

The background of the slide is a stylized, wavy American flag. The blue field with white stars is in the upper left, and the red and white stripes flow across the rest of the slide.

Evocations of the American Flag

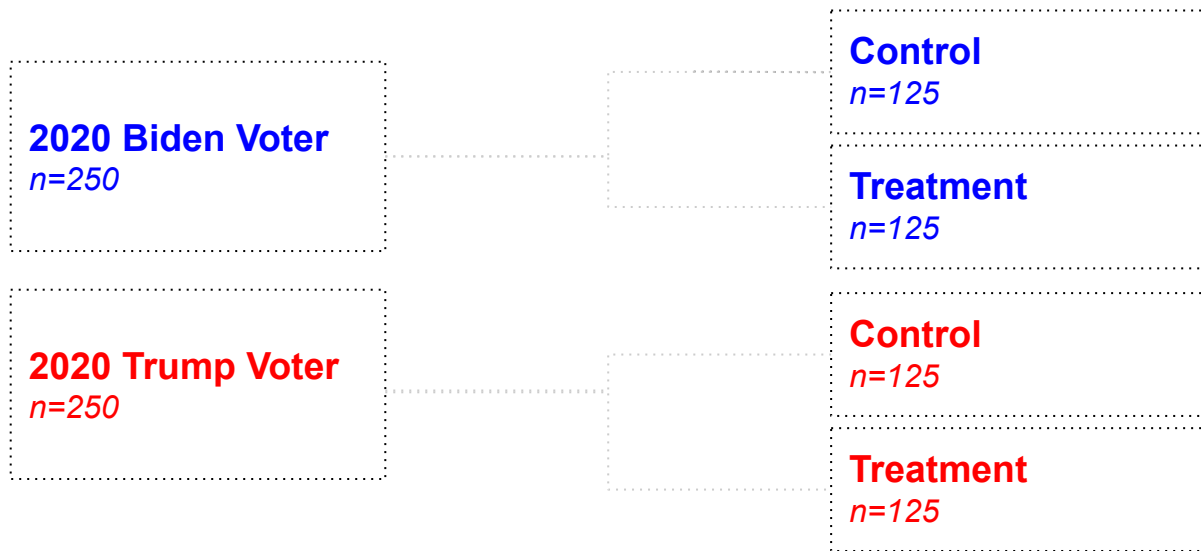
Spring 2021 - W241
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What we set out to learn

How does the American flag affect sentiments regarding divisive political issues?



Block Design



- Reside in US
- Political affiliation: Democrat / Republican / Independent



- Random assignment - 50% treatment / 50% control
- Attention check

Experimental design

- RXO/R-O Design
- Posttest only randomized control group design
- Between subjects comparisons of their political opinion after treatment of flag & priming question
- Blocked on historical voter in 2020 (Biden vs Trump)

Treatment vs Control

Treatment

In a few words, describe what the US flag means to you.

On a scale of 0-10, how well do you think Joe Biden is handling his job as president? Use slider below.

Very poorly 0 1 2 3 4 5 6 7 8 9 10 Very well



"DEFENSIVENESS--NOT HATRED, BUT FALSE HOPE"

"A SIGN OF UNITY"

Control

In a few words, describe your ideal breakfast.

On a scale of 0-10, how well do you think Joe Biden is handling his job as president? Use slider below.

Very poorly 0 1 2 3 4 5 6 7 8 9 10 Very well



"SIX SLICES OF FRENCH TOAST AND 3 STRIPS OF BACON"

"COFFEE WITH PINK STUFF AND A SINGLE BEER LEFT OVER FROM LAST NIGHT."

What hypotheses did we have?

Hypothesis

1

The image of the flag will reduce polarization for the respondent

2

...and by using a projective technique -- we'll improve accuracy of responses

Expectations

ATE will be small, but that we will see slightly less polarization for the treatment group when asked about the opposing party candidate.

When we ask about neighbors, we will see less polarization.

And the questions we asked...

On a scale of 0-10...

1. How well do you think Joe Biden is handling his job as president?
2. How well do you think Donald Trump handled his job as president?
3. How much do you think Joe Biden cares about average Americans?
4. How optimistic are you about the next four years with Joe Biden as president?
5. Do you feel that President Biden is doing more to unite the country or to divide the country?
6. How would you rate Joe Biden's response to the coronavirus?

And the projective technique questions we asked...

7. If you flew an American flag in your yard, how likely is it that your neighbors would assume your political affiliation?

0: Very unlikely — 10: Very likely

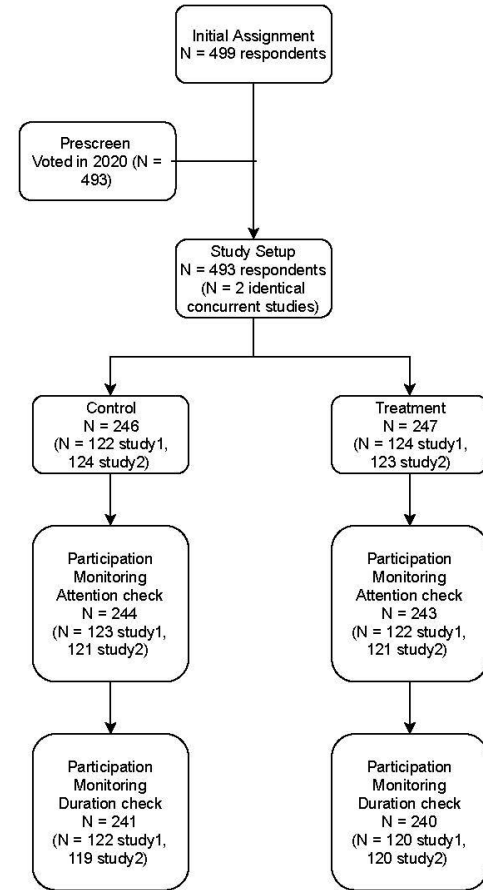
8. If your neighbors flew an American flag in their yard, what would you assume their political affiliation to be?

- They are more likely to support Democrats.
- They are more likely to support Republicans.
- They are equally likely to support Democrats or Republicans.

What happened

Flow diagram

- 499 Initial Assignments
- 493 confirmed voting in 2020 election
- Blocked on party affiliation by running two identical concurrent studies
- Randomized treatment within each study
- Eliminated irregular durations and inattentive respondents
- Final: N = 481
 - Treatment: N = 240
 - Control: N = 241



Confirmed Randomization Check with ANOVA

Analysis of Variance Table

Model 1: treat ~ 1 + vote2020 + age + `2020 US presidential election` +
`Country of Birth` + `Current Country of Residence` + `Employment Status` +
Sex + `Student Status` + `U.S. Political Affiliation` + study

Model 2: treat ~ 1

| | Res.Df | RSS | Df | Sum of Sq | F | Pr(>F) |
|---|--------|--------|-----|-----------|--------|--------|
| 1 | 452 | 111.56 | | | | |
| 2 | 489 | 122.50 | -37 | -10.945 | 1.1986 | 0.2018 |

Participants & Covariate Review



Biden Voter



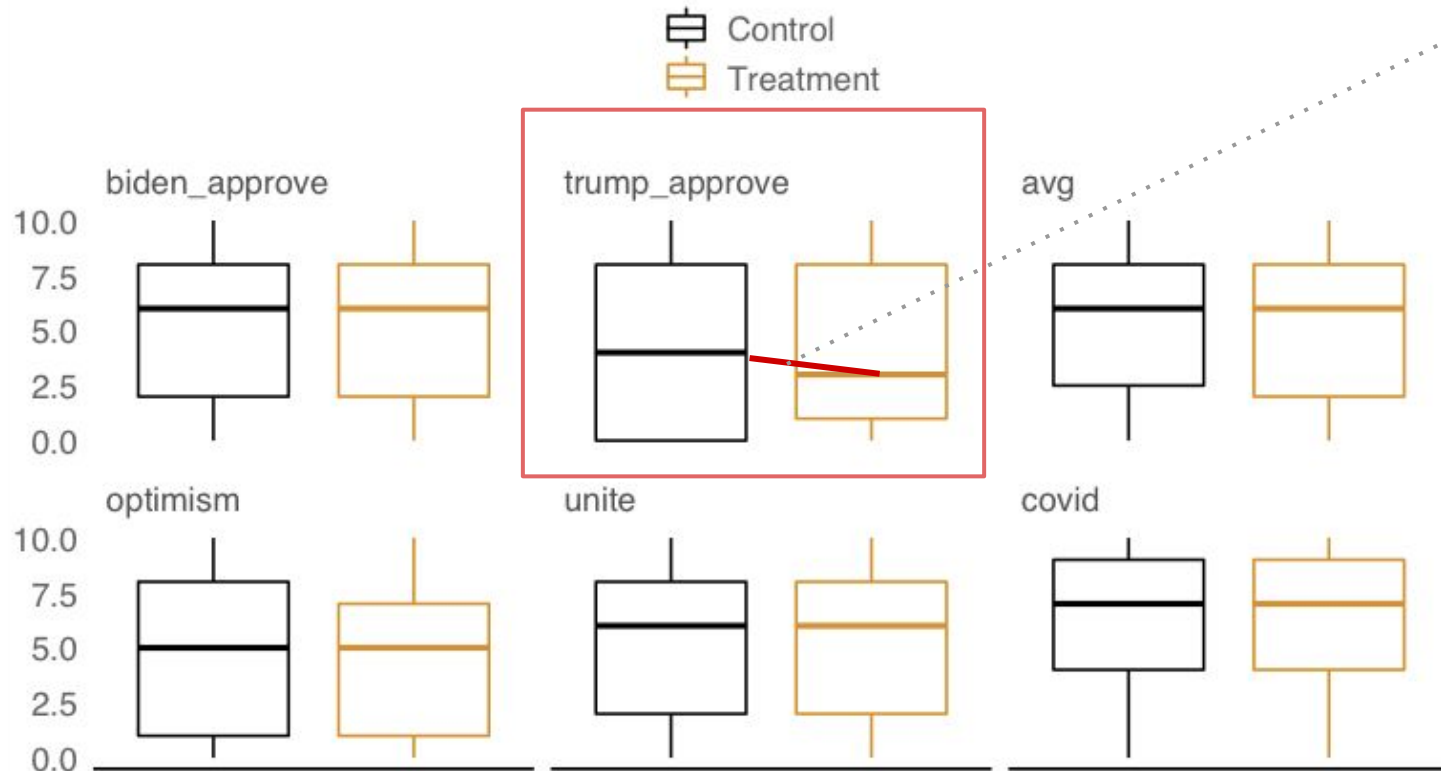
Trump Voter



Covariate Check

- Gender
- Employment
- Age
- Student Status

Outcomes Items 1-6



One Heterogeneous Treatment Effect

Findings

2020 Vote is significant for all items

*Final model - Significant ATE for Biden voters on Trump approval in Treatment 0.429 (0.174) increase of 1 point on 10 point scale. There was no change for Trump voters

Models

Model 1: $\text{item} \sim \text{treat}$

Model 2: $\text{item} \sim \text{treat} + \mathbf{2020\ vote}$

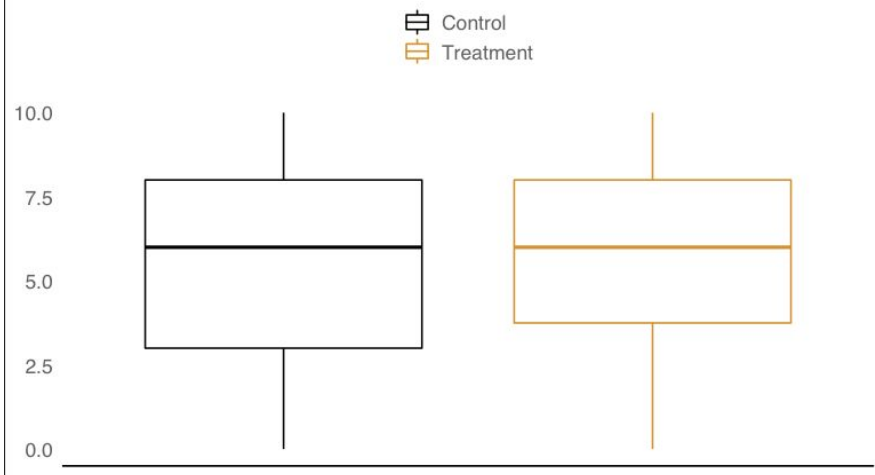
Model 3: $\text{item} \sim \text{treat} + \mathbf{2020\ vote} + \text{treat} * \mathbf{2020\ vote}$

Final: $\text{item} \sim \text{treat} * \mathbf{2020\ vote} + \text{treat} * \mathbf{2020\ vote} + \text{gender} + \text{student status} + \text{political affiliation} + \text{age}$

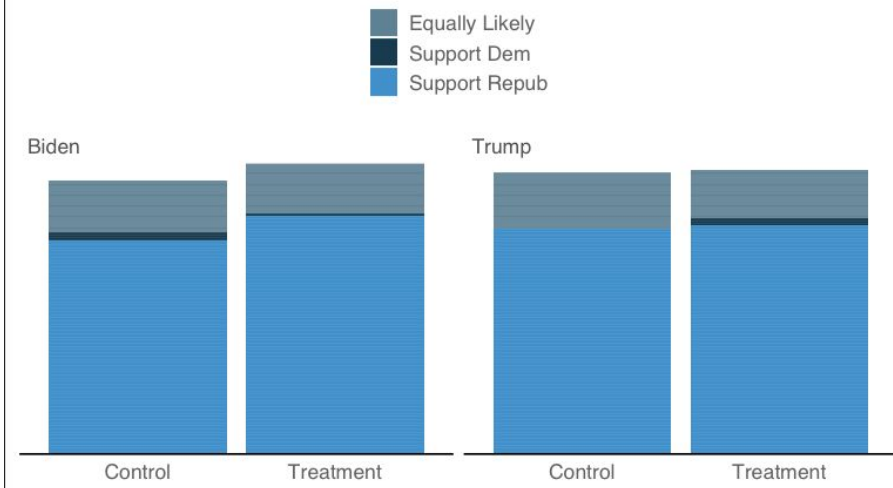
Independent variables that are statistically significant ($p < 0.05$) are bolded. Full output in appendix. Robust standard errors used.

Projective Technique (Neighbor) Items

Your Yard



Neighbors Yard



Interesting: <1% of respondents think their neighbor is a Democrat if they flew an American flag in their yard

Asking about a neighbor, attenuates voting behavior

Findings

Unlike other items, 2020 Vote is not significant

Projective technique reduced polarization

Models

Model 1: item ~ treat

Model 2: item ~ treat + 2020 vote

Model 3: item ~ treat + 2020 vote + treat* 2020 vote

Final: item ~ treat + 2020 vote + treat* 2020 vote + gender + student status + political affiliation + age

Conclusions

Hypothesis

1

The image of the flag will reduce polarization for the respondent

2

...and by using a projective technique -- we'll improve accuracy of responses

Findings

HTE: treatment only reduced polarization for Biden voters when asked about Trump's performance. In all other cases, voting history was the only significant covariate

Adding the filter of a neighbor, attenuated effects of voting history



Questions?



Why are Biden voters responsive to treatment, and yet, neither Biden nor Trump voters think that an American flag in a yard is indicative of the home owner being democrat?

We found that on the open ended question “What does the flag mean to you?” Biden voters responded with more negative and neutral comments than Trump voters. But, they were positively influenced by the treatment. Why might that be?

Appendix

Model 1

Treatment

Dependent variable:

| | value | | | | | | | | | |
|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-----------|---------------|
| | trump | approve | biden | approve | avg | optimism | unite | covid | your yard | neighbor yard |
| treat | 0.130 (0.339) | -0.116 (0.297) | -0.149 (0.310) | -0.213 (0.309) | -0.149 (0.315) | -0.112 (0.302) | 0.247 (0.277) | -0.023 (0.047) | | |
| Constant | 4.095*** (0.243) | 5.129*** (0.212) | 5.299*** (0.219) | 4.793*** (0.223) | 5.212*** (0.223) | 6.112*** (0.214) | 5.386*** (0.199) | 2.398*** (0.034) | | |
| Observations | 481 | 481 | 481 | 481 | 481 | 481 | 481 | 481 | | |
| R2 | 0.0003 | 0.0003 | 0.0005 | 0.001 | 0.0005 | 0.0003 | 0.002 | 0.001 | | |
| Adjusted R2 | -0.002 | -0.002 | -0.002 | -0.001 | -0.002 | -0.002 | -0.0004 | -0.002 | | |

Note:

*p<0.1; **p<0.05; ***p<0.01

Robust Standard Errors

Model 2: Treat + Study

Treatment + 2020 Presidential Election Vote

Dependent variable:

| | | | | value | | | | | |
|--------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|---------------------|--------------------|
| | trump | approve | biden | approve | avg | optimism | unite | covid | your yard neighbor |
| treat | 0.170 (0.161) | -0.147 (0.195) | -0.179 (0.216) | -0.246 (0.198) | -0.181 (0.213) | -0.143 (0.198) | 0.247 (0.278) | -0.023 (0.047) | |
| studyTrump | 6.523*** (0.161) | -4.917*** (0.194) | -4.869*** (0.216) | -5.183*** (0.198) | -5.084*** (0.212) | -4.987*** (0.197) | -0.026 (0.278) | 0.020 (0.047) | |
| Constant | 0.793*** (0.115) | 7.618*** (0.147) | 7.764*** (0.157) | 7.416*** (0.161) | 7.785*** (0.156) | 8.637*** (0.134) | 5.399*** (0.238) | 2.388*** (0.043) | |
| Observations | 481 | 481 | 481 | 481 | 481 | 481 | 481 | 481 | |
| R2 | 0.775 | 0.574 | 0.516 | 0.590 | 0.546 | 0.572 | 0.002 | 0.001 | |
| Adjusted R2 | 0.774 | 0.572 | 0.514 | 0.589 | 0.545 | 0.570 | -0.002 | -0.003 | |

Note:

*p<0.1; **p<0.05; ***p<0.01

Treatment + 2020 Presidential Election Vote

all with Robust Standard Errors

Model 3: Treat + Study + (Treat * Study)

Treatment + 2020 Presidential Election Vote + Interaction(Treatment and 2020 PresVote)

Dependent variable:

| | trump | approve | biden | approve | avg | value optimism | unite | covid | your yard neighbor |
|-----------------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|---------------------|--------------------|
| treat | 0.361** (0.174) | -0.239 (0.214) | -0.349 (0.246) | -0.371 (0.248) | -0.274 (0.224) | -0.231 (0.181) | -0.281 (0.371) | 0.014 (0.069) | |
| studyTrump | 6.712*** (0.220) | -5.008*** (0.272) | -5.037*** (0.294) | -5.307*** (0.284) | -5.176*** (0.296) | -5.074*** (0.274) | -0.549 (0.398) | 0.056 (0.068) | |
| as.factor(study)Trump | | | | | | | | | |
| treat:as.factor(study)Trump | -0.379 (0.322) | 0.183 (0.389) | 0.337 (0.433) | 0.249 (0.397) | 0.185 (0.425) | 0.174 (0.396) | 1.049* (0.554) | -0.073 (0.095) | |
| Constant | 0.697*** (0.116) | 7.664*** (0.155) | 7.849*** (0.160) | 7.479*** (0.179) | 7.832*** (0.162) | 8.681*** (0.128) | 5.664*** (0.273) | 2.370*** (0.051) | |
| Observations | 481 | 481 | 481 | 481 | 481 | 481 | 481 | 481 | |
| R2 | 0.776 | 0.574 | 0.517 | 0.591 | 0.547 | 0.572 | 0.009 | 0.002 | |
| Adjusted R2 | 0.774 | 0.571 | 0.514 | 0.588 | 0.544 | 0.569 | 0.003 | -0.004 | |

Note: *p<0.1; **p<0.05; ***p<0.01

Treatment + 2020 Presidential Election Vote + Interaction(Treatment and 2020 PresVote)

all with Robust Standard Errors

Final Model

Final Model

| Dependent variable: | | | | | | | | |
|-----------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | value | | | | | | | |
| | trump approve | biden approve | avg | optimism | unite | covid | your yard | neighbor yard |
| treat | 0.429** (0.174) | -0.221 (0.214) | -0.339 (0.246) | -0.349 (0.248) | -0.269 (0.224) | -0.195 (0.181) | -0.294 (0.371) | 0.028 (0.069) |
| as.factor(study)Trump | 6.190*** | -4.646 | -4.589 | -4.748 | -4.599 | -4.845 | -0.492 | 0.032 |
| treat:as.factor(study)Trump | -0.412 (0.322) | 0.121 (0.389) | 0.292 (0.433) | 0.172 (0.397) | 0.133 (0.425) | 0.091 (0.396) | 1.083* (0.554) | -0.099 (0.095) |
| Constant | 0.634*** (0.116) | 4.443*** (0.155) | 4.451*** (0.160) | 5.952*** (0.179) | 4.260*** (0.162) | 7.685*** (0.128) | 4.736*** (0.273) | 2.997*** (0.051) |
| Observations | 481 | 481 | 481 | 481 | 481 | 481 | 481 | 481 |
| R2 | 0.787 | 0.590 | 0.536 | 0.608 | 0.565 | 0.588 | 0.023 | 0.023 |
| Adjusted R2 | 0.782 | 0.579 | 0.524 | 0.598 | 0.554 | 0.577 | -0.002 | -0.002 |

Note: *p<0.1; **p<0.05; ***p<0.01
All with Robust Standard Errors
US Political Affiliation, Gender, Age, and Student Status suppressed