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Guns, pets, and strikes: an experiment on identity and political action*

Boris Ginzburg[†] and José-Alberto Guerra[‡]

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Abstract

We study the role of collective action in creating shared identity and shaping subsequent social interactions. In a laboratory experiment, we offer subjects to sign an online petition, or ask whether they had participated in recent street protests. Afterwards, subjects interact in games that measure prosocial preferences. We find more altruism, trust, and trustworthiness within a pair of subjects who participated in collective action than in any other pair. Our structural estimation recovers individual prosocial preferences, showing that they increase as a result of joint participation. We then show that participating individuals receive private payoffs in subsequent interactions with fellow participants. Because of this, expecting higher participation by peers makes an individual more likely to participate. This mechanism suggests a reason why citizens participate in political collective action, and helps explain the role of coordination and signalling.

JEL Codes: D74, D72, C91, D91

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

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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, and the implication of these effects for individual payoffs and for participation decisions.

To this end, 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 the interest of 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 in Colombia concurrent with our study. Thus, subjects faced different types of collective action that varied both in terms of the personal cost of participation,¹ and in terms of the political nature of the cause.²

¹Signing an online petition carried a low personal cost, while participation in the street protests was costly, as we explain below.

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

Before and after making their participation choices – 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 and to reciprocate trust. Crucially, when playing these games after the participation decision, subjects were told whether their partner had participated.

Our first set of results looks at the effect of participation on prosocial behaviour. We find that the initial prosocial preferences, observed from the trust game and the dictator game played before the participation decision, are uncorrelated with political participation. However, the interactions after the participation decision reveal a different picture. In these interactions, we observe substantially more altruism, trust, and trustworthiness between subjects who signed the petition or participated 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 behaviour in pairs of subjects in which one or both did not participate in collective action.

We also develop a simple model of prosocial preferences, and use it to structurally estimate preference parameters for our subjects, using data from the experiment. In line with prior research, we find that agents are, on average, altruistic, placing a positive utility weight on another agent’s payoff. More importantly, our estimates suggest that as a consequence of shared participation, this weight increases – on average, by 17%. At the same time, shared non-participation does not change the utility weight of another subject’s payoff.

Overall, these results suggest that, on average, prosocial preferences and behaviour are more intense within a pair of participants than within either a pair of

nonparticipants, a pair of a participant and a nonparticipant, or a pair of subjects prior to participation. Hence, shared participation gives rise to in-group favouritism between participants – in this sense, we can say that shared participation induces common group identity (Kranton and Sanders, 2017). Our results show that this identity emerges both when participation cost is low and when the cost is high; and for right-wing, left-wing, and politically neutral causes.

Furthermore, our analysis allows us to rule out several potential alternative explanations for the observed effect. First, we show that participation directly creates a political identity, rather than merely signalling an existing one. Second, 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.³

Our second set of results concerns the implications of the identity-building effect of participation for individual payoffs, and for participation decisions. Concerning the former, the above discussion suggests that participants should experience more prosocial behaviour. However, the effect of this on utilities may be ambiguous, because participation also changes the weights subjects place on their monetary payoffs and on those of the others. Using the results of our structural estimation, we simulate a range of interactions involving altruistic behaviour. We show that participants generally receive higher utility than nonparticipants. Hence, the expectation of higher payoffs in subsequent social interactions may be a motivating factor for participation.

Because these payoffs occur in interactions with fellow participants, an individual’s utility gain from participation should be higher if more people with whom she interacts participate. In our experiment, we can test this conjecture using the fact

³The latter effect is often found in experiments using minimal group paradigm (see Tajfel et al., 1971; Chen and Li, 2009).

that the participation rate was significantly higher in sessions where subjects faced the fireworks petition than in sessions with the other two types of political action. As expected, we find that individuals facing the relatively popular petition received significantly higher payoffs if they signed it than if they did not. In contrast, no significant effect of participation on payoffs was observed for the less popular types of political participation. Hence, an individual's utility from participation is increasing in the share of participants among the members of her social circle.

What does this imply for participation decisions? If individuals are forward-looking, they should be more likely to participate in collective action if they think more of their peers will participate. To test whether this is the case, 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 participating. We find that subjects are significantly more likely to participate when they believe more of the other subjects will participate. We can rule out alternative explanations for this effect, such as informational herding. Thus, we find that within a given circle of social contacts, participation decisions are strategic complements.

Our paper contributes to several strands of literature. Our first set of results adds 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](#)).⁴ In particular, a large number of papers have shown that individual political alignment is an important component of identity, affecting political participation as well as other forms of behaviour ([Bartels, 2002](#); [Huddy et al., 2015](#); [Kranton and Sanders, 2017](#); [Iyengar et al., 2019](#)). Our paper contributes

⁴More broadly, our paper relates to the literature that studies the role of social capital ([Knack and Keefer, 1997](#); [Guiso et al., 2011](#); [Durante et al., 2023](#)).

to this literature in three ways. First, we show that in addition to identity shaping political participation, shared participation in itself forms a dimension of identity. Second, we show that this dimension of identity exists irrespective of preexisting political views. Third, we structurally estimate the distribution of participation-induced identity preference parameters across individuals.

Our second set of results contributes to several lines of research that look at determinants of participation in political collective action. First, many studies have found that social connections and social pressure 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 receive utility when others perceive them as being prosocial, and choose to participate in a protest to signal their prosocial preferences; the authors find that evidence from the 2011-12 Russian protests is consistent with their model. Our results also point at the importance of social connections for participation decision, but they suggest a parallel mechanism: participation builds a common identity, leading to positive outcomes in future interactions.

Second, our paper adds to the literature that studies the nature of strategic interactions between 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, 2023](#) 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). The mechanism identified in our paper is consistent with these findings. Specifically, we find that participation decisions are strategic complements within a network of social contacts – where potential gains from future interactions play a role – but not necessarily among the population as a whole.⁵

Our paper is 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, 2019; Casanueva et al., 2022). The results of our paper are consistent with this observation: by making individual participation more visible, communication technologies help form and signal participants’ group identity, making participation a more attractive choice.

Furthermore, our analysis adds to the literature that studies individual willingness to participate in collective action. Since the probability that participation by an individual citizen changes the political outcome is negligible, existing literature has proposed various factors that give individuals payoffs from participating. Models of participation as civic duty (see e.g. Blais and Achen, 2019) and expressive theories of political behaviour (Hillman, 2010) propose that individuals receive fixed payoffs from participating. Other studies propose that individuals receive “pleasure in

⁵These results complement the finding of Bursztyn et al. (2021) that protest participation leads to formation of new networks of friends, which encourages participation in subsequent protests. Our paper suggests that participation leads to more efficient interactions in existing social networks.

agency”, that is, a fixed positive payoff of participation conditional on collective action succeeding (see e.g. [Shadmehr, 2021](#); [Morris and Shadmehr, 2023](#)). Our results suggest an additional explanation: individuals who participate in collective action receive payoffs in subsequent social interactions with fellow participants. Unlike in models mentioned above, these payoffs emerge endogenously through interactions with peers, and hence their magnitude depends on the share of participants in one’s social circle.

2 Experimental Design

A total of 308 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 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 play the trust game and dictator game again. This time, however, they know whether their partner has chosen to participate.

Political participation decisions come in two forms. 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, a high-cost form of political participation.

In the rest of this section, we describe in more detail the experimental design, as well as the nature of the petitions and the protests.

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 the trust game and for the dictator game. For each game, we elicit their behaviour for both possible roles: sender and receiver.

In the trust game, a subject 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.⁶ 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 the strategy method, we elicit the amount the receiver wants to transfer back for *each possible amount* received. From the trust game, we get a measure of trust (i.e. the amount sent to a receiver while playing the sender role) and trustworthiness (i.e. the amount sent back while playing as receiver for every possible amount received).

In the dictator game, each subject also plays as a sender and 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 the sender transfers.⁷ Unlike in the trust game, the receiver does not choose an action. We obtain a measure of altruism from this dictator game for each subject.

⁶We restrict the choice to integer values.

⁷The 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 dictator game more comparable to those in the trust game.

2.1.2 Stage 2: participation decisions

Subjects are presented with one of two online petitions. The first petition asks to change the Colombian law to allow citizens to carry guns. At present, the law requires an individual to acquire a legal permit to own and carry firearms. Because homicide rate is high in Colombia, the issue of regulating weapon ownership is important for many citizens. The second petition proposes to ban fireworks. In Colombia, fireworks are commonly used for Christmas and other celebrations. The petition motivates the proposed ban by appealing to animal welfare concerns, as fireworks harm animal health.

In each session, one of the two petitions is used – thus, the treatment variation is between subjects. If a subject decides to sign the petition, we require her to write a few sentences explaining 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 small but positive effort cost, while choosing not to sign the petition is costless.

2.1.3 Stage 3: end-line social preferences

Subjects play the trust game and the dictator game, again as both senders and receivers, while being anonymously matched with random other subjects. Unlike in stage 1, subjects know whether their partner has signed the petition. We use the strategy method – that is, in each situation of the trust game and the dictator game, 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 3). The average payment of *COP* 16,800 (appxi-

mately *USD* 4.5)⁸. At the end of the experiment, subjects faced a short questionnaire about their political and social views and their opinion about the petition, including a question on whether they thought the cause of the petition was “valuable”.⁹

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, instead of petitions, uses the Colombian street protests known as *Paro Nacional* or National Strike.

The protests 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 a tax reform proposal, which was eventually withdrawn in response to the protests. However, many observers noted that social discontent had 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, a guerrilla rebel group.¹⁰ The Covid-19 pandemic exacerbated the population’s complaints.

During the National Strike, protesters took to the streets across different cities. These demonstrations included 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

⁸This is almost four times the minimum hourly wage in Colombia.

⁹Full instructions translated into English are found in the Online Appendix.

¹⁰See 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>.

reported.¹¹

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.¹² In the subsequent stage, subjects were asked to play the dictator and the trust games, knowing whether their partner had participated in the protests.

3 Experimental Results

3.1 Sample characteristics

Table 3 in the Appendix presents the characteristics of our subjects by the type of political cause (fireworks petition, guns petition, and National Strike).

Overall, in our experiment, 25% have signed the guns petition, 65.5% have signed the fireworks petition, and 22.5% reported having participated in the National Strike.

In addition to observing participation in collective action, we also observe subject's valuation of each of the three causes from the questionnaire at the end of the experiment. Figure 11 in the Appendix shows how subjects' valuation of the cause relates to their political alignment as reported in the same questionnaire. As the figure shows, valuation of the guns petition tends to be higher among right-wing subjects, while the public protests have more support among left-wing subjects. Attitude towards the fireworks petition is not related in a statistically significant way to the political alignment.

¹¹See BBC, *Colombia protests: Rights body criticises 'disproportionate' response*, July 8, 2021. <https://www.bbc.com/news/world-latin-america-57733541>.

¹²See the Online Appendix for instructions. Because participation was already costly, we did not require the participants to explain their reason for participation.

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 several other variables. Columns 1, 2, and 4 focus on subjects who were given the option of signing the fireworks petition, signing the guns petition, and reporting participation in the National Strike, respectively. Column 3 focuses on a pooled sample of all subjects facing low-cost political participation.¹³

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 dictator game and trust game in stage 1, are not associated with a higher probability of participation. A higher baseline level of trustworthiness, observed from the percentage of transfer subjects sent back in the trust game, is similarly uncorrelated with political participation, except for subjects facing 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's dictator and trust games are driven by the experience of political participation and knowledge about participation of the partner, rather than by initial prosocial preferences.

Furthermore, the results indicate that subjects who value the cause more are, unsurprisingly, more likely to participate.

At the same time, even though a subject's position on the left-right political spectrum views is correlated with reporting high valuation of the cause in the questionnaire (see Section 3.1), it is not correlated with the probability of actually signing the petition or participating in protests. Hence, participation is unlikely to be a sig-

¹³Table 4 in the Appendix presents the estimated coefficients of other control variables of these regressions.

Table 1: Decision to participate in collective action

Dep Var: Petition signed / Participated in protests	(1)	(2)	(3)	(4)
	Fireworks	Guns	F & G	Protest
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 the cause	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)
Controls	Yes	Yes	Yes	Yes
Observations	110	110	220	87
R-squared	0.304	0.303	0.244	0.214

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors are in parentheses. Coefficients come from an OLS regression. The dependent variable is whether the individual signed the petition or participated in the protests. 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 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. DG: dictator game, TG: trust game. 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.

nal of broader political identity.¹⁴

3.3 Low-cost participation and identity

We now turn to the paper's first set of results: the effect of participating in collective action on prosocial preferences. In Figure 1, we present the amount senders sent to receivers in stage 3 depending on their political participation. Panel (a) presents the

¹⁴We further study the potential identity signalling effects of participation in Section 5.1.

decisions observed in the Dictator Game, and panel (b) presents those in the Trust Game. Decisions from subjects that face the fireworks (guns) online petition are shown in the left (right) panels.

In both the trust game and the dictator game, the largest amounts are transferred in pairs in which both the sender and the receiver had signed the petition. This indicates that the levels of trust and altruism are the highest 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. This suggests substantial in-group favouritism induced by a shared experience of political participation.

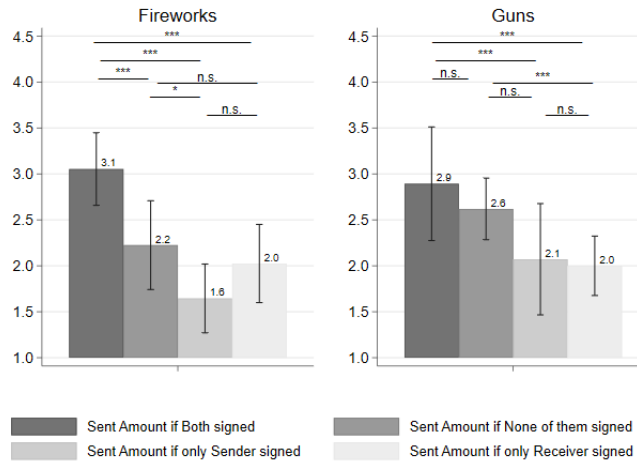
The result that shared political participation induces in-group favouritism also holds when controlling for baseline levels of trust and altruism. These results are included in Table 5 in the Appendix, which shows that subjects who signed the petition send more experimental tokens to receivers who sign it than to receivers who do not sign it.

The largest effect of signing the petition is observed for the fireworks petition. Additionally, as usually found in the literature, subjects transfer larger amounts when playing the trust game than in the dictator game.

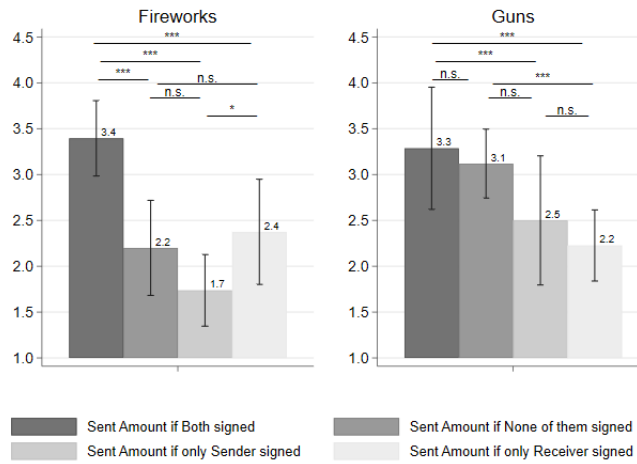
We then turn to analysing the effect of signing the petition on trustworthiness. Recall that each subject was asked how much, for each amount received in the trust game, she would transfer back to a subject who signed the petition and to a subject who did not. Figure 2 shows linear predictions of the amount a receiver transfers back to the sender depending on the amount 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

Figure 1: Amount sent by the sender, in dictator and trust games, based on political participation decisions and online petition

(a) Dictator Game



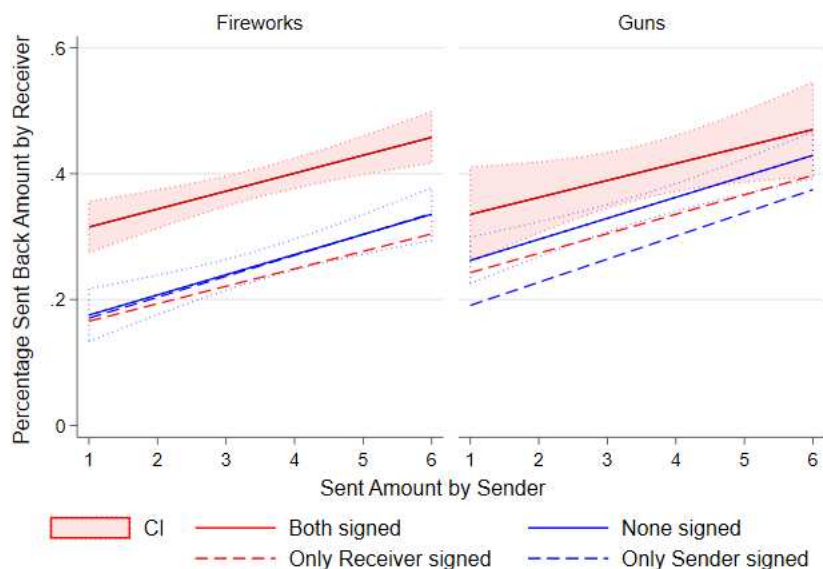
(b) Trust Game



Note: 95% level confidence intervals are depicted at the top of each bar. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, n.s. $p > 0.1$. Reported significance levels come from hypothesis testing from a fully saturated linear model where the dependent variable is the amount sent by the sender to the receiver and regressors are dummy variables associated with participation decisions by the sender and receiver.

fireworks petition.

Figure 2: Percentage sent back, in the trust game, by sender's and receiver's participation decisions



Note: CI stands for the 95% level confidence interval

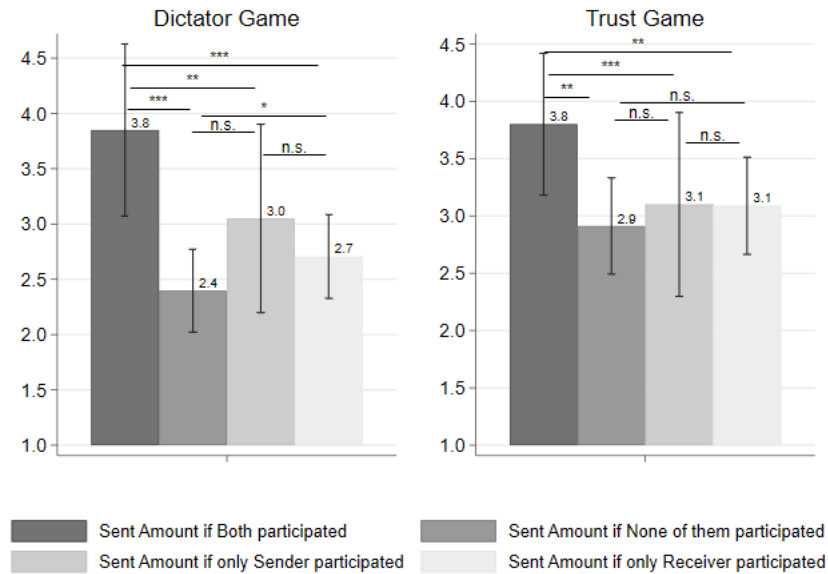
Overall, the results suggest that signing the online petition leads to more altruism, trust, and trustworthiness within a pair of subjects who sign it, compared to other pairs of subjects.

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 3 presents the data on the amount sent by senders in the dictator and trust games depending on the 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 trust between a sender and a receiver who participated in the protests than in any other pairing.

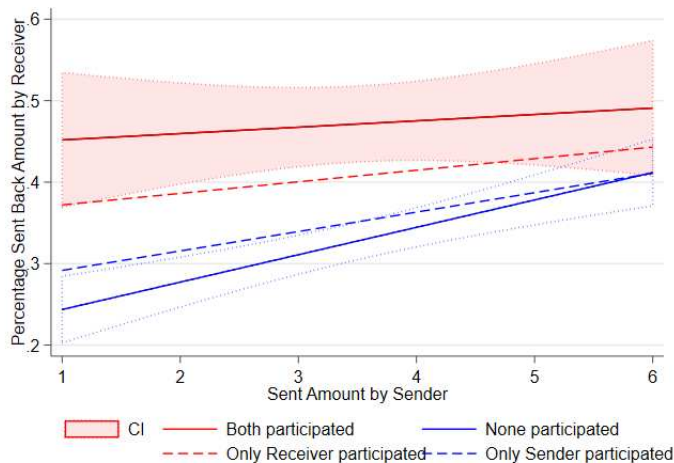
Figure 3: Amount sent by the sender, in dictator and trust games, based on the protest participation



Note: 95% level confidence intervals are depicted at the top of each bar. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, n.s. $p > 0.1$. Reported significance levels come from hypothesis testing from a fully saturated linear model where the dependent variable is the amount sent by the sender to the receiver and regressors are dummy variables associated with participation decisions by the sender and receiver.

Figure 4 presents linear predictions of the amount sent back in the trust game by a receiver as a function of the amount she received, depending on the participation of the receiver and the sender. It shows that the receiver sends significantly more for each token amount received when both she and the sender participated in the protests than when one or both of them did not participate. This suggests that there is significantly more trustworthiness between a pair of subjects who both participated in the protests, which is also consistent with the previous results.

Figure 4: Percentage sent back, in the trust game, by sender’s and receiver’s protest participation



Note: CI stands for the 95% level confidence interval

3.5 Estimation of behavioural parameters

To further explore the effect of shared political participation on prosocial attitudes, 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 of 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 part of the trust game¹⁵ – and can choose to 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 $k \geq 1$. We will refer to k as the efficiency

¹⁵In the structural estimation, we are not using data from the sender’s decisions in the trust game. The reason is that these decisions depend not only on the sender’s prosocial preferences, but also on her 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 distributions of preferences.

parameter.

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.¹⁶ Thus, α_{ij} measures the intensity of agent i 's prosocial preferences towards agent j . We assume that α_{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, β_i^0 represents agent i 's baseline level of prosocial preferences. At the same time, β_i^P and β_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 β_i^0 indicates that the agent is generally more prosocial, while higher values of β_i^P and β_i^N indicate that shared participation and shared nonparticipation induce a stronger feeling of identity in the agent.¹⁷ Note that β_i^0 , β_i^P and β_i^N are individual-specific, and we are not assuming any particular distributions for these parameters. Our aim is to estimate β_i^0 , β_i^P and β_i^N for each individual.¹⁸

¹⁶This Cobb-Douglas utility function is a special case of the CES function used in [Cox et al. \(2007\)](#) to estimate prosocial preferences.

¹⁷[Chen and Li \(2009\)](#) also model identity-based preferences as an additive component.

¹⁸Note that, in general, we could also allow α_{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.

As agent i chooses x to maximise u_i , we obtain

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

Hence, agent i 's optimal choice is

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

Thus, in the special case when agent j has no initial endowment ($m_j=0$), α_{ij} represents the share of agent i 's endowment that she is willing to transfer to agent j .

Given the structure of our experiment, we observe, for each agent i , 21 different decisions, made in stage 1 and stage 3, on transferring tokens to agent j . These decisions are indexed by $r = 1, \dots, 21$. For each decision r we observe agent i 's endowment $m_{i,r}$, her partner's endowment $m_{j,r}$, efficiency parameter k_r , as well as, in stage 3, the participation decisions of the two agents.

Specifically, for each agent i , we observe the following transfers. First, her transfer as a sender in the dictator game in stage 1 (decision $r = 1$, where $m_{i,r} = 6, m_{j,r} = 0, k_r = 3$). Second, as a receiver in the trust game in stage 1 for every possible amount y received (decisions $r = 1 + y$ with $y \in \{1, \dots, 6\}$, where $m_{i,r} = 3y, m_{j,r} = 6 - y, k_r = 1$). Third, as a sender in the dictator game in stage 3 for every possible participation decision of the other agent (decisions $r \in \{8, 9\}$). Fourth, as a receiver in the trust game in stage 3 for every possible amount received and every possible participation decision of agent j (decisions $r \in \{10, \dots, 21\}$). We also observe agent i 's participation decision in the collective action. We then estimate via Non-Linear

Least Squares (NLS, [Davidson et al. \(2004\)](#)) the empirical counterpart of equation 1.

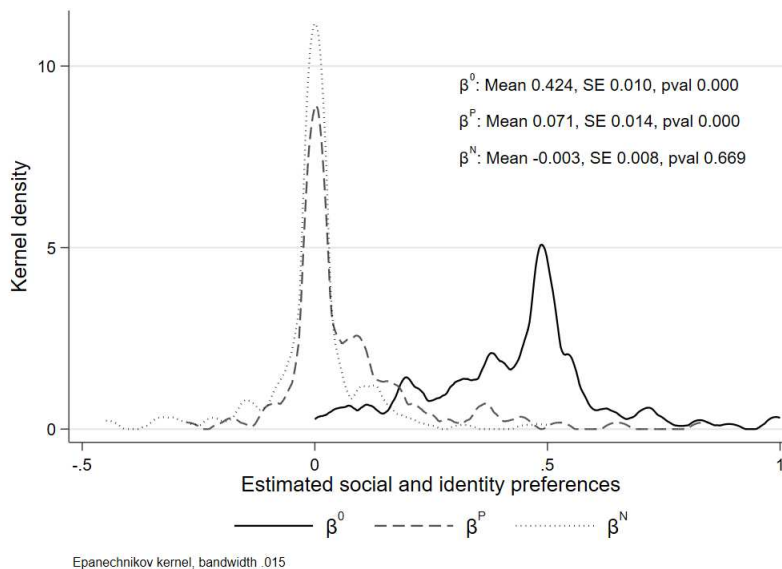
Note that β_i^0 is identified given that we have variation in $m_{i,r}/m_{j,r}$ and k_r in some decisions in stage 1. Additionally, suppose agent i participated in the collective action of stage 2; in that case, β_i^P is identified because we have variation in $m_{i,r}/m_{j,r}$ given the participation and no-participation decision of her partner j . Similarly, if agent i did not participate, we can identify β_i^N .

In Figure 5, we plot the kernel density of the estimated prosocial preferences across our experimental subjects. We observe that, on average, agents' baseline level of prosocial preferences is 0.424. We reject the hypothesis that our experimental subjects are, on average selfish (i.e., $H_0 : \frac{1}{N} \sum_i \hat{\beta}_i^0 = 0$). It is noticeable from the density that most subjects place some non-negligible weight on their partners' payoff (median of $\hat{\beta}^0$ is 0.456).

Furthermore, shared participation in collective action increases prosocial attitudes. Specifically, the estimated mean value of $\hat{\beta}^P$ is 0.071, which is statistically different from zero. Thus, shared participation increases the weight an average subject places on the other subject's payoff from 0.424 to 0.495, that is, by 16.7%. At the same time, we find no evidence that shared non-participation has a similar effect: the distribution of $\hat{\beta}^N$ is concentrated around zero, and the estimated mean of $\hat{\beta}^P$ is not statistically different from zero.

These results further confirm our conclusion that shared participation induces a common identity, producing prosocial behaviour between fellow participants, while shared nonparticipation does not.

Figure 5: Kernel density of the estimated baseline ($\hat{\beta}^0$) and identity-based ($\hat{\beta}^P, \hat{\beta}^N$) prosocial preferences



Note: Kernel densities come from the NLS estimates of $(\beta^0, \beta^P, \hat{\beta}^N)$ based on Equation 1's structural model.

4 Implications for Payoffs and Participation Decisions

4.1 Political participation and utilities

Since shared participation gives rise to more prosocial behaviour between participants, one can expect participants to receive higher transfers in subsequent interactions. However, the effect of this on their utilities is ambiguous, because participation also changes the subjects' utility functions.

We can, however, evaluate the effect of participation on utilities in a range of settings, using the preference parameters estimated in Section 3.5. Suppose that in-

dividuals choose whether to participate in collective action, after which they interact. Specifically, suppose that they are matched in pairs, and play a dictator game, with each subject playing once as a sender, and once as a receiver. Given our estimated behavioural parameters, we can calculate the transfers made by an average subject, as well as her overall utility (that is, the sum of the utility she receives as a sender and as a receiver). Holding the sender’s endowment m_i fixed,¹⁹ we can do this exercise for different values of the receiver’s endowment m_j and of the efficiency parameter k . For each pair of m_j and k , we then calculate the difference between each individual’s utility when she and the partner have both participated in collective action, and when they did not.

Figure 6 presents the results for the case when m_i is normalised at 6 as in the experiment. As can be seen from the figure, for all values of m_j and k , utility is higher when both subjects participate in collective action than when they do not. Hence, in a variety of settings, subjects who participate receive higher payoffs than those who do not.

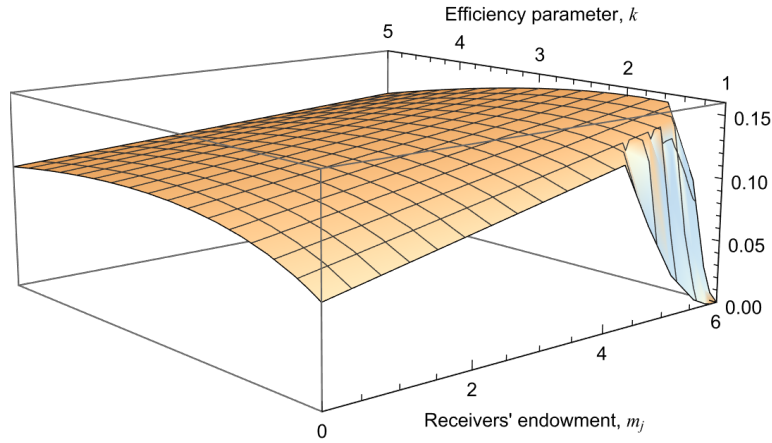
4.2 Popularity of the cause and payoffs from participation

The aforementioned additional payoffs from participation occur in interactions with fellow participants. Hence, for each individual, these payoffs must be increasing in the probability that a person with whom she interacts is also a participant – that is, in the share of participants among the people in her social circle.

In this section, we investigate this conjecture, using the fact that the fraction of participants among our subjects differed across the types of collective action. Specifically, in sessions which used the fireworks petition, 65.5% chose to participate. In

¹⁹This is without loss of generality, because increasing m_i and m_j by the same factor leaves utility rankings unchanged.

Figure 6: Expected utility gain from participating



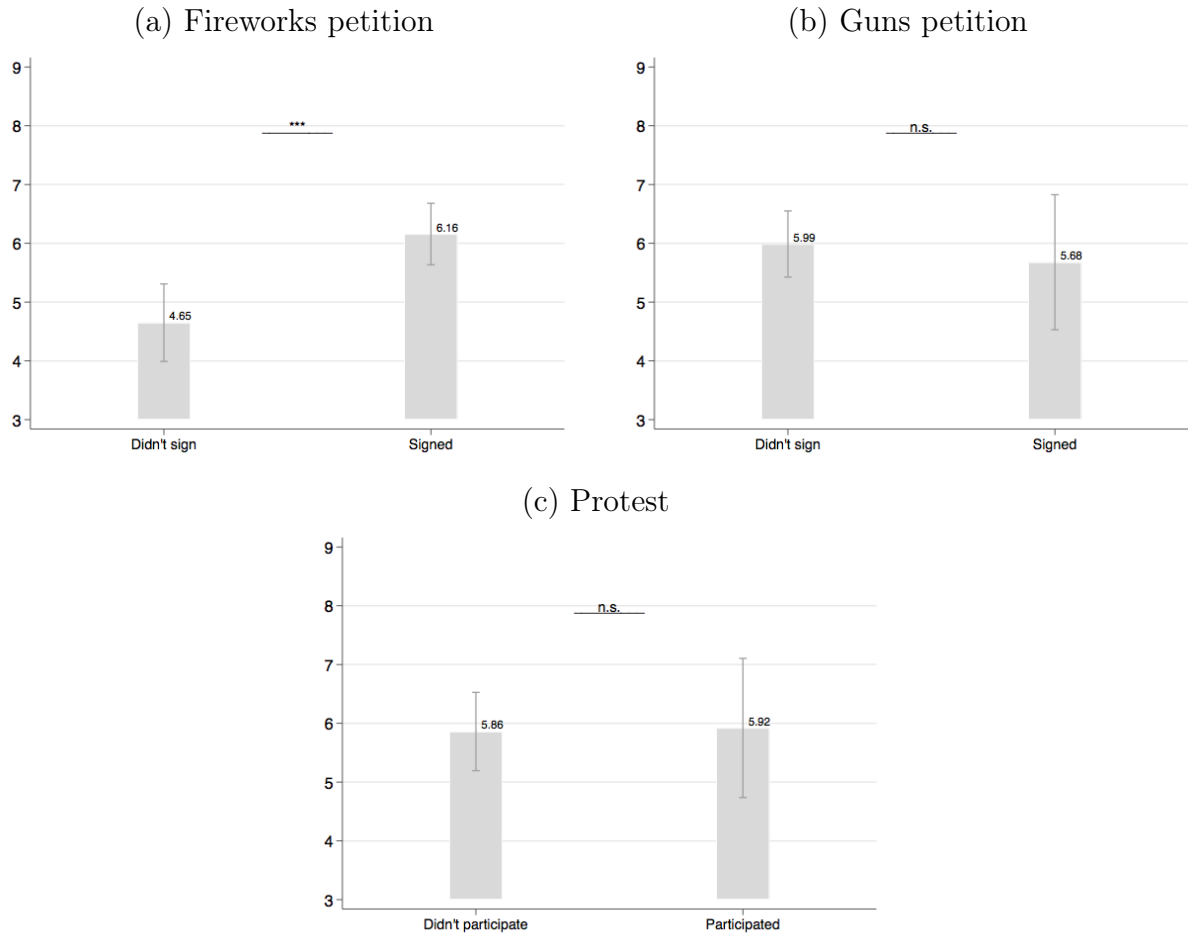
Note: The figure shows the difference between the utility of an average individual when she and her partner participated in collective action and when she and her partner did not participate, as a function of the receiver's endowment (m_j) and the efficiency parameter (k), holding the sender's endowment fixed ($m_i = 6$). Preferences are based on the structural estimation from Section 3.5.

contrast, the fraction of subjects signing the gun petition or reporting participation in the National Strike 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.²⁰ 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 guns petition, participation has

²⁰These are different from the actual payoffs, because actual payoffs were based on a randomly chosen decision.

Figure 7: Expected experimental payment in stage 3 trust game by subjects' political participation decision and form of collective action



Note: 95% level confidence intervals are depicted at the top of each bar. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, n.s. $p > 0.1$. Reported significance levels come from hypothesis testing from a fully saturated linear model where the dependent variable is the expected experimental payment in the Trust Game in stage 3, and regressors are dummy variables associated with participation decisions.

no statistically significant effect on payoffs.

4.3 Expectations and decision to participate

The above results suggest brings higher payoffs in subsequent social interactions, and the effect is larger if the cause is more popular. If individuals are forward-looking, they will consider this when deciding whether to participate. Specifically, an individual will be more likely to participate if she expects more people in her social circle to participate.

To test this mechanism, we conducted additional sessions, in which subjects were informed at the participation stage that they will play the dictator game and trust game 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 a dummy indicating whether the subject participated 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.

The results are presented in Table 2. 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

Table 2: 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 the cause	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)
<hr/>	
Controls	Yes
Observations	99
R-squared	0.456

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors are in parentheses. The dependent variable is whether the individual signed the petition. Beliefs about % signing are standardised. Self-reported position on 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 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. DG: dictator game, TG: trust game. 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.

by giving subjects different messages about the number of existing signatures under the petition.²¹ 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.

²¹Before deciding over signing the petition, our subjects receive a message stating that “More than n people have already signed the petition”. In the experiment, n could take two values: low (equal to 2, 137 signatures) or high (equal to 21, 370 signatures). Both were smaller than the actual number of signatures that the online petition had gathered by the beginning of the experiment, hence neither message contained deception.

5 Mechanism: Identity Building

In this section, we look at potential alternative explanations for the emergence of more intense prosocial behaviour between participants of political collective action.

5.1 Identity building versus signalling

As discussed earlier, we interpret the results as suggesting that shared participation in collective action builds common identity between participants – that is, creates more intense prosocial preferences between them. However, there is another possible explanation: perhaps participation signals an existing identity rather than creating a new one. It is possible that individuals feel more prosocial towards people with similar political views, and participating in collective action reveals these views to others. In this section we show evidence against this alternative explanation.

First, note that Table 1 suggests that a subject’s position on the left-right political spectrum is not correlated with her decision to sign the petition or participate in the National Strike. Hence, participation is unlikely to be a signal of broad political identity.

Nevertheless, it may be argued that political identity can be more nuanced than the position on the left-right spectrum. It is possible that signing a petition or participating in a protest signals support for a more narrow political cause – animal rights, deregulation of firearms, the protest movement – which may be an identity in itself.

To check this explanation, we ask subjects in the end-line questionnaire to report their valuation of the political action that they faced. Specifically, we ask them how worthy they think the cause is, on a scale from 1 to 5. Predictably, nearly all subjects with a low valuation of the cause did not participate. However, out of those with a

high valuation, some participated while some did not, probably because of the effort cost involved.²²

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 conditional on her valuation of the cause. Thus, a sender who values the cause highly but did not participate should behave the same way towards a receiver (given the receiver's participation choice) as a sender who values the cause highly and did participate.

However, our results show a different picture. Figure 8 shows the magnitude of the in-group bias observed from the trust game for low-cost participation. For low (1 – 3) and high (4 – 5) valuations 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,²³ this difference is positive for those who signed the petition, and negative or zero for those who did not sign.²⁴ Thus, conditional on the valuation of the cause, the act of signing the petition induces in-group bias.²⁵

5.2 Minimal identity

When using the strategy method, we label other participants as having signed or not signed the petition. It may be that this labelling, rather than the act of signing the

²²Recall that subjects who signed the petition were required to formulate their reasons for doing so.

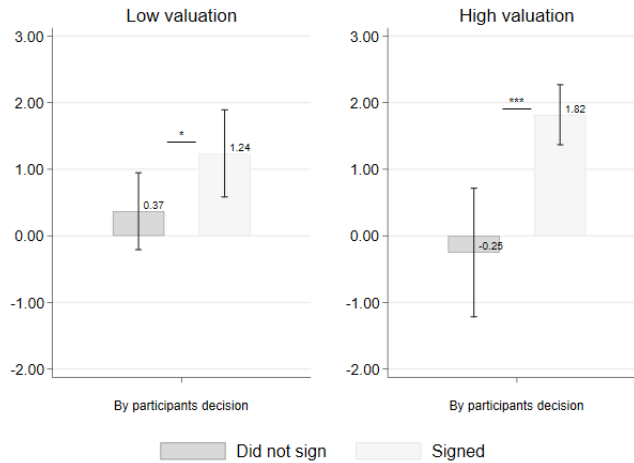
²³We focus on senders with high valuation because, as mentioned earlier, of the senders with low valuation, very few signed the petition.

²⁴Similar results emerge if valuations are not aggregated into low or high.

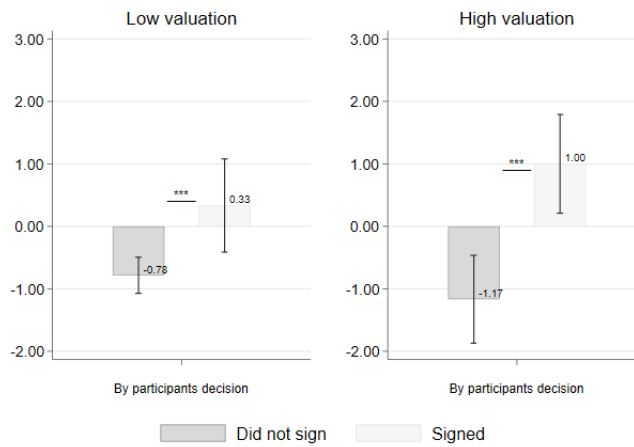
²⁵For high-cost participation, in-group bias is also higher for subjects who participated, but the difference is not statistically significant. This is probably because the sample was substantially smaller. See Figure 13 in the Appendix for the corresponding result.

Figure 8: Difference between amount sent in the trust game to a receiver who signed the petition and who did not, by sender's participation and valuation of the cause

(a) Fireworks petition



(b) Guns petition



Note: 95% level confidence intervals are depicted at the top of each bar. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, n.s. $p > 0.1$. Reported significance levels come from hypothesis testing from a fully saturated linear model where the dependent variable is the difference between the amount sent in the Trust Game to a receiver who signed and the amount sent to a receiver who did not sign, and regressors are dummy variables indicating participation decisions by the sender, by the valuation of the cause.

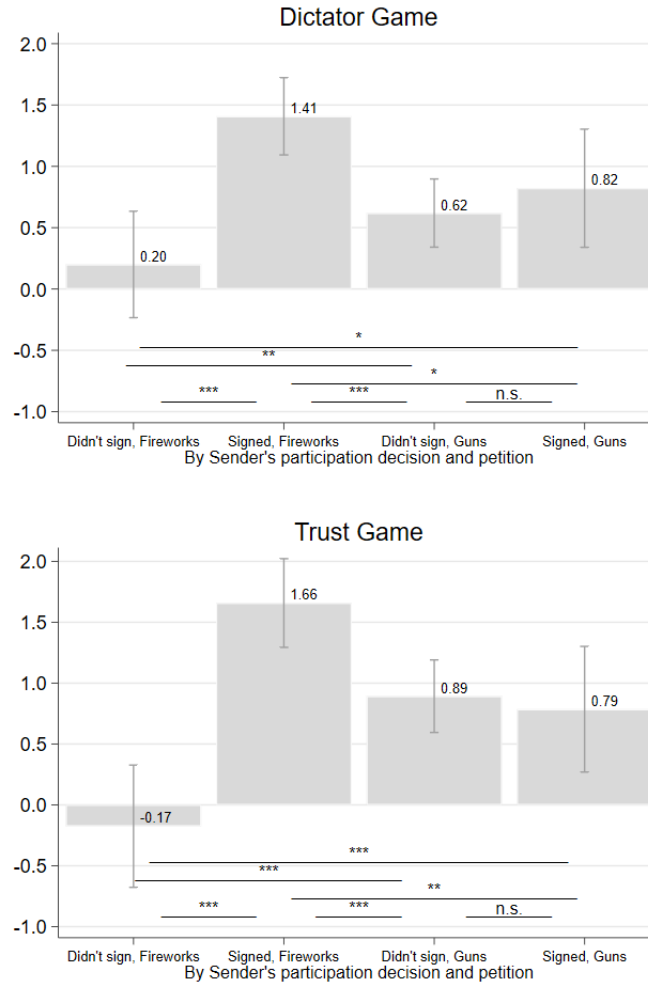
petition, induces the identity and creates in-group favouritism. This effect has been observed in prior experiments (Chen and Li, 2009).

If minimal identity underlies our results, then having signed the petition and not having signed the petition should create similar identity effects. However, from the results of the structural estimation in Section 3.5, we can see that nonparticipation does not generally create identity effects, as β_i^N is not statistically different from zero.

To investigate potential minimal identity effects further, we analyse the behaviour of senders when matched with in-group and out-group receivers separately for each type of participation. For a sender who participates in collective action, an in-group receiver is someone who also participates, while an out-group receiver is someone who does not participate. The opposite is the case for a sender who does not participate. 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.

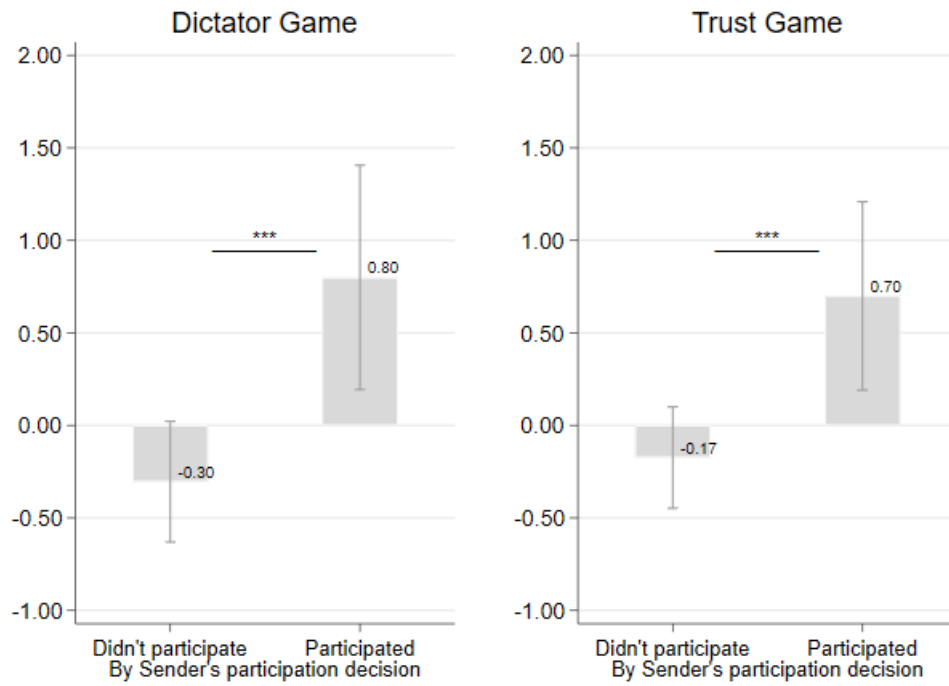
Figure 9 presents the results for the low-cost collective action, while Figure 10 presents the results for high-cost collective action. From the figures, we can see that nonparticipation in the guns petition creates in-group bias. However, nonparticipation in the fireworks petition and in the protests does not create in-group bias: a sender who did not participate does not send more to a receiver who did not participate compared to a receiver who did. This suggests that minimal identity alone cannot explain our results.

Figure 9: 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



Note: 95% level confidence intervals are depicted at the top of each bar. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, n.s. $p > 0.1$. Reported significance levels come from hypothesis testing from a fully saturated linear model where the dependent variable is the difference between the amount sent by the sender to an in-group and an out-group receiver.

Figure 10: Difference between the amount sent by the sender to an in-group and an out-group receiver based on the sender's protest participation, by game



Note: 95% level confidence intervals are depicted at the top of each bar. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, n.s. $p > 0.1$. Reported significance levels come from hypothesis testing from a fully saturated linear model where the dependent variable is the difference between the amount sent by the sender to an in-group and an out-group receiver, and regressors are dummy variables associated with participation decisions by the sender.

6 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 there is significantly more prosocial behaviour between two participants than between two non-participants or between a participant and a nonparticipant. Our structural estimation recovered the effects of shared participation and shared nonparticipation on preferences, showing that the former leads to more prosocial preferences while the latter generally does not. The results also showed that participation creates these attitudes rather than merely signalling preexisting preferences. Hence, participation in political collective leads to in-group bias between fellow participants, in effect creating a group identity.

Because of this, participation brings personal payoffs to participants, which 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 over a longer period. In these cases, individual participation is not a binary decision but can vary in intensity. It is not unreasonable to think that the identity-inducing effect of shared participation is stronger when individuals participate more intensely – for example, attend more protests over a given period of time. Future research can examine whether the intensive margin of participation affects the level of prosocial behaviour that emerges among fellow participants.

At the same time, the laboratory experiment does not reveal the long-term effects of participation on identity. Does shared group identity persist long after the col-

lective 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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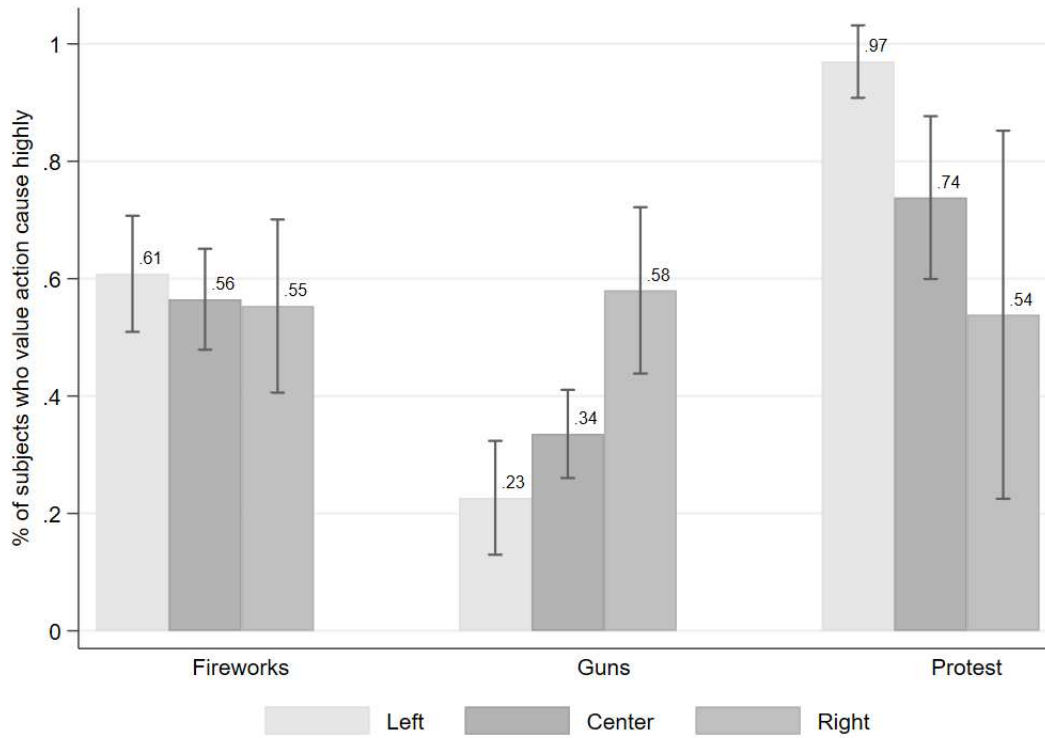
A Appendix

Table 3: Descriptive statistics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Mean	Sd	Mean by Type of Participation			P-value for H_0		
			Fireworks	Guns	Protest	(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			

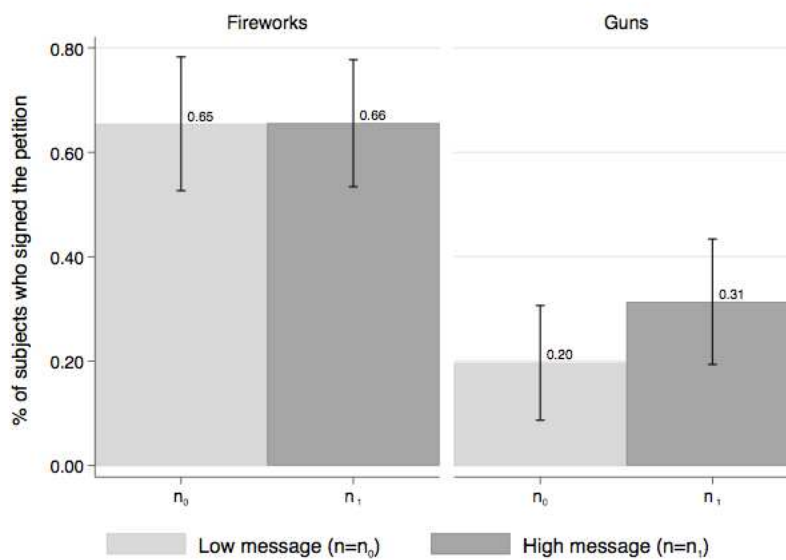
Note: Variables correspond to reported academic semester, political spectrum (from 1-left to 5-Right), the answer to a beauty contest question, WT Risk: self-reported willingness to take risks (from 1 to 10), Generalised trust is 1 if the individual thinks that one can trust in people, whether the subject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

Figure 11: Petition and protest valuation by political position



Note: The figure depicts the percentage of subjects who value the political action cause highly. Specifically, we ask them how worthy they think the cause is, on a scale from 1 to 5. Low-valuation: values 1 – 3 and high-valuation: values 4 – 5. Vertical lines at the top of each bar depict 95% level confidence intervals.

Figure 12: Herding motives, $n_0 < n_1$



Note: The figure depicts the percentage of subjects who chose to sign the petition after they receive a message, without deception, stating that “More than n people have already signed the petition”, where n was a number that was smaller than the actual number of signatures that the online petition had already gathered by the beginning of the lab experiment. In the experiment, n could take two values: $n_0 = 2,137$ or $n_1 = 21,370$. Vertical lines at the top of each bar depict 95% level confidence intervals.

Table 4: Decision to participate in collective action, other controls

	Dep Var: Petition Signed/Participated in strike				
	(1)	(2)	(3)	(4)	(5)
	Fireworks	Guns	F & G	F & G [†]	Protest
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-related major	-0.098 (0.123)	-0.008 (0.091)	-0.071 (0.084)	0.196 (0.148)	0.023 (0.127)
Socioeconomic stratum	0.022 (0.037)	-0.075** (0.035)	-0.017 (0.027)	0.054 (0.041)	-0.142*** (0.036)
Beauty contest answer	-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)
Observations	110	110	220	99	87
R-squared	0.304	0.303	0.244	0.456	0.214

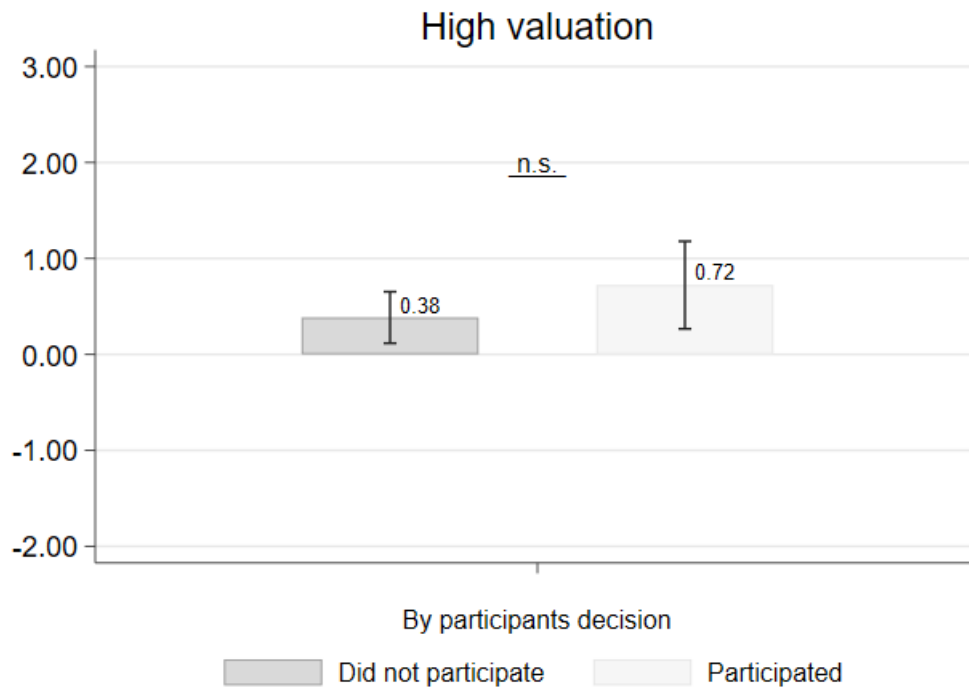
Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. The dependent variable is whether the individual signed the petition or participated in the national strike. Socioeconomic stratum ranges from 1 to 6. WT Risk is the self-reported willingness to take risks (from 1 to 10). Beauty contest answer measures the depth of reasoning. [†]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 5: 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 trust game

	Fireworks					Guns				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dep Var: (amount sent to Receiver who signed) - (amount sent to Receiver who did not sign)										
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

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust Standard errors in parentheses. Coefficients from an OLS regression are reported in the table. Columns (1) to (5) use the data from the fireworks petition, while columns (6) and (10) use the data from the guns petition. The 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. DG: Dictator Game. TG: Trust Game. Controls included in columns (5) and (10) include whether the subject is female, socioeconomic strata (from 1 to 6), academic semester, whether studying an economics-related major, self-reported willingness to take risks, generalized trust, position on the left-right political spectrum (from 1 to 5), the 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 socioeconomic 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



Note: 95% level confidence intervals are depicted at the top of each bar. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, n.s. $p > 0.1$. Reported significance levels come from hypothesis testing from a fully saturated linear model where the dependent variable is the difference between the amount sent in the Trust Game to a receiver who signed and the amount sent to a receiver who did not sign, and regressors are dummy variables indicating participation decisions by the sender, by the valuation of the cause.

Online Appendix

Experimental Instructions: Guns Petition

T2- Guns 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

Experimental Economics Laboratory

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 endowments 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. 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.

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

Next

Informed Consent

Laboratory of Experimental Economics

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 signing 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.

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 matched 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 2 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 High corresponds to the lowest number of signatures of the three petitions to be experimented with. X Low is the 10% of X High.

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 **2.137** people have signed the petition.

Name of the petition: “Do you support the right to legally protect yourself and your family?”

Legal firearms users have a legal permit to own firearms 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 carrying firearms.

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

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

By the ban on carrying firearms, normal citizens are immediately left in disadvantage compared to criminals, because citizens are not allowed to employ all means at hand to legitimately defend themselves or defend third-parties. Moreover, by not intervening when seeing an armed crime, the legal firearm owner incurs in the crime of failing to provide help.

It has been statistically proven that nearly 98% of the homicides with firearms in Colombia were committed using illegal firearms and it does not make sense to think that the statistics are going to decrease at the expense of a ban on carrying firearms by 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 want 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?
 - Not at all
 - Little
 - Quite a bit
 - A lot

3. How much trust do you have in the National Government?
 - Not at all
 - Little
 - Quite a bit
 - A lot

4. How much trust do you have in the Republic Congress?
 - Not at all
 - Little
 - Quite a bit
 - A lot

5. How much trust do you have in the Judicial Body?
 - Not at all
 - Little
 - Quite a bit
 - A lot

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 matched 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 ends we will let you know if your partner had signed or not. After that, we will compute the payment of this Stage 3 based on your relevant decisions. That is, if you are matched with someone who signed the petition we will consider the decisions you made when 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 when 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:
 - Male
 - Female
 - 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 pay for your university tuition fees (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 religion?
 - 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 is 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 cause is?

- 1
- 2
- 3
- 4
- 5

14. How much do you trust that online petitions might 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 who chooses the number that is closer to $2/3$ (two thirds) of the mean of all participants' 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: What 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

¡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

¡Thank you very much for your participation!

Remember to visit the website Change.org and search the petition **“Do you support the right to legally protect 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

Experimental Instructions: Fireworks 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 whether you want to sign it or not. In case you want to sign it, 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 hear 3 times louder than us? Could you imagine how the fireworks' explosions affect them? It is a real torture.

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

We hope more people were aware of what they do when using fireworks and how it affects other beings' life, including animals.

Consequently, with this petition I want to make thousands of Colombians aware of this so they join me in saying #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 noise. It is our responsibility to take care of them and do everything we can to guarantee their well-being.

Let's get rid of the cost of using fireworks during Christmas celebrations to be a burden for our animals.

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

Experimental Instructions: Protests

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