

# Guns, pets, and strikes: an experiment on identity and political action<sup>\*</sup>

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## Abstract

We study the role of political collective action in creating shared identity and shaping subsequent interactions between participants. In a laboratory experiment, we offer subjects the possibility to sign an online petition or ask whether they had participated in recent street protests. We then let subjects interact in a series of games that measure their pro-social attitudes. We find that there is considerably more altruism, trust, and trustworthiness within a pair of subjects who participated in collective action than in any other pair. This is driven not by pre-existing pro-social preferences but by a common group identity emerging as a result of shared participation. Our structural estimates confirm the existence of this type of identity-based pro-social preferences. Hence, individuals who participate receive private benefits in subsequent interactions with fellow participants. Because of this, expecting higher participation by peers makes an individual more likely to participate. These results help explain the role of coordination and signalling in political collective action,

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and suggest a reason why individuals choose to participate despite private costs and a low probability of affecting the outcome.

JEL Codes: D74, D72, C91, D91

Keywords: political identity, collective action, petitions, protests, social preferences, laboratory experiment

## 1 Introduction

*“For he to-day that sheds his blood with me shall be my brother.”*

Henry V, Act IV, Scene III by William Shakespeare

*“There are some things you can’t share without ending up liking each other, and knocking out a twelve-foot mountain troll is one of them.”*

Harry Potter and the Philosopher’s Stone by J.K. Rowling

Collective action by citizens plays an important role in shaping political outcomes in both democracies and non-democracies. From petition campaigns to mass street protests, collective action is an important driver of political change. In this paper, we explore the effects of participation in political collective action on subsequent social interactions between participants in order to shed light on the driving factors of such participation.

To analyse the impact of common participation on social interactions, we conduct an experiment with Colombian subjects. The subjects were asked to make participation choices. In some sessions, subjects chose whether to sign a petition to allow citizens to carry firearms. In other sessions, they faced a petition to ban fireworks in order to protect animal rights. In yet other sessions, subjects were asked whether they had participated in the *Paro Nacional* or National Strike – a series of street

protests which were happening in Colombia concurrently with our study. Thus, subjects faced different types of collective action that varied both in terms of personal cost of participation,<sup>1</sup> and in terms of the political nature of the cause.<sup>2</sup>

Before and after making their participation choices — that is, signing the petition, or reporting participation in street protests — subjects were given monetary endowments, put in pairs, and asked to play a dictator game and a trust game. The former game measured subjects' altruism, while the latter measured their willingness to trust others, as well as to reciprocate trust. Crucially, when playing these games after participation decision, subjects were told whether their partner has participated.

Our results suggest that the initial pro-social preferences, observed from the trust game and the dictator game played before the participation decision, are uncorrelated with political participation. However, the interactions that occur after the participation decision reveal a different picture. In these interactions, we observe substantially more altruism, trust, and trustworthiness between subjects who both signed the petition or took part in the protests than within other pairs of subjects. Specifically, when a subject who participated in collective action faces a partner who also participated, she shares more of her endowment with that partner, entrusts more money to her, and returns more of the money she is entrusted with, compared to the behaviour in pairs of subjects in which one or both did not participate in collective action. Hence, our experiment shows that the experience of participation produces in-group favouritism between subjects who chose to participate.

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<sup>1</sup>Signing an online petition carried a low personal cost, while participation in the street protests was costly, as many protesters were killed or injured in clashes with riot police.

<sup>2</sup>In our sample, the guns petition had more support among subjects holding right-wing views; the street protests — among left-wing subjects; while support for the fireworks petition was not correlated with political alignment.

Because of this in-group favouritism, we can expect that participants receive higher payoffs than non-participants in social interactions. The magnitude of an individual's gain from participation should then be larger if a larger share of her social interactions is with other participants. Hence, an individual gain from participating is increasing in the share of participants in her social circle. In our study, we are able to test this conjecture using the fact that our experiment used three different types of political participation – the two petitions and the street protests – and the rate of participation was significantly higher in the sessions in which subjects faced the fireworks petition than in sessions with the other two types of political action. As expected, we find that individuals who were facing the relatively popular petition received significantly higher payoffs if they signed it than if they did not sign; while no significant effect of participation on payoffs was observed for the less popular types of political participation.

If individuals understand this, they should be more likely to participate in collective action in which more of their peers participate. To test this conjecture, we inform a subset of subjects that after choosing whether to participate, they will play the trust game and the dictator game with partners who will know their participation choice. We then elicit their beliefs about the percentage of other subjects who choose to participate. We find that subjects are significantly more likely to participate when they believe more of the other subjects will participate.

Taken together, our experiment shows that participation in collective action creates a common identity among participants that manifests itself through in-group favouritism in social interactions. Anticipating this, individuals may choose to participate in expectation of personal payoffs resulting from such interactions, and they are more likely to do so when they expect more of their peers to participate.

Our analysis also allows us to rule out several potential alternative explanations

for the observed effect. First, we can show that the common identity between participants is induced by the act of participation, rather than by our experiment dividing subjects into those who participated and those who did not.<sup>3</sup> Second, we show that participation directly creates a political identity, rather than merely signalling an existing one.

The mechanism identified in the paper is consistent with several empirical phenomena related to political participation. A number of papers have found that social image concerns and social connections play a significant role in motivating individual decisions to participate in collective action, such as voting (Gerber et al., 2008; Gerber and Rogers, 2009; DellaVigna et al., 2016), or contributing to political campaigns (Perez-Truglia and Cruces, 2017). In particular, Enikolopov et al. (2020b) develop a model in which individuals care about how the others perceive their preferences, and choose to participate in a protest in order to signal their prosocial preferences; the authors find that evidence from the 2011-12 Russian protests is consistent with their model. Our paper suggests a mechanism through which social connections influence participation: taking part in collective action creates common identity, affecting future social interactions in professional, friendship, and other networks. Hence, an individual whose social contacts have chosen to participate is more likely to encounter favourable behaviour if she participates and is able to inform others about her participation.

At the same time, our paper suggests that image considerations play a more complicated role than simply giving individuals direct utility from social image. In particular, the image payoffs from participation are not intrinsic, but occur through prosocial behaviour in subsequent social interactions. Furthermore, we show that

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<sup>3</sup>An effect similar to the latter channel is often found in experiments using minimal group paradigm (see Tajfel et al., 1971; Chen and Li, 2009)

participation is not merely a signal of preexisting prosocial preferences, but directly creates identity that induces prosocial behaviour from fellow participants, but not from nonparticipants. This implies that individual payoffs from participation are increasing in the share of participants in one's social circle; and expecting higher participation among peers (but not necessarily among citizens as a whole) makes an individual more likely to participate.

In this way, our paper helps understand the nature of strategic interactions among participants of political collective action. In economics and political science, there is a large tradition of modelling political participation as a coordination game, in which participation is a more attractive option for a given citizen when a larger number of other citizens participate (see [Tullock, 1971](#); [Granovetter, 1978](#); [Kuran, 1989](#); [Casper and Tyson, 2014](#); [Hollyer et al., 2015](#); [Buchheim and Ulbricht, 2020](#) for public protests; as well [Battaglini, 2017](#) and [Ginzburg, 2022](#) for coordination models of online petitions and other low-cost forms of collective action). Empirical research, however, has yielded mixed results. On the one hand, some studies ([González, 2020](#); [Bursztyn et al., 2021](#)) have shown that individuals who expect more of their friends to participate in a protest are more likely to participate themselves. On the other hand, expecting greater participation by citizens in general makes an individual less likely to join ([Cantoni et al., 2019](#)). Our results suggest an explanation for this discrepancy: within a network of friends there is scope for future social interactions, and hence for pro-social behaviour among fellow participants. An expectation of future rewards in such interactions makes participating a more attractive option when a larger share of one's social contacts participate. However, participation by citizens in general, with whom an individual is unlikely to have future encounters, does not give rise to this mechanism.

Our results are also related to the empirical literature that studies the role of

communication technologies in political collective action. Several recent papers have shown that such technologies can facilitate participation ([Christensen and Garfias, 2018](#); [Enikolopov et al., 2020a](#); [Manacorda and Tesei, 2020](#); [Fergusson and Molina, 2021](#)). Our results suggest one explanation for this: by making individual participation more visible, communication technologies help form and signal participants' group identity, making participation a more attractive choice.

Our paper also contributes to the literature studying the role of group identity and in-group bias in social interactions (see [Chen and Li, 2009](#); [Grimm et al., 2017](#); [Brañas-Garza et al., 2020](#); [Blanco and Guerra, 2020](#)). In particular, we add to the literature on the endogenous emergence of identity (See [Charness and Chen, 2020](#) for an overview) by proposing a channel through which identity emerges – namely, shared political participation. More broadly, our paper adds to the literature that studies the role of social capital ([Guiso et al., 2011](#); [Durante et al., 2023](#)) by identifying a mechanism for its emergence.

Finally, the paper is related to the literature on incentivising cooperation in collective action (see [Chaudhuri, 2011](#) for a survey). Many studies find that groups are able to sustain cooperation in public good games by rewarding those who cooperate (see, for example, [Fehr and Gächter, 2000](#); [Willer, 2009](#)). Our paper finds that participants earn future rewards even in situations in which cooperation does not produce immediate payoffs. However, these rewards emerge not because all group members reward cooperation, but because of in-group favouritism between fellow participants.

## 2 Experimental Design

A total of 228 students at Universidad de Los Andes took part in an online experiment composed of three decision stages. In stage 1, they are randomly paired with other subjects and play the Trust Game (TG, see [Berg et al., 1995](#)) and a modified version of the Dictator Game (DG, first proposed by [Kahneman et al., 1986](#)). In stage 2, subjects make their political participation decisions. In stage 3, subjects are re-matched, and again play the TG and DG. This time, however, they know whether their partner has chosen to participate. We elicit the subjects' behaviour for each action of their partner using the strategy method.

Stage 1 thus gives a baseline measure of pro-social behaviour – trust, reciprocity, trustworthiness, and altruism – for each subject. Stage 3 allows us to observe the behaviour of each subject towards another subject conditional on both subjects' political participation, and compare it to the baseline measure.

The political participation decisions come in two form. In some sessions, subjects are exposed to an online petition, and are asked to decide whether to sign it. This type of political participation carries a low cost. In other sessions, subjects are asked whether they have participated in a recent series of street protests, which is a high-cost form of political participation. In the rest of this section, we will describe the experimental design in detail.

### 2.1 Low-cost participation: online petitions

#### 2.1.1 Stage 1: baseline social preferences

In this stage, individuals face a within subjects design for each TG and for DG. For each game, we elicit their behaviour for both possible roles: sender and receiver.



In the TG, a subject who is playing as a sender receives an endowment of 6 Experimental Tokens (ET). She has to choose an amount of ET between 0 and 6 that she wants to transfer to a receiver.<sup>4</sup> This is tripled by the experimenter and given to the receiver. The receiver needs to decide how much of the received amount she wants to transfer back to the sender. Using strategy method, we elicit the amount the receiver wants to transfer back for *each possible amount* received. From the TG we get a measure of trust (i.e. the amount sent to a receiver while playing the sender role) and trustworthiness or reciprocity (i.e. the amount sent back while playing as receiver for every possible amount received).

In addition to the TG, subjects also play the DG. In the DG, each subject also plays as a sender and as a receiver. A sender is similarly endowed with 6 ET and has to decide how much to transfer to a receiver, who receives three times the amount transferred by the sender.<sup>5</sup> The receiver, unlike in the TG, does not choose an action. From this DG we obtain a measure of altruism for each subject.

### 2.1.2 Stage 2: participation decisions

Subjects are presented with one of two online petitions: (i) one that proposed to allow carrying guns, and (ii) one that proposed to ban fireworks in the interest of animal rights. In each session, one of the two petitions is used – thus, the treatment variation was between subjects. If a subject decides to sign the petition, we require her to write a few sentences about why she chose to do so. Subjects who do not sign the petition do not have to explain their decision. Hence, signing the petition carries a positive effort cost, while choosing not to sign the petition is costless.

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<sup>4</sup>We restrict the choice to integer values.

<sup>5</sup>The fact that the amount is multiplied by three makes the game somewhat different from the standard dictator game. We applied this modification to make senders' choices and monetary incentives in the DG more comparable to those in the TG.

### 2.1.3 Stage 3: endline social preferences

Subjects play the TG and DG, again as both senders and receivers, while being anonymously matched with a random other subject. Unlike in Stage 1, subjects know whether their partner signed the petition. We use strategy method – that is, in each situation of the TG and DG, we ask subjects how much they would transfer to a partner who signed the petition and to a partner who did not sign it.

An experimental session lasted 45 minutes. Payments were based on one randomly chosen stage (Stage 1, or Stage 3). The average payment of *COP* 16,800 (approximately *USD* 4.5)<sup>6</sup>. At the end of the experiment subjects faced an *opinion survey*, in which they were asked whether they thought the cause of the petition was “worthy” or “valuable”, and were given a short questionnaire about their political and social views, and opinions about the petition.<sup>7</sup>

In addition, a subset of subjects were informed that they will play DG and TG again after deciding on the petition. For these subjects, we elicited their beliefs about the percentage of other subjects who signed the petition.

## 2.2 High-cost participation: public protests

The experimental sessions involving high-cost participation are similar to the ones with low-cost participation, except for Stage 2. Stage 2 uses the Colombian street protests known as *Paro Nacional* or National Strike for high-cost participation, which began in April 2021 during our study, and lasted until the end of the year.

The protest movement encompassed diverse groups of citizens dissatisfied with the right-wing government of Iván Duque. The immediate trigger of the movement was

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<sup>6</sup>This is almost four times the minimum hourly wage in Colombia.

<sup>7</sup>Full instructions translated into English are found in Appendix B. Appendix C contains the wording of the fireworks petition.

a tax reform proposal, which was eventually withdrawn in response to the protests. However, many observers note that social discontent has been increasing since the end of 2019, against the background of poverty, high inequality, and the perceived unwillingness of the government to implement the peace agreement with FARC rebel group.<sup>8</sup> The Covid-19 pandemic has also exacerbated the population’s complaints.

During the National Strike, protesters took to the streets across different cities. These demonstrations took the form of citizen marches, sit-ins, road blockades, and *points of resistance* where participants exercised territorial control. Participation in these protests involved a high personal cost: thousands of protesters were injured in clashes with riot police, dozens were killed, and numerous instances of sexual assault were reported.<sup>9</sup>

In Stage 2, instead of asking subjects whether they want to sign an online petition, we asked them whether they had physically participated in the National Strike.<sup>10</sup> In the subsequent Stage 3, subjects were asked to play DG and TG, knowing whether their partner had participated in the protests.

## 3 Main Results

### 3.1 Sample characteristics

Table 4 in the Appendix presents the characteristics of our subjects by type of political participation (fireworks petition, guns petition, and National Strike).

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<sup>8</sup>See New York Times, *Why Are Colombians Protesting?*, May 18, 2021. <https://www.nytimes.com/2021/05/18/world/americas/colombia-protests-what-to-know.html>.

<sup>9</sup>See BBC, *Colombia protests: Rights body criticises 'disproportionate' response*, July 8, 2021. [www.bbc.com/news/world-latin-america-57733541](http://www.bbc.com/news/world-latin-america-57733541).

<sup>10</sup>See Appendix D for instructions. Because participation was already costly, we did not require the participants to explain their reason for participation.

Overall, in our experiment, 25% have signed the guns petition, 65.5% has signed the fireworks petition, and 22.5% reported having participated in the National Strike (see Figure 10 in the Appendix)

Figure 11 in the Appendix shows average attitude towards the cause by the political alignment of our subjects on the left-right spectrum. As the figure shows, the guns petition tends to have more support among right-wing subjects, while the public protests have more support among left-wing subjects. Support for the fireworks petition is not related in a statistically significant way with the political alignment.

### 3.2 Determinants of political participation

We start by analysing factors that made subjects more likely to opt for political participation. Table 1 regresses a dummy variable equalling one if the subject has participated on a number of other variables. Columns 1, 2, and 4 focus on subjects who were given the option of, respectively, signing the fireworks petition, signing the guns petition, and reporting participation in the National Strike. Column 3 focuses on a pooled sample of all subjects facing low-cost political participation.<sup>11</sup>

The explanatory variables in the regression include our baseline measures of social preferences observed in Stage 1. We can see that higher baseline levels of altruism and trust, indicated by higher transfers in the DG and TG in Stage 1, are not associated with higher probability of participation. A higher baseline level of trustworthiness, observed from the percentage of transfer that subjects sent back in the TG, is similarly not correlated with political participation, except for the fireworks petition. Overall, we see little evidence that subjects who choose political participation are more prosocial. This suggests that any differences in prosocial behaviour in Stage 3

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<sup>11</sup>Table 5 in the Appendix presents the results of these regressions including coefficients on other control variables.

Table 1: Decision to participate in collective action

Dep Var: Petition signed/Participated in protests	(1)	(2)	(3)	(5)
	Fireworks	Guns	F & G	Strikes
Left-right spectrum	-0.006 (0.056)	0.008 (0.055)	-0.034 (0.041)	-0.040 (0.062)
Generalised trust	-0.217** (0.088)	-0.199** (0.079)	-0.164** (0.066)	0.106 (0.127)
High valuation of petition	0.340*** (0.092)	0.278*** (0.089)	0.398*** (0.064)	0.051 (0.109)
Sent DG stage 1	-0.023 (0.038)	0.014 (0.033)	0.000 (0.028)	-0.022 (0.040)
Sent TG stage 1	0.033 (0.029)	0.002 (0.028)	0.015 (0.022)	0.007 (0.034)
Percent sent back TG stage 1	0.523*** (0.175)	-0.055 (0.207)	0.158 (0.149)	0.229 (0.282)
Constant	0.088 (0.223)	0.015 (0.273)	0.115 (0.185)	0.880*** (0.314)
Observations	110	110	220	87
R-squared	0.304	0.303	0.244	0.214

Notes: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . Robust standard errors in parentheses. Dependent variable is whether individual signed the petition or participated in the protest. Self-reported position in the left-right spectrum ranges from 1 (left-wing) to 5 (right-wing). Generalised trust is a dummy that equals 1 if individual thinks that one can trust in people. High valuation of the cause refers to a subject's answer to a question about her valuation of the type of political participation that she faced at stage 2. Control variables include gender, semester of study, whether the subject studies economics, socioeconomic stratum, self-reported willingness to take risks, and depth of reasoning measured by a beauty contest game.

are driven by the experience of political participation and knowledge about participation by the partner in DG and TG, rather than by initial prosocial preferences.

Furthermore, the results indicate that while subjects who value the cause more are more likely to participate in it, participation is not correlated with a subject's overall position in the left-right political spectrum. Hence, participation is unlikely to be a signal of broader political identity.

### 3.3 Low-cost participation and identity

We now turn to the main results of the paper: the effect of participating in collective action on pro-social preferences. In Figure 1 we present the amount senders sent to receivers in Stage 3 depending on their political participation. Panel (a) presents the decisions observed in the Dictator Game, and panel (b) presents those in the Trust Game. Decisions from subjects that face the guns (fireworks) rights online petition are shown in the left (right) panels.

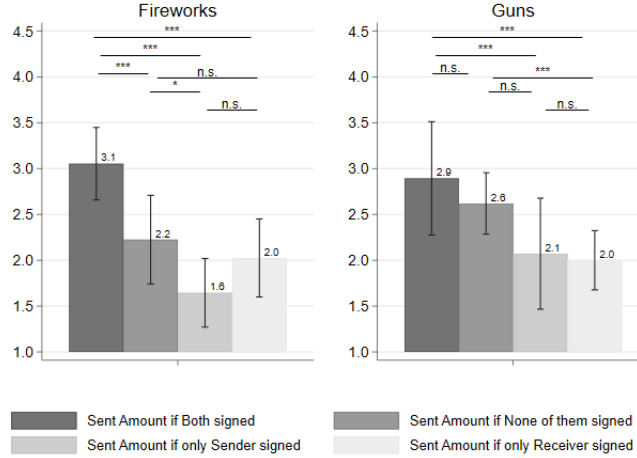
One can see that in both TG and DG, the largest amounts are transferred in pairs in which both the sender and the receiver had signed the petition. This indicates that both trust and altruism are the largest in such pairs. In particular, a sender who signs the petition tends to transfer significantly more to a receiver who signed it than to a receiver who did not sign it. This suggests substantial in-group favouritism induced by a shared experience of political participation.

The result that shared political participation induces in-group favouritism also holds when controlling for baseline levels of trust and altruism. These results are shown in Table 6 in the Appendix, which shows that subjects who signed the petition send more experimental tokens to receivers who sign it than to receivers who do not sign it.

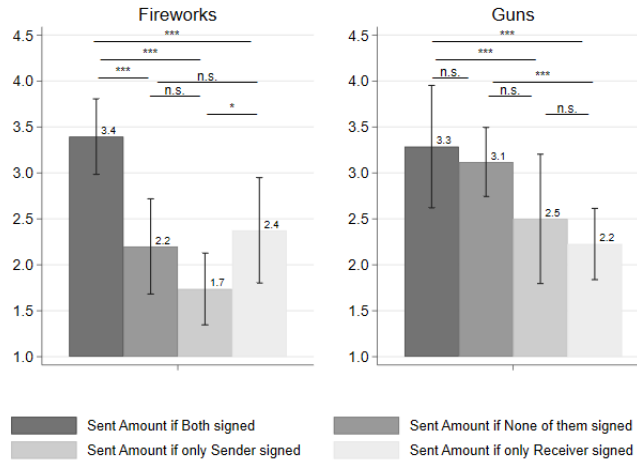
The largest effect of signing the petition is observed for the fireworks petition; furthermore, receivers who choose not to sign the fireworks petition receive the smallest amount sent by senders. Additionally, as usually found in the literature, subjects transfer larger amounts when playing the Trust Game than in the Dictator Game.

To investigate the emergence of in-group favouritism further, we analyse the behaviour of senders when matched with in-group and out-group receivers. For a sender who signs the petition, an in-group receiver is someone who also signs the

Figure 1: Amount sent by Sender, in Dictator and Trust Games, based on political participation decisions and online petition



(a) Dictator Game



(b) Trust Game

petition, while an out-group receiver is someone who does not sign it. For a sender who does not sign the petition, an in-group receiver is someone who does not sign it, while an out-group receiver is someone who signs it. Our variable of interest

is the difference between a sender's average transfer to an in-group receiver and a transfer to an out-group receiver. The size of the difference indicates the magnitude of in-group favouritism.

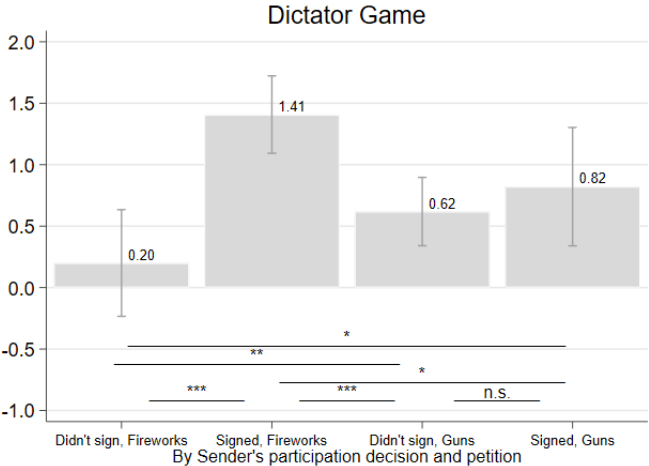
Figure 2 presents the results. We can observe that in the guns petition, both signing and not signing seems to create in-group favouritism, and the difference in the magnitude of in-group favouritism for each group is not significant. On the other hand, not signing the fireworks petition does not create in-group favouritism, while signing it does. This suggests that the effect of political participation on social preferences depends on the nature of the political initiative at stake.

We then turn to analysing the effect of signing the petition on trustworthiness. Recall that each subject was asked how much, for each amount received in the Trust Game, she would transfer back to a subject who signed the petition and to a subject who did not sign it. Figure 3 shows the linear predictions of the amount a receiver transfers back to the sender depending on the amount that the sender sends. Each of the four lines corresponds to a different combination of sender and receiver depending on their political participation decisions. For each petition, we observe the most trustworthiness – that is, the largest amount sent back – between a sender and a receiver who both signed the petition; the difference is especially pronounced for the fireworks petition.

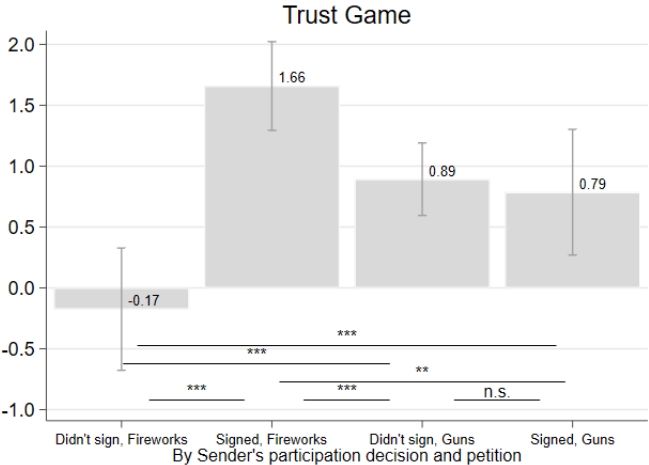
Overall, the results suggest that signing the online petition leads to more altruism, trust, and trustworthiness within a pair of subjects who sign it than within other pairs of subjects.



Figure 2: Difference between the amount sent by the sender to an in-group and an out-group receiver based on the sender's political participation, by game and petition

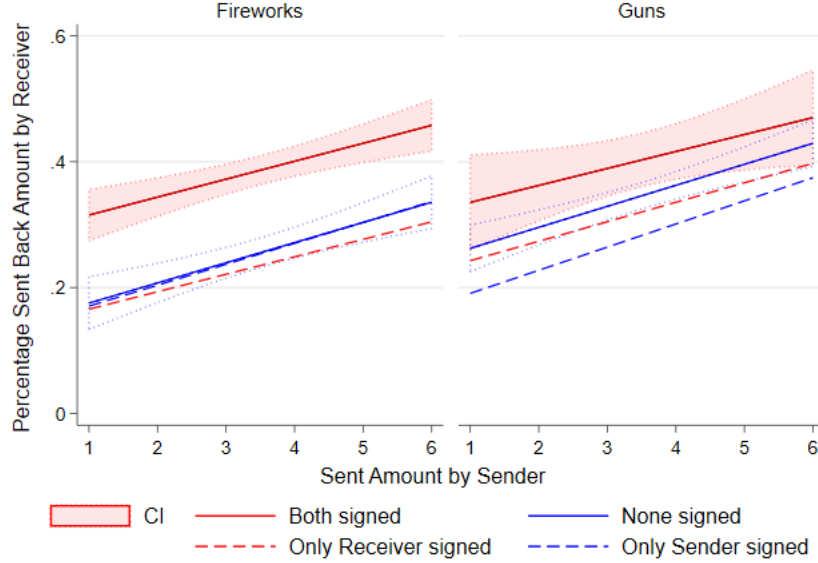


(a) Dictator Game



(b) Trust Game

Figure 3: Percentage Sent Back, in the Trust Game, to an In-Group (solid) or Out-Group (dashed) Sender by Receiver’s signing decision (Yes = Red, No = Blue).

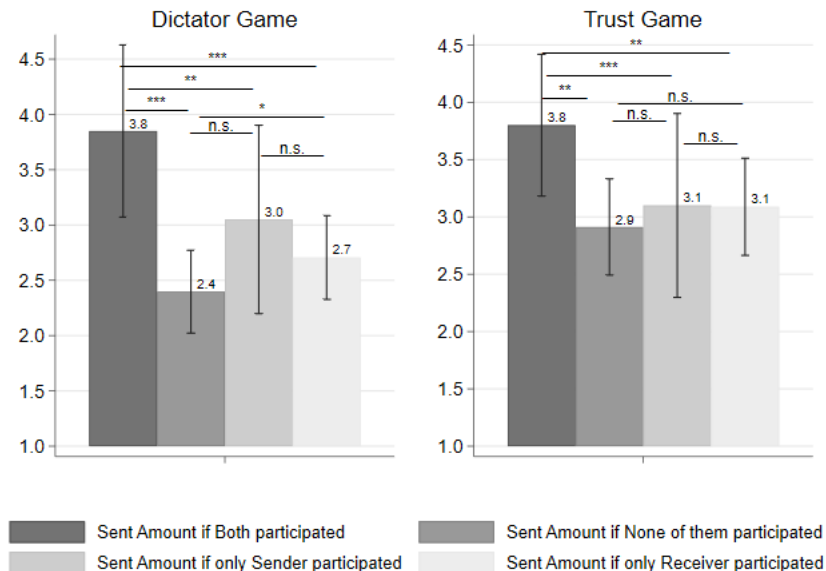


### 3.4 High-cost participation and identity

When political participation takes the form of public protests, the results are similar to the ones observed for low-cost participation. Figure 4 presents the data on the amount sent by senders in DG and TG depending on sender’s and receiver’s reported participation in the protests. In line with the previous results, it shows that there is significantly more altruism and more trust between a sender and a receiver who participated in the protests than in any other pairing.

Figure 5 presents the amount sent back in the TG by a receiver depending on the amount she received and the participation of the receiver and the sender. It shows that for each token amount received, the receiver sends significantly more when both she and the sender participated in the protests. This suggests that there is significantly more trustworthiness between a pair of subjects who both participated

Figure 4: Amount sent by Sender, in Dictator and Trust Games, based on strike participation



in the protests, again confirming the previous results.

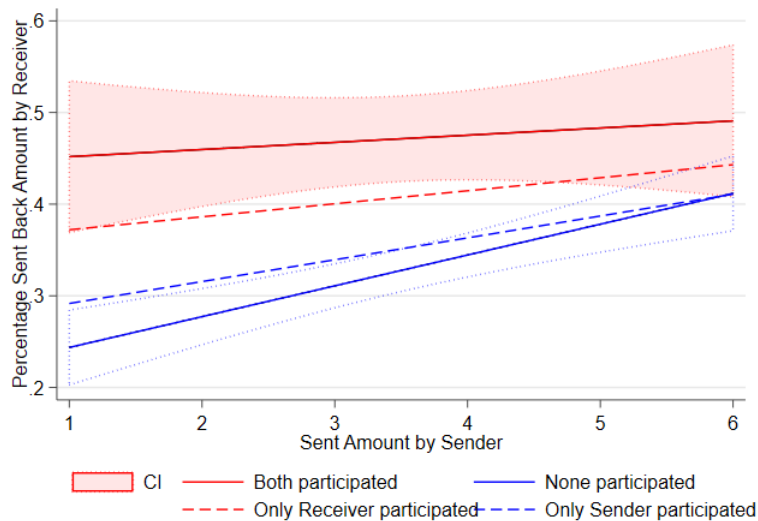
### 3.5 Estimation of behavioural parameters

To further explore the effect of shared political participation on prosocial preferences, we develop a simple model of prosocial preferences and estimate it using the data from our experiment.

Consider an agent  $i$  facing an agent  $j$ . They have endowments  $m_i$  and  $m_j$  tokens, respectively. Agent  $i$  is the decision maker – this can be the sender in the dictator game or the receiver in the second stage of the trust game<sup>12</sup> – and can choose to

<sup>12</sup>In the structural estimation, we are not using data from the sender’s decisions in the trust game. These decisions depend on the sender’s prosocial preferences and beliefs about the receiver’s preferences. Explicitly modelling such decisions would make the model highly sensitive to assumptions about belief formation while requiring us to make parametric assumptions about ex-ante

Figure 5: Percentage Sent Back, in the Trust Game, to an In-Group (solid) or Out-Group (dashed) Sender by Receiver’s strike participation.



transfer  $x \in [0, m_i]$  to agent  $j$ . As a result of the transfer, agent  $j$  receives  $kx$  tokens in addition to her endowment, where  $k \geq 1$  is the efficiency parameter. In our experiment, in the dictator game,  $m_i = 6$ ,  $m_j = 0$ , and  $k = 3$ . In the trust game, after the sender has transferred  $y$  tokens to the receiver, we have  $m_i = 3y$ ,  $m_j = 6 - y$ , and  $k = 1$ .

We assume that agent  $i$  has the following utility function,

$$u_i = (m_i - x)^{1-\alpha_{ij}} (m_j + kx)^{\alpha_{ij}},$$

where  $\alpha_{ij} \in (0, 1)$  is the weight that agent  $i$  places on agent  $j$ 's payoff, and  $1 - \alpha_{ij}$  is the weight she places on her own payoff.<sup>13</sup> Thus,  $\alpha_{ij}$  measures the intensity of agent

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distributions of preferences.

<sup>13</sup>This Cobb-Douglas utility function is a special case of the CES function used in Cox et al. (2007) to estimate prosocial preferences.

$i$ 's prosocial preferences towards agent  $j$ . We assume that  $\alpha_{ij}$  depends on agents' political participation in the following way:

$$\alpha_{ij} = \begin{cases} \beta_i^0 + \beta_i^P & \text{if both } i \text{ and } j \text{ participated in the collective action;} \\ \beta_i^0 + \beta_i^N & \text{if neither } i \text{ nor } j \text{ participated in the collective action;} \\ \beta_i^0 & \text{otherwise.} \end{cases}$$

Thus,  $\beta_i^0$  represents agent  $i$ 's baseline level of prosocial preferences. At the same time,  $\beta_i^P$  and  $\beta_i^N$  represent how her prosocial preferences towards another agent change as a result of, respectively, shared participation and shared non-participation. In other words, a higher value of  $\beta_i^0$  indicates that the agent is generally more prosocial. In contrast, higher values of  $\beta_i^P$  and  $\beta_i^N$  indicate that participation decisions induce a stronger feeling of identity in the agent.<sup>14</sup> Note that  $\beta_i^0$ ,  $\beta_i^P$  and  $\beta_i^N$  are individual-specific, and we are not assuming any particular distributions for these parameters. Our aim is to estimate  $\beta_i^0$ ,  $\beta_i^P$  and  $\beta_i^N$  for each individual.<sup>15</sup>

As agent  $i$  chooses  $x$  to maximise  $u_i$ , we obtain

$$\begin{aligned} \frac{\partial u_i}{\partial x} > 0 &\iff -\frac{1 - \alpha_{ij}}{m_i - x} + k \frac{\alpha_{ij}}{m_j + kx} > 0 \\ &\iff x < \alpha_{ij} m_i - (1 - \alpha_{ij}) \frac{m_j}{k}. \end{aligned}$$

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<sup>14</sup>This way of modelling identity-based preferences as an additive component is broadly similar to the approach of [Chen and Li \(2009\)](#).

<sup>15</sup>Note that, in general, we could also allow  $\alpha_{ij}$  to take different values when only agent  $i$  or only agent  $j$  participates in collective action. However, our data would not allow us to estimate these differences because each subject's participation decision is fixed in Stage 3 of the experiment.

Hence, agent  $i$ 's optimal choice is

$$x = \max \left\{ \alpha_{ij} m_i - (1 - \alpha_{ij}) \frac{m_j}{k}, 0 \right\}. \quad (1)$$

Given the structure of our experiment, we observe the amount an agent  $i$  sends to other subject  $j$  in situation  $r$ ,  $x_{i,r}$ . Situation  $r$  that agent  $i$  faces, when matched with partner  $j$ , is characterised by her endowment, her partner's endowment, the efficiency parameter, and their participation decisions in the collective action stage,  $(m_{i,r}, m_{j,r}, k_r, p_i, p_j)$ . In total, we observe 21 different choices by agent ( $r \in \{1, \dots, 21\}$ ): as a sender in the Dictator Game in Stage 1 (situation  $r = 1$ , where  $m_{i,1} = 6, m_{j,1} = 0, k_r = 3$ ), as a receiver in the Trust Game in Stage 1 for every possible amount received (situations  $r = 1+y$  with  $y \in \{1, \dots, 6\}$ , where  $m_{i,r} = 3y, m_{j,r} = 6-y, k_r = 1$ ), and again in Stage 3 as a sender in the Dictator Game for every possible participation decision of the other agent,  $p_j \in \{0, 1\}$  (situations  $r \in \{8, 9\}$ ), and as a receiver in the Trust Game for every possible  $p_j$  (situations  $r \in \{10, \dots, 21\}$ ). We also know agent  $i$ 's participation decision in the collective action,  $p_i$ . Therefore, we estimate via Non-Linear Least Squares ([Davidson et al., 2004](#)) the empirical counterpart of equation 1, replacing

$$\alpha_{ij} \equiv \beta_i^0 + \beta_i^P \mathbb{1}[p_i = 1, p_j = 1] + \beta_i^N \mathbb{1}[p_i = 0, p_j = 0].$$

Where  $p_i = 1$  if agent  $i$  participates in the collective action,  $p_i = 0$  otherwise.

Note that  $\beta_i^0$  is identified given that we have variation in  $m_{i,r}/m_{j,r}$  and  $k_r$  in some decisions in Stage 1. Additionally, suppose agent  $i$  participated in the collective action of Stage 2 ( $\mathbb{1}[p_i = 1]$ ). In that case,  $\beta_i^P$  is identified because we have variation in both  $m_{i,r}/m_{j,r}$  given the participation and no-participation decision of her partner

*j*. For a similar reason, if agent *i* did not participate ( $\mathbb{1}[p_i = 0]$ ) we can identify  $\beta_i^N$ .

In Figure 6, we plot the kernel density of the estimated pro-social preferences across our experimental subjects. We observe that, on average, agents value every token they keep as the equivalent of 0.424 tokens on their partners' payoff. We reject the hypothesis that our experimental subjects are on average selfish (i.e., we reject  $H_0 : \frac{1}{N} \sum_i \beta_i^0 = 0$ ), and we can see in the figure that most of our subjects place some non-negligible weight on their partners' payoff. Our estimated behavioural parameters reveal that shared participation in collective action is associated with an increase in prosociality equivalent to 0.071 and is statistically different from zero. Additionally, we fail to find evidence that shared non-participation is associated with a larger identity-based social parameter (i.e., we cannot reject  $H_0 : \frac{1}{N} \sum_i \beta_i^N = 0$ ).

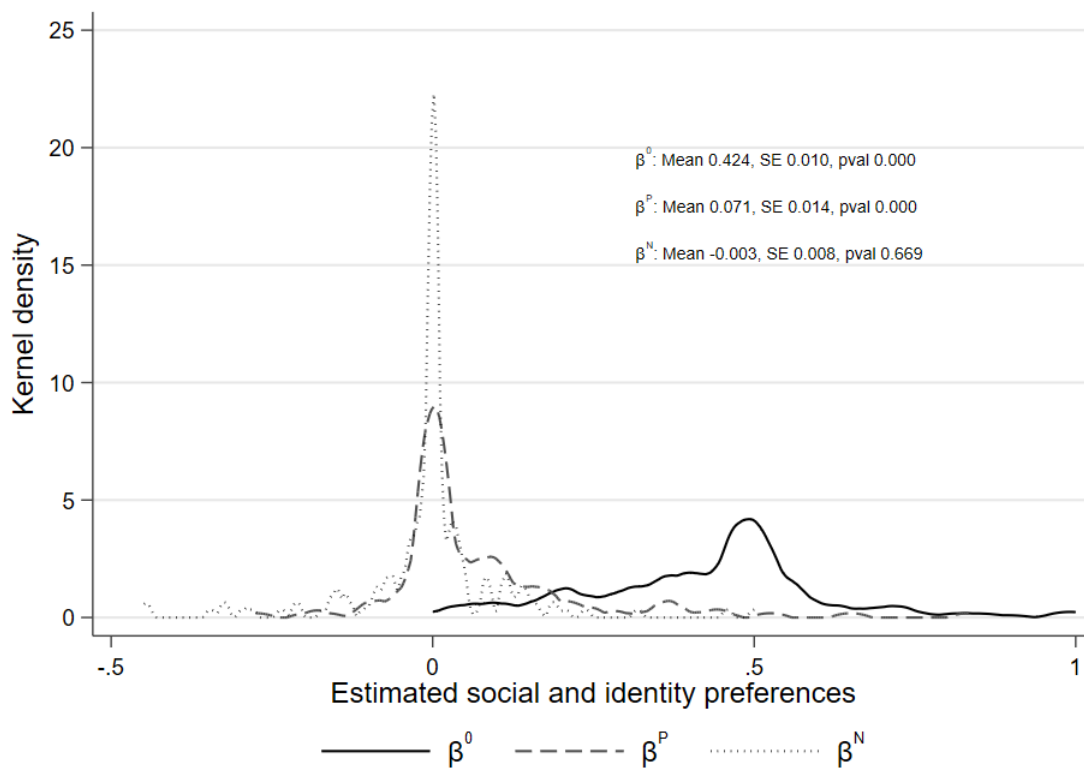
## 4 Discussion

### 4.1 Political participation and payoffs

Our results suggest that political participation makes an individual part of a group with considerable in-group favouritism. When interacting with other participants, an individual is likely to experience higher trust, trustworthiness, and altruism if she participates. Hence, the payoff of a participant is likely to be larger than that of a non-participant, and the difference should be increasing in the probability that a person with whom she interacts is also a participant – that is, in the share of people in her social circle who participate.

In this section, we investigate this conjecture, using the fact that the fraction of our subjects signing the fireworks petition was 65.5%. In contrast, the fraction of subjects signing the guns petition or reporting participation in the National Strike

Figure 6: Kernel density of the estimated baseline ( $\beta^0$ ) and identity-based ( $\beta^P, \beta^N$ ) prosocial preferences



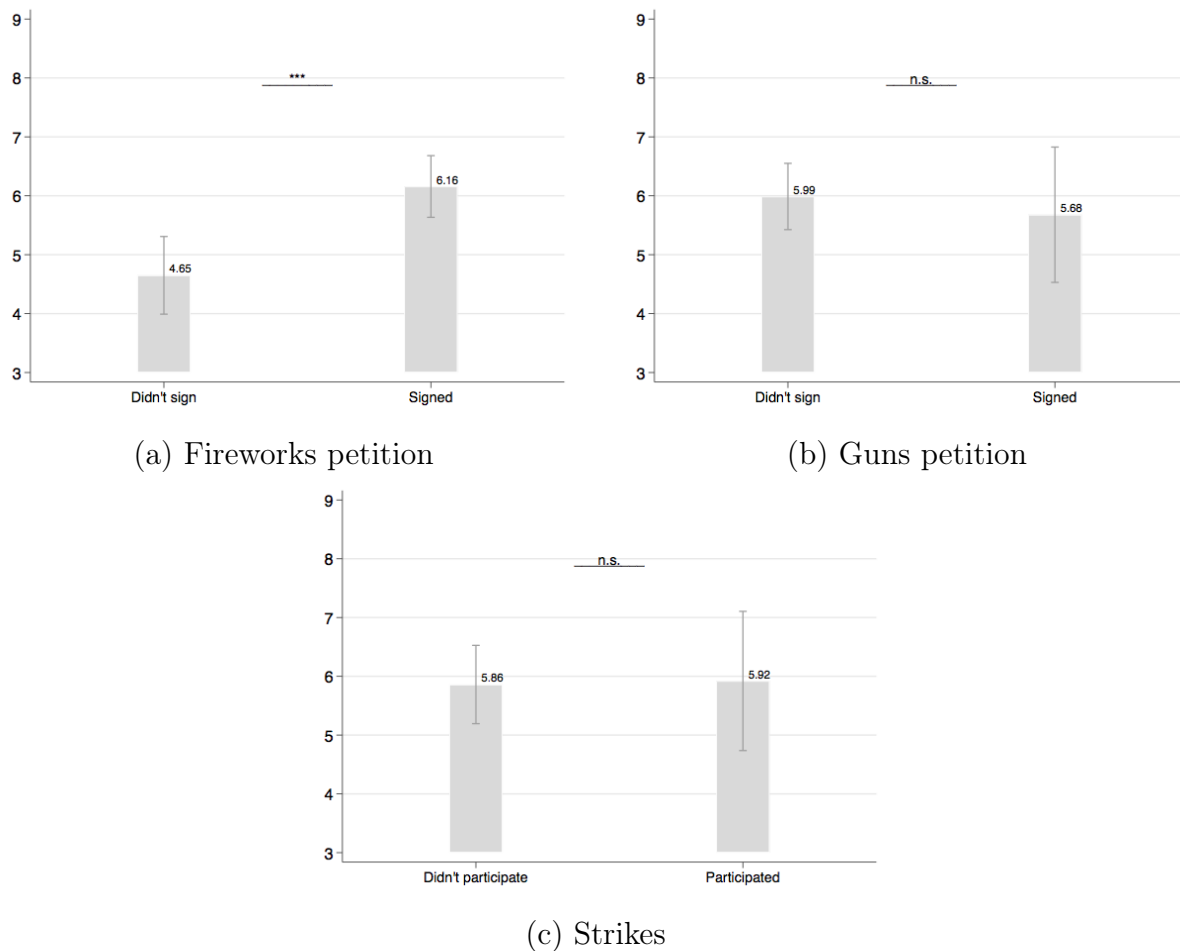
was substantially smaller (respectively, 25% and 22.5%). The previous discussion suggests that the positive effect of political participation on payoffs should be especially pronounced for subjects facing the fireworks petition and less large for subjects facing the guns petition or the strike.

Figure 7 shows the overall payment our subjects would have received had the payoffs from Stage 3 been realised as the experimental payments. As expected, subjects who sign the fireworks petition (panel a) receive significantly higher payoffs. For the less popular guns petition (panel b), the differences in payoffs of subjects



who sign the petition and of those who do not is not significant. Panel (c) repeats the analysis for high-cost participation. As with the gun petition, participation has no statistically significant effect on payoffs.

Figure 7: Expected experimental payment in Trust Game Stage 3 by subjects political participation decision and petition/strike



In Table 2, we show that the results are driven by higher payoff subjects receive in the role of receivers. That is, in the more popular fireworks petition, subjects who sign it obtain greater payoffs as a result of experiencing greater trust and altruism.

Table 2: Experimental payoffs by petition, game and signing decision

Dep var: Payoff as a	Fireworks				Guns			
	Dictator Game		Trust Game		Dictator Game		Trust Game	
	Sender (1)	Receiver (2)	Sender (3)	Receiver (4)	Sender (5)	Receiver (6)	Sender (7)	Receiver (8)
Petition Signed	0.102 (0.342)	2.711** (1.168)	1.241** (0.486)	1.751** (0.852)	0.281 (1.174)	-0.520 (0.590)	0.112 (0.893)	-0.550 (0.638)
Constant	4.310*** (0.948)	5.419* (2.744)	5.741*** (1.620)	5.784** (2.371)	5.157*** (0.893)	10.103*** (3.120)	4.471** (2.022)	10.620*** (2.406)
Observations	110	110	110	110	110	110	110	110
R-squared	0.175	0.078	0.121	0.121	0.335	0.059	0.075	0.287

Notes: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . Robust standard errors are in parentheses. Columns (1) to (4) use data from the Guns petition, while columns (5) and (8) restrict the estimation to data from the Fireworks petition. The dependent variable is the Payoff a subject would have gotten had the conditions in the columns been chosen to determine the final payment of the experiment. Controls include whether the subject is female, socio-economic strata (from 1 to 6), academic semester, whether studying an economics-related major, self-reported willingness to take risks, generalized trust, political spectrum (from 1-left to 5-Right), the average percentage sent back as Receiver in TG Stage 1, and the answer to a beauty contest question. Observations when adding controls dropped because 2 subjects in the Guns petition, and 6 in the Fireworks petition, did not reply to the socio-economic stratum question.

## 4.2 Expectations and decision to participate

If participation in a popular political cause results in higher payoffs for participants in subsequent social interactions, individuals may consider this when deciding whether to participate. In particular, an individual who expects more people in her social network to participate will, *ceteris paribus*, be more likely to participate herself than someone who does not expect widespread participation among her peers.

To test this mechanism, we conducted additional sessions, in which subjects were informed at the participation stage that they will play DG and TG again after choosing their participation decision. These subjects were then asked to estimate the percentage of other subjects who decided to participate. We then regress the dummy indicating whether the subject participated based on her beliefs about participation by others. We only conducted these sessions with the two online petitions, as the

decisions to participate in the National Strike had been made prior to the experiment.

Table 3: Decision to participate in collective action

Dep Var: Signed the petition	
	Fireworks & Guns
Beliefs about % signing	0.145*** (0.046)
Left-right spectrum	-0.076 (0.056)
Generalised trust	-0.040 (0.131)
High valuation of petition	0.465*** (0.092)
Sent DG stage 1	0.032 (0.029)
Sent TG stage 1	-0.038 (0.026)
Percent sent back TG stage 1	-0.260 (0.244)
Constant	0.656** (0.312)
Observations	99
R-squared	0.456

Notes: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . Robust standard errors are in parentheses. The dependent variable is whether the individual signed the petition or participated in the protest. Beliefs about % signing are standardised. Self-reported position in the left-right spectrum ranges from 1 (left-wing) to 5 (right-wing). Generalised trust is a dummy that equals 1 if the individual thinks that one can trust in people. The high valuation of the cause refers to a subject's answer to a question about her valuation of the type of political participation that she faced at stage 2. Control variables include gender, semester of study, whether the subject studies economics, socioeconomic stratum, self-reported willingness to take risks, and depth of reasoning measured by a beauty contest game.

The results are presented in Table 3. As the results show, a subject's standardised belief about the percentage of other subjects signing the petition is positively related to her probability of signing the petition. In particular, an increase of one standard deviation in the perceived share of participants among other subjects leads to a 14.5 percentage points increase in the probability of signing the petition.

One potential alternative explanation for this effect is informational herding: subjects who, for some reason, believe that many others will sign the petition may conclude that it is a more worthy cause and hence be more likely to sign it themselves.

Note, however, that expectations about the participation of others have a positive effect on the individual probability of signing the petition, even conditional on the valuation of the petition. Furthermore, we have analysed the potential herding effect by giving subjects different messages about the number of existing signatures under the petition.<sup>16</sup> The results (see Figure 12 in the Appendix) do not show any evidence of herding.

This suggests that there is considerable space for coordination in political collective action. In particular, technologies such as social media, which make it easier for citizens to communicate their participation choices, can substantially affect the ability of social movements to organise. At the same time, this also means that citizens will also be *willing* to reveal their decisions to participate, as this would encourage participation by others.

### 4.3 Minimal identity

Can our results be driven by some mechanism other than the identity-building effect of political participation? One alternative explanation for the in-group favouritism that we observe is minimal identity. When using the strategy method, we label other participants as having signed or not having signed the petition. It may be that it is this labelling, rather than the act of signing the petition, that induces the identity and creates in-group favouritism. Such “minimal identity” has been observed in prior experiments (Chen and Li, 2009).

If minimal identity underlies our results, then having signed the petition and not

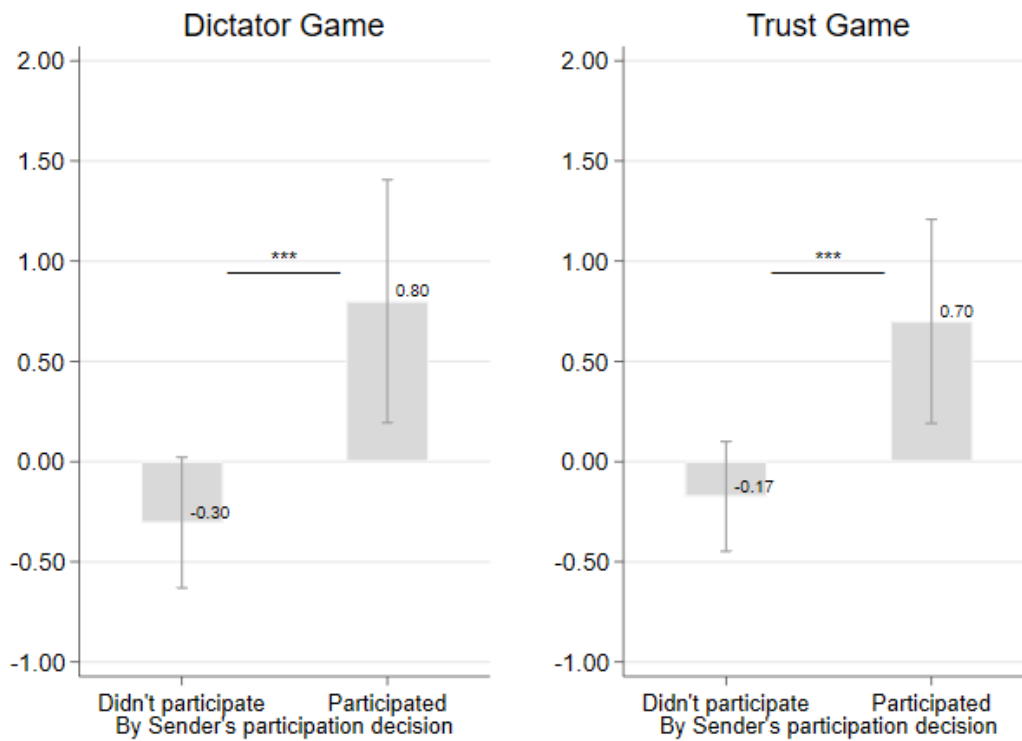
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<sup>16</sup>Before deciding over signing the petition, our subjects receive a message without deception, stating that “More than  $n$  people have already signed the petition”, where  $n$  was a round number that was smaller than the actual number of signatures that the online petition had already gathered at the beginning of the lab experiment. In the experiment,  $n$  could take two values: low (equal to 2, 137 signatures) or high (equal to 21, 370 signatures).

having signed the petition should create similar identity effects. However, as our previous results on low-cost participation suggest, at least in the fireworks petition, the in-group bias is considerably higher among those who sign the petition than among those who did not.

We observe similar outcomes for high-cost participation. Figure 8 shows that, as with the previous results, shared participation gives rise to substantial in-group favouritism, while shared non-participation does not. Hence, as before, the results cannot be explained by minimal identity.

Figure 8: Difference between the amount sent by the sender to and in-group and to an out-group receiver based on the sender's strike participation, by game



This suggests that minimal identity alone cannot explain our results.

## 4.4 Signalling existing identity

Another possible explanation is that the act of participation in collective action signals an existing identity rather than building a new one. It is possible that signing the petition or participating in the protest reveals a person's wider political affiliation. Note, however, that Table 1 suggests that a subject's position on the political spectrum is not correlated with her decision to sign the petition or participate in the National Strike.

Nevertheless, it is possible that agreeing with a particular narrow cause is a type of political identity in itself. For example, a subject who signed the fireworks petition may be likely someone who is in favour of animal rights. When she sees another subject who signed it, she may deduce that the other subject is also an animal rights supporter. She may then feel more trusting or altruistic towards that subject because of the shared existing identity.

To check this explanation, we ask subjects in the end-line questionnaire how worthy they think the cause of the petition is, on a scale from 1 to 5. Predictably, nearly all subjects who had a low valuation of the cause did not sign the petition. However, out of those with a high valuation, some signed while some did not, probably because of the effort cost involved.<sup>17</sup>

If the observed in-group bias is entirely generated by an existing identity, then the act of political participation by a sender should not change a sender's behaviour. Thus, a sender who values the cause highly but did not participate should behave the same way towards a receiver as a sender who values the cause highly and did participate.

However, our results show a different dynamic. Figure 9 shows the magnitude of

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<sup>17</sup>Recall that subjects who signed the petition were required to formulate their reasons for doing so.

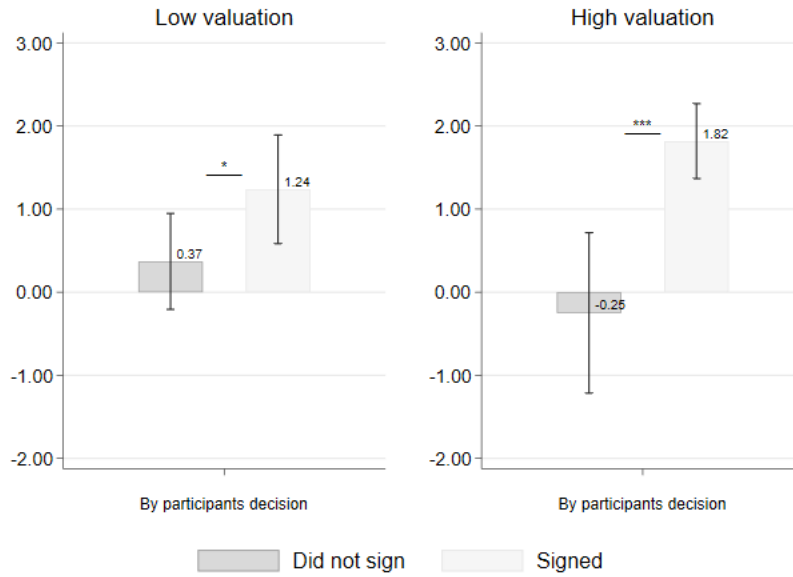
the in-group bias observed from the trust game for low-cost participation. For low (1-3) and high (4-5) valuation of the cause, and for each signing decision of a sender, the figure shows the difference between the amount transferred to a receiver who signed the petition and the amount transferred to a receiver who did not sign. Out of senders with a high valuation,<sup>18</sup> this difference is positive for those who signed the petition, and negative or zero for those who did not sign.<sup>19</sup>

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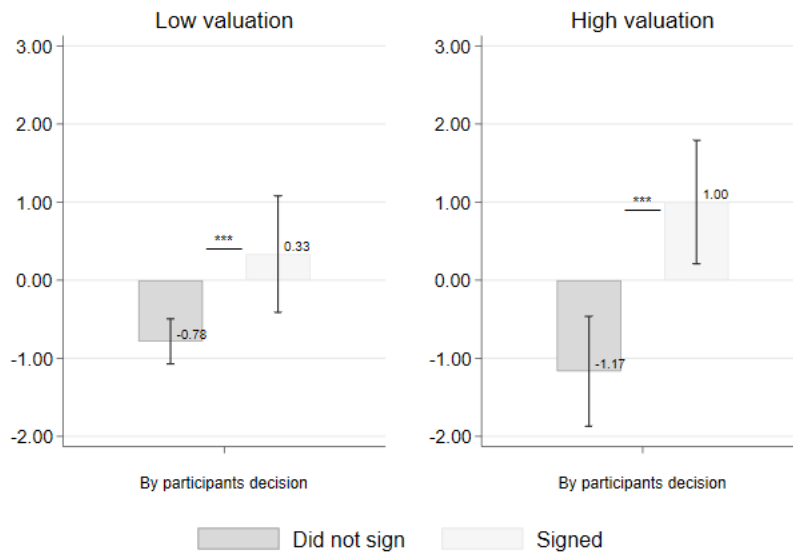
<sup>18</sup>We focus on senders with high valuation because, as mentioned earlier, of the senders with a low valuation, very few signed the petition

<sup>19</sup>Similar results emerge if valuations are not aggregated into low or high.

Figure 9: Difference between amount sent in TG to a receiver who signed the petition and the amount sent to a receiver who did not sign it, by sender's participation



(a) Fireworks petition



(b) Guns petition



Thus, conditional on the valuation of the cause, the act of signing the petition induces in-group bias.<sup>20</sup>

## 5 Conclusions

This paper has studied the effect of participation in political collective action on subsequent social interactions between participants. A laboratory experiment has shown that shared participation creates a group identity. As a consequence, there is significantly more pro-social behaviour between two participants than between two non-participants or between a participant and a nonparticipant. Hence, participation brings personal payoffs to participants, and these payoffs are greater when a larger fraction of one's social network participates. Thus, participation decisions are strategic complements within a network of social contacts, but not necessarily within a population as a whole.

One feature of this study is that it modelled participation as a one-shot decision. While some types of collective action have this feature, other types involve persistent participation – for example, through street protests that are repeated at regular intervals. In these cases, individual participation is not a binary decision but can vary in intensity. Future research can look at whether the intensive margin of participation affects the intensity of pro-social behaviour that emerges between fellow participants.

At the same time, the long-term effects of participation on identity remain unclear. Does shared group identity persist long after the collective action has finished, or does it quickly decay? Do social interactions between fellow participants help maintain the shared identity? Future research can address these questions.

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<sup>20</sup>For high-cost participation, in-group bias is also higher for subjects who participated, but the difference is not statistically significant. This is probably because the sample was substantially smaller. See Figure 13 in the Appendix for the corresponding result.

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## A Additional Figures and tables

Table 4: Descriptive statistics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Mean	Sd	Mean by Type of Participation			P-value for $H_0$		
			Fireworks	Guns	Strikes	(3)=(4)	(3)=(5)	(4)=(5)
Female	0.57	0.5	0.63	0.52	0.57	0.103	0.457	0.431
Semester	5.53	3.1	5.45	5.62	5.52	0.71	0.881	0.815
Economics Degree	0.15	0.36	0.14	0.19	0.13	0.276	0.838	0.216
Socioeconomic Stratum	3.7	1.23	3.69	3.73	3.67	0.828	0.891	0.731
Left-right Spectrum	2.76	0.81	2.7	2.85	2.72	0.152	0.837	0.267
Beauty Contest	36.34	21.79	35.94	33.32	40.65	0.356	0.149	0.02
WT Risk	6.42	1.84	6.34	6.35	6.6	0.941	0.322	0.366
Generalised Trust	0.28	0.45	0.38	0.27	0.17	0.085	0.001	0.091
<i>Stage 1 variables</i>								
Sent in DG	2.41	1.43	2.28	2.36	2.63	0.658	0.106	0.205
Sent in TG	3.29	1.71	3.21	3.36	3.3	0.508	0.717	0.789
% Sent Back TG	0.36	0.21	0.33	0.37	0.38	0.262	0.08	0.534
Observations	307		110	110	87			

Notes: Variables correspond to reported academic semester, political spectrum (from 1-left to 5-Right), the answer to a beauty contest question, WT Risk: self reported willingness to take risks (from 1 to 10), Generalised trust is 1 if individual thinks that one can trust in people, whether subject is female, whether studying economics or business administration, socio-economic strata (from 1 to 6), percentage sent back in Stage 1, sent amount in trust game Stage 1, and sent amount in dictator game stage 1.

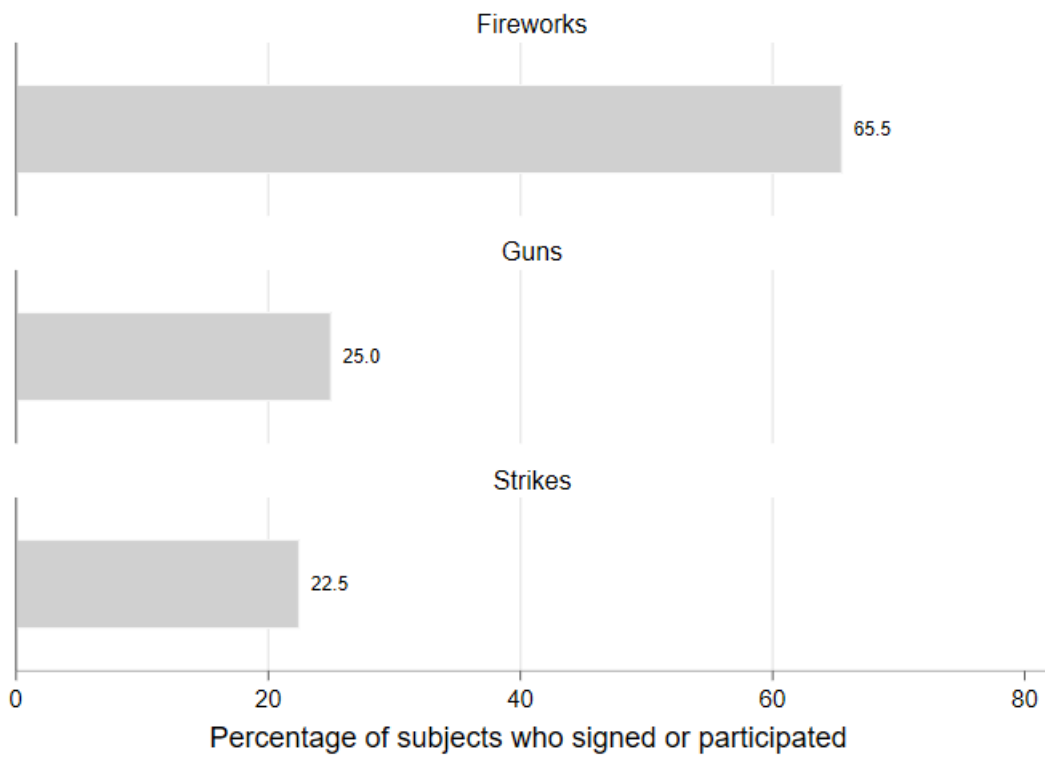


Figure 10: Petition and protest participation

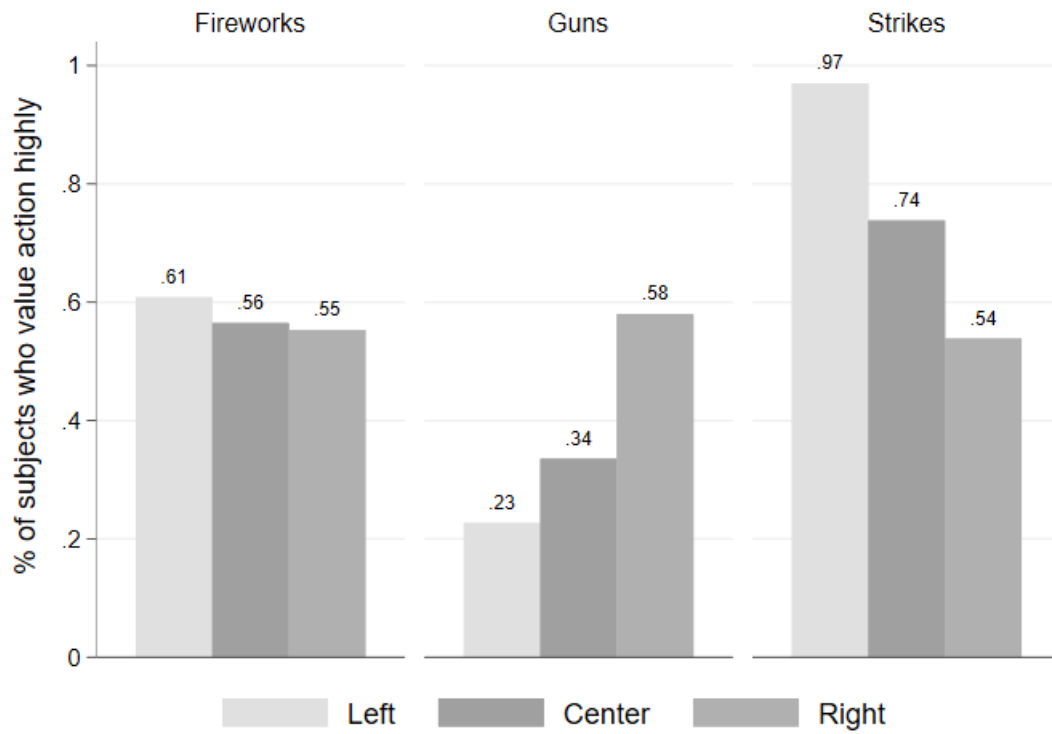


Figure 11: Petition and protest valuation by political position



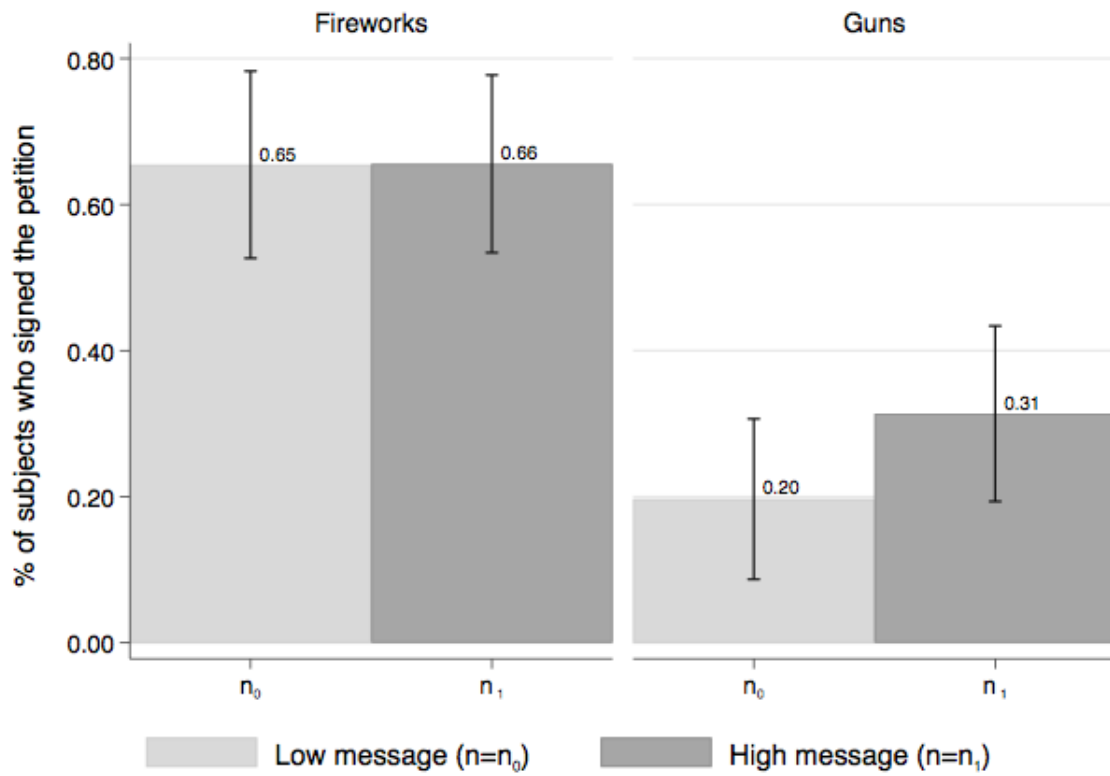


Figure 12: Herding motives,  $n_0 < n_1$

Table 5: Decision to participate in collective action

Dep Var: Petition Signed/Participated in strike					
	(1)	(2)	(3)	(4)	(5)
	Fireworks	Guns	F & G	F & G <sup>†</sup>	Strikes
Female	0.115 (0.094)	-0.045 (0.076)	0.023 (0.064)	0.004 (0.085)	0.009 (0.099)
Semester	-0.007 (0.013)	0.003 (0.011)	-0.003 (0.009)	-0.001 (0.015)	-0.007 (0.018)
Economic Degree	-0.098 (0.123)	-0.008 (0.091)	-0.071 (0.084)	0.196 (0.148)	0.023 (0.127)
Strata	0.022 (0.037)	-0.075** (0.035)	-0.017 (0.027)	0.054 (0.041)	-0.142*** (0.036)
Political spectrum	-0.006 (0.056)	0.008 (0.055)	-0.034 (0.041)	-0.076 (0.056)	-0.040 (0.062)
Beauty contest	-0.003 (0.002)	0.005** (0.002)	0.002 (0.002)	-0.004** (0.002)	-0.001 (0.002)
WT risk	0.037 (0.023)	0.041* (0.021)	0.031* (0.018)	-0.017 (0.027)	-0.010 (0.029)
Generalised Trust	-0.217** (0.088)	-0.199** (0.079)	-0.164** (0.066)	-0.040 (0.131)	0.106 (0.127)
High valuation of petition	0.340*** (0.092)	0.278*** (0.089)	0.398*** (0.064)	0.465*** (0.092)	0.051 (0.109)
Beliefs about % signing				0.145*** (0.046)	
Sent DG stage 1	-0.023 (0.038)	0.014 (0.033)	0.000 (0.028)	0.032 (0.029)	-0.022 (0.040)
Sent TG stage 1	0.033 (0.029)	0.002 (0.028)	0.015 (0.022)	-0.038 (0.026)	0.007 (0.034)
Per sent back TG Stage 1	0.523*** (0.175)	-0.055 (0.207)	0.158 (0.149)	-0.260 (0.244)	0.229 (0.282)
Constant	0.088 (0.223)	0.015 (0.273)	0.115 (0.185)	0.656** (0.312)	0.880*** (0.314)
Observations	110	110	220	99	87
R-squared	0.304	0.303	0.244	0.456	0.214

Notes: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . Robust standard errors in parentheses. Dependent variable is whether individual signed the petition or participated in the national strike. Variables correspond to whether subject is female, reported academic semester, political spectrum (from 1-left to 5-Right), the answer to a beauty contest question, WT Risk: self reported willingness to take risks (from 1 to 10), Generalised trust is 1 if individual thinks that one can trust in people, whether studying economics or business administration, socio-economic strata (from 1 to 6), average percentage sent back as Receiver in TG Stage 1, sent amount as Sender in TG Stage 1, sent amount as Sender in DG stage 1, whether subject responded she value highly the cause of the petition, and elicited beliefs about % of subjects signing the petition (standardised by Petition treatment). <sup>†</sup> Includes observations from only an additional treatment where we recover subjects' beliefs about the percentage of participants in the session who will sign the petition.

Table 6: Difference between the amount sent to a receiver who signed the petition and the amount sent to a receiver who did not sign, by petition, in TG

	Fireworks					Guns				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>Dep Var: (amount sent to Receiver who signed) - (amount sent to Receiver who did not sign)</b>										
Petition signed	1.483*** (0.278)	1.463*** (0.283)	1.413*** (0.273)	1.441*** (0.278)	1.358*** (0.304)	1.679*** (0.313)	1.705*** (0.317)	1.692*** (0.316)	1.707*** (0.321)	1.684*** (0.339)
Sent DG Stage 1		0.056 (0.114)		-0.106 (0.124)	-0.189 (0.146)		-0.078 (0.091)		-0.058 (0.119)	-0.033 (0.117)
Sent TG Stage 1			0.262*** (0.092)	0.298*** (0.097)	0.362*** (0.114)			-0.056 (0.094)	-0.037 (0.115)	-0.056 (0.129)
Constant	0.175 (0.188)	0.061 (0.283)	-0.632** (0.317)	-0.524 (0.352)	-0.016 (0.793)	-0.893*** (0.147)	-0.715*** (0.229)	-0.707** (0.274)	-0.637** (0.252)	-0.912 (1.129)
Controls	No	No	No	No	Yes	No	No	No	No	Yes
Observations	116	116	116	116	110	112	112	112	112	110
R-squared	0.164	0.166	0.234	0.240	0.314	0.221	0.225	0.225	0.227	0.271

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Robust Standard errors in parentheses. Columns (1) to (5) use data from the Guns petition while columns (6) and (10) restrict the estimation to data from the Fireworks petition. Dependent variable is the difference between the amount sent to a receiver who signed the petition and the amount sent to a receiver who did not sign the petition. DG: Dictator Game. TG: Trust Game. Controls include whether subject is female, socio-economic strata (from 1 to 6), academic semester, whether studying an economics related major, self reported willingness to take risks, generalized trust, political spectrum (from 1-left to 5-Right), average percentage sent back as Receiver in TG Stage 1, and the answer to a beauty contest question. Observations when adding controls drop because 2 subjects in the Guns petition and 6 in the fireworks petition did not reply to the socio-economic stratum question.

Table 7: Difference in amount sent, in the Trust Game, to Receiver who participated - amount sent to Receiver who did not participated in the National Strike

	<b>Dep Var: (amount sent to Receiver who participated) - (amount sent to Receiver who did not participate)</b>				
	(1)	(2)	(3)	(4)	(5)
Participated in strike	0.526* (0.293)	0.528* (0.298)	0.536* (0.292)	0.532* (0.291)	0.563* (0.286)
Sent DG Stage 1		-0.013 (0.104)		0.058 (0.096)	0.045 (0.082)
Sent TG Stage 1			-0.091 (0.089)	-0.122 (0.079)	-0.062 (0.070)
Constant		0.174 (0.137)	0.208 (0.228)	0.474 (0.290)	0.422 (0.317)
Controls		No	No	No	Yes
Observations		89	89	89	87
R-squared		0.036	0.037	0.054	0.330

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Robust standard errors in parentheses. Dependent variable is the difference between the amount sent to a receiver who participated in the strike and the amount sent to a receiver who did not participate in the strike. DG: Dictator Game. TG: Trust Game. Controls include whether subject is female, socio-economic strata (from 1 to 6), academic semester, whether studying an economics related major, self reported willingness to take risks, generalized trust, political spectrum (from 1-left to 5-Right), average percentage sent back as Receiver in TG Stage 1, and the answer to a beauty contest question. Observations when adding controls drop because 2 subjects in the Strike Treatment did not reply to the socio-economic stratum question.

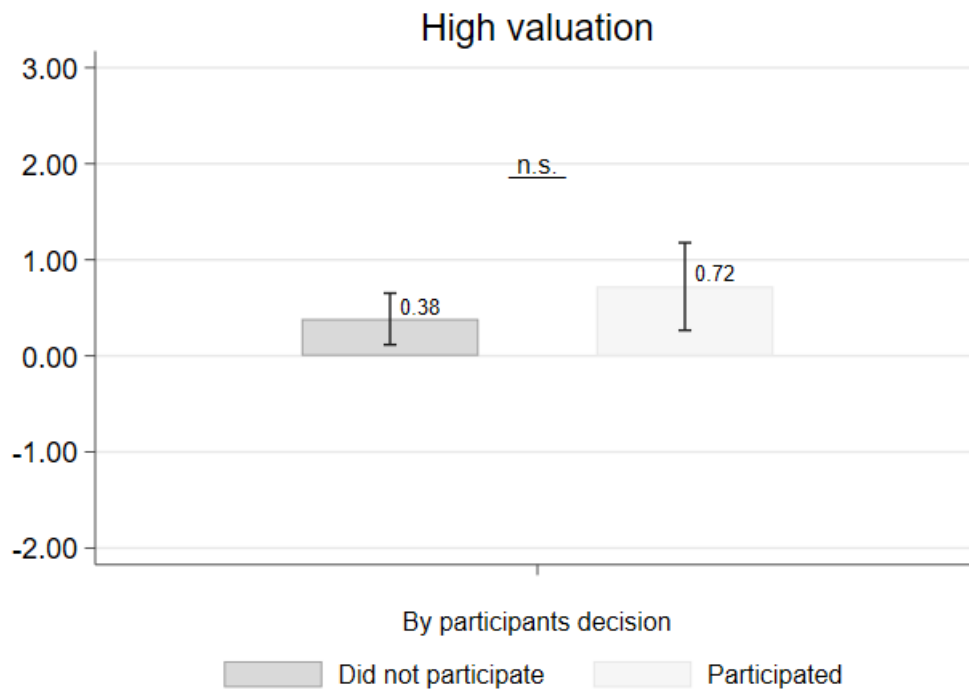


Figure 13: Difference between amount sent, in the Trust Game, to a Receiver who participated and the amount sent to a Receiver who did not participate if the valuation of protests' cause is high

Table 8: Experimental payoffs by game and strike participation decision

Dep var: Payoff as a	Dictator Game		Trust Game	
	Sender (1)	Receiver (2)	Sender (3)	Receiver (4)
Participated in strike	-0.691 (0.505)	0.129 (1.645)	0.585 (0.746)	-1.228 (1.061)
Constant	4.843*** (1.050)	7.647** (3.549)	6.638*** (1.698)	10.391*** (2.999)
Observations	87	87	86	86
R-squared	0.282	0.069	0.089	0.282

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Sobust standard errors in parentheses. Dependent variable is the Payoff a subject would have gotten had the conditions in the columns been chosen to determine the final payment of the experiment. Controls include whether subject is female, socio-economic strata (from 1 to 6), academic semester, whether studying an economics related major, self reported willingness to take risks, generalized trust, political spectrum (from 1-left to 5-Right), average percentage sent back as Receiver in TG Stage 1, and the answer to a beauty contest question. Observations when adding controls drop because 2 subjects in the Strike Treatment did not reply to the socio-economic stratum question. Additionally, in the TG we lost the response function of an additional subject preventing us from computing expected payoffs.

# B Experimental Instructions: Firearms petition

## T2- Weapons Petition

### Introduction

Welcome. We really appreciate your participation in this experiment of **individual** decision.

From this moment on communication with other participants in this virtual room is absolutely prohibited. Please turn off your microphone and your cellphone. **The use of cellphones and calculators is strictly prohibited.**

If you have any question about the experiment, write them in the chat and one of us will answer them. **Do not make questions for the whole room. Make them directly to the moderators.**

All of the information you provide us in this experiment will be used for strictly academic purposes and will not be revealed to anyone. Your decisions and your earnings will be confidential. Nobody will know the decisions you made or how much money you received at the end of the session. Only for your participation until the end of this experiment you will receive COP 10.000. Additionally, depending on your actions and the actions of the rest of the participants, you could earn more money. During the activity we will talk in terms of Experimental Points (EP) instead of Colombian Pesos. Your payment will be calculated in terms of EP and then, at the end of the experiment it will be exchanged into Colombian Pesos following this exchange rate:

$$1 \text{ EP} = 1000 \text{ COP}$$

You will face the Decision Stages during this experiment. In the Stage 1 and 3 you will receive an amount in EP and you will have to make decisions about how to distribute it between you and another participant who will be participating in this same activity. Any interaction will be confidential and any participant will know your identity.

Stage 1 and Stage 3 have two activities and each activity has two rounds. Therefore, at each Stage, you will make 4 decisions.

Just one of those 8 decisions will count for your final payment of the experiment. The computer will randomly choose which decision will determine your final payment.

In contrast, on the Stage 2 you will face an online social campaign and we will ask you your opinion about it.

If you do not will to participate in the experiment, you can leave now. If you will to participate, please read and sign the **Informed Consent** that you will find in the next page.

**Next**

**Informed Consent**  
**Economical Laboratory Experiments**

Dear participant,

You have been invited to participate in a study about people's decision making. At the end of the experiment, you will receive an amount of money depending on your earnings during the exercise and a fix amount only for the fact of participate. When the game is over you will have to answer some questions about the exercise you participated in today. There will be also some questions about you. **The information about your decisions, your earning and the answers in the survey will be confidential and will be used for academic purposes maintaining your anonymity.**

**Methodology:** We will present you, through your computer and virtually, a decision format to distribute amounts between you and other participants, a real online petition and we will ask you your opinion about this social initiative and a final survey of the activity. We will maintain your answers confidential and we will never use them individually. Additionally, throughout the experiment you will receive information about how to answer each stage.

**Research risks:** There is no risk to you for participating in the study.

**Your participation in this exercise is entirely voluntary:** This means that you can retire at any moment.

The amount of money you earn at the end of the exercise will consist of an amount we will give you just for participating until the end (which is the same for all participants), plus an additional amount that will depend on your actions and other participants actions. You will receive that amount after you finish answering the survey. If you would like a copy of this informed consent, please ask us for it.

**Financial benefits of participating:** Just for your participation until the end of this experiment you will receive a monetary compensation between **10.000 and 28.000 COP.**

**Questions:** If you have an additional concern about this study, you can contact the principal researcher José Alberto Guerra [ja.guerra@uniandes.edu.co](mailto:ja.guerra@uniandes.edu.co). If you have questions about your rights as a participant in research studies, you can contact the Ethics Committee of the Universidad de Los Andes at +57 1-3394949 and ask to be connected to the secretary of the Ethics Committee or at the email [comite-etica-investigaciones@uniandes.edu.co](mailto:comite-etica-investigaciones@uniandes.edu.co).

Please sign on the following page if you authorize your participation.

**Next**

**Informed Consent**  
**Economical Laboratory Experiments**

**Place (city):**

**Date (day/month/year):**

**Experiment start time:**

Me,

Declare that I understand the previous information and my rights and duties during this exercise. I also understand that I can leave the exercise at any moment and that the sign does not deprive me of my legal rights. If you wish, you will be able to receive a copy of this document by writing an email to [experimentos@uniandes.edu.co](mailto:experimentos@uniandes.edu.co).

**Signed (write full name in the blank space),**

**CC.**

**of (city)**

I, José Alberto Guerra Forero (c.c. 80036052), of the Universidad de los Andes, certify that this information will be used confidentially and only for academic and educational purposes. I also certify that we will pay each participant the money earned during this exercise.

**Next**



**Instructions Stage 1: Activity 1**

In this Activity 1, each participant will be paired with somebody else who is participating in this experiment.

Each participant will be assigned one of two roles: Sender or Receiver. Each one of the two roles (Sender or Receiver) differs in the type of initial endowment received and in the decisions that will have to be made. The person whose role is Sender will be assigned 6 (six) Experimental Points (EP). The person whose role is Receiver will have an initial endowment of 0 (zero) EP.

The Sender will have to decide how much of his initial endowment he wants to give to a Receiver. Each EP sent to the Receiver will be multiplied by 3. Therefore, if the Sender decides to send 2 EP to the Receiver, the Receiver will get 6 (six) EP. If the sent amount were 6 (six) EP, the Receiver would get 18 (eighteen) EP. The Receiver does not make any decision. In other words, the Receiver gets the triplicated sent amount by the Sender and the Activity 1 ends.

In this Activity 1, you will make the decision in two rounds: in the round 1 you will be assigned one of the two roles and in the round two, the other role. If this Activity 1 is randomly chosen for your payment of the experiment, only one of the two rounds will determine your final payment. The selected round will also be randomly chosen.

**Next**

**Stage 1, Activity 1, Round 1.**

**Page for the Sender:**

**Stage 1, Activity 1, Round 1: Your decision.**

In this round you are the **Sender**. Please decide how many of your 6 points you want to send to the Receiver.

Send:

**Next**

**Page for the Receiver:**

**Stage 1, Activity 1, Round 1: Please wait.**

In this round you are the Receiver. Wait for the Sender to decide how much to send you.

**Once the Sender has sent points to the Receiver:**

**Announcement**

The round 1 has finished. Now we go to the round 2 where you will make decisions being the opposite role from the round 1.

**Next**

**Stage 1, Activity 1, Round 2.**

**In this round, players change roles.**

**Page for the Sender:**

**Stage 1, Activity 1, Round 2: Your decision.**

In this round you are the **Sender**. Please decide how many of your 6 points you want to send to the Receiver.

Send:

**Next**

**Page for the Receiver:**

**Stage 1, Activity 1, Round 2: Please wait.**

In this round you are the Receiver. Wait for the Sender to decide how much to send you.

**Once the Sender has sent points to the Receiver:**

**End: Activity 1, Stage 1.**

The round 2 has finished. This concludes Activity 1. Now we go to Activity 2.

**Next**

**Instructions Stage 1: Activity 2**

The decisions in this Activity 2 are similar to the decisions in the Activity 1. **The only difference in that the Receiver will have the possibility to send back part of the EP received.**

The Sender will have to decide how much of his initial endowment he wants to give to a Receiver. Each EP sent to the Receiver will be multiplied by 3. Therefore, if the Sender decides to send 2 EP to the Receiver, the Receiver will get 6 (six) EP. If the sent amount were 6 (six) EP, the Receiver would get 18 (eighteen) EP.

At the same time, the Receiver has to decide how many of the received EP wants to send back to the Sender.

In this Activity 2, you will make the decision in two rounds: in the round 1 you will be assigned one of the two roles and in the round two, the other role. If this Activity 1 is randomly chosen for your payment of the experiment, only one of the two rounds will determine your final payment. The selected round will also be randomly chosen.

**Next**

**Stage 1, Activity 2, Round 1.**

Sender and Receiver decide simultaneously.

**Page for the Sender:**

**Stage 1, Activity 2, Round 1: Your decision.**

In this round you are the **Sender**. Please decide how many of your 6 points you want to send to the Receiver.

Send:

**Next**

**Page for the Receiver:**

**Stage 1, Activity 2, Round 1: Your decision.**

You are the **Receiver**. Remember that the quantity of EP the Sender sends you is multiplied by 3. To illustrate, if you are sent 2 points you will receive 6. Taking that into account, before you know how many points the Sender sent you, we will like to know how many points you would send back to the Sender for each one of the points you could receive. Once we know how much the Sender sent you, we will consider the decision you made about how many points to send back to calculate your payment and the Sender payment.

How much would you send back to the Sender if he sends you 1 point. Remember that you can send any amount between 0 and 3:

How much would you send back to the Sender if he sends you 2 points. Remember that you can send any amount between 0 and 6:

How much would you send back to the Sender if he sends you 3 points. Remember that you can send any amount between 0 and 9:

How much would you send back to the Sender if he sends you 4 points. Remember that you can send any amount between 0 and 12:

How much would you send back to the Sender if he sends you 5 points. Remember that you can send any amount between 0 and 15:

How much would you send back to the Sender if he sends you 6 points. Remember that you can send any amount between 0 and 18:

**Next**

**Page that appears if either participant ends first**

**Stage 1, Activity 2, Round 1: Please wait**

Wait for the other participant to decide.



**Once Sender and Receiver decide:**

**Announcement**

The round 1 has finished. Now we go to the round 2 where you will make decisions being the opposite role from the round 1.

**Next**

**Stage 1, Activity 2, Round 2.**

Sender and Receiver decide simultaneously.

**Page for the Sender:**

**Stage 1, Activity 2, Round 2: Your decision.**

In this round you are the **Sender**. Please decide how many of your 6 points you want to send to the Receiver.

Send:

Next

**Page for the Receiver:**

**Stage 1, Activity 2, Round 2: Your decision.**

You are the **Receiver**. Remember that the quantity of EP the Sender sends you is multiplied by 3. To illustrate, if you are sent 2 points you will receive 6. Taking that into account, before you know how many points the Sender sent you, we will like to know how many points you would send back to the Sender for each one of the points you could receive. Once we know how much the Sender sent you, we will consider the decision you made about how many points to send back to calculate your payment and the Sender payment.

How much would you send back to the Sender if he sends you 1 point. Remember that you can send any amount between 0 and 3:

How much would you send back to the Sender if he sends you 2 points. Remember that you can send any amount between 0 and 6:

How much would you send back to the Sender if he sends you 3 points. Remember that you can send any amount between 0 and 9:

How much would you send back to the Sender if he sends you 4 points. Remember that you can send any amount between 0 and 12:

How much would you send back to the Sender if he sends you 5 points. Remember that you can send any amount between 0 and 15:

How much would you send back to the Sender if he sends you 6 points. Remember that you can send any amount between 0 and 18:

Next

**Page that appears if either participant ends first:**

**Stage 1, Activity 2, Round 2: Please wait**

Wait for the other participant to decide.

**Once Sender and Receiver decide:**

**Instructions Stage 2**

In this Stage you will have the following tasks:

- 1) You will have to answer a characterization survey.
- 2) You will have to read an online petition (that has been compiled from the site Change.org) and decide whether you want to sign it or not. **In case you want to sign it, we will ask you to tell us why.**

Consider that, unlike the previous stage, in this stage your decisions will not affect your experiment payment nor the other participants payment. All the decisions that you will make in this Stage 2 will not be revealed to the other participants.

Next

**In this Stage 2 there are two different commandments and two different signature numbers.**

**Order:**

**Order A:** They will sign the petition first and then they will complete the characterization survey.

**Order B:** they will complete the characterization survey first and then they will sign the petition.

**People That have signed the petition:**

N High: 21.370

N Low: 2.137

**X Alto corresponde al menor número de firmas de las tres peticiones con las que se hará el experimento. X Bajo es el 10% de X Alto.**

For each participant the order and the number of signatures are randomized separately.

**So, at the end, there are 4 treatment possibilities for each player:**

**N High, Order A**

**N High, Order B**

**N Low, Order B**

**N Low, Order A**

**This statement corresponds to the treatment N Low, Order B:**

### **Online Petition**

The online petition presented as follows was compiled directly from the web site Change. Org. The text was slightly changed in order to facilitate its lecture. Please read it carefully and decide if whether you want to sign it or not. In case you want to sign if, we will ask you to enter the web site of Change.org and fill out the form. Additionally, if you decide to sign it, **you will have to answer the question at the end of the page.**

Please note that, to this day, more than **1.725** people have signed the petition.

**Name of the petition: “Do you support the right to legitimate defense of yourself and your family?”**

Legal weapons users have a carrying permission acquired in accordance with the law by fulfilling a series of requirements, consequently we appeal to the principles of good faith in order to abolish the presidential ban on weapons carrying.

The imposition of requirements to acquire firearms is established by the law and the legal weapons users, fully satisfy with a series of rigorous filters.

It is clear that that criminals are encouraged when attacking a disarmed victim because the know they are not at risk; logic indicated that as there are fewer armed citizens, the danger to criminals decreases. The restriction on weapons carrying has not only demonstrated that homicide rates do not decrease but also that other crime rates increase.

By reducing the legal weapons carrying, the citizen is immediately left at a disadvantage compared to the criminal, because the citizen is not only allowed to employ all the possibilities of the legitimate self-defense but also any possibility of exercising the right of self- defense to third parties and meanwhile the crime of omission of duty to help is obligatory incurred.

It has been is statistically proven that nearly 98% of the homicides with firearms in Colombia were made with illegal weapons and it does not make sense to think that the statistics are going to decrease at the expense of the weapons that are carried by the law compliant citizens.

**End of the petition.**

1. Do you want to sign the petition?

Yes

No

Remember:

- If you answer Yes to sign the petition, on the next page you will have to express your reasons, in a box, so that you could advance in the activity.
- If you answer No to sign the petition, it is not necessary to write anything in order to advance in the activity.

**This page is the only one that changes for the Firework petition. Everything else stays the same. For more information, check the word document CAP\_T2.**

**If the player decides to sign the petition:**

**Confirmation**

You indicated that you WANTED to sign the petition **“Do you support the right to legitimate defense of yourself and your family?”**

Please, insert your reasons to do it in the following box:

**Next**

**If the player decides not to sign the petition:**

**Confirmation**

You indicated that you DID NOT wanted to sign the petition **“Do you support the right to legitimate defense of yourself and your family?”**

**Next**

### **Characterization survey**

Please answer the following questions:

1. Would you say that most people can be trusted or that one can never be careful enough in interacting with others?
  - Most people can be trusted
  - One can never be careful enough in interacting with others
  
2. How much trust do you have in the people you know?
  - None
  - Little
  - Something
  - Many
  
3. How much trust do you have in the National Government?
  - None
  - Little
  - Something
  - Many
  
4. How much trust do you have in the Republic Congress?
  - None
  - Little
  - Something
  - Many
  
5. How much trust do you have in the Judicial Body?
  - None
  - Little
  - Something
  - Many

**Next**

**Bold instructions are specific for treatment T2**

**Instructions Stage 3: Activity 3**

This Activity 3 will be similar to the Activity 1 from Stage 1. This means that each participant is paired with someone who is participating in this experiment.

**Your partner in this activity may or may not have signed the petition. Before you know this, we want to know which are your decisions in both cases. In other words, which are your decisions if your partner signed the petition and which are your decisions if your partner did not sign the petition. When this Stage 3 finishes we will let you know if your partner had signed or not. After that, we will calculate the payment of this Stage 3 based on your relevant decisions. That is, if your matched with someone who signed the petition we will consider the decisions you made whether your partner had signed the petition. However, if you are matched with someone who did not signed the petition, we will consider the decisions you made whether your partner had not signed the petition.**

Please remember that each participant will be assigned one of two roles: Sender or Receiver. Each one of the two roles (Sender or Receiver) differs in the type of initial endowment received and in the decisions that will have to be made. The person whose role is Sender will be assigned 6 (six) Experimental Points (EP). The person whose role is Receiver will have an initial endowment of 0 (zero) EP.

The Sender will have to decide how much of his initial endowment he wants to give to a Receiver. Each EP sent to the Receiver will be multiplied by 3. Therefore, if the Sender decides to send 2 EP to the Receiver, the Receiver will get 6 (six) EP. If the sent amount were 6 (six) EP, the Receiver would get 18 (eighteen) EP. The Receiver does not make any decision. In other words, the Receiver gets the triplicated sent amount by the Sender and the Activity 1 ends.

As in Activity 1 from Stage 1, in this Stage 3, Activity 3, you will make the decision in two rounds: in the round 1 you will be assigned one of the two roles and in the round two, the other role. If this Activity 1 is randomly chosen for your payment of the experiment, only one of the two rounds will determine your final payment. The selected round will also be randomly chosen.

**Next**



**Stage 3, Activity 3, Round 1.**

**Page for the Sender:**

**Stage 3, Activity 3, Round 1: Your decision.**

In this round you are the **Sender**.

Please decide:

How many of your 6 points you want to send **if the Receiver SIGNED the petition:**

How many of your 6 points you want to send **if the Receiver DID NOT sign the petition:**

**Next**

**Page for the Receiver:**

**Stage 3, Activity 3, Round 1: Please wait.**

In this round you are the Receiver. Wait for the Sender to decide how much to send you.

**Once the Sender has sent points to the Receiver:**

**Announcement**

The round 1 has finished. Now we go to the round 2 where you will make decisions being the opposite role from the round 1.

**Next**

**Stage 3, Activity 3, Round 2.**

**In this Round, player change roles.**

**Page for the Sender:**

**Stage 3, Activity 3, Round 2: Your decision.**

In this round you are the **Sender**.

Please decide:

How many of your 6 points you want to send **if the Receiver SIGNED the petition:**

How many of your 6 points you want to send **if the Receiver DID NOT sign the petition:**

**Next**

**Page for the Receiver:**

**Stage 3, Activity 3, Round 2: Please wait.**

In this round you are the Receiver. Wait for the Sender to decide how much to send you.

**Once the Sender has sent points to the Receiver:**

**End: Activity 3, Stage 3.**

The round 2 has finished. This concludes Activity 3. Now we go to Activity 4.

**Next**

**Instructions Stage 3: Activity 4**

The decisions in this Activity 4 are similar to the decisions in the Activity 2 from Stage 1. This means that the Receiver will have the possibility to send back part of the EP received.

The Sender will have to decide how much of his initial endowment he wants to give to a Receiver. Each EP sent to the Receiver will be multiplied by 3. Therefore, if the Sender decides to send 2 EP to the Receiver, the Receiver will get 6 (six) EP. If the sent amount were 6 (six) EP, the Receiver would get 18 (eighteen) EP.

At the same time, the Receiver has to decide how many of the received EP wants to send back to the Sender.

In this Activity 2, you will make the decision in two rounds: in the round 1 you will be assigned one of the two roles and in the round two, the other role. If this Activity 1 is randomly chosen for your payment of the experiment, only one of the two rounds will determine your final payment. The selected round will also be randomly chosen.

**Next**

**Stage 3, Activity 4, Round 1.**

Sender and Receiver decide simultaneously.

**Page for the Sender:**

**Stage 3, Activity 4, Round 1: Your decision.**

In this round you are the **Sender**.

Please decide:

How many of your 6 points you want to send **if the Receiver SIGNED the petition:**

How many of your 6 points you want to send **if the Receiver DID NOT sign the petition:**

**Next**

**Page for the Receiver:**

**Stage 3, Activity 4, Round 1: Your decision**

You are the **Receiver**. Remember that the quantity of EP the Sender sends you is multiplied by 3. To illustrate, if you are sent 2 points you will receive 6. Taking that into account, before you know how many points the Sender sent you, we will like to know how many points you would send back to the Sender for each one of the points you could receive. Once we know how much the Sender sent you, we will consider the decision you made about how many points to send back to calculate your payment and the Sender payment.

**How much would you send back to the Sender if he sends you 1 point. Remember that you can send any amount between 0 and 3:**

If the Sender DID NOT sign the Petition:

If the Sender SIGNED the Petition:

**How much would you send back to the Sender if he sends you 2 points. Remember that you can send any amount between 0 and 6:**

If the Sender DID NOT sign the Petition:

If the Sender SIGNED the Petition:

**How much would you send back to the Sender if he sends you 3 points. Remember that you can send any amount between 0 and 9:**

If the Sender DID NOT sign the Petition:

If the Sender SIGNED the Petition:

**How much would you send back to the Sender if he sends you 4 points. Remember that you can send any amount between 0 and 12:**

If the Sender DID NOT sign the Petition:

If the Sender SIGNED the Petition:

**How much would you send back to the Sender if he sends you 5 points. Remember that you can send any amount between 0 and 15:**

If the Sender DID NOT sign the Petition:

If the Sender SIGNED the Petition:

**How much would you send back to the Sender if he sends you 6 points. Remember that you can send any amount between 0 and 18:**

If the Sender DID NOT sign the Petition:

If the Sender SIGNED the Petition:

**Next**

**Page that appears if either participant ends first:**

**Stage 3, Activity 4, Round 1: Please wait**

Wait for the other participant to decide.



**Once Sender and Receiver decide:**

**Announcement**

The round 1 has finished. Now we go to the round 2 where you will make decisions being the opposite role from the round 1.

**Next**

**Stage 3, Activity 4, Round 2.**

**In this Round, players change roles.**

**Sender and Receiver decide simultaneously.**

**Page for the Sender:**

**Stage 3, Activity 4, Round 2: Your decision.**

In this round you are the **Sender**.

Please decide:

How many of your 6 points you want to send **if the Receiver SIGNED the petition:**

How many of your 6 points you want to send **if the Receiver DID NOT sign the petition:**

**Next**

**Page for the Receiver:**

**Stage 3, Activity 4, Round 2: Your decision.**

You are the **Receiver**. Remember that the quantity of EP the Sender sends you is multiplied by 3. To illustrate, if you are sent 2 points you will receive 6. Taking that into account, before you know how many points the Sender sent you, we will like to know how many points you would send back to the Sender for each one of the points you could receive. Once we know how much the Sender sent you, we will consider the decision you made about how many points to send back to calculate your payment and the Sender payment.

**How much would you send back to the Sender if he sends you 1 point. Remember that you can send any amount between 0 and 3:**

If the Sender DID NOT sign the Petition:

If the Sender SIGNED the Petition:

**How much would you send back to the Sender if he sends you 2 points. Remember that you can send any amount between 0 and 6:**

If the Sender DID NOT sign the Petition:

If the Sender SIGNED the Petition:

**How much would you send back to the Sender if he sends you 3 points. Remember that you can send any amount between 0 and 9:**

If the Sender DID NOT sign the Petition:

If the Sender SIGNED the Petition:

**How much would you send back to the Sender if he sends you 4 points. Remember that you can send any amount between 0 and 12:**

If the Sender DID NOT sign the Petition:

If the Sender SIGNED the Petition:

**How much would you send back to the Sender if he sends you 5 points. Remember that you can send any amount between 0 and 15:**

If the Sender DID NOT sign the Petition:

If the Sender SIGNED the Petition:

**How much would you send back to the Sender if he sends you 6 points. Remember that you can send any amount between 0 and 18:**

If the Sender DID NOT sign the Petition:

If the Sender SIGNED the Petition:

**Next**

**Page that appears if either participant ends first:**

**Stage 3, Activity 4, Round 1: Please wait**

Wait for the other participant to decide.

Once all players arrive. Bold text changes depending on partner's signing decision

## Results from all the activities

In the Stage 3 that you have just played, you were matched with a person who, as you, neither signed the petition.

### STAGE 1: ACTIVITY 1

1. In the Round 1 you were the Sender and of  $x$  points, you sent  $x$  points to the Receiver. Therefore, if this Activity 1 and this Round 1 were chosen for your final payment, your payment would be  **$x$  points**.
2. In the Round 1 you were the Receiver. The Sender sent you  $x$  points. That amount was multiplied by 3 and your received  $x$  points. Therefore, if this Activity 1 and this Round 2 were chosen for your final payment, your payment would be  **$x$  points**.

### STAGE 1: ACTIVITY 2

1. In the Round 1 you were the Sender and of  $x$  points, you sent  $x$  points to the Receiver and the Receiver sent you back  $x$  points. Therefore, if this Activity 2 and this Round 1 were chosen for your final payment, your payment would be  **$x$  points**.
2. In the Round 1 you were the Receiver. The Sender sent you  $x$  points. That amount was multiplied by 3 and your received  $x$  points. Of that amount you chose to send back  $x$  points. Therefore, if this Activity 2 and this Round 2 were chosen for your final payment, your payment would be  **$x$  points**.

### STAGE 3: ACTIVITY 3

3. In the Round 1 you were the Sender and of  $x$  points, you sent  $x$  points to the Receiver. Therefore, if this Activity 3 and this Round 1 were chosen for your final payment, your payment would be  **$x$  points**.
4. In the Round 1 you were the Receiver. The Sender sent you  $x$  points. That amount was multiplied by 3 and your received  $x$  points. Therefore, if this Activity 3 and this Round 2 were chosen for your final payment, your payment would be  **$x$  points**.

### STAGE 3: ACTIVITY 4

3. In the Round 1 you were the Sender and of  $x$  points, you sent  $x$  points to the Receiver and the Receiver sent you back  $x$  points. Therefore, if this Activity 4 and this Round 1 were chosen for your final payment, your payment would be  **$x$  points**.
4. In the Round 1 you were the Receiver. The Sender sent you  $x$  points. That amount was multiplied by 3 and your received  $x$  points. Of that amount you chose to send back  $x$  points. Therefore, if this Activity 4 and this Round 2 were chosen for your final payment, your payment would be  **$x$  points**.

Next

**Final payment**

The Activity  $x$  and the round  $y$  were chosen randomly for your payment. If the round  $y$  you were the Sender/Receiver and you sent/received  $x$  points (...). Therefore, your payment in EP is  **$x$  points**.

**Next.**

**Payment**

You got:  $X \text{ points} * \$1000 = X000 \text{ COP}$

In total, considering your participation payment (\$10000), you got X000 COP

Before proceeding with your payment, please answer the survey in the following pages

**Next**

### Opinion survey

Finally, please answer the following questions:

1. Please indicate your gender:
  - Masculine
  - Feminine
  - Other
  
2. Where were you born? (Municipality, Department)
3. What semester are you currently studying?
4. When were you born? (Day, Month, Year):
5. How old are you?
6. According to your utility bills, what is the economic stratum of the house in which you live?
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - Do not know/Do not answer
  
7. How much are approximately your weekly expenses (in pesos)?
8. How do you finance your studies (mark all that apply)?
  - Ser Pilo Paga scholarship
  - Another partial scholarship
  - Another total scholarship
  - Bank loan
  - ICETEX loan
  - Familiar loan
  - Familiar resources
  - Work
  - Other
  
9. Which is your religión?
  - Catholic
  - Christian
  - Jewish
  - Muslim
  - Not a believer
  - Other
  - Prefer not to say
  
10. In politics, people usually talk about left and right. On an ideology scale from 1 to 5 where 1 is left and 5 is right, where would you classify yourself?



- 1
- 2
- 3
- 4
- 5

11. From 1 to 5, how important are politics in your life?

- 1
- 2
- 3
- 4
- 5

12. From 1 to 5, how important is religion in your life?

- 1
- 2
- 3
- 4
- 5

13. From 1 to 5, how valuable do you think the petition motive is?

- 1
- 2
- 3
- 4
- 5

14. How much do you trust that online petitions potentially improve your well-being?

- None
- Little
- Something
- Many

15. Do you think that signing the petition makes a difference?

- Yes
- No

16. Imagine that we will give a prize of \$50,000 to the winner of the next game. You have to choose a number between 0 and 100. The winner will be the one whose chosen number is closer to  $2/3$  (two thirds) of the mean of all participant's chosen numbers. Which number would you choose?

17. How do you see yourself: Are you generally a person that is completely prepared to take risks or are you a person that tries to avoid taking risks? Please mark in some part of the scale where 0 means "Not at all willing to take risks" and 10 means "Very willing to take risks":

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

**Next**

1. To finish, we will like to know: Which do you think is the objective of the experiment?

2. In the Stage 3, How were your decisions according to your partner signing decision?

- The same
- I decided to send more if my partner signed the petition
- I decided to send less if my partner signed the petition

**Next**

**(Receipt and payment instructions)**

**Final message if the player did not sign the petition:**

**Final Message**

The experiment has finished, you will be receiving your payment soon. You can exit the experiment now and leave the virtual room.

If you have questions or doubts, please write to [experimentos@uniandes.edu.co](mailto:experimentos@uniandes.edu.co)

**¡Thank you very much for your participation!**

**Final message if the player signed the petition:**

**Final Message**

The experiment has finished, you will be receiving your payment soon. You can exit the experiment now and leave the virtual room.

If you have questions or doubts, please write to [experimentos@uniandes.edu.co](mailto:experimentos@uniandes.edu.co)

**¡Thank you very much for your participation!**

Remember to visit the website Change.org and search the petition “Do you support the right to legitimate defense of yourself and your family?” to sign it personally.

You can find it in the following link:

[https://www.change.org/p/congreso-de-la-republica-de-colombia-apoyas-el-derecho-a-la-leg%C3%ADtima-defensa-tuya-y-tu-familia?source\\_location=petitions\\_browse](https://www.change.org/p/congreso-de-la-republica-de-colombia-apoyas-el-derecho-a-la-leg%C3%ADtima-defensa-tuya-y-tu-familia?source_location=petitions_browse)

# C Experimental Instructions: Fireworks online petition

## Fireworks Petition

The pages of the rest of the game are the same for each treatment. For more information, check the other treatments instructions.

### Online Petition

The online petition presented as follows was compiled directly from the web site Change. Org. The text was slightly changed in order to facilitate its lecture. Please read it carefully and decide if whether you want to sign it or not. In case you want to sign if, we will ask you to enter the web site of Change.org and fill out the form. Additionally, if you decide to sign it, **you will have to answer the question at the end of the page.**

Please note that, to this day, more than **2.137** people have signed the petition.

### Name of the petition: Let's say #NoToFireworks for the life and peace of our animals!

Did you know that dogs listen 3 times more than us? Could you imagine what means to them the blast of fireworks? It is a real torture.

The saddest thing is that many people do not mind exposing animals to such agony, just to not sacrifice their "fun" in December Holidays. How terrible!

We wish more people were conscious of what they do and how it is affecting others' life, including animals.

Consequently, with this petition I want to make thousands of Colombians aware so they commit themselves with me to say #NoToFireworks in order to save the life of thousands of animals this December.

Together we can prevent our animals from dying, having heart attacks, getting sick or suffering due to fireworks. It is our responsibility to take care of them and do everything we can to guarantee their well-being.

No more allowing the price of Christmas celebrations with fireworks to be our animals life.

Sing and share this petition to say #NoToFireworks.

### End of the petition.

1. Do you want to sign the petition?

- Yes
- No

Remember:

- If you answer Yes to sign the petition, on the next page you will have to express your reasons, in a box, so that you could advance in the activity.
- If you answer No to sign the petition, it is not necessary to write anything in order to advance in the activity.

Next

## D Experimental Instructions: Strikes

### Strikes treatment

#### The National Strike in Colombia

Since last April 28, 2021 different groups of dissatisfied citizens with the government of Ivan Duque called for a National Strike in Colombia. The trigger of the social movements was the tax reform proposed by the government, which was eventually withdrawn in response to the protests, but many analysts agree that the social discontent has been coming since the end of 2019 and that the covid 19 pandemic exacerbated the population's complaints.

Since the beginning of the National Strike, protestors have gone out to the streets of different cities with mostly peaceful expressions that, at nightfall, lead to clashes with the Mobile Anti-Riot Squad of the National Police. These demonstrations have taken the form of citizen marches, civic sit-ins, blockades of access roads to cities and populated centers, and points of resistance where participants exercise territorial control.

Did you participate in person in any demonstration (marches, sit-ins, blockades or points of resistance) in support of the National Strike?

Yes

No

Remember: your answer will be completely confidential, that means that your answer could not be associated with your personal data.

**If the player decides to sign the petition:**

**Confirmation**

You indicated that you PARTICIPATED in person in any demonstration in support of the **National Strike**.

**Next**

**If the player decides not to sign the petition:**

**Confirmation**

You indicated that you DID NOT participate in person in any demonstration in support of the **National Strike**.

**Next**