

## Memory and Political Polarization

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This pre-registration describes online experiments on Prolific (or similar platforms, such as Amazon Mechanical Turk) that study the relationship between memory of extreme information and the formation of beliefs about others' political views.

Elicited information:

- 1) Estimates of typical political view within a sample drawn from each political party
- 2) Recall of political opinions viewed earlier in experiment
- 3) Estimates of typical opinion on an apolitical topic
- 4) Recall of apolitical opinions viewed earlier in experiment

### Experimental setup

On an online experiment platform, subjects will read a set of political opinions related to a particular policy domain (e.g. immigration from Latin America). Half of these opinions will be written by Democrats and half will be written by Republicans. Each of the opinions will contain a number that is correlated with the extremity of the opinion (e.g. the desired percent increase or decrease in immigration).

Subjects will be asked to calculate the average of the numbers in the Democrat and the Republican opinions they have observed. They will also be asked to recall which statements appeared earlier in the experiment (i.e. select the option that appeared earlier among a menu of decoys).

Subjects will also perform the same task with a set of opinions that are apolitical in topic. These opinions will be written by workers either in favor of increasing or decreasing their hours worked for the following week, relative to the previous week. Each of these opinions will again contain a number—the desired percent increase or decrease in hours worked—that is correlated with the extremity of the text of the opinion. They will then be asked to calculate the average desired percent increase and average desired percent decrease, and asked recall questions for the apolitical opinions.

The order of the political and apolitical tasks will be randomized across subjects. Subjects' demographics will also be elicited.

### Treatments

#### 1) *Memory treatment*

In the memory treatment, subjects will view the opinions sequentially. After seeing all the opinions, they will be asked to complete an incentivized real-effort task to generate interference with their memory of the opinions. Following the real-effort task, incentivized estimates of the mean on each side will be elicited, as well as recognition of

statements. This entire sequence of tasks—viewing statements, real-effort task, elicitation of means, recognition questions—will be the same for the apolitical statements.

### 2) *Control group*

The control group will view all opinions on two screens—one screen of Democrat opinions and one screen of Republican opinions. In contrast to the memory treatment, they will not complete a real-effort task: they will estimate the mean and answer recognition questions immediately after viewing the opinions. This entire sequence of tasks—viewing two screens of opinions, elicitation of means, recognition questions—will be repeated for the apolitical statements.

### 3) *Treatment extreme*

The extreme and moderate treatments will be cross-randomized with the memory and control treatments in a 2x2 design. Subjects in the extreme treatment group will be exposed to a set of views on either side that includes both “moderate” and “extreme” opinions, in both the apolitical and political domains. The moderate opinions will have lower numbers associated with them, while the extreme opinions will have high numbers.

### 4) *Treatment moderate*

Subjects in the moderate treatment group will be exposed to a set of views on either side that includes only “moderate” opinions, in both the apolitical and political domains. The opinions will be selected such that the mean on either side is equal in the extreme and moderate treatments.

## **Hypotheses**

The following hypotheses apply to the political domain.

1. In the memory treatment group, subject in the *extreme* treatment group will report estimates of means on both sides to be higher than those in the *moderate* treatment. In the control group, I expect those in the *extreme* and *moderate* treatments to report means that are closer in magnitude to each other.
2. In the memory treatment group, among those in the *extreme* treatment group, recognition accuracy will be higher for the extreme statements than for the moderate statements. ~~In the control group, I expect that recognition accuracy will be higher than in the memory group for both types of statements,~~ and any difference in accuracy will be less pronounced than in the memory group.

## **Exclusion Criteria**

- 1) After viewing the first set of task instructions (which occurs prior to any of the experimental tasks), subjects will be asked several comprehension questions. If they answer a question incorrectly, an error message will be displayed and they will have the opportunity to re-attempt the questions. If they answer the same question incorrectly twice, they will be taken to the end of the study and excluded from the main experiment.

- 2) The analyses will be performed both with all data points, and also excluding those who report estimates of the mean either equal to 0 or greater than the maximum number occurring in the sample.

### **Randomization and Sample Size**

Treatments *{Moderate, Extreme}* and *{Control, Memory}* will be cross-randomized within each session. The Prolific platform allows researchers to target audiences based on demographic criteria—left and right leaning participants will be targeted separately to ensure an approximately equal number of subjects affiliated with each of the two political parties.

The sample size will be approximately 1000 in total (250 in each of the 4 treatments).