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Prosocial Behavior in the Time of COVID-19: The Effect of Private and Public Role Models

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ABSTRACT

Prosocial Behavior in the Time of COVID-19: The Effect of Private and Public Role Models[*]

In public good provision and other collective action problems, people are uncertain about how to balance self-interest and prosociality. Actions of others may inform this decision. We conduct an experiment to test the effect of watching private citizens and public officials acting in ways that either increase or decrease the spread of the coronavirus. For private role models, positive examples lead to a 34% increase in donations to the CDC Emergency Fund and a 20% increase in learning about COVID-19-related volunteering compared to negative examples. For public role models these effects are reversed. Negative examples lead to a 29% and 53% increase in donations and volunteering, respectively. Results are consistent with the Norm Activation Model: positive private role models lead to more prosocial behavior because they increase norms of trust, while negative public role models increase a sense of responsibility among individuals which convinces them to act more prosocially.

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1 Introduction

We take cues about how to behave from other people, especially in times of great uncertainty like the current COVID-19 pandemic. Home-bound, many turn to the media to learn about the actions of fellow citizens and political leaders. Imagine you are watching the evening news and you see coverage of people defying social distancing guidelines, partying on the beach or congregating in restaurants. Would you give up on flattening the curve or increase your efforts to make up for failings of others? What if, instead, you saw reporting of thousands of people volunteering as health workers in their communities? Would you be inspired and join the fray or sit back more relaxed, knowing that others fill in the void? And would your reaction differ if the people you saw were public figures?

We test these questions through an experiment with 690 participants recruited online in the United States. We randomly assign participants to watch a short video showing either private citizens or politicians behaving in ways that have either a negative or a positive effect on preventing the spread of the coronavirus. We measure the effect of these videos on norms two forms of prosocial behavior[1]: how much they donate to the CDC Emergency Fund out of a bonus that we designate to them and whether they spend time learning about local volunteering opportunities related to COVID-19.

We find that participants who watch positive citizen role models donate 34% more of their bonus than those watching people disobey social distancing guidelines. We observe a similar pattern for the volunteering outcome (although the difference is not statistically significant). Positive private role models beget more positive behavior, resulting in a virtuous cycle of prosociality; the opposite is true for negative role models (Willer, 2009).

Results look very different for public role models. We randomly assign participants to view coverage of elected officials either acting prosocially (leading the public health response and giving inspirational speech) or in an antisocial manner (failing to take actions to curb the virus, while engaging in insider trading). Participants who watch the positive role model donate 29% *less* and are 53% *less* likely to take steps to learn about volunteering opportunities compared to people who watch politicians mismanaging the crisis. In sum, results suggest that the actions of government officials are seen as substitutes, those of fellow citizens as complements to the participants' own actions.

These results can be reconciled by Schwartz's seminal Norm Activation Model (NAM) (Schwartz, 1977), which posits that prosocial behavior depends on both the adoption of prosocial norms and a sense of responsibility among individuals for taking actions that satisfy those norms. Trust is one of the key norms among groups that succeeded in acting prosocially and avoiding prisoner's dilemmas (Ostrom, 2009). Studies find that the majority of people are "*strategic cooperators*": they are willing to contribute to a public good if they believe that others will do the same (Fischbacher et al., 2001). Making sacrifices requires trust in reciprocity – otherwise an individual's own costly actions are ultimately fruitless. Norms of trust can thus create coordinated responses without the

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[1]We define prosociality as acts that benefit others, including behaviors such as sharing, donating and cooperating (Batson and Powell, 2003).

need for negotiations, explicit agreements or enforcement. We find that that trust is influenced by the actions of private role models: people who watched positive examples are 21% more likely to agree with the statement "*Most people can be trusted*" than those who watched the negative examples of private role models.

By contrast, public role models do not affect trust norms. They do, however, influence whether people feel responsible to contribute to a collective action problem. Watching the video of failing political leaders leads to a 70% increase in the share of participants who report that personal responsibility to take action was an important factor in their decision how much to donate. In sum, the NAM suggests that positive private role models are effective because they increase norms of trust. Negative public role models increase prosocial behavior because it increases people's responsibility to "step up" and take action.

These results speak to a rapidly emerging literature on the COVID-19 crisis and two established strands of literature.[2] First, role models have been extensively studied in social psychology, founded on social learning theory (Bandura and Walters, 1977) and social comparison theory (Festinger, 1954). Role models have been shown to influence others by acting as behavioral models, showing what is feasible, and inspiring people (Morgenroth et al., 2015). Our intervention is most closely related to a set of studies that specifically test the effect of role models in entertainment and news media. These have been shown to increase female autonomy (Jensen and Oster, 2009), reduce fertility (La Ferrara et al., 2012), and improve financial decision making (Berg and Zia, 2017), among other behaviors.

Second, our study contributes to the literature on public good provision. Studies have found that people consider private and public contributions to public goods as substitutes (Roberts, 1984). For example, if government funding to charitable organizations increases people give less (De Wit and Bekkers, 2017). Our results suggest that this substitution behavior extends to the *perceived ability* of the government to provide public goods and confirms that it operates through a feeling of responsibility. We also find that this substitution behavior is especially pronounced among women.

We want to acknowledge two limitations of the study design. First, we estimate short-term effects of role models. While immediate reactions are important and especially relevant during an acute crisis, it is important to note that effects may vary over time. Second, for the public role model treatments, we are using clips of specific politicians. Although we emphasize to participants that the behavior applies to both Democratic and Republican politicians, the treatment may be seen as partisan. It is, however, reassuring that treatment effects do not vary by participants' political leaning.

Overall, our findings suggest that the perception of how others act in a national crisis can have large effects on people's behavior. Sociologists believe that major national crises can present watershed moments in what people prioritize and how the social and economic system is structured. For example, the COVID-19 pandemic may affect how much people support changes in the health care system, social protection or paid sick leave legislation. Perceptions of trust and social solidarity may shape what these changes will look like.

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[2]For an updated overview of studies see the registry of COVID-19 studies on https://www.eeassoc.org.
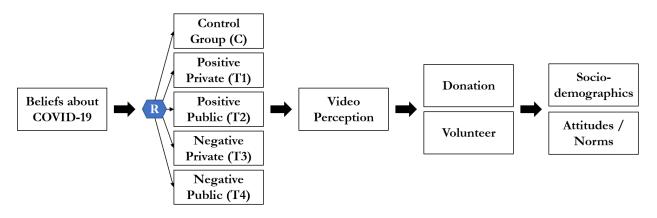
The remainder of the paper is structured as follows. Section 2 describes the study design and sample. Section 3 reports results and discusses mechanisms. Section 4 concludes with a discussion.

2 Study Design

2.1 Recruitment and Sample Characteristics

The study was conducted in early April 2020, shortly after states started to enact shelter-in-place and social distancing orders. We recruit 689 participants located in 48 U.S. states via Amazon's MTurk.[3] Table A1 (Column 2) shows baseline characteristics of our study sample. The average age of the population is 37, slightly below the national average of 38.2. 40% are female and 70% of our sample identifies as "White", compared to the national average of 60%. 65% of participants completed a four year college degree, far above the national average of 35%.

Figure 1: Experimental Design

Participants have a diverse range of political leanings: 44% describe themselves as liberal, 21% as moderate and 35% as conservative. Compared to the national average, liberals are over-represented (44% vs. 24%), while the share of conservatives is almost identical (35% vs. 37%). Participants are also relatively well informed - 87% agree with the statement that they have closely followed media reporting on the coronavirus. 80% assert that people can effectively protect themselves from getting infected, and 35% believe that they will contract the virus.

2.2 Treatments

Figure 1 summarizes the experimental design. After eliciting attitudes about the coronavirus, we randomize participants into a control group or one of four treatment groups. All participants receive

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[3]MTurk is becoming increasingly popular as a platform for academic research. See for example DellaVigna and Pope (2018).

the following message: *"We are interested in how the media reports about the coronavirus. Please watch the following 1 min video. We will then ask you to assess the quality of the reporting."*
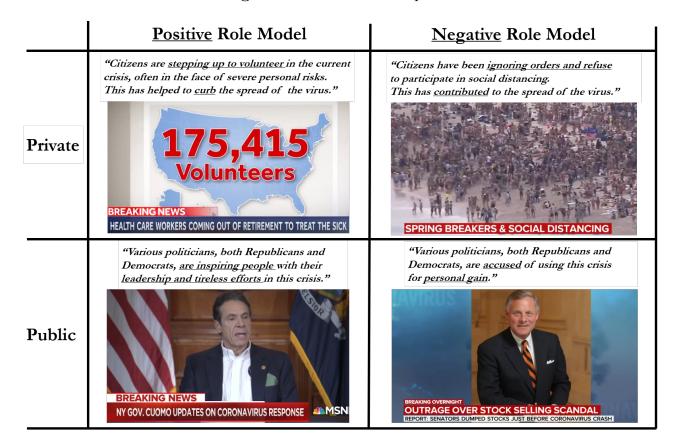
Figure 2: Treatment Groups

	Positive Role Model	**Negative Role Model**
Private	*"Citizens are <u>stepping up to volunteer</u> in the current crisis, often in the face of severe personal risks. This has helped to <u>curb</u> the spread of the virus."*	*"Citizens have been <u>ignoring orders and refuse</u> to participate in social distancing. This has <u>contributed</u> to the spread of the virus."*
Public	*"Various politicians, both Republicans and Democrats, <u>are inspiring people</u> with their <u>leadership and tireless efforts</u> in this crisis."*	*"Various politicians, both Republicans and Democrats, are <u>accused</u> of using this crisis for <u>personal gain</u>."*

Figure 2 summarizes the messages participants read and the content of the video for each group. The four treatment groups watch a prominent example of either prosocial (from hereon referred to as positive) or anti-social (negative) behavior, committed either by private citizens or politicians. The positive private role model shows thousands of Americans volunteering as health workers. The message reads "*Citizens are stepping up to volunteer in the current crisis, often in the face of severe personal risks. This has helped to curb the spread of the virus.*". By contrast, the negative private role model example states that "*Citizens have been ignoring orders and refuse to participate in social distancing. This has contributed to the spread of the virus.*" and shows a video of people defying social distancing orders and congregating in public places.

The positive public role model example states that "*Various politicians, both Republicans and Democrats, are inspiring people with their leadership and tireless efforts in this crisis.*" and shows an inspirational speech by New York Governor Cuomo in which he stresses that in this historic crisis you need to see both citizens and the government to "*perform at their best*". The negative public role model example states that "*Various politicians, both Republicans and Democrats, are accused of using this crisis for personal gain.*" and documents how politicians engaged in insider trading while failing to take action and publicly downplaying the health risk of the coronavirus.

All of these examples received attention in the media. In fact, the share of participants who state after watching the video that the content was "Not novel" ranges between 30% and 40% (Figure A1). The videos are also perceived to be highly accurate - the share who claim the the content is "inaccurate" ranges between 2% and 5% (Figure A1). Importantly, differences in novelty and accuracy are small and not statistically significant, with the exception of the positive citizen role model is perceived to be marginally more accurate than the negative role model. All results we show in this paper are robust to controlling for perceptions of novelty and accuracy.

While most of the analysis will focus on the difference between the treatment arms, we included a control group that watches a video on the science behind the coronavirus.[4]

2.3   Balance and Estimation

Columns 3 through 11 in Table A1 report mean values of the five randomly assigned groups as well as p-values (p-v) from a test of equal means of the control and respective treatment group. Of 36 tests, none is significant at the 5% level and only one difference is significant at the 10% level.[5]

Testing for causal inference in this context is straightforward. In the next section, we will present results graphically, comparing outcome means between randomly assigned groups. In the appendix, we also report results from OLS regressions using the following specification:

$$y_i = \beta_0 + \beta_1 PosPriv_i + \beta_2 PosPub_i + \beta_3 NegPriv_i + \beta_4 NegPub_i + \gamma X_i + \epsilon_i \tag{1}$$

Outcome y for participant i is regressed on the treatment group dummies. Beta coefficients measure the difference in outcomes between the treatment and control groups. We also report results controlling for baseline covariates and compute heteroskedasticity robust standard errors.

3   Results

3.1   Prosocial Behavior: Donation and Volunteering

Two of the most commonly used metrics for individual prosocial behavior are charitable giving and volunteering. Most studies rely on self-reported intentions of prosociality. To address concerns of surveyor demand effects, we design the following two outcomes (as specified in the AEA registry). We first give participants an (unanticipated) bonus of 30 cents and give them the option

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[4]We also piloted a "pure" control group that did not watch any video. Results between these two groups were similar so we decided to include the video as a form of placebo treatment.

[5]Characteristics between treatment groups are also balance. For example, p-values for a test of joint significance are 0.48 and 0.47 for differences between positive and negative private and public role models, respectively.

to donate part of the the bonus to the CDC Emergency Response Fund. We inform them that it funds *"personal protective equipment and critical response supplies"* to help *"prevent the spread of the coronavirus"* (Figure A2, top panel). After participants make their donation decision, we inform them about an organization called "VolunteerMatch", which *"helps people volunteer in the coronavirus crisis"*. We record whether participants click on a link to *"learn more about virtual and local volunteering opportunities"* (Figure A2, bottom panel).

The average donation was 13.2 cents (44.1%) with 64.7% of participants donating a positive amount and 43.8% of participants click on the link. Table A2 (Col 1-4) shows how socio-demographic characteristics are correlated with these outcomes.

Figure 3 shows how these two measures of prosociality differ between the randomly assigned groups. The top panel that people donate 3.78 cents (34%) more after watching the positive compared to the negative private role model video. Strikingly, the relationship *reverses* for public role models: people watching the negative example donate 3.25 cents (29%) *more*. Both of these differences are significant at the 5% level. Table A.1 (Col 1 - 2) reports corresponding regression estimates, including p-values for comparison of means between all treatment arms.

Results for volunteering follow a similar pattern. People are 19% more likely to take the time to learn about opportunities after watching positive compared to negative citizen examples (p-value=0.265). Conversely they are 53% more likely to click on the link after seeing videos of negative compared to positive politician behavior (p-value=0.003) Table A.1 (Col 3 - 4). The similarity between outcomes is all the more striking as donation and volunteering are not correlated (r=-0.006) and may thus measures different dimensions of prosocial behavior.[6]
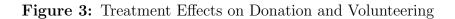
3.2 Mechanisms

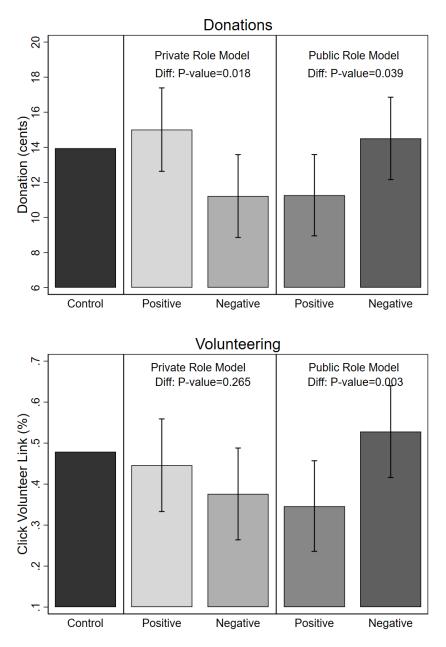### 3.2.1 Framework: Norm Activation Model

The seminal Norm Activation Model (NAM) by Shalom Schwartz (1977) posits that there are three fundamental antecedents to prosocial behavior: people need to i) adopt personal norms, ii) be aware of the consequences of (in)action, iii) and feel responsible to act.[7] Predictions of the NAM have found support in prosocial behaviors ranging from volunteering (Schwartz and Howard, 1980), donating blood (Zuckerman and Reis, 1978) and environmental protection (Schultz et al., 2005).

The NAM framework helps in gaining a deeper understanding of the results. Specifically, we collected data on participants' norm of trusting others and their sense of responsibility to act in the current crisis and test how these outcomes differ across the different role model treatments.

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[6]Table A2 shows that some people treat volunteering and donations as substitutes. E.g., those who are concerned about contracting COVID-19 donate more but are less likely to show interest in volunteering.

[7]There is disagreement on whether the awareness of consequences and acscription of responsibility act as mediators (see De Groot and Steg (2009) for a discussion.)

Figure 3: Treatment Effects on Donation and Volunteering

Notes: The graph shows treatment effects on donations and volunteering. 90% confidence intervals are reported.

3.2.2 Trust Norms

We collect data on how much people agree with the statement that "*Most people can be trusted.*", a standard metric of general trust or social capital (Putnam, Putnam). The overall share in our sample who agree with the statement is 57%, similar to the the share of 52% found in nationally representative surveys (Pew, 2019). Determinants of social trust are reported in Table A2.
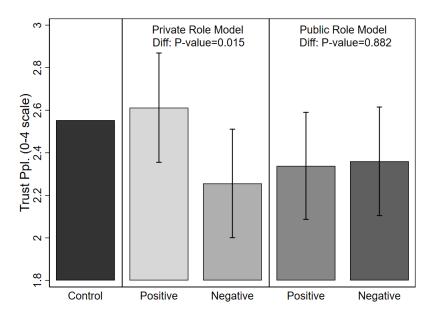
Figure 4: Trust in People

Notes: The graph shows how much people agree with the statement "Most people can be trusted". Responses are coded as 0=strongly disagree through 4=strongly agree.

Figure 4 shows how agreement with this statement varies across treatment arms (responses coded as 0=strongly disagree,..., 4=strongly agree). The average for participants watching the positive citizen video is 0.36 points (0.32 s.d.) higher than for those watching the negative citizen video (p-value: 0.015). This translates into a 11.2 percentage point (21.2%) increase in the share agreeing that most people can be trusted. By contrast, responses are very similar between the politician videos.

People's beliefs and actions are shaped by personal norms. Fischbacher et al. (2001) conclude that the most people are *conditional cooperators*: their voluntary contributions to public goods are positively correlated with their ex ante beliefs about whether others also contribute.[8] Kim et al. (2019) find that environments in which people are trusting of others also have high degrees of trustworthiness. Trust is thus highly predictive of conditional cooperation and can increase voluntary contributions to public goods. In the context of our study, trust can convince people to act against their narrow self-interest and behave more prosocially.

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[8]Thöni and Volk (2018) find in a meta analysis that findings by Fischbacher et al. (2001) are robust to a range of game experimental parameters.

It may be surprising that watching actions of fellow citizens has a large effect on trust norms. One explanation is that in an unprecedented national crisis, people are more uncertain about how (prosocial) fellow people respond and are therefore more likely to revise their views and norms. In line with this argument, we find that people show a much stronger emotional response to watching the private role model videos. Figure A3 reports whether people report feeling sad or happy and stressed or calm after watching the videos (measured on a 1-10 scale). The difference in happiness between watching positive and negative examples is more then three times larger for citizens (2.6 points, 1 s.d.) than politician (0.75 points, 0.29 s.d.). Similarly, the difference for feeling stressed vs. calm is twice as large for private compared to public videos.

3.2.3 Ascription of Responsibility

To better understand the rationale for people's decision to act prosocially, we ask participants at the end of the survey "*Which of the following questions most influenced your decision of how much to donate?*". One of the four answer choices was "*Is it my personal or the government's responsibility to provide help?*".[9] People who choose this option donate 41% more than others, suggesting that it captures whether people feel responsible to act prosocially.

Figure 5 shows that the feeling of responsibility does not vary across private role models. By contrast, this share is 7.6 percentage point (75%) higher for those watching the negative compared to positive public role models. While these differences are estimated imprecisely (p-value=0.079), they suggest that positive public role models reduce a sense of responsibility. In line with this explanation, people report feeling significantly more calm after watching the video of a politician who is widely hailed for effectively managing the crisis (Figure A3, bottom panel).

These results are consistent with traditional public good models of prosocial behavior, which predict that government funding crowds our individual support as people are mainly concerned about the overall amount of funding (Roberts, 1984). People thus consider private and public contributions as (perfect) substitutes. Studies have found support for this type of crowding out in charitable giving and other prosocial behavior.[10] Our findings suggest that crowding out occurs not just for actual government contributions but also for the *perceived ability* of the government to provide public goods. Confronted with an example of politicians failing to manage the crisis, participants feel the need to step up and compensate for government shortcomings.
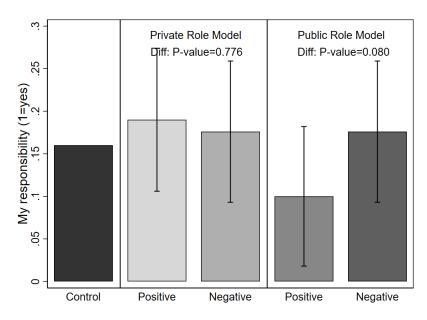
In sum, results are consistent with predictions of the NAM: Positive private role models facilitate prosocial behavior because they increases prosocial norms of trust while not affecting ascription of responsibility. By contrast, negative public role models do not change prosocial norms, but increase a sense of responsibility.[11]

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[9]Other answers include "*Does that small amount make a difference?*" (26.9%), "*Do I have enough resources myself in the current situation?*" (36.7%), and "*How much do people expect me to give?*" (8.2%)

[10]In a meta-analysis, De Wit and Bekkers (2017) find that a one dollar increase in government support for charitable organizations decreases private donations by about 64 cents. Other studies find that this form of crowding out also applies to volunteer labor (Duncan, 1999). There is, however, evidence that at least part of this crowding out is due to reduced fundraising by organizations (Andreoni and Payne, 2011).

[11]In collecting outcomes, we inform people about the consequences of their action. For example, the

Figure 5: Feeling Responsible

Notes: The graph shows treatment effects on respondents reporting feeling responsible to act.

3.3   Gender Differences

While the literature finds no overall gender differences in prosociality, men and women have been found to be influenced by gendered expectations in their choice of particular classes of these behaviors. This section will therefore explore how results differ between women and men.[12]

Figure A5 shows that differences in response to positive and negative private role models are very similar across gender. By contrast, we see large differences in response to public role models. Women's increase in donations for negative role models is more than twice that of men, and the share of women interested in volunteering more than doubles compared to an 18% increase for men. In line with predictions by the NAM, we also find that women report being more stressed after watching negative public role models and sharply increase their sense of responsibility (Figure A6).

Eagly (2009) concludes that in choosing classes of prosocial behavior, people are influenced by gendered expectations. "*Sex differences in prosocial behavior depend in part on whether a*

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donation question mentioned that "*funds are used to buy equipment to stop the spread of the virus*". All participants should therefore be aware of consequences of prosociality, although we cannot rule out that the videos themselves had additional effects on awareness. Other determinants of prosocial behavior include the identification of actions to address needs, which we also provide to participants in our study (De Groot and Steg, 2009).

[12]Both female and male role models were featured in each of our examples, which precludes us from looking at the interaction of role model and role agent gender. Existing studies suggest that female role models may be particularly important for women. E.g. Porter and Serra (2019) find that female role models have a large impact on women's college major choice.

behavior requires mainly agentic attributes associated with men or communal attributes associated with women." (Eagly (2009), p.649).[13] In our sample, men are indeed 50% more likely (p-value: 0.029) to believe it is their own relative to the government's responsibility to help - an agentic attitude. However, our results suggest that in situations of perceived need, women are more likely than men to revise their attitude and become more agentic.

This pattern is also supported by societal trends in recent years. Women have been at the forefront of political protests after President Trump's election. Millions participated in Women's March events and the number of women running for congress increased between 2016 and 2018 by 70% (Center for American Women and Politics 2020).

4   Discussion

In times of great uncertainty, people look at the actions of others for guidance. Our study shows that private and public role models affect people's behavior. Examples of volunteering citizens enhances social trust and increases prosociality compared to examples of people defying social distancing. By contrast, seeing public figures mismanaging the crisis increases prosocial behavior as it strengthens people's sense of responsibility. While failures of political leaders arguably worsened the crisis, they may have thus inadvertently convinced citizens to step up and take actions in their own hands, whether by delivering food, sowing masks, or donating.

We want to acknowledge three caveats of our study design. First, our main outcomes (donation and volunteering) focus on individual behavior. A different form of prosociality is to follow government orders, even if they come at a personal cost. We collect data on this by asking participants how much they agree with the statement "*The government should take every necessary action, even if this leads to large losses in the stock market.*" Figure A7 shows that differences between the treatment groups are small and not statistically significant, suggesting that our intervention did not change views on support for government measures. Effects seem to be limited individual behavior. This may be unsurprising given that people tend to hold firm views about the role of government.

A second open question is whether the effects of role models persist or if we are instead merely capturing short-run effects. While our study was not designed to answer this question, it is noteworthy that in many situations, people's decision whether to act prosocially is heavily influenced by what they observe others are doing in that moment.[14] Our results suggest that this can set up a dynamic that amplifies the effects of private actions since people tend to follow the behaviors of others (Willer, 2009).

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[13]Agentic personality traits include being self-organizing, assertive, proactive, and believing that actions can lead to certain results. For example, most (youth) sport coaches are male, while women are assigned roles of "team moms", organizing social events and providing support (Messner and Bozada-Deas, 2009).

[14]For example, Reyniers and Bhalla (2013) find that people's donation behavior is strongly influenced by what they learn others are donating.

Third, we want to acknowledge that we test the effect of four very specific examples of private and public role models. While all examples are linked to the spread of the coronavirus, treatment effects may differ for other role models. It is reassuring, however, that results on underlying mechanisms are closely in line with predictions from the NAM, which has been validated across numerous domains of prosocial behavior. In addition, effects of the politician videos do not vary by respondents' political affiliation, possibly because we emphasize that they depict examples of behavior of both Democratic and Republican politicians (see Figure A4).

Thomas Friedman notes that "*pandemics leave nothing hidden. They... expose every weakness or strength in your society: how much trust you have in your government; how much social trust exists in your community to enable collaboration.*" (New York Times, April 21, 2020). National crises like the COVID-19 epidemic can thus become watershed moments, in which we revise our views of others, and revise our own role in society.

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A Appendix

A.1 Tables

Table A1: Balance Table

	Sample N	Sample Mean	Control Mean	T1 pos cit Mean	T1 pos cit p-v	T2 pos gov Mean	T2 pos gov p-v	T3 neg cit Mean	T3 neg cit p-v	T4 neg gov Mean	T4 neg gov p-v
Age	689	37.2	36.6	38.7	.15	36.8	.83	36.8	.84	37.4	.5
Female	689	.4	.38	.43	.36	.43	.35	.34	.45	.45	.22
White	679	.7	.68	.76	.14	.77	.08	.65	.58	.65	.52
College	679	.65	.66	.66	.91	.67	.94	.63	.58	.61	.35
Liberal	689	.44	.46	.45	.78	.45	.88	.41	.34	.42	.5
Conservative	689	.35	.38	.36	.73	.3	.12	.33	.32	.35	.58
Follow Media	689	.87	.85	.88	.45	.88	.31	.86	.65	.87	.51
Concern Virus	689	.36	.34	.42	.13	.33	.94	.4	.25	.35	.76
Trust Protection	689	.8	.82	.78	.31	.86	.37	.75	.13	.78	.38
Joint Significance					0.31		0.20		0.30		0.53

Notes: P-values (p-v) are reported for a comparison of means with the control group. Characteristics are also balanced between treatment arms. P-values for tests of joint significance are: 0.54 (T1=T2), 0.59 (T1=T3), 0.53 (T1=T4), 0.15 (T2=T3), 0.34 (T2=T4), 0.82 (T3=T4),

Table A2: Correlates with Donations, Volunteering, Trust, Responsibility

	Donation		Volunteering		Trust People		Responsibility	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age: 18-29	-4.94***	-4.99***	-0.104*	-0.101	-0.395***	-0.403***	-0.025	-0.027
	(1.56)	(1.57)	(0.060)	(0.059)	(0.135)	(0.134)	(0.043)	(0.042)
Age: 30-39	-5.43***	-5.34***	0.012	0.020	-0.358***	-0.382***	0.003	0.0002
	(1.49)	(1.51)	(0.058)	(0.058)	(0.129)	(0.127)	(0.042)	(0.042)
Age: 40-49	-3.30*	-3.59**	0.023	0.040	-0.119	-0.185	0.051	0.043
	(1.68)	(1.70)	(0.065)	(0.065)	(0.140)	(0.141)	(0.049)	(0.050)
1=Female	1.77*	1.47	0.048	0.051	-0.095	-0.098	-0.062**	-0.065**
	(0.99)	(0.98)	(0.039)	(0.039)	(0.088)	(0.086)	(0.028)	(0.029)
1=White	-3.23***	-2.61***	-0.051	-0.068	-0.241**	-0.185**	-0.038	-0.028
	(1.02)	(0.99)	(0.043)	(0.043)	(0.094)	(0.093)	(0.033)	(0.033)
1=4 Yr College		-1.09		-0.053		0.167**		0.017
		(0.93)		(0.038)		(0.084)		(0.029)
1=Conservative		1.67*		-0.035		0.287***		0.029
		(0.96)		(0.040)		(0.088)		(0.030)
1=Worried Corona		4.60***		-0.115***		0.289***		0.072**
		(0.96)		(0.039)		(0.089)		(0.031)
Observations	672	672	679	679	679	679	679	679
Rsquare	0.04	0.08	0.02	0.03	0.02	0.06	0.01	0.02
Mean	13.24	13.24	0.44	0.44	2.43	2.43	0.16	0.16
Std Dev	12.37	12.37	0.50	0.50	1.13	1.13	0.37	0.37

Notes: The age group left out are people over 50. *Conservative* is an indicator variable for people reporting to be "Somewhat conservative" or "Very conservative". *Worried corona* is an indicator variable measuring whether individuals are worried that they will contract corona. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A3: Results: Donations, Volunteering, Trust, Responsibility

	Donation		Volunteering		Trust People		Responsibility	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Positive Private (T1)	1.062	0.778	-0.032	-0.047	0.058	0.043	0.031	0.031
	(1.467)	(1.480)	(0.058)	(0.058)	(0.131)	(0.129)	(0.045)	(0.045)
Positive Public (T2)	-2.677*	-2.801**	-0.133**	-0.128**	-0.215*	-0.180	-0.060	-0.057
	(1.407)	(1.413)	(0.056)	(0.057)	(0.125)	(0.128)	(0.038)	(0.038)
Negative Private (T3)	-2.725*	-2.905**	-0.103*	-0.098*	-0.297**	-0.311**	0.016	0.014
	(1.396)	(1.403)	(0.057)	(0.057)	(0.126)	(0.126)	(0.043)	(0.044)
Negative Public (T4)	0.562	0.283	0.049	0.038	-0.193	-0.197	0.016	0.019
	(1.421)	(1.411)	(0.058)	(0.058)	(0.132)	(0.130)	(0.043)	(0.044)
Controls	N	Y	N	Y	N	Y	N	Y
Observations	682	672	689	679	689	679	689	679
Rsquare	0.02	0.04	0.02	0.02	0.01	0.05	0.01	0.02
Sample Mean	13.24	13.24	0.44	0.44	2.43	2.43	0.16	0.16
Std Dev	12.37	12.37	0.497	0.497	1.128	1.128	0.367	0.367
T1=T2	0.020	0.027	0.105	0.195	0.059	0.124	0.043	0.050
T1=T3	0.018	0.022	0.264	0.420	0.014	0.013	0.776	0.732
T1=T4	0.757	0.757	0.200	0.181	0.094	0.101	0.776	0.808
T2=T3	0.975	0.947	0.621	0.627	0.555	0.354	0.079	0.105
T2=T4	0.038	0.047	0.003	0.007	0.882	0.905	0.079	0.084
T3=T4	0.034	0.038	0.015	0.031	0.475	0.426	1.000	0.918

Notes: The dependent variable in Column 1-2 measures the amount (in cents) out of the bonus of 30 cents that participants donate towards the CDC. The dependent variable in col. 3-4 is a binary measure of whether participants click on the volunteering link. Col. 5-6 measure whether people agree with the statement that most people can be trusted, with answers coded from strongly disagree =0 to strongly agree = 4. Col. 7-8 measure whether people report that the question of personal responsibility was most important in their donation decision. All estimations are OLS. Robust standard errors are in parentheses. The mean of the dependent variable for the control group is reported. The bottom rows present p-values from a test of equal coefficients for the different treatment arm combinations. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A4: Reactions to Video: Accuracy, Novelty, Happiness, Calmness

	Accuracy		Novelty		Happy		Calm	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Positive Private (T1)	0.173**	0.181***	-0.526***	-0.509***	1.556***	1.597***	0.503	0.509
	(0.054)	(0.054)	(0.084)	(0.085)	(0.312)	(0.306)	(0.311)	(0.310)
Positive Public (T2)	0.086	0.088	-0.654***	-0.649***	0.477	0.483	0.709*	0.728*
	(0.060)	(0.061)	(0.082)	(0.084)	(0.303)	(0.304)	(0.321)	(0.323)
Negative Private (T3)	0.112	0.116	-0.648***	-0.676***	-0.994**	-1.015**	-1.464***	-1.493**
	(0.061)	(0.063)	(0.083)	(0.083)	(0.332)	(0.331)	(0.350)	(0.350)
Negative Public (T4)	0.152**	0.158**	-0.576***	-0.568***	-0.251	-0.217	-0.296	-0.266
	(0.056)	(0.057)	(0.077)	(0.078)	(0.297)	(0.297)	(0.318)	(0.317)
Controls	N	Y	N	Y	N	Y	N	Y
Observations	625	615	624	614	599	599	598	598
Rsquare	0.02	0.02	0.12	0.13	0.10	0.11	0.08	0.09
Sample Mean	0.86	0.86	-0.08	-0.08	4.71	4.71	5.31	5.31
Std Dev	0.429	0.429	0.722	0.722	2.633	2.633	2.643	2.643
T1=T2	0.077	0.065	0.165	0.129	0.001	0.001	0.510	0.484
T1=T3	0.231	0.204	0.188	0.067	0.000	0.000	0.000	0.000
T1=T4	0.635	0.616	0.566	0.502	0.000	0.000	0.010	0.012
T2=T3	0.654	0.646	0.949	0.762	0.000	0.000	0.000	0.000
T2=T4	0.200	0.184	0.363	0.346	0.020	0.026	0.002	0.002
T3=T4	0.451	0.438	0.404	0.203	0.029	0.019	0.001	0.000

Notes: The dependent variable in Column 1-2 and 3-4 measure perceived accuracy and novelty, respectively. Answers are coded as -1=No, 0=Somewhat, 1=Yes. The dependent variable in Column 5-6 and 7-8 measure weather the video makes responder sad/happy or stressed/calm on a 1-10 scale, respectively. All estimations are OLS. Robust standard errors are in parentheses. The mean of the dependent variable for the control group is reported. The bottom rows present p-values from a test of equal coefficients for the different treatment arm combinations. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
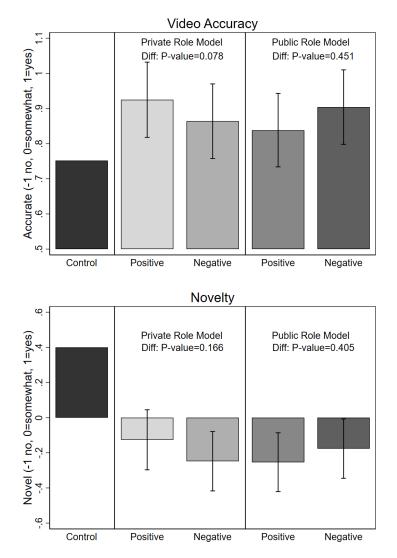
A.2   Figures

Figure A1: Perceived Accuracy and Novelty of Videos

Notes: The graph shows treatment effects on support for government actions.

Figure A2: Outcomes: Donation and Volunteering

In appreciation for you taking the time to complete this important survey, we want to give you a **bonus of 30 cents**.

You have the option to **donate** part of your bonus to the CDC Foundation's Emergency Response Fund.

The funds go to additional support for personal protective equipment and critical response supplies, which may help to **prevent the spread** of the coronavirus.

How much do you want to donate (if any)?

Donation (cents)   0 3 6 9 12 15 18 21 24 27 30

VolunteerMatch, is a U.S.-based nonprofit organization that helps people volunteer in the coronavirus crisis.

Click on this **link** to learn more about virtual and local **volunteering opportunities**:

https://www.volunteermatch.org/covid19

Notes: The graph shows how we measured donation and volunteering intentions.

Figure A3: Emotional Reaction to Videos

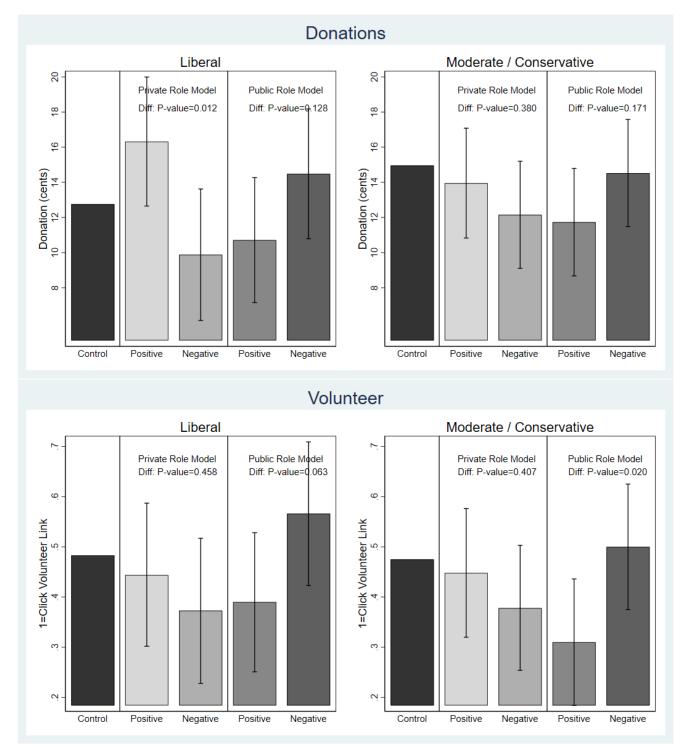*Notes*: The graph shows participants' emotional reaction to watching the video.

Figure A4: Treatment Effects by Political Affiliation

Notes: The graph shows treatment effects by participants' political leaning.
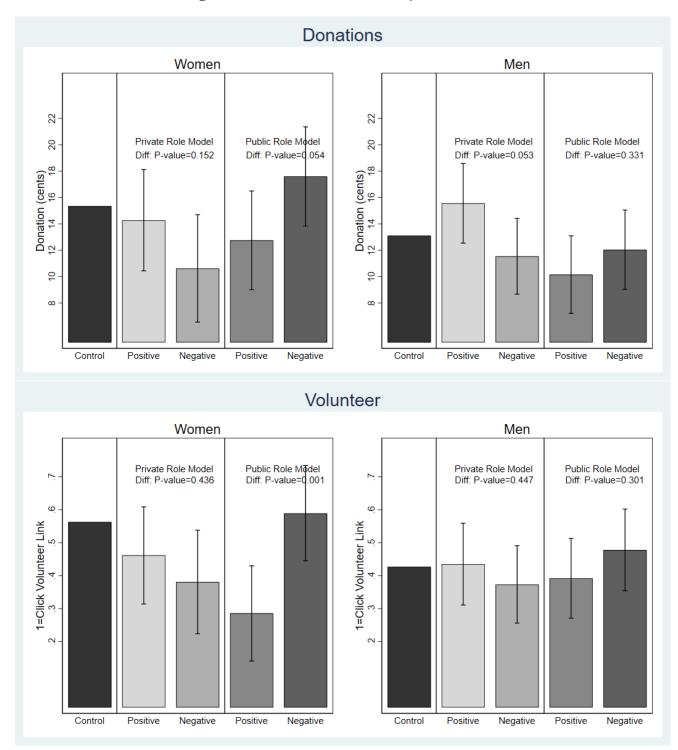
Figure A5: Treatment Effects by Gender

Notes: The graph shows treatment effects by participants' gender. P-values for gender differences to public role models are 0.34 and 0.07 for donations and volunteering, respectively.
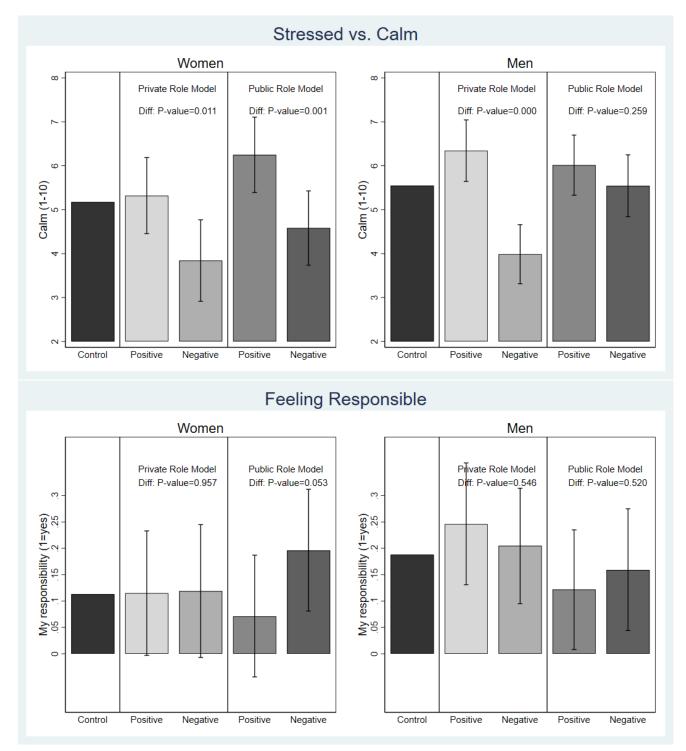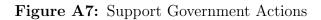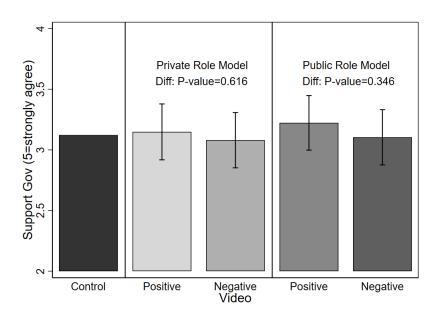
Figure A6: Emotional Response and Responsibility by Gender

Notes: The graph shows treatment effects by participants' gender. P-values for gender differences to public role models are 0.06 and 0.31 for feeling calm and feeling responsible, respectively.

Figure A7: Support Government Actions

Notes: The graph shows treatment effects on support for government actions.