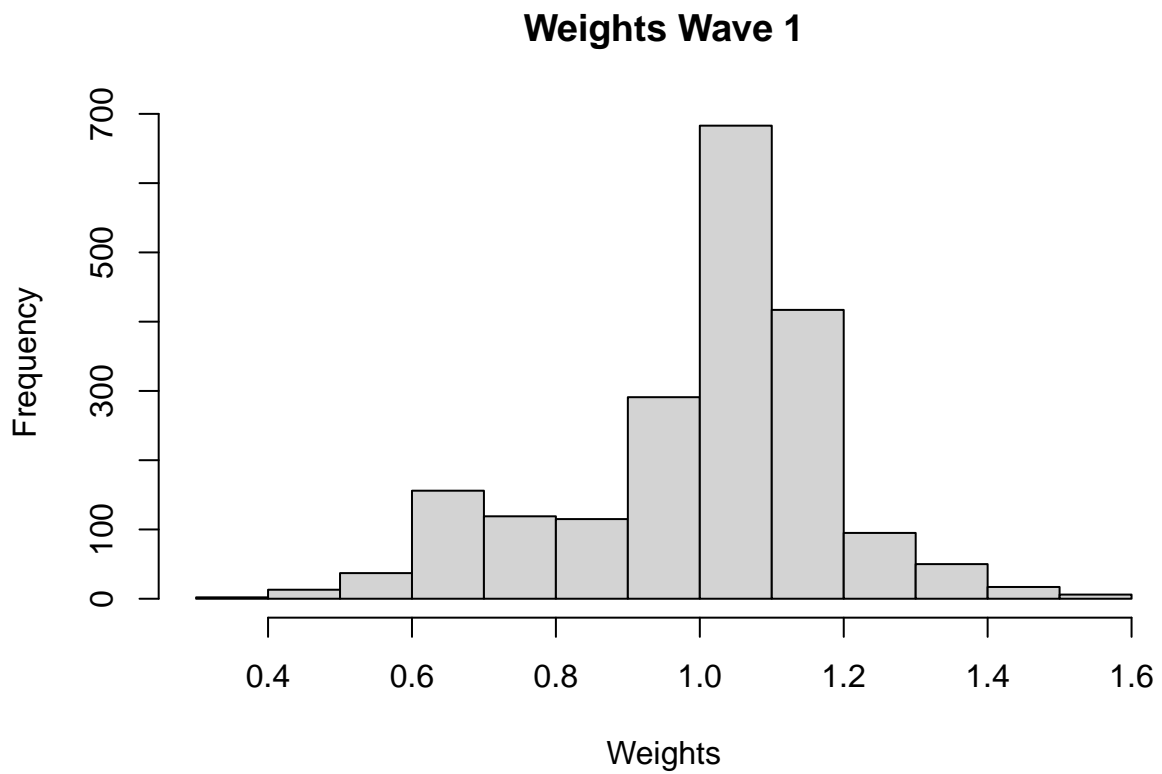
	Valid	Missing
Ally criticizes, Remain Silent	242	7
Ally criticizes, Express regret	247	4
Ally criticizes, Reject Shaming	239	9
Ally criticizes, Defy Shaming	249	7
Adversary criticizes, Remain Silent	247	6
Adversary criticizes, Express regret	254	1
Adversary criticizes, Reject Shaming	234	8
Adversary criticizes, Defy Shaming	243	4

- For the second wave:

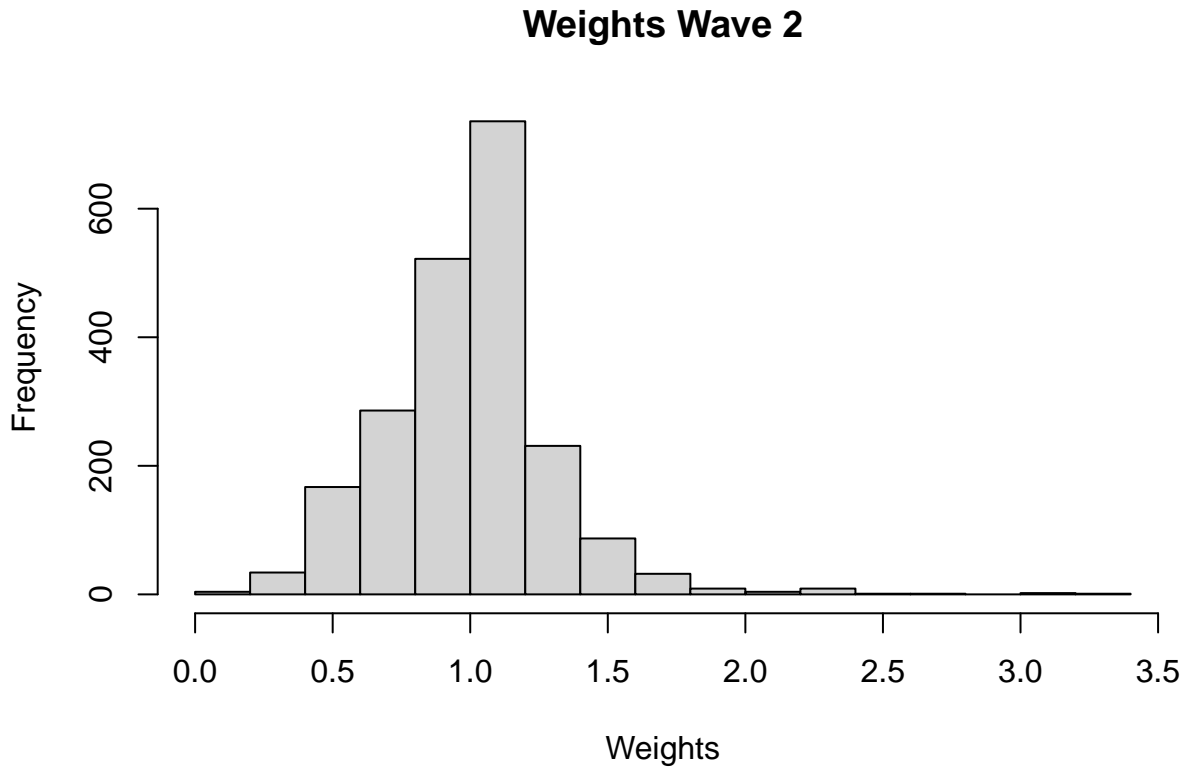
	Valid	Missing
Remain Silent	261	2
Express regret	270	0
Reject Shaming	261	4
Defy Shaming	264	4
Liberal Message, Remain Silent	262	7
Liberal Message, Express regret	253	3
Liberal Message, Reject Shaming	258	7
Liberal Message, Defy Shaming	264	6

• Survey experiments:

- A histogram of the weights for the wave 1 follows below.



- A histogram of the weights for the wave 2 follows below.



- Reweighting procedures
  - We only use the weights assigned by the Datafolha Institute. The weights assigned by Datafolha have the purpose of guaranteeing the representativeness of the Brazilian population.

## C.6 Other information

- IRB
  - This study received IRB approval number 124/2019 from the FGV Ethics Committee (CEPH-FGV) on October 18, 2019.
- Pre-registered? Where?
  - This experiment has not been pre-registered.

- Funding? Role of funders in the experiment?
  - Funding was provided by the Stanton Foundation. No funder interfered either in the design or in the implementation of this experiment.
- Replication dataset? URL?
  - The replication data is in the following GitHub repository: <https://github.com/umbertomig/environmental-politics-survey>.

## C.7 Session Information

We use R version 4.1.0 (2021-05-18) to write this appendix. For the regression models estimation, we use the package `lfe`. Everything in this report is fully automated and can be reproduced using R Markdown.

```
## R version 4.1.0 (2021-05-18)
## Platform: x86_64-apple-darwin17.0 (64-bit)
## Running under: macOS Catalina 10.15.7
##
## Matrix products: default
## BLAS:   /Library/Frameworks/R.framework/Versions/4.1/Resources/lib/libRblas.dylib
## LAPACK: /Library/Frameworks/R.framework/Versions/4.1/Resources/lib/libRlapack.dylib
##
## locale:
## [1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8
##
## attached base packages:
## [1] grid      stats    graphics grDevices utils    datasets methods
## [8] base
##
## other attached packages:
## [1] car_3.0-11      carData_3.0-4      ggpubr_0.4.0
## [4] miceadds_3.11-6  mice_3.13.0        gridExtra_2.3
```



```

## [7] interplot_0.2.3      arm_1.11-2          lme4_1.1-27.1
## [10] MASS_7.3-54          abind_1.4-5         kableExtra_1.3.4
## [13] lfe_2.8-6            compareGroups_4.5.2 huxtable_5.4.0
## [16] gtools_3.9.2         broom_0.7.9         knitr_1.34
## [19] weights_1.0.4        Hmisc_4.5-0         Formula_1.2-4
## [22] lattice_0.20-44      GDAtools_1.7        survey_4.1-1
## [25] survival_3.2-11      Matrix_1.3-4        haven_2.4.1
## [28] stargazer_5.2.2      sandwich_3.0-1      lmtest_0.9-38
## [31] zoo_1.8-9            readxl_1.3.1        forcats_0.5.1
## [34] stringr_1.4.0        dplyr_1.0.7         purrr_0.3.4
## [37] readr_2.0.0          tidyr_1.1.3         tibble_3.1.4
## [40] ggplot2_3.3.5        tidyverse_1.3.1
##
## loaded via a namespace (and not attached):
## [1] uuid_0.1-4           backports_1.2.1      systemfonts_1.0.2
## [4] splines_4.1.0        digest_0.6.27        htmltools_0.5.2
## [7] gdata_2.18.0         fansi_0.5.0          magrittr_2.0.1
## [10] Rsolnp_1.16          checkmate_2.0.0      interactionTest_1.2
## [13] cluster_2.1.2        openxlsx_4.2.4       tzdb_0.1.2
## [16] modelr_0.1.8         officer_0.4.0        svglite_2.0.0
## [19] jpeg_0.1-9          colorspace_2.0-2     rvest_1.0.1
## [22] ggrepel_0.9.1        mitools_2.4          xfun_0.25
## [25] crayon_1.4.1         jsonlite_1.7.2       glue_1.4.2
## [28] gtable_0.3.0         webshot_0.5.2        scales_1.1.1
## [31] DBI_1.1.1            rstatix_0.7.0        Rcpp_1.0.7
## [34] viridisLite_0.4.0    xtable_1.8-4         htmlTable_2.2.1
## [37] flashClust_1.01-2    foreign_0.8-81       DT_0.18
## [40] truncnorm_1.0-8      htmlwidgets_1.5.3    httr_1.4.2
## [43] RColorBrewer_1.1-2   wdm_0.2.2            ellipsis_0.3.2
## [46] pkgconfig_2.0.3      nnet_7.3-16          dbplyr_2.1.1

```

## [49] utf8_1.2.2	tidyselect_1.1.1	rlang_0.4.11
## [52] munsell_0.5.0	cellranger_1.1.0	tools_4.1.0
## [55] cli_3.0.1	generics_0.1.0	evaluate_0.14
## [58] fastmap_1.1.0	yaml_2.2.1	fs_1.5.0
## [61] zip_2.2.0	nlme_3.1-152	leaps_3.1
## [64] xml2_1.3.2	compiler_4.1.0	rstudioapi_0.13
## [67] curl_4.3.2	png_0.1-7	ggsignif_0.6.2
## [70] reprex_2.0.0	stringi_1.7.4	HardyWeinberg_1.7.2
## [73] highr_0.9	gdtools_0.2.3	nloptr_1.2.2.2
## [76] vctrs_0.3.8	pillar_1.6.2	lifecycle_1.0.0
## [79] data.table_1.14.0	flextable_0.6.8	R6_2.5.1
## [82] latticeExtra_0.6-29	rio_0.5.27	nleqslv_3.3.2
## [85] writexl_1.4.0	boot_1.3-28	assertthat_0.2.1
## [88] chron_2.3-56	withr_2.4.2	parallel_4.1.0
## [91] hms_1.1.0	rpart_4.1-15	coda_0.19-4
## [94] minqa_1.2.4	rmarkdown_2.10	scatterplot3d_0.3-41
## [97] lubridate_1.7.10	base64enc_0.1-3	FactoMineR_2.4

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