

Political Polarization and Discordant Information Consumption and Internalization

Pre-Analysis Plan *

Horacio Larreguy [†] Ernesto Tiburcio [‡]

JUNE 4, 2024

Abstract

Political polarization can negatively impact governance and democracy. Enriquez et al. (2024) document through a field experiment in 500 Mexican municipalities that political polarization leads to biases in information processing that can undermine electoral accountability. At the same time, recent academic literature documents successful interventions in reducing affective polarization (Ahler and Sood, 2018; Levendusky, 2018; Kalla and Broockman, 2023; Druckman et al., 2022). In turn, Enriquez et al. (2024) show that alerting citizens about biases in information processing due to being guided by feelings, ideology, or partisanship has the potential to restore the benefits of consuming information about incumbent government performance for electoral accountability. We plan to evaluate the cross-randomization of anti-polarization treatments and a bias alert within a survey to a nationally representative panel of 6,000 respondents in Mexico. We will use survey measures of information consumption to descriptively and causally assess how political polarization affects the consumption and internalization of ideologically opposed information. Our goal is to help design scalable interventions so that more citizens process politically relevant information regardless of their ideological or partisan position. Informed political participation, which is based on the consumption and processing of information across the entire ideological spectrum, is fundamental to good governance.

*We thank John Marshall for his valuable comments. The study was funded by the Instituto Estatal Electoral y de Participaci'on Ciudadana de Nuevo Le'on. Larreguy acknowledges funding from the French Agence Nationale de la Recherche under the Investissement d'Avenir program ANR-17-EURE-0010.

[†]Departments of Economics and Political Science, ITAM, and J-PAL (horacio.larreguy@itam.mx).

[‡]Department of Economics, Tufts University (ernesto.tiburcio.manon@tufts.edu).

Introduction

Political polarization can negatively affect electoral accountability by influencing how citizens perceive and process objective information about incumbent government performance. Enriquez et al. (2024) study how such information provision affects electoral accountability in a polarized environment, and how this varies when citizens receive a nudge to incorporate counter-attitudinal information. In particular, they experimentally evaluate the electoral effects of a local CSO's Facebook advertising campaign that provided citizens with benchmarked information about COVID-19 cases and deaths in 500 Mexican municipalities leading up to the 2021 elections. On its own, the information had a backfiring effect, increasing (reducing) the vote share received by the local incumbent party with relatively high (low) levels of COVID-19 cases and deaths. The nudge, however, reversed the backfiring: voters electorally rewarded (punished) incumbents with relatively low (high) levels of COVID-19 cases and deaths. The findings demonstrate how biases in information processing can undermine electoral accountability in polarized contexts, while pointing to the potential for nudges to restore electoral accountability.

A series of recent studies compare different interventions to reduce affective polarization. Overall, there are three types of interventions. The first type focuses on highlighting similarities between individuals across the ideological spectrum. The idea is to emphasize shared identities and experiences. For example, Levendusky (2018) shows that priming national identity reduces affective polarization. The second type of intervention seeks to demystify stereotypes of out-groups. The argument is that presenting information that disproves prejudices towards an out-group can reduce polarization. For example, Druckman et al. (2022) find that American voters have a false image of out-partisans and that correcting these stereotypes reduces affective polarization. Finally, the third type of intervention focuses on promoting empathy through the experiences of members of the out-group. The type of messages varies. Some interventions ask people to put themselves in the out-partisan's shoes (perspective taking), others ask people about situations in which they have gone through something similar to out-partisans (analogic perspective taking), and some other interventions simply consist of presenting the experience of the out-partisan (perspective giving) (Kalla and Broockman, 2023; Simonovits, Kézdi and Kardos, 2018; Scacco, Siegel and Weiss, 2023).

We have conducted a survey of 6,000 (nationally representative, but over-representing the state of Nuevo Leon) respondents through which a combination of treatments was delivered. After measuring initial levels of affective polarization and media consumption, we cross-randomized respondents to a combination of one of three anti-polarization treatments or a placebo and a nudge to incorporate counter-attitudinal information or control. The anti-polarization treatments are videos highlighting the Mexican national identity, providing statistical information about similarities in policy preferences of those across the ideological spectrum, or presenting stories about the common needs of fellow Mexicans.

We will then test the effect of these treatments on affective polarization and discordant media consumption and trust, and ideologically opposed news internalization. To assess this, respondents were first given the option to choose which news article to read, among six news articles on three topics, each covered by a pro-government and anti-government outlet. Second, with a probability of 0.99 (0.01) respondents had to answer questions about a news article from an ideologically opposed (similar) news source they were assigned to read. These probabilities were chosen to avoid deception while maximizing the sample of individuals assigned to a discordant media outlet. The nudge is implemented between the choice of a new article and the forced assignment to read one.

The proposed project is based on and expands on several dimensions of the literature cited above

(Levendusky, 2018; Druckman et al., 2022; Kalla and Broockman, 2023; Enríquez, Larreguy and Lujambio, 2023). The main policy objective is to identify scalable ways to depolarize individuals to persuade them to permanently internalize counter-attitudinal information through anti-polarization treatments that have been successful in the United States but have not been evaluated in other contexts. Likewise, replicating and combining the nudge will provide a better understanding of the effects observed in Enríquez, Larreguy and Lujambio (2023). On a more theoretical side, the project will also help to better understand how polarization limits the consumption of counter-attitudinal information. In particular, whether this is driven by selective consumption or differential internalization of information.

Relevant literature

There is consistent and abundant evidence that polarization between voters and elected officials has increased in recent decades around the world (Boxell et al., 2022; Draca and Schwarz, 2020; Gentzkow, Shapiro and Taddy, 2019; Larreguy and Tiburcio, 2024). Importantly, this evidence suggests that voters' perceptions of increased polarization have been inflated (Moore-Berg et al., 2020). That is, voters believe that other voters and politicians are more ideologically separated than they really are.

Polarization can affect governance and democracy through increased distrust among citizens and between citizens and political leaders and the media. Polarization can distort people's perceptions of facts. For example, Groenendyk and Krupnikov (2021) show experimental evidence indicating that in a polarized context, politicization exacerbates the extent to which citizens argue against counter-attitudinal information, which reinforces polarization. Additional evidence shows exposure to counter-attitudinal information on social media can backfire (Bail et al., 2018). Enríquez, Larreguy and Lujambio (2023) show that political polarization can cause public information, essential for deliberation, not to have the desired democratic result and even be counterproductive. Furthermore, in extreme cases, polarization could even lead voters to choose undemocratic means to keep partisans unrepresented or out of government (Graham and Svolik, 2020; Svolik, 2019).

There are two important causes behind political polarization for our study: 1) the creation of echo chambers, that is, groups of like-minded individuals who reinforce their pre-existing beliefs through exposure to similar information and repeated communication, and 2) the supply and processing of biased information. Together, these dynamics represent stages in which individuals adopt group identities or affiliations and form opinions, or citizens tend to form and interact within homogenous groups, consume congruent information, and reproduce it among like-minded individuals of their in-group both in person and online. The resulting biased information consumption and sharing leads to overweighting of like-minded, similar information. This includes wrong perceptions about certain out-groups, often incited by elites, that are reinforced by within-group communication. Ultimately, different groups receive and internalize very different information, resulting in greater ideological polarization. Ideologically opposed individuals dislike each other and overestimate the level of dislike of the other group towards them (Moore-Berg et al., 2020).

Interventions that seek to counter polarization focus on promoting contact between people from different groups, highlighting commonalities between them, and reducing misperceptions between them (Hartman et al., 2022; Voelkel et al., 2023). Even if people cannot meet others with opposing views (Greene et al., 2022), hearing from their experiences and about common values can be useful. Listening to other's perspectives is especially helpful if the story focuses on personal experiences (Ahler and Sood, 2018). A recent study compares different strategies for generating empathy and

reducing polarization and finds that listening to an out-partisan's experience (perspective giving) is consistently more efficient at reducing polarization than asking people to put themselves in the out-partisan's shoes (perspective taking) or remembering a situation in which the person has gone through something similar to the out-partisans (analogical perspective taking) (Kalla and Broockman, 2023). Highlighting common identities, such as nationality, is also effective in reducing affective polarization (Levendusky, 2018). Remembering shared identities minimizes the hostility generated by other differences since highlighting what individuals have in common makes what separates them seem less relevant. Finally, since people tend to overestimate the extent to which they dislike those outside their group, providing information about their similarities corrects this bias (Lees and Cikara, 2019).

The appearance of ideological news has contributed to polarizing the electorate. People tend to consume like-minded information and discount news from discordant sources (Cheng and Hsiaw, 2022). Similarly, the introduction of the internet and social media, which promote exposure to like-minded news, has contributed to political polarization (Enriquez et al., 2024; Guriev, Melnikov and Zhuravskaya, 2021; Melnikov, 2021).

Interventions trying to moderate individuals focus on exposing them to ideologically opposed information. These interventions show promising results, but are temporally limited (Akbiyik et al., 2023; Broockman and Kalla, 2022; Levy, 2021). Moreover, counter-attitudinal information sometimes backfires when not accompanied by debiasing nudges (Bail et al., 2018; Enriquez et al., 2024).

The results of the proposed research will equip policymakers to design scalable interventions to moderate individuals' attitudes and enhance electoral accountability, while minimizing the likelihood of backfiring. Moreover, it will provide a better understanding of whether a change in selective consumption or differential internalization of the information is what can facilitate this. Our proposal seeks to contribute to informed political participation, which is essential for participation to truly influence the selection of politicians and, ultimately, formulate policies that improve citizens' lives (Ferraz and Finan, 2008; Larreguy, Marshall and Snyder, 2020).

Intervention

We begin the survey experiment with baseline questions, including baseline measures of ideology and affective polarization toward out-partisans and the media. Then, anti-polarization treatments and a placebo treatment are randomly assigned. Next, we repeat the affective polarization questions to assess the effects of the anti-polarization treatment on those outcomes.

Next, we turn to our measures of information consumption. First, we ask individuals which news article among six titles they would be interested in reading and sharing. The articles are on three recent polarizing topics, and for each topic, there are two articles, one from a pro-government outlet and one from an anti-government outlet. Individuals are asked to choose one news article to read, and are told that, after their choice, they will be assigned to read one of the articles at random that might be or not the one of their choice. They are also told that, after reading the article, they will be asked some questions about it, as well as their attitudes toward the topic it covers. In reality, respondents are assigned with a 0.99 probability (to avoid deception) to read a news article from their ideologically opposed news source.

Before reading the news article, those assigned to the debiasing nudge receive a message asking them to consider the information without being swayed by their emotions or political preferences, as in Enríquez, Larreguy and Lujambio (2023). After reading the newspaper article, individuals are

Treatment	Debiasing nudge	
	Control	Yes
Statistical information	750	750
Listen to each other's experience	750	750
Highlight common identity	750	750
Placebo	750	750

Table 1: Target number of survey respondents

asked a series of questions to assess their attention to and internalization of the information in the newspaper article. Affective polarization questions are repeated once more. These questions will allow us to understand to what extent affective polarization affects information consumption and internalization, and how information consumption counteracts or reinforces affective polarization.

We consider a placebo and three depolarizing treatment arms, based on the aforementioned literature, which we combine with randomization of the debiasing nudge and a control. The first anti-polarizing treatment is a video presenting information about the public policy preferences of citizens across the ideological spectrum. The intention is to demonstrate that those citizens actually have similar preferences. The second treatment is a video that focuses on generating empathy through perspective getting. Treated individuals are shown several stories about the common needs of different Mexican citizens. The objective is to generate an empathetic reaction by showing that everybody has similar needs, including the need for a safe environment and providing food, education and health care for the children and elderly. Finally, the last treatment is a video that presents information about common values and identities with the goal of enhancing the Mexican identity, while trumping perceived differences between citizens across the ideological spectrum.

While the literature generally considers these treatments in isolation, we also cross-randomly assigned half of the people assigned to the placebo and to any anti-polarizing treatment arm to a debiasing nudge before reading the article. Specifically, we ask those participants to keep an open mind and be receptive to the information they will receive, just as Enriquez et al. (2024). The following table summarizes the experimental design and respondent sample assigned to each treatment combination.

Our target population is 6,000 respondents who are part of the firm Netquest's respondent panel survey. The group is roughly representative of the population that consumes news online: 48% male and 52% female; 29% between 18 and 24, 24% between 25 and 34, 21% between 35 and 44, 15% between 45 and 54, and 10% between 55 and 65; the geographic distribution is nationally representative.

Power Calculation

We calculated the standardized minimum detectable effect size (MDE) for all relevant treatment comparisons considering the sample size in each treatment arm as above, a power of 0.8, and a significance level of 0.05. Given our 4 x 2 design, we have three possible main sample comparisons in terms of sample sizes:

1. Compare the sample with anti-polarization treatment (4,500) with the sample with placebo (1,500). Since this is an individual randomization, we can detect a minimum detectable effect (MDE) of 0.0835 standard deviations.

2. Compare the sample without debiasing nudge (3,000) with the sample with debiasing nudge (3,000). We can detect an MDE of 0.0725 standard deviations.
3. Compare the samples of an anti-polarization treatment (1,500) with the placebo (1,500) or among the anti-polarization treatments. We have the power to detect an MDE of 0.1025 standard deviations

These are all lower limits, since we hope to reduce the variation of the variables of interest by controlling for covariates.

Estimation

Throughout the study, we will estimate the following regression equation:

$$y_i = \beta Video_i + \gamma nudge_i + \mathbf{X}'_i + \epsilon_i \quad (1)$$

where y_i is an outcome measure for respondent i . In turn, the vector $Video_i$ and the scalar $nudge_i$ capture treatment assignments, with placebo and control as the corresponding omitted categories. \mathbf{X}'_i a vector of LASSO-selected pre-treatment covariates,¹ and ϵ_i an error term.

Standard errors will account for heteroskedasticity. We will conduct one-sided hypothesis tests when the direction of the test has been pre-registered and the sign of the estimates is consistent with the pre-registered hypothesis, and carry out two-sided tests otherwise.

Importantly, we do not have any hypothesis on whether any anti-polarization treatment will be stronger than others. More importantly, one of the study's goals is to assess the effect of anti-polarization treatments on information consumption and internalization, conditional on the treatments effectively reducing affective polarization. For the sake of power, we might then consider pooling the most effective treatments in reducing affective polarization to study their pooled effect. In other words, and in terminology that should be clear later, we will consider the optimal treatment arm combination to maximize our first stage and then assess the reduced form effect of such a treatment arm combination.

We will assess the extent to which minimum watching of the anti-polarization treatment and placebo videos and minimum reading of the assigned news article are correlated with the treatment assignment. If they are uncorrelated, we will restrict the analysis to the sample of respondents we are confident took the survey seriously by fully watching the assigned video and carefully reading the assigned news article.

Hypotheses

The next section presents the hypotheses that we will test in the different stages of the project.

Descriptive analysis

Following the literature on political polarization (Kubin and von Sikorski, 2021; Hartman et al., 2022; Levy and Razin, 2019; Larreguy and Tiburcio, 2024), the cornerstones of our analysis are

¹For each outcome, we use all pre-treatment covariates, and use LASSO to select the covariates that are included in the model.

the links between ideology/partisan identity and government's perceptions, perceived out-partisan characteristics and affective polarization, and affective polarization and media consumption and trust. We next outline several descriptive secondary hypotheses.

Ideology and perceived government performance

Our starting hypothesis is that partisan identity correlates with perceived government performance.

Secondary Hypothesis 1: *Left-leaning respondents and supporters of the government coalition exhibit better perceptions of government performance.*

Ideology and partisanship

Baseline ideology: asks survey participants to place themselves on a political ideology scale, which goes from 0 (left) to 10 (right).

Political party: asks survey participants which of the main parties in Mexico best represents their political ideology.

Party/ideological identity: asks survey participants which of the main ideological stances and parties in Mexico best represents their political identity.

Perceived government performance

Government performance: ask survey respondents their perception of the government's performance in different policy domains, including education, pensions, security, and the economy.

Perceived out-partisan characteristics and affective polarization

Several studies connect perceived out-partisan characteristics and affective polarization. Voters have a biased, exaggerated image of ideologically opposing voters, which fuels animosity toward them (Ahler and Sood, 2018). Hence, our hypothesis is that respondents who believe that people from opposing ideologies have very different views, needs, and values display less favorable attitudes toward them and trust them less. Namely, the more different people think out-partisans are, the colder they feel toward them. In a similar line, we hypothesize that such cold sentiments extend to the media. People who believe out-partisans are very different also tend to distrust the out-partisan media.

Secondary Hypothesis 2: *Respondents who believe that left- and right-leaning citizens differ in their views, needs, and values exhibit greater affective polarization towards out-partisan citizens and media.*

Perceived out-partisan characteristics

Government performance left: ask survey respondents how they believe left-wing citizens perceive the government's performance in the aforementioned policy domains (Government performance).

Government performance center-right: ask survey respondents how they believe center-right citizens perceive the government's performance in the aforementioned policy domains (**Government performance**).

Differ in needs and future: ask participants the extent to which they think that the needs and the future that left-wing citizens want differ relative to those of center-right citizens.

Differ in values and traditions: ask participants the extent to which they think that the values and traditions of left-wing citizens differ relative to those of center-right citizens.

Anti-democracy left: asks survey respondents, using a Likert scale, the extent to which they believe that left-wing citizens agree with the following statement "I do not care that an undemocratic government assumes power if it solves problems, especially if it shares my ideology."

Anti-democracy center-right: asks survey respondents, using a Likert scale, the extent to which they believe that center-right citizens agree with the following statement "I do not care that an undemocratic government assumes power if it solves problems, especially if it shares my ideology."

Affective polarization

Feeling thermometer: ask participants to rate, with the commonly used 0-100 "feeling thermometer", their feelings toward left-wing and center-right citizens.

Trust by ideology: ask survey respondents, using a Likert-scale, the extent to which they trust left-wing and center-right citizens.

Trust in media: ask participants to rate, using a Likert-scale, the extent to which they trust media outlets that cover the government more or less favorably.

Affective polarization and media consumption and trust

We also expect higher levels of affective polarization to be correlated with the type of media people consume and trust. Citizens tend to interact within homogenous groups, consume congruent information, and reproduce it among like-minded individuals of their in-group both in person and online (González-Bailón et al., 2023; Guess et al., 2023; Levy, 2021). Therefore, our hypothesis is that people with higher levels of affective polarization (colder sentiments toward the out-group and lower trust toward the out-group and the media) are more likely to consume and trust ideologically aligned media and ignore and distrust ideologically opposing media.

Secondary Hypothesis 3: *Respondents who exhibit greater affective polarization towards out-partisan citizens and media are more likely to consume and trust concordant media and ignore and distrust discordant media.*

Affective polarization: Feeling thermometer, Trust by ideology, and Trust in media.

Media consumption and trust

Frequency of news consumption by source: ask participants the frequency at which they receive political news from different new sources, such as the national newspapers Reforma, La Jornada, and social media, or other unlisted sources (**Frequency of news consumption by source (other)**).

Trust in media

Affective polarization and baseline levels of stress

Following the literature on stress (Renström, Bäck and Carroll, 2023; Nelson, 2022), our expectation is that, at baseline, more polarized respondents will display higher levels of stress and anger.

Secondary Hypothesis 4: *Respondents who exhibit greater affective polarization towards out-partisan citizens and media are more likely to report higher levels of stress and anger.*

Affective polarization

Feeling thermometer

Trust by ideology

Trust in media

Baseline levels of stress

Stress levels: asks survey respondents what their current stress levels are, on a scale that goes from 0 (no stress) to 10 (a lot of stress).

Mood: asks participants what their current mood is, on a scale that goes from 0 (very at ease) to 10 (very angry).

Treatment validation

Our first primary hypothesis is that survey respondents will internalize the information from the anti-polarization treatments, incorporating basic facts about the videos. Similarly, we expect that the videos will reduce the misperceptions about out-partisans.

Primary Hypothesis 1: *Respondents assigned to any anti-polarization treatments or placebo will exhibit a better recollection of the video they were exposed to. Respondents assigned to any anti-polarization treatments will be more likely to report that left- and center-right-leaning citizens are similar in their views, needs, and values relative to those assigned to the placebo.*

Video information: asks participants what type of information they remember seeing in the video.

Differ in needs and future at midline: asks survey respondents their beliefs about the extent to which the needs and the future that left-wing citizens want differ relative to those of the center-right citizens (follow-up to **Differ in needs and future**).

- We think the video that provides statistical information about the similarity in citizen policy preferences across the ideological spectrum, and the video that presents stories about fellow Mexicans' common needs will have the strongest effects.

Differ in values and traditions at midline: asks survey respondents their beliefs about the extent to which the values and traditions of left-wing citizens differ relative to those of the center-right citizens (follow-up to **Differ in values and traditions**).

- We think the video that highlights the Mexican national identity will have the strongest effect.

First stage effects

One of the project's central primary hypotheses is that the anti-polarization treatments will reduce affective polarization relative to the placebo. This hypothesis is informed by the effectiveness of perspective-taking (Kalla and Broockman, 2023), correcting misperceptions about out-partisans with statistical information (Voelkel et al., 2023), and highlighting a shared identity (Levendusky, 2018). Furthermore, as indicated in the descriptive analysis, we hypothesize that the treatment will also increase relative trust in ideologically opposing media, and reduce the levels of stress and anger.

Primary Hypothesis 2: *Respondents assigned to any anti-polarization treatments will exhibit lower affective polarization towards out-partisan citizens and media relative to those assigned to the placebo.*

Affective polarization

Feeling thermometer at midline: midline measure of the baseline measures of the “feeling-thermometer” toward left-wing and center-right citizens (**Feeling thermometer**).

Increased trust in news across the ideological spectrum

Trust in media at midline: midline measure of baseline measure of trust in media outlets that cover the government more or less favorably (**Trust in media**).

Lower levels of midline stress

Stress levels at midline: midline measure of baseline measure of stress levels (**Stress levels**).

Mood at midline: midline measure of baseline measure of mood levels (**Mood**).

Likewise, in line with the findings in Enríquez, Larreguy and Lujambio (2023), we expect the debiasing nudge to increase the open-mindedness of respondents.

Primary Hypothesis 3: *Respondents assigned to the nudge will report greater open-mindedness relative to those assigned to the control.*

Emotions and partisanship influence article reading: asks participants the extent to which they believe their emotions or partisan identities influenced their processing of the news article they read.

Reduced form effects

Media consumption and trust

Another central primary hypothesis is that the anti-polarization treatments and the debiasing nudge will increase the consumption and internalization of ideologically opposed news by reducing affective polarization and making respondents more open-minded. As stated previously, one of the main channels of affective polarization is the formation of echo chambers (Larreguy and Tiburcio, 2024). Hence, by decreasing affective polarization, the treatment would also ultimately weaken echo chambers and increase trust and consumption of diverse media.

Primary Hypothesis 4: *Respondents assigned to any anti-polarization treatments and debiasing nudge will increase their consumption and internalization of ideologically opposed news relative to those assigned to the placebo and control.*

Midline consumption and sharing of media, and ideologically opposed news internalization

Read articles: asks participants, using a Likert scale, the extent to which they would read different news articles, based only on their titles, if they saw them online –before reading one of the articles.

Share articles: asks participants, using a Likert scale, the extent to which they would share in social media different news articles, based only on their titles if they saw them online –before reading one of the articles.

Index of ideologically opposed news internalization: We will create an index by aggregating the coding of the correct answers to the following questions we ask participants after reading the news articles:

News source (1-6): Sources of the data cited.

Relevant comparisons made: Comparison of the numbers cited vis a vis a previous period.

Main data: General understanding of the data cited.

Likewise, since affective polarization contributes to the biased processing of information, we expect that the anti-polarization treatments and the nudge will reduce the biases in information processing and will make people evaluate the government's performance in a less partisan way.

Secondary Hypothesis 5: *Respondents assigned to any anti-polarization treatments and debiasing nudge will exhibit lower biases in information processing and partisan evaluation of information about government performance relative to those assigned to the placebo and control.*

Article attack: asks participants, using a Likert scale, how much they think the news article attacks the government's performance.

Article informative: asks survey respondents, using a Likert scale, how much the news article changed their perspective.

Article perception: ask participants, using a Likert scale, their perceptions about the government's performance in the policy domain covered in the article they read.

Affective polarization

We will study the effect of the anti-polarization treatments and nudge on affective polarization and media trust at the end of the survey. We are agnostic about the direction of the effect. While an initial reduction in affective polarization and greater media trust, as well as prompting respondents to be more open-minded, could ultimately reduce affective polarization, it can also backfire. Increased information internalization could either lead you to update as a Bayesian or engage more strongly in motivating reasoning.

Affective polarization

Feeling thermometer: endline measure of the baseline measure of “feeling-thermometer” toward left-wing and center-right citizens (**Feeling thermometer**).

Trust in news across the ideological spectrum

Trust in media at endline: endline measure of baseline measure of trust in media outlets that cover the government more or less favorably (**Trust in media**).

Endline media consumption and trust

Read articles at endline: asks participants to select the link to the articles they would like to read in detail, based only on their titles –after reading one article.

Share articles at endline: asks participants, using a Likert scale, the extent to which they would share in social media the news article they read.

Endline stress

Stress levels at endline: endline measure of baseline measure of stress levels (**Stress levels**).

Mood at endline: endline measure of baseline measure of mood levels (**Mood**).

Democratic views

Affectively polarized citizens may be willing to accept democratic transgressions to keep out partisans out of the government (Svolik, 2019, 2020; Graham and Svolik, 2020). Therefore, we expect that a decline in polarization resulting from the anti-polarization treatments will also result in stronger support for democracy and its rules.

Secondary Hypothesis 6: *Respondents assigned to any anti-polarization treatments will exhibit greater support for democracy and its rules relative to those assigned to the placebo.*

Anti-democracy at endline: asks survey respondents, using a Likert scale, how much they agree with the following statement “I do not care that an undemocratic government assumes power if it solves problems, especially if it shares my ideology”

Social desirability bias

To measure social desirability bias, at the end of the survey we ask respondents their perceptions about the goal of the study and the people behind it. Our hypothesis is that the treatment will not have an effect on these answers.

Heterogeneity and exploratory analysis

We plan to test additional hypotheses, especially those related to heterogeneous treatment effects. For instance, we plan to examine the interactive effect of the treatments and the nudge.

Ethics

The study was deemed as extent by ITAM's IRB. The study was not considered to be of more than minimal risk, given that we cannot identify data at any point. In any case, we have taken all the usual measures so that the implementation and evaluation do not pose any risk to participants and their data. Specifically, despite not anticipating any negative consequences for participants as they received standard survey questions and news articles, as usual, participants will be told that they could skip any part of the survey and discontinue participation in the study without any consequences. Importantly, there were no COVID-19 or implementation risks since the survey was conducted online. In addition, the data will be protected at all times.

References

- Ahler, Douglas J. and Gaurav Sood. 2018. “The Parties in Our Heads: Misperceptions about Party Composition and Their Consequences.” *The Journal of Politics* 80(3):964–981.
URL: <https://www.journals.uchicago.edu/doi/10.1086/697253>
- Akbiyik, Ahmet, Jeremy Bowles, Horacio Larreguy and Shelley Liu. 2023. “Exposure to Counter-Attitudinal Media in a Dominant Party State.”.
- Bail, Christopher A., Lisa P. Argyle, Taylor W. Brown, John P. Bumpus, Haohan Chen, M. B. Fallin Hunzaker, Jaemin Lee, Marcus Mann, Friedolin Merhout and Alexander Volfovsky. 2018. “Exposure to opposing views on social media can increase political polarization.” *Proceedings of the National Academy of Sciences* 115(37):9216–9221.
URL: <https://pnas.org/doi/full/10.1073/pnas.1804840115>
- Boxell, Levi, Jacob Conway, James N. Druckman and Matthew Gentzkow. 2022. “Affective Polarization Did Not Increase During the COVID-19 Pandemic.” *Quarterly Journal of Political Science* 17(4).
URL: <http://www.nowpublishers.com/article/Details/QJPS-21027>
- Broockman, David and Joshua Kalla. 2022. “The impacts of selective partisan media exposure: A field experiment with Fox News viewers.”.
URL: <https://osf.io/jrw26/>
- Cheng, Ing-Haw and Alice Hsiaw. 2022. “Reporting Sexual Misconduct in the #MeToo Era.” *American Economic Journal: Microeconomics* 14(4):761–803.
URL: <https://www.aeaweb.org/articles?id=10.1257/mic.20200218>
- Draca, Mirko and Carlo Schwarz. 2020. “How Polarised are Citizens? Measuring Ideology from the Ground-Up.”.
- Druckman, James N., Samara Klar, Yanna Krupnikov, Matthew Levendusky and John Barry Ryan. 2022. “(Mis)estimating Affective Polarization.” *The Journal of Politics* 84(2):1106–1117.
URL: <https://www.journals.uchicago.edu/doi/10.1086/715603>
- Enriquez, Jose Ramon, Horacio Larreguy, John Marshall and Alberto Simpser. 2024. “Accountability Under Polarization.”.
- Enríquez, José Ramón, Horacio Larreguy and Octavio Lujambio. 2023. “How social media reinforces or ameliorates political polarization.”.
- Ferraz, Claudio and Frederico Finan. 2008. “Exposing Corrupt Politicians: The Effects of Brazil’s Publicly Released Audits on Electoral Outcomes*.” *The Quarterly Journal of Economics* 123(2):703–745.
URL: <https://doi.org/10.1162/qjec.2008.123.2.703>
- Gentzkow, Matthew, Jesse Shapiro and Matt Taddy. 2019. “Measuring Group Differences in High-Dimensional Choices: Method and Application to Congressional Speech.” *Econometrica* 87(4):1307–1340.
URL: <https://www.econometricsociety.org/doi/10.3982/ECTA16566>

González-Bailón, Sandra, David Lazer, Pablo Barberá, Meiqing Zhang, Hunt Allcott, Taylor Brown, Adriana Crespo-Tenorio, Deen Freelon, Matthew Gentzkow, Andrew M. Guess, Shanto Iyengar, Young Mie Kim, Neil Malhotra, Devra Moehler, Brendan Nyhan, Jennifer Pan, Carlos Velasco Rivera, Jaime Settle, Emily Thorson, Rebekah Tromble, Arjun Wilkins, Magdalena Wojcieszak, Chad Kiewiet de Jonge, Annie Franco, Winter Mason, Natalie Jomini Stroud and Joshua A. Tucker. 2023. “Asymmetric ideological segregation in exposure to political news on Facebook.” *Science* 381(6656):392–398. Publisher: American Association for the Advancement of Science.

URL: <https://www.science.org/doi/10.1126/science.ade7138>

Graham, Matthew H. and Milan Svolik. 2020. “Democracy in America? Partisanship, Polarization, and the Robustness of Support for Democracy in the United States.” *American Political Science Review* 114(2):392–409.

Greene, Kenneth, Erin Rossiter, Enrique Seira and Alberto Simpser. 2022. “Interacting as Equals: How Contact Can Promote Tolerance Among Opposing Partisans.”

Groenendyk, Eric and Yanna Krupnikov. 2021. “What Motivates Reasoning? A Theory of Goal-Dependent Political Evaluation.” *American Journal of Political Science* 65(1):180–196. _eprint: <https://onlinelibrary.wiley.com/doi/pdf/10.1111/ajps.12562>

URL: <https://onlinelibrary.wiley.com/doi/abs/10.1111/ajps.12562>

Guess, Andrew M., Neil Malhotra, Jennifer Pan, Pablo Barberá, Hunt Allcott, Taylor Brown, Adriana Crespo-Tenorio, Drew Dimmery, Deen Freelon, Matthew Gentzkow, Sandra González-Bailón, Edward Kennedy, Young Mie Kim, David Lazer, Devra Moehler, Brendan Nyhan, Carlos Velasco Rivera, Jaime Settle, Daniel Robert Thomas, Emily Thorson, Rebekah Tromble, Arjun Wilkins, Magdalena Wojcieszak, Beixian Xiong, Chad Kiewiet De Jonge, Annie Franco, Winter Mason, Natalie Jomini Stroud and Joshua A. Tucker. 2023. “Reshares on social media amplify political news but do not detectably affect beliefs or opinions.” *Science* 381(6656):404–408.

URL: <https://www.science.org/doi/10.1126/science.add8424>

Guriev, Sergei, Nikita Melnikov and Ekaterina Zhuravskaya. 2021. “3G Internet and Confidence in Government*.” *The Quarterly Journal of Economics* 136(4):2533–2613.

URL: <https://doi.org/10.1093/qje/qjaa040>

Hartman, Rachel, Will Blakey, Jake Womick, Chris Bail, Eli J. Finkel, Hahrie Han, John Sarrouf, Juliana Schroeder, Paschal Sheeran, Jay J. Van Bavel, Robb Willer and Kurt Gray. 2022. “Interventions to reduce partisan animosity.” *Nature Human Behaviour* 6(9):1194–1205.

URL: <https://www.nature.com/articles/s41562-022-01442-3>

Kalla, Joshua and David Broockman. 2023. “Which Narrative Strategies Durably Reduce Prejudice? Evidence from Field and Survey Experiments Supporting the Efficacy of Perspective-Getting.” *American Journal of Political Science* 67(1):185–204. _eprint: <https://onlinelibrary.wiley.com/doi/pdf/10.1111/ajps.12657>

URL: <https://onlinelibrary.wiley.com/doi/abs/10.1111/ajps.12657>

Kubin, Emily and Christian von Sikorski. 2021. “The role of (social) media in political polarization: a systematic review.” *Annals of the International Communication Association* 45(3):188–206.

URL: <https://www.tandfonline.com/doi/full/10.1080/23808985.2021.1976070>

- Larreguy, Horacio and Ernesto Tiburcio. 2024. Political Polarization: US Lessons for Latin America. Technical report.
- Larreguy, Horacio, John Marshall and James M Snyder, Jr. 2020. “Publicising Malfeasance: When the Local Media Structure Facilitates Electoral Accountability in Mexico.” *The Economic Journal* 130(631):2291–2327.
- URL:** <https://doi.org/10.1093/ej/ueaa046>
- Lees, Jeffrey and Mina Cikara. 2019. “Inaccurate group meta-perceptions drive negative out-group attributions in competitive contexts.” *Nature Human Behaviour* 4(3):279–286.
- URL:** <https://www.nature.com/articles/s41562-019-0766-4>
- Levendusky, Matthew S. 2018. “Americans, Not Partisans: Can Priming American National Identity Reduce Affective Polarization?” *The Journal of Politics* 80(1):59–70.
- URL:** <https://www.journals.uchicago.edu/doi/10.1086/693987>
- Levy, Gilat and Ronny Razin. 2019. “Echo Chambers and Their Effects on Economic and Political Outcomes.” *Annual Review of Economics* 11(1):303–328.
- URL:** <https://www.annualreviews.org/doi/10.1146/annurev-economics-080218-030343>
- Levy, Ro'ee. 2021. “Social Media, News Consumption, and Polarization: Evidence from a Field Experiment.” *American Economic Review* 111(3):831–870.
- URL:** <https://pubs.aeaweb.org/doi/10.1257/aer.20191777>
- Melnikov, Nikita. 2021. “Mobile Internet and Political Polarization.” *SSRN Electronic Journal* .
- URL:** <https://www.ssrn.com/abstract=3937760>
- Moore-Berg, Samantha L., Lee-Or Ankori-Karlinsky, Boaz Hameiri and Emile Bruneau. 2020. “Exaggerated meta-perceptions predict intergroup hostility between American political partisans.” *Proceedings of the National Academy of Sciences* 117(26):14864–14872.
- URL:** <https://pnas.org/doi/full/10.1073/pnas.2001263117>
- Nelson, Micah H. 2022. “Resentment is like drinking poison? The heterogeneous health effects of affective polarization.” *Journal of Health and Social Behavior* 63(4):508–524.
- Renström, Emma A, Hanna Bäck and Royce Carroll. 2023. “Threats, emotions, and affective polarization.” *Political Psychology* 44(6):1337–1366.
- Scacco, Alexandra, Alexandra Siegel and Chagai M Weiss. 2023. “Outgroup Avoidance.”.
- Simonovits, Gábor, Gábor Kézdi and Péter Kardos. 2018. “Seeing the World Through the Other’s Eye: An Online Intervention Reducing Ethnic Prejudice.” *American Political Science Review* 112(1):186–193.
- Svolik, Milan. 2019. “Polarization versus Democracy.” *Journal of Democracy* 30(3):20–32.
- URL:** <https://muse.jhu.edu/article/729166>
- Svolik, Milan. 2020. “When Polarization Trumps Civic Virtue: Partisan Conflict and the Subversion of Democracy by Incumbents.” *Quarterly Journal of Political Science* 15(1):3–31.
- URL:** <http://www.nowpublishers.com/article/Details/QJPS-18132>

Voelkel, Jan G., James Chu, Michael N. Stagnaro, Joseph S. Mernyk, Chrystal Redekopp, Sophia L. Pink, James N. Druckman, David G. Rand and Robb Willer. 2023. “Interventions reducing affective polarization do not necessarily improve anti-democratic attitudes.” *Nature Human Behaviour* 7(1):55–64. Number: 1 Publisher: Nature Publishing Group.
URL: <https://www.nature.com/articles/s41562-022-01466-9>

Appendix

Age	How old are you?	Balance	
Gender	What is your gender?		
Education	What is your highest education level?		
State	Which state do you currently live in?		
Baseline ideology	What municipality do you live in?	Control (+ balance)	
Political party	In politics we normally talk about "left" and "right." On a scale where "0" is "left" and "10" is "right", where would you place yourself ideologically?		Ideology and part
Party/ideological identity	Which of the following political parties do you think best represents your ideological vision?		Ideology and part
Government performance	In politics, which of the following options do you identify most strongly with? Choose all options that apply		Ideology and part
Government performance left	What is your perception of the current government's performance in the following matters?		Government perfor
Government performance center-right	What do you think is the perception of left-wing citizens about the current government's performance in the following matters?		Priors of differenc
Frequency of news consumption by source	What do you think is the perception of center-right citizens about the current government's performance in the following matters?		Priors of differenc
Frequency of news consumption by source (other)	How often do you receive political news from the following sources?		Media consumptio
Trust in media	Other than the sources we asked before, from what other sources do you receive political news? State the names of the TV channels, radio program, newspaper or websites that apply.		Media consumptio
Feeling thermometer	How much do you trust or distrust the political information from the media that usually cover the government..?		Media trust
Trust by ideology	On a scale of 0 to 100, aka "feeling thermometer," where 0 is the most unfavorable, 100 is the most favorable, and 50 means no feelings in any way, how would you rate your feelings toward...		Affective polarizat
Differ in needs and future	How much trust or distrust do the following citizens generate in you?		Affective polarizat
Differ in values and traditions	What do you think are the needs and future that Mexicans on the left want compared to those on the center-right?		Priors of differenc
Anti-democracy	What do you think the values and traditions of Mexicans on the left are compared to those on the center-right?		Priors of differenc
Anti-democracy left	How much do you agree with this statement? "I wouldn't mind an undemocratic government coming to power if it solves the problems, especially if it shares my ideology"		Democratic views
Anti-democracy center-right	How much do you think left-wing citizens agree with this phrase "I wouldn't mind an undemocratic government coming to power if it solves the problems, especially if it shares my ideology"		Priors of differenc
Stress levels	How much do you think center-right citizens agree with this phrase "I wouldn't mind an undemocratic government coming to power if it solves the problems, especially if it shares my ideology"		Priors of differenc
Mood	On a scale where "0" is "no stress" and "10" is "a lot of stress," how would you rate your stress level right now?		Stress
	On a scale where "0" is "very calm" and "10" is "very angry," how would you rate your mood right now?		Stress
Video information	Validation		Video treatment v
Differ in needs and future at midline	What kind of information do you remember seeing in the video we just showed you? Choose all options that apply.		Video treatment v
Differ in values and traditions at midline	What do you think are the needs and future that Mexicans on the left want compared to those on the center-right?		Video treatment v
Emotions and partisanship influence article reading	What do you think the values and traditions of Mexicans on the left are compared to those on the center-right?		Video treatment v
	How much do you think your emotions or partisan preferences influenced your reading of the news?		Nudge validation
Feeling thermometer at midline	Main		
Trust in media at midline	On a scale of 0 to 100, aka "feeling thermometer," where 0 is the most unfavorable, 100 is the most favorable, and 50 means no feelings in any way, how would you rate your feelings toward...		Affective polarizat
Feeling thermometer at endline	How much do you trust or distrust the political information from the media that usually cover the government..?		Media trust
Trust in media at endline	On a scale of 0 to 100, aka "feeling thermometer," where 0 is the most unfavorable, 100 is the most favorable, and 50 means no feelings in any way, how would you rate your feelings toward...		Affective polarizat
	How much do you trust or distrust the political information from the media that usually cover the government..?		Media trust
Stress levels at midline	First stage		
Mood at midline	Secondary		
Stress levels at endline	On a scale where "0" is "no stress" and "10" is "a lot of stress," how would you rate your stress level right now?		Stress
Mood at endline	On a scale where "0" is "very calm" and "10" is "very angry," how would you rate your mood right now?		Stress
	On a scale where "0" is "no stress" and "10" is "a lot of stress," how would you rate your stress level right now?		Stress
	On a scale where "0" is "very calm" and "10" is "very angry," how would you rate your mood right now?		Stress
Anti-democracy at endline	Reduced form		Democratic views
Read articles	How much do you agree or disagree with this statement? "I wouldn't mind an undemocratic government coming to power if it solves the problems, especially if it shares my ideology"		
Share articles	How likely are you to read news with the following titles if you come across it online?		Information consu
Choice	How likely is it that you share news with the following titles via social networks (e.g. Facebook, Twitter, Instagram) or WhatsApp?		Information consu
Share articles at endline	Please choose the article you would like to read below. We may or may not be able to satisfy your choice, as there is a random component to the assignment.		Information consu
Read articles at endline	How likely is it that you share the news via social networks (e.g. Facebook, Twitter, Instagram) or WhatsApp?		Information consu
	Before concluding, please select the news whose links we will show you so that you can read them in more detail.		Information consu
News source (1-6)	What is the source of the data presented in the news?		Information inter
Relevant comparisons made (1)	In relation to 2022, the news says that the number of homicides in 2023...?		Information inter
Main data (3)	According to the news, what percentage of the Gross Domestic Product does the news say the total pension spending proposed for 2024 represents?		Information inter
Main data (4)	According to the news, what percentage of seniors does the news say were poor in 2022?		Information inter
Main data (5)	According to the news, what percentage of the population does the news say were living in poverty in 2022?		Information inter
Relevant comparisons made (1)	According to the news, how do the homicides of the current six-year term compare with those of previous six-year terms?		Information inter
Relevant comparisons made (2)	According to the news, how does the homicide rate for the current first half of 2023 compare to the first half of the last 6 years?		Information inter
Main data (3)	According to the news, what percentage of all the expenses of the Ministry of Welfare will the Pension program for the Welfare of Older Adults represent?		Information inter
Relevant comparisons made	According to the news, how does senior poverty in 2022 compare to 2018?		Information inter
Relevant comparisons made	According to the news, compared to 2020, in 2022 the percentage of Mexicans without access to health was...?		Information inter
Main data (6)	According to the news, compared to 2018, in 2022 the percentage of Mexicans in extreme poverty was...?		Information inter
Article attack (1)	How much do you think the news attacks or defends the security policy of the current government?		Bias perception
Article attack (2)	How much do you think the news attacks or defends the security policy of the current government?		Bias perception
Article attack (3)	How much do you think the news attacks or defends the pension policy of the current government?		Bias perception
Article attack (4)	How much do you think the news attacks or defends the pension policy of the current government?		Bias perception
Article attack (5)	How much do you think the news attacks or defends the current government's anti-poverty policy?		Bias perception
Article attack (6)	How much do you think the news attacks or defends the current government's anti-poverty policy?		Bias perception
Article informative	How much would you say the news made you think differently about the topic you cover?		Bias perception
Article perception (1-2)	After reading the news, what is your perception of the security policy of the current government?		Government perfor
Article perception (3-4)	After reading the news, what is your perception of the current government's pension policy?		Government perfor
Article perception (5-6)	After reading the news, what is your perception of the current government's anti-poverty policy?		Government perfor
Behind study	Social desirability bias		
Goal of study	Who do you think is behind the study? [Choose all that apply]		Experimenter dem
atencion_estudio	Do you think that whoever is behind this study has any objective beyond academic? [Choose all that apply]		Experimenter dem
Opinion of study	How carefully would you say you responded to this survey?		Experimenter dem
	Lastly, we would love to hear your thoughts on the survey, including any other perceptions you have about the study. Please share your comments with us.		Experimenter dem

Table 2: Survey questions