

Generosity and stability of social preferences: the effects of negative socioeconomic shocks and framing

Dr. Lorenzo Lotti

UCL Institute for Sustainable Resources



Topics discussed today:

- 1. Background**
- 2. The experiment**
- 3. Primary results**
- 4. Next steps**
- 5. How can we consider this for the environment and for future situations?**

The Background

- Generosity and fairness have been widely investigated in economics. The initial description of a self-oriented rational individual has been challenged by an opposite and striking evidence.
- But what is happening in a situation like this pandemic? Can generosity be affected by a socio-economic shock, and in which way?
- In the meantime, in the US (California, New York and Washington)...

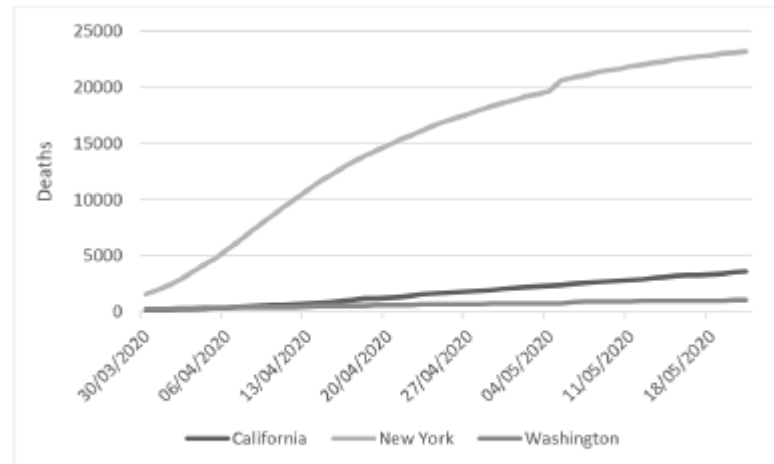


Figure 6: Total Covid-19 Deaths, by State

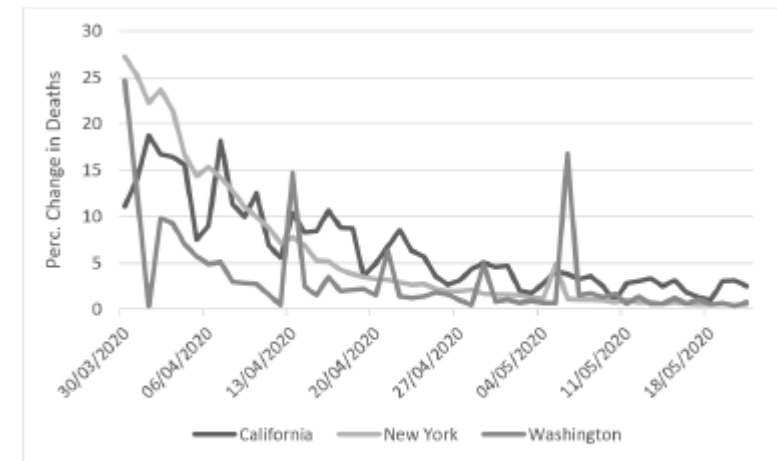


Figure 8: Percentage Change in Covid-19 Deaths, by State

Research Questions

First objective: Given that when exposed to negative exogenous shocks altruistic behaviours are not likely to remain constant, and instead generosity could change over time, results of the experiment are from a period of eight weeks of data collection. **This allows for a dynamically variable analysis of generosity during a socioeconomic negative shock, in place of a static vision.**

As a second objective, this paper analyses the **stability of social preferences**. Specifically, the design of the study provides a comparative advantage which allows for an investigation of the effect of framing on the stability of social preferences.

The experiment

4 dictator games have been asked in **random** order:

Imagine that today you have been given \$1000. How much of this amount are you willing to give to

an anonymous person X?

to the current government, to support public services?

to one of your relatives?

to one of your neighbors?

8 weeks of data collection on *Amazon M Turk*, participants from *California, New York and Washington* states.

156 participants per week, 1255 in total. Recruitment from Monday to Wednesday, *paid \$.30*

After the games, a survey on covid-19, financial security, trust in the US government, moods

Variables	Percentage	Variables	Percentage
<u>Gender</u>		<u>Age</u>	
Males	50.62%	18-24	14.84%
Females	48.27%	25-34	42.19%
Non-Binary	1.05%	35-44	19.40%
Other	0.07%	45-54	12.30%
		55-64	8.98%
		65-74	2.02%
		75+	0.26%
<u>Education</u>			
Some high school no diploma	0.58%		
Trade/technical/vocational	2.66%		
High-school graduate diploma	7.66%		
Some college credit no degree	13.26%		
Professional degree	1.62%		
Degree level	74.20%		
		<u>Employment</u>	<u>Employment 1 month before</u>
		Employed	61.37%
		Self-employed	17.07%
		Homemaker	4.36%
		Student	7.17%
		Out of work (looking for)	5.73%
		Out of work (not looking for)	1.95%
		Unable to work	1.63%
		Military Retired	0.20%
		Other (please specify)	0.52%

Notes: Number of observations 1355

Table 1: Descriptive Statistics

The experiment

Some initial Figures on Donations

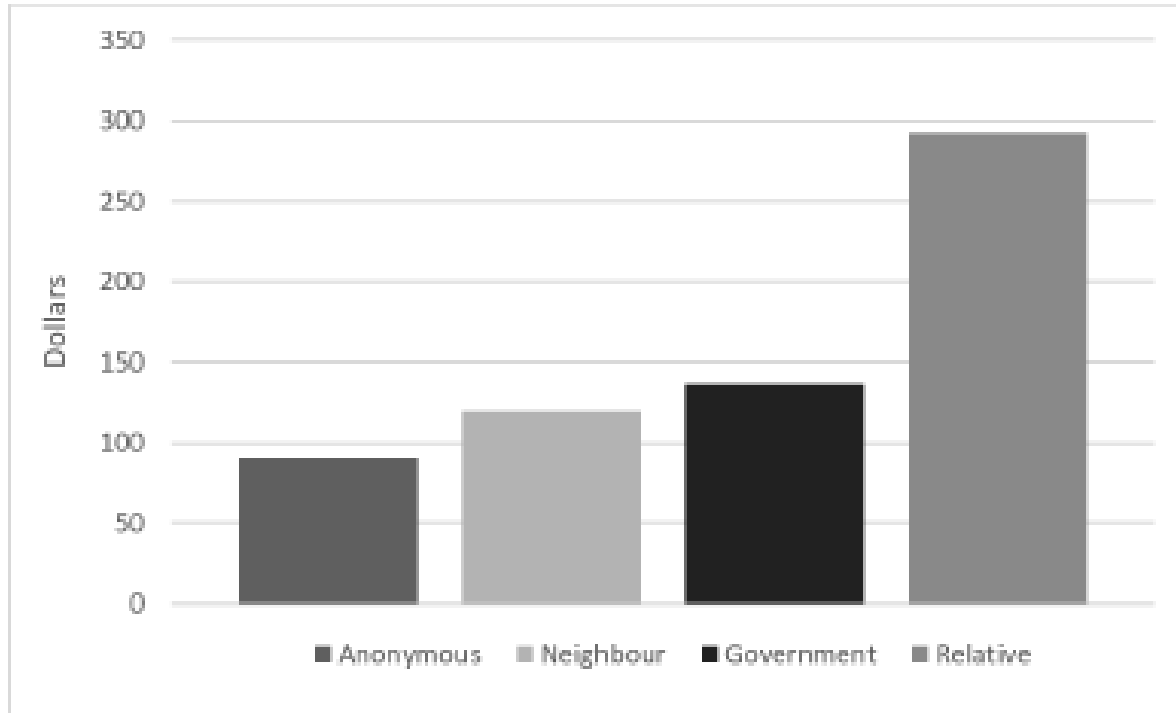


Figure 1: Mean Donations, by Dictator Game

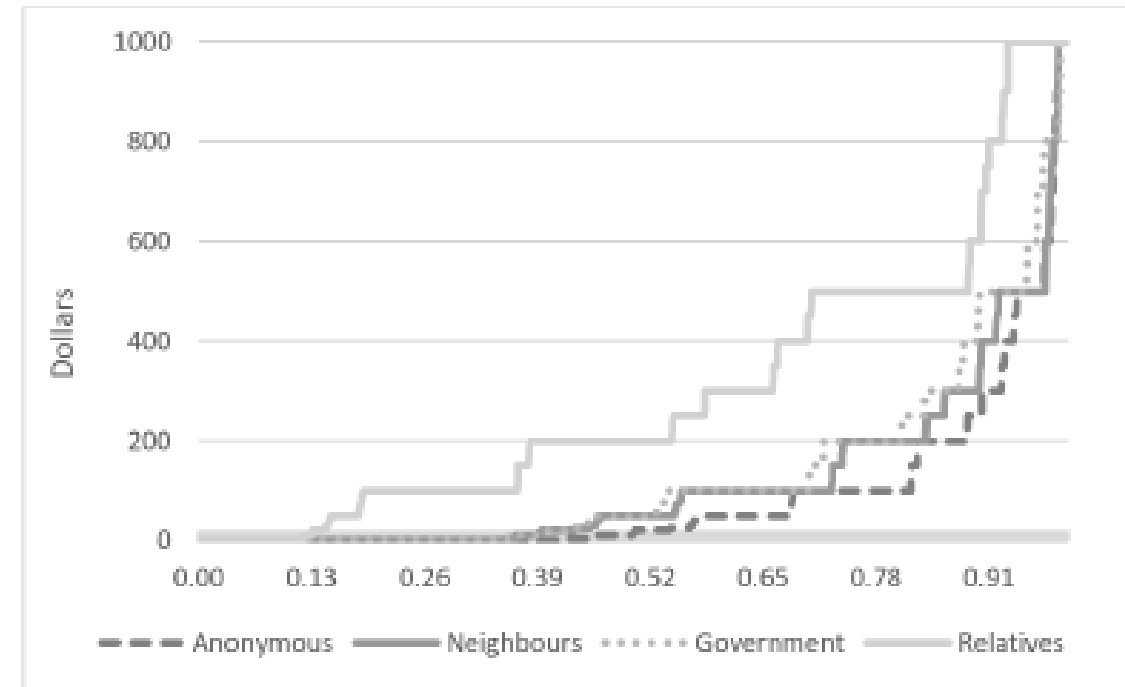


Figure 2: Cumulative Donations, by Receiver

The experiment

Generosity during socio-economic shock, dynamics by recipient

Despite the worsening of the pandemic and hence a high cost of donating, individuals perceive increasing marginal benefits of donating and thus become more generous over this timeframe.

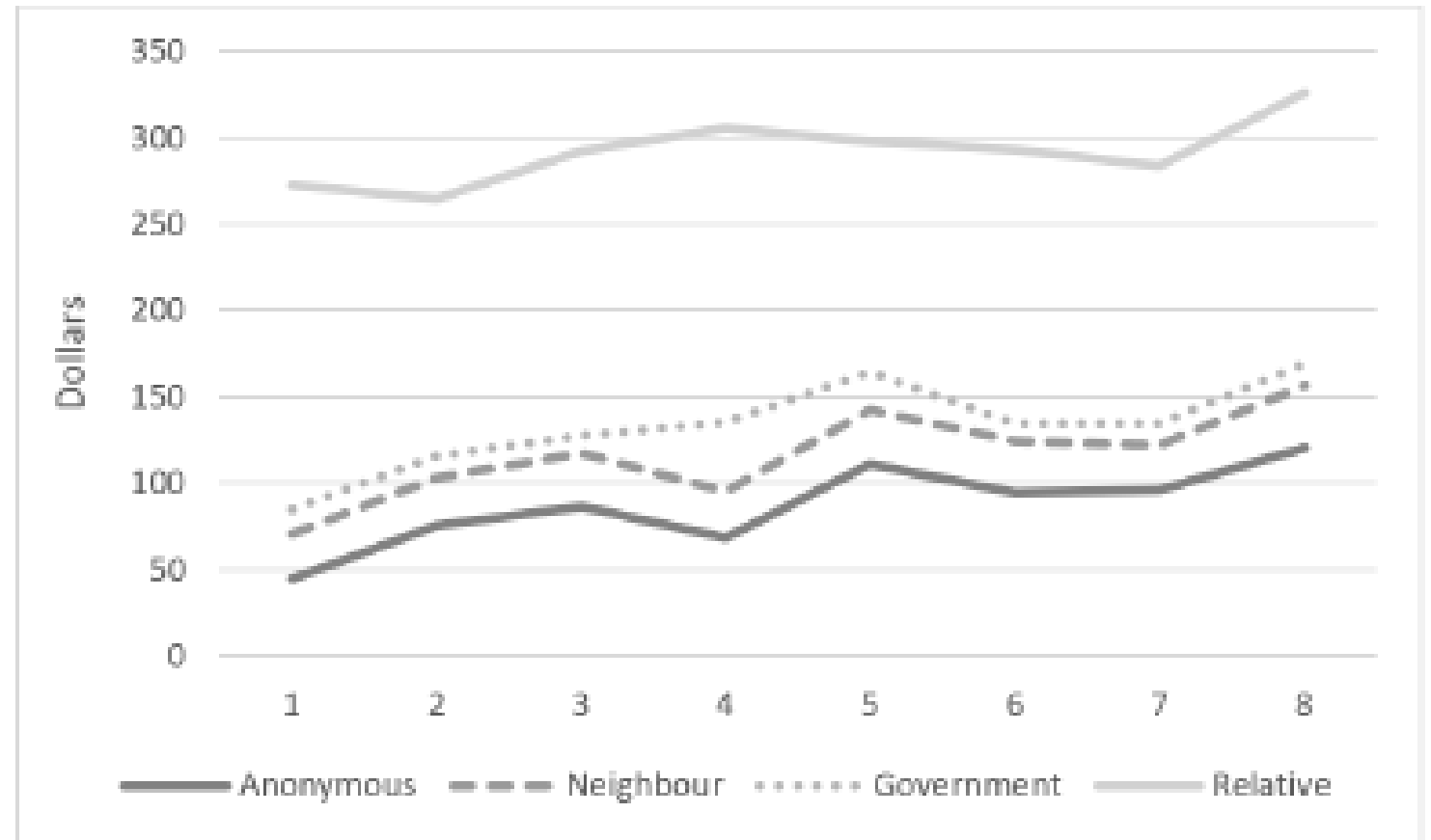


Figure 5: Average Donations, by Week

List of controls and regressions

Dependent Variables: amount donated, probability of positive donation

Controls:

COVID-19: percentage change in deaths, concern on coronavirus, worried for relatives, anxiety in the last week

Time: weeks

Location: state, trust in the government

Game: controls on the position of the specific game played, and with respect to relatives game

Economic variables: unemployment rate, claims for benefits (these two 3 weeks only so far), question on financial security, employment status, employment status a month before

Demographics: gender, age, marital status, education

Regressions:

OLS, Tobit, Quantile, Logit

Results

The results of this experiment show that a negative socioeconomic shock such as COVID-19 and its associated lockdown measures evoke a largely positive change of altruistic behaviours.

This effect is stronger towards anonymous recipients for whom we have **the least amount of direct information about**, and where perceptions are instead fed by media, thus evoking sentiments of empathy described in de Waal (2008).

However, regressors which help to explain the phenomenon of increasing donations during lockdown do not have homogeneous effects across the different dictator games. For instance, the percentage change in deaths is not a significant regressor in general, with one interesting exception: for high donations towards relatives, it has a positive effect on the amount donated.

Heterogeneity

High donations could indicate a positive bond with relatives, and intuitively a negative context in terms of deaths could trigger empathy sentiments and the need to protect whoever is part of the family.

Furthermore, almost all the other independent variables in the relative's dictator game are not significant.

Donations towards relatives probably depend on much deeper social dynamics, built across years of relationship. For example, direct lines of communication (not recorded in this dataset) would have a strong effect in bridging perceptions to reality.

Negative Socioeconomic shock

In a sense, policies adopted during the pandemic can be viewed as a different form of social distancing depicted in the dictator game literature so far (Homan et al. (1996), Bohnet and Frey (1999)). In Homan's research: as social isolation increases, there is a further shift toward lower offers. I find the opposite effect.

When considering the regressors capturing negative sentiment around the health aspects of the pandemic (anxiety; concerned by COVID-19), positive effects on donations are strongest in the **anonymous dictator games**. Similarly, regressors capturing negative economic impacts (unemployment rate; employment status before and after experiment; financial status), have the strongest positive effect on donations and likelihood of donations in the anonymous and government dictator games. A likely explanation here is that the increase in overall economic and health fallout from the pandemic increases the **perceived marginal benefit of donating** **i.e. there is a stronger warm-glow effect**.

Prices?

Overall, given the negative socioeconomic shock, the price of donating at the onset of the pandemic is higher than other dictator game experiments, and hence would explain why donations towards anonymous recipients **are lower than the ones documented in the literature**

(Engel (2011) calculates an average of 28% of the available sum donated).

Another explanation for lower overall donations could come from Guth et al. (2007), who describe internet users as more self-regarding.

Nevertheless, it is worth mentioning that the sample shows high absolute levels of unemployment, financial insecurity and negative feelings remain more or less constant across time, **suggesting the price of donating does not increase over the eight weeks.**

Considering the answers on self-reported financial security, a decrease in price of donations due to forced savings should be also excluded.

Stability of Social Preferences

On the stability of social preferences, the results bring further evidence: Dreber (2013) finds them “less sensitive” to framing than the previous literature thought, however I show that **this is not homogeneous across recipients.**

In particular, playing towards an anonymous recipient not as the first game reduces the amount and probability of donating towards that category, and if a neighbour is considered after a relative, there is a negative effect on the average donation.

These findings demonstrate how individuals could end up creating reference points depending on how tasks are framed, showing that **framing can affect the stability of social preferences if there is not a strong bond between the players.**

How can we consider this for the environment and for future situations?



At the moment, it seems that:

- Generosity is quite a sticky value, but during socio-economic shock (i.e. climate change disasters?) warm-glow effect can play a very important role. This is in line with many episodes in human history (eg. Citizens who risked their lives in WW2 to save who was persecuted by nazis).
- When measuring generosity towards distant recipients, framing can have a significant impact on donations.

Thank you for your attention! Questions?

Follow us on <https://www.ucl.ac.uk/bartlett/sustainable/behavioural-economics-environment-team>

Dr. Lorenzo Lotti
[*l.lotti@ucl.ac.uk*](mailto:l.lotti@ucl.ac.uk)

