

How to Interpret

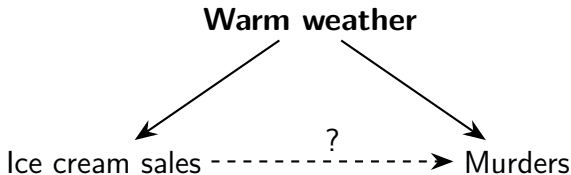
António Câmara
Gov 50, Section 4

September 30, 2026

Today's objectives

1. Go through Barber & Pope
2. Go through Fuller & Rametta
3. Read Figure 1 and Table 1
4. Talk about the project

Does ice cream cause murder?



Warm weather is a **confounder**: it drives both.

Ice cream sales are associated with murder, but they don't cause it.

Six questions

1. What is the big question?
2. What is the research question?
3. What are the theory and hypotheses?
4. What data and method?
5. What did they find?
6. What do they conclude?

Barber & Pope (2019)

“Does Party Trump Ideology? Disentangling Party and Ideology in America”

What is the big question?

What shapes people's policy positions: party or ideology?

What is the research question?

Do Republicans change their position when told that Trump holds a position, even a liberal one?

What is the theory?

Party is a group people belong to.

Loyal members take their positions from the party's leader, not from principles.

What are the hypotheses?

Main. Republicans move toward Trump in both directions, liberal and conservative.

Who moves most. the less informed, strong Republicans, and Trump approvers. Self-described conservatives hold firm.

What data and method?

Please indicate whether or not you support or oppose the statement.

To increase the minimum wage to over \$10 an hour.

Donald Trump has said that he supports this policy.

How about you? Do you support or oppose increasing the minimum wage to over \$10 an hour?

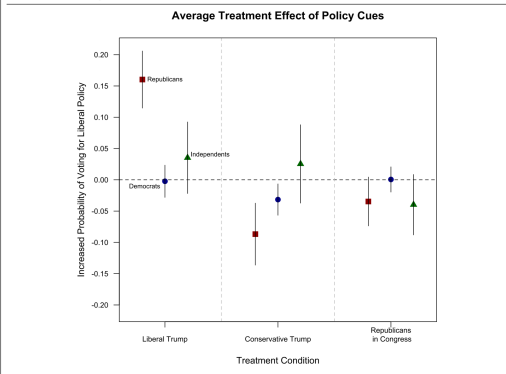
- Support
- Oppose
- Don't know

Survey experiment. 1,300 Americans (YouGov, early 2017), ten policy questions each.

Randomized cue: none, Trump takes the liberal side, Trump takes the conservative side, or Republicans in Congress take a side (it depends on the policy).

What did they find?

FIGURE 1. Average Treatment Effect Across Issues



Change in Republicans taking the liberal position:

Trump supports the liberal position +16 points

Trump opposes the liberal position -9 points

Who follows Trump most?

TABLE 1. Interaction Models, Including Control Variables

	Knowledge	Party strength	Trump approval	Ideology
Liberal treat × knowledge	-0.01* (0.005)			
Conservative treat × knowledge	0.02** (0.006)			
Liberal treat × party strength		0.03* (0.01)		
Conservative treat × party strength		-0.07** (0.02)		
Liberal treat × Trump approval			0.04** (0.01)	
Conservative treat × Trump approval			-0.03** (0.01)	
Liberal treat × ideology				0.03** (0.01)
Conservative treat × ideology				-0.03** (0.01)
Liberal treatment	0.13** (0.03)	0.05 (0.04)	-0.04 (0.02)	-0.02** (0.03)
Conservative treatment	-0.12** (0.03)	0.12** (0.04)	0.04 (0.02)	0.07** (0.03)
Knowledge	-0.03** (0.003)	-0.05** (0.003)	-0.03** (0.002)	-0.03** (0.002)
Trump Approval	-0.08** (0.004)	-0.07** (0.01)	-0.08** (0.005)	-0.07** (0.004)
Ideology	-0.09** (0.01)	-0.11** (0.01)	-0.09** (0.01)	-0.09** (0.01)
Republican	-0.13** (0.01)	-0.09** (0.03)	-0.13** (0.01)	-0.13** (0.01)
Party strength	0.04** (0.004)	0.05** (0.01)	0.04** (0.004)	0.04** (0.01)
White	0.04** (0.01)	0.03 (0.02)	0.04 (0.01)	0.04** (0.01)
N	7,173	3,867	7,173	7,173

Coefficients reported from ordinary least squares regression model, with standard errors in parentheses. In each model the dependent variable is coded 1 if the respondent indicated supporting the liberal policy option and 0 if they supported the conservative policy option. In Model 2 we are testing the strength of Republican partisanship, so we exclude those who identify with the Democratic Party. Significance codes: *p < 0.05, **p < 0.01, two-tailed tests.

Low-knowledge people, strong Republicans, Trump approvers, and self-described conservatives.

What do they conclude?

Republicans follow Trump whether he's being liberal or conservative.

Party loyalty beats ideology.

What did you think?

Do you agree? Questions? Comments?

Fuller & Rametta (2024)

“The Dangers of Calculating Conditional Effects”

What is the big question?

How can we tell whether an effect is bigger for some kinds of people than for others?

What is the research question?

Do some kinds of Republicans follow Trump more than others?

What is the theory?

The usual way of testing who responds more makes strong assumptions.

When they're wrong, it finds differences that aren't there.

What are the hypotheses?

If the differences are real. a method without those assumptions finds them too.

If not. every kind of Republican responds about the same.

What data and method?

Barber & Pope's data.

A machine-learning method (a causal forest) that searches for the kinds of people who respond differently, without assuming the effect changes in a straight line, and checks what it finds on data it hasn't seen.

What did they find?

Republicans follow Trump, as in Figure 1.

No evidence that some kinds of Republicans follow more.

What do they conclude?

Republicans follow Trump. We can't say which Republicans follow him most.

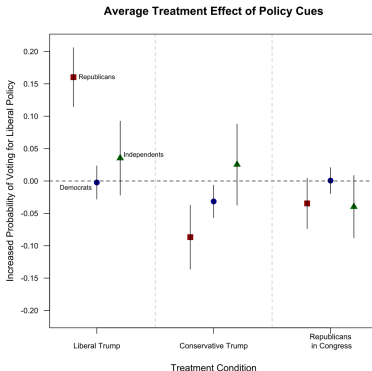
Claims that an effect is bigger for some people deserve a second look.

What did you think?

Do you agree? Questions? Comments?

How to read an effect plot

FIGURE 1. Average Treatment Effect Across Issues



Across: which cue they saw

Up: change in the share taking the liberal side, vs. no cue

Dot: one party, one cue

Line: the 95% confidence interval

The same plot as an equation

Split the sample by party. Run the same regression on each.

$$\text{Liberal_Policy_Position}_i = \alpha + \beta_1 \text{Liberal_Trump_Cue}_i + \beta_2 \text{Conservative_Trump_Cue}_i \\ + \beta_3 \text{Congress_Cue}_i + \varepsilon_i$$

Republicans: the β s are the red squares

$$\text{Liberal_Policy_Position}_i = \alpha + \beta_1 \text{Liberal_Trump_Cue}_i + \beta_2 \text{Conservative_Trump_Cue}_i \\ + \beta_3 \text{Congress_Cue}_i + \varepsilon_i$$

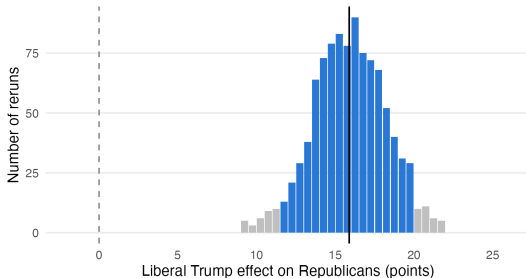
Democrats: the blue circles

$$\text{Liberal_Policy_Position}_i = \alpha + \beta_1 \text{Liberal_Trump_Cue}_i + \beta_2 \text{Conservative_Trump_Cue}_i \\ + \beta_3 \text{Congress_Cue}_i + \varepsilon_i$$

Independents: the green triangles

Where does the line come from?

We want the effect for all Republicans. We only have one sample of them.



Rerun the survey 1,000 times: draw answers from our data at random, with replacement.

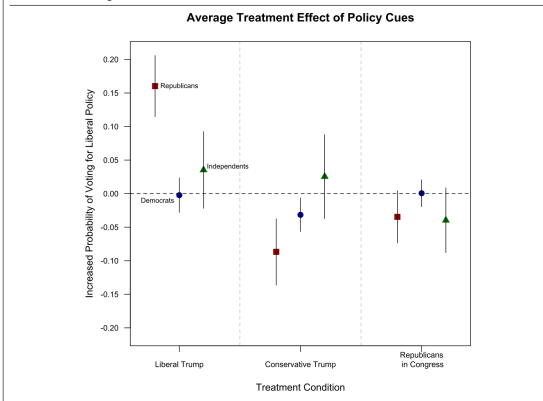
Standard error*: the standard deviation of the reruns. How much $\hat{\beta}$ would move if we reran the survey.

95% interval (the blue, and the line): $\hat{\beta} \pm 2$ standard errors, the middle 95% of reruns. The range we're 95% confident holds the effect for all Republicans.

The rule: if the line crosses zero, we can't rule out no effect.

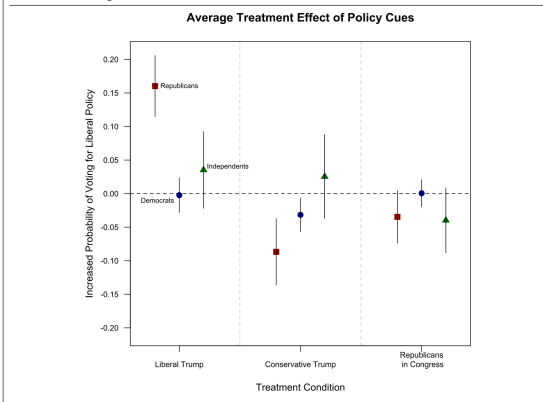
*Usually we just use a formula. It gets the same answer: 0.023.

FIGURE 1. Average Treatment Effect Across Issues



Which dots are clearly off zero?

FIGURE 1. Average Treatment Effect Across Issues



Say the green triangle under “Liberal Trump” in words.

How to read a regression table

$$\begin{aligned}\text{Liberal_Policy_Position}_i = & \alpha + \beta_1 \text{Liberal_Treat}_i + \beta_2 \text{Conservative_Treat}_i \\ & + \beta_3 \text{Knowledge}_i + \beta_4 \text{Liberal_Treat}_i \times \text{Knowledge}_i \\ & + \beta_5 \text{Conservative_Treat}_i \times \text{Knowledge}_i \\ & + \text{controls} + \varepsilon_i\end{aligned}$$

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Outcome. Usually at the top of the table or in the caption.

Here it's in the note: taking the liberal side.

Row. a variable in the equation

Column. one regression model, in this paper named for the trait in the $\times$

Number. the coefficient, $\hat{\beta}$ for that variable

Parentheses. the standard error: how much $\hat{\beta}$ would move if we reran the survey

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Stars. The chance of an estimate at least this far from zero, if the true effect were zero.

* under 5%, ** under 1%.

Stars and the line. one star means the 95% interval doesn't include zero

Does the effect depend on knowledge?

$$\begin{aligned}\text{Effect of the liberal cue} &= \beta_1 + \beta_4 \times \text{Knowledge} \\ &= 0.13 - 0.01 \times \text{Knowledge}\end{aligned}$$

0 of 8 knowledge questions right	+13 points
4 of 8	+9 points
8 of 8	+5 points

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Party strength column: say “Conservative treat $\times$ party strength” in words.

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Party strength column: why is N smaller?

Your project

First, the replication. Figure 1 and Table 1

Later, an extension. go deeper on one thing. Start thinking about it, nothing to do yet.

- One of Figures 2 to 5 (knowledge, party strength, Trump approval, ideology), taken further
- More issues: Tappin's 2020 survey put Trump and Obama cues on 34 policies. Use his data, not his analyses.

Tappin (2022), "Estimating the Between-Issue Variation in Party Elite Cue Effects," *Public Opinion Quarterly*. Data: osf.io/t2bpj.

Section meeting	What is due	About when
2	Paper selected	Sept 16
4	Paper outlined, replication plan drafted	today
6	Data cleaned, first summaries	Oct 14
9	Main analyses, select extension	Nov 4
10	Work on extension	Nov 11
11	Finalize extension, work on presentation	Nov 18
12	Presentation	Dec 2

Presentation: about 45 minutes.
 Ten on the replication, thirty-five on the extensions.

From the syllabus. Dates approximate.

What does a good project look like?

Replication. same numbers as the paper, and you can explain every one

Extension. one question, answered well. It doesn't need to be complicated.

In your groups

- Who does what for Figure 1 and Table 1?
- What's still unclear about the paper?