Polarization and openness to others

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Pre-Analysis Plan

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Recent work in economics and political science stresses the role of segregation and eco-chambers in reinforcing polarized views. Geographical segregation as well as machine-learning algorithms used in social media limit the exposure one has to others' views and reduces opportunities to exchange information with people holding different beliefs. At the same time, triggering these exchanges by encouraging encounters, debates or social contact between polarized groups appears to be challenging. There is growing evidence that people seek to avoid contact or exchange of information with others that have different views than theirs. In this study, we test whether raising people's awareness about the fact that they share views on fundamental values (human rights) increases the willingness to listen to others who share different political views.

1. Introduction and Background literature

There is a growing concern among scholars and media experts that polarization, in particular affective political polarization (that is, the extent to which citizens feel more negatively toward people supporting other political parties than toward their own) has been increasing in many Western societies, such as the U.S. (Shapiro et al., 2020)[1]. Recent studies have shown how this trend might have been exacerbated by

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[1] Boxell, Levi, Matthew Gentzkow, and Jesse M. Shapiro. *Cross-country trends in affective polarization*. No. w26669. National Bureau of Economic Research, 2020.

an increased use of social media platforms (Levy, 2020; Bail et. al 2018)[23]. These studies complement other political science studies that have shown how political views might be strongly correlated with beliefs, such as a person's sense of fairness and justice, and how these are harder to change when they are formed in early formative years of a person's life and regardless of life experiences or shocks (Kiley and Vaisey, 2020)[4]. Taken altogether, these studies seem to suggest that strongly held political beliefs that represent a person's identity might be hard to change, and that exposure to opposing views can either backfire or be at best ineffective at reducing polarization.

Another stream of studies has focused on testing solutions that might encourage people to change their beliefs, especially those that might be harder to shift. Lacetera and Macis (2019)[5] show that informing a representative sample of Americans about the benefits of paying for kidneys (a so-called morally 'repugnant' market) might not be enough to change people's opinions. In their study, participants either supported or opposed payments regardless of potential transplant gains, and only under extreme cases a small group of people would switch. In a field experiment, Broockman and Kalla (2016)[6] show that Miami voters shifted their attitudes toward transgender individuals and maintained those changed positions for 3 months because of an in-person conversation with a canvasser. This might suggest that to shift some beliefs, the mere provision of information might not be enough and more intensive interventions, such as perspective taking exercises like in Broockman and Kalla (2016) might be required. A more resource-intensive solution that has been tested over the years is that of increasing intergroup contact, although results still show limited results (Baron, 2021; Musa, 2020)[78]. Yet there is ample evidence that people are reluctant to engage with others who do not share the same views (see for example Huber and Malhotra

[2] Levy, R. (2020). Social Media, News Consumption, and Polarization: Evidence from a Field Experiment. *News Consumption, and Polarization: Evidence from a Field Experiment (July 16, 2020)*.

[3] Bail, Christopher A., Lisa P. Argyle, Taylor W. Brown, John P. Bumpus, Haohan Chen, MB Fallin Hunzaker, Jaemin Lee, Marcus Mann, Friedolin Merhout, and Alexander Volfovsky. "Exposure to opposing views on social media can increase political polarization." *Proceedings of the National Academy of Sciences* 115, no. 37 (2018): 9216-9221.

[4] Kiley, Kevin, and Stephen Vaisey. "Measuring Stability and Change in Personal Culture Using Panel Data." *American Sociological Review* (2020): 0003122420921538.

[5] Elias, Julio J., Nicola Lacetera, and Mario Macis. "Sacred values? The effect of information on attitudes toward payments for human organs." *American Economic Review* 105, no. 5 (2015): 361-65.

[6] Broockman, David, and Joshua Kalla. "Durably reducing transphobia: A field experiment on door-to-door canvassing." *Science* 352, no. 6282 (2016): 220-224.

[7] Mousa, Salma. "Building social cohesion between Christians and Muslims through soccer in post-ISIS Iraq." *Science* 369, no. 6505 (2020): 866-870.

[8] Baron, Hannah, Robert Blair, Donghyun Danny Choi, Laura Gamboa, Jessica Gottlieb, Amanda Lea Robinson, Steven Rosenzweig, Megan Turnbull, and Emily A. West. "Can Americans Depolarize? Assessing the Effects of Reciprocal Group Reflection on Partisan Polarization." (2021).

2017[9]) and "forcing" them to do so may backfire. Further, these interventions remain rather resource-intensive and difficult to scale up.

In this study, we explore whether raising people's awareness about fundamental views they share (on human rights) enhances their willingness to engage with others and by the same token, to be more open to absorb new information and alter their views. The main experimental variation we propose to study is to inform participants that they share common views on fundamental human rights with someone who doesn't share the same political views. The main outcome of interest is their willingness to engage with this other person, that is, the willingness to listen to her or his views rather than the view of someone who agrees with them. As secondary outcomes we also track respondents' malleability of their views and their affective polarization. Of course, it is possible that the mere priming of "common attitudes or tastes", no matter how futile they may be, could trigger a higher willingness to engage. To allow for this possibility, we will consider a treatment where we inform participants that they share common views on other (more futile) attitudes, such as basic etiquette rules.

2. Research questions and Hypotheses

Our hypothesis is that polarization is partly driven by a person's inability to realize what they share with others seemingly different from them. Our main hypotheses are therefore the following:

H1: The saliency of common views on human rights should increase the "openness" to listening to others' opinions

H2: Individuals are more likely to change their views (when exposed to a different view) if the commonality of views on human rights is made salient.

3. Experimental Design

[9] Huber, Gregory A., and Neil Malhotra. "Political homophily in social relationships: Evidence from online dating behavior." The Journal of Politics 79, no. 1 (2017): 269-283.

The Experimental Protocol has been approved by the IRB at Cornell University in May 2020. The experiment is planned to be conducted between August 2021 and April 2022. The experiment will consist of the following phases:

Phase 1:

Our first goal will be to identify the values and principles people most agree on. We will run a pre-survey among a representative sample of 300 Americans and ask them to indicate how strongly they agree on a subset of United Nations Human Rights Declaration Articles. We will also ask them how strongly they agree with basic etiquette principles. All statements will be shown randomly to avoid fatigue or anchoring effects. See attachment "Survey 1" for a copy of the survey questions.

We will select a minimum of 5 and a maximum of 10 UNHRD articles and (5 to 10) etiquette rules for which the agreement index is highest. In particular, we will choose those with the highest fraction of 7 and above or the highest fraction of 3 and below. We will exclude polarizing items where the fractions of 7 and above *and* the fraction of 3 and below are both larger than 30%.

Phase 2 will be conditional on finding at least 5 human rights articles and 5 etiquette rules that have sufficient agreement in the sample.

Phase 2:

1. Sample: Around 40 people recruited from a sample of Americans through a survey firm (Qualtrics) to take part in a short computer-based survey about themselves and their views about selected topics (this is the only one-off engagement we will have with phase 2 respondents). Where possible, Qualtrics will make an effort to distribute this survey to respondents living in more polarized U.S. counties (for example counties with more than 5% average difference between Democratic and Republican voters in the last four Presidential elections, or a similar metric). In addition to demographic questions, we will ask them to indicate their views on the human rights principles and etiquette rules selected from Phase 1.

   Then, they will be asked to indicate their views on "controversial" political topics. The questions are all sliders on a scale 0 to 10 and are as follows:

   - Abortion should be [*illegal-legal scale*] in most cases
   - Current gun laws in the United States are [*too strict-about right-too lenient scale*]

- Free trade agreements between the US and other countries have generally been [*A bad thing-neither good nor bad-a good thing scale*]

- Legal immigrants in the United States today [*Burden the country by taking jobs, healthcare, and housing-strengthen the country through hard work and talent scale*]

2. Participants will then be asked to record their political views (audio) on a specific topic (related to one of the 4 points above) for 30-60 second. The topic will be selected automatically among the ones they felt most strongly about (response below 3 or above 7). Where possible, we will try to achieve a good sample representativeness of gender and race (which are factors that might be induced from a person's voice). We will then select a total of 40 audio files, i.e., 10 per topic (5 pro and 5 against).

Amendment 11/10/2021.

Due to a programming error, Survey 2 participants were not shown questions about their views on the human rights principles and etiquette rules selected from Phase 1. However, we will be able to use the respondents' unique IDs to invite them to answer these questions in a follow up survey for which they will receive additional compensation. In total, we selected around 50-60 respondents who submitted an audio file of acceptable quality and length to be invited to answer the questions on human rights and etiquette rules. This survey was framed as a follow-up survey to the respondents, and they were asked to consent for their responses to be matched to their responses in the first survey.

Note that we were unable to reach the required sample size of videos for the "against trade" position. We therefore decided to drop the trade theme for Survey 3.

Phase 3.

Note: this document has been amended prior the start of Phase 3. The main changes include:
- *The topic "Trade" was dropped in the final version as explained earlier.*
- *We defined more clearly our outcome of interests as well as the analysis we will perform*
- *We added post-treatment survey questions to measure affective polarization.*

A second representative sample of 2,500 Americans will be recruited through a survey firm. These participants will be asked their views on basic etiquette principles and human rights principles (as Phase 1 participants), as well as their views on the three political topics (abortion, immigration, gun laws).

Participants will see a screen that says that they will have the opportunity to listen to others who have a different opinion than them on each of the political topic (abortion, immigration and gun laws). That is, they will be able to listen to up to 3 files.

Then participants will be randomly split into three groups:

1. Control: these participants
2. "Etiquette" Treatment
3. "Human rights" Treatment:

Participants in the control treatment will not see any additional information. Participants in the treatments "Etiquette" and "Human rights" will then be shown a screen notifying them that the recordings they are about to see on their screens are from American residents who differ in their views about each of these topics, but scored at least 9 out of 10 in the etiquettes (treatment 1) or human rights (treatment 2) questions respectively. They will be reminded of the items that relate to each of the questionnaires.

Respondents will then be able to choose to listen to any of these audio recordings sequentially. Each audio recording will be from a person who has different views than them (one for each of the political topics). After listening to any or all of the audios, they will be asked to take part in a post-experiment survey including a subset of the same questions of the pre-experiment survey. These participants will then answer a series of questions about themselves (e.g., demographics) and answer one additional set of questions to measure **affective polarization** (see survey).

Randomization: Respondents are automatically randomized across control and treatments.

Staggered approach: Given the interdependencies of the survey phases, we will keep open the opportunity to amend the pre-registration plan for each phase *prior* to that phase launch.

4. Outcome measures and analysis

We are primarily interested in the following outcomes:

Outcome	Measure/Unit	Analysis
Primary: Willingness to engage	Number of recordings participants listen to, out of a total number of 3 audios. [A file will be classified as listened to if the participant listened to at least 5 seconds and indicated having listened to "some of it" in the post-treatment survey.	Poisson or negative binomial regressions with a dummy for each treatment.
Primary: Engagement	Percentage of audio materials listened to out of the total amount of seconds of the randomly assigned audio files.	OLS comparing treated and control groups
Secondary: Vews (a)	Difference between pre and post experiment survey across all 3 topics, comparing treated groups and control	DD estimates comparing treated and control groups.
Secondary: Views (b)	Difference between pre and post on views, comparing treated groups and control.	DD estimates, and then IV where we add a variable for whether they listened to the audio, instrumented by the treatment dummy.
Secondary: Firmness of views	Distance from 5/10 on every topic, post survey.	OLS linear model, comparing treated and control groups

Power Analysis code

```
clear all

set more off


if "`c(username)'"== "gubri" {

    global root   "C:\Users\gubri\Dropbox\Belot-Briscese\Analysis"

}


/* Here we will add the analysis folder


        global trash "$root\Data\trash"

        global graphs "$root\Papers\Paper 1\graphs"

        global tables "$root\Papers\Paper 1\tables"

        global other_data "$root\Data\other_data"

        global append "$root\Data\append"

        global merged "$root\Data\merged"


*/


cd "$root"


*Use Stata power package

*Assume equal baseline means in treatment and control

*Assume n=2500 divided equally across 3 groups of 833 people each.


*Outcome: Click on video. Assumes 25% baseline.

power twomeans 0.25, sd(0.25) power(0.8) n1(833) n2(833) iterate(1000) log


/*

Estimated experimental-group mean for a two-sample means test

z test assuming sd1 = sd2 = sd

Ho: m2 = m1  versus  Ha: m2 != m1; m2 > m1
```

Study parameters:

     alpha =   0.0500

     power =   0.8000

      N =   1,666

      N1 =   833

      N2 =   833

      m1 = 0.2500

      sd = 1.0000

Estimated effect size and experimental-group mean:

     delta =   0.1373

      m2 =   0.3873

*/

*Outcome: Percentage of minutes of videos watched. Assumes 50% baseline.

power twomeans 0.5, sd(0.5) power(0.8) n1(833) n2(833) iterate(1000) log

/*

Estimated experimental-group mean for a two-sample means test

z test assuming sd1 = sd2 = sd

Ho: m2 = m1 versus Ha: m2 != m1; m2 > m1

Study parameters:

     alpha =   0.0500

     power =   0.8000

      N =   1,666

      N1 =   833

```
      N2 =      833
      m1 =    0.5000
      sd =    1.0000
```

Estimated effect size and experimental-group mean:

```
    delta =    0.1373
      m2 =    0.6373
*/
```

*Outcome: Change in polarization. Assumes 0 baseline.
power twomeans 0 -.01, sd(0.1) n(1666) nratio(0.5)

*Outcome: Change in views. Assumes 0.5% baseline.
power twomeans 0.05, sd(0.15) power(0.8) n1(833) n2(833) iterate(1000) log

/*
Estimated experimental-group mean for a two-sample means test
z test assuming sd1 = sd2 = sd
Ho: m2 = m1 versus Ha: m2 != m1; m2 > m1

Study parameters:

```
    alpha =    0.0500
    power =    0.8000
       N =    1,666
      N1 =      833
      N2 =      833
      m1 =    0.0500
      sd =    1.0000
```

Estimated effect size and experimental-group mean:

    delta =   0.1373

     m2 =   0.1873

*/