

Urban local governance, cooperation and emotions: experimental results from Costa Rica

Social and regulatory pressure promotes pro-environmental action and social welfare.

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Pro-social behavior and its implication for improved environmental outcomes play an important role in influencing household behavior of waste separation and recycling. Amongst other things, behavior is influenced by reputational concerns which may contribute to pro-social behavior. Here, we present the results from a series of framed field experiments conducted in urban communities in San Jose, Costa Rica to test different non-monetary incentives to encourage local cooperation for widespread waste separation: can the disclosure of antisocial behavior (“being shamed”) or the expectation of honor through the publicity of “good deeds” contribute to environmental behavior?

Households make choices in a number of domains that have environmental impacts. They buy products, use water and energy, and discard waste. With respect to waste, urban households are influenced by a mix of incentives, regulations and norms. The standard approach from a theoretical environmental policy perspective has focused on the impact of income and prices on recycling behavior, which has had great influences on the design of efficient and effective environmental policies to stimulate recycling. This approach however, does not represent a correct and complete picture of individual behavior where other determinants beyond monetary incentives play an important role. The purpose of this research is to reflect on pro-social behavior influenced by self-image concerns and discuss its policy implications for the environmental behavior of households.

Solid waste management is a severe environmental problem in many urban areas in the developing world. Costa Rica has been faced with an increasing amount of waste generation, with one quarter of total waste being collected and disposed by households only. Therefore, a good understanding of households as the source of waste generation and their response to policy incentives is necessary to achieve effective and efficient environmental protection. In particular, the role that public displays play in shaping behavior has been recognized in many other areas (e.g. charity). So far, few studies that take into account the attention in the form of shame as well as honor have been conducted to examine concrete instances of pro-social behavior in social dilemma situations. Moreover, our research contributes to the ongoing discussion on the comparison of the effectiveness between non-monetary sanctions and rewards.

Emotions and Regulations in the Field

We framed the experiment as a situation in which a group of people must make decision about how to participate in a local public good, i.e. waste separation. An example could be the time used for waste separation in the respective households. In this way, participants were familiar with the context and the tasks demanded. We used a threshold public goods experiment to isolate the effects of being shamed or honoured, with non-monetary consequences, in order to test whether the expectation of negative or positive reputational information enforces pro-social behavior. Participants knew that if the total contribution of the group reached or surpassed the threshold (equivalent to a contribution of 3 tokens per person) the public good was successfully provided. We instructed the players that all individuals who

RESEARCH BRIEF

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contributed more or an equal amount of 3 tokens would be disclosed to the group. We used green flags as a communication device to publicize such behavior. We also test the effect of shame by revealing the identity of all players who contributed less than the mentioned amount (with red flags). Moreover, we compare these results to a treatment resembling regulatory control (e.g. regulation, prohibition), in addition to a treatment without disclosure and regulation (standard threshold public goods experiment).



Experimental results

We hypothesized that shame might be more effective than honor because players would particularly seek to avoid negative exposure, and therefore contribute more to the public good. The non-monetary, reputational effects induced by shame and honour led to approximately 20-30 % higher donations to the public good when compared with the control, demonstrating that both shame and honour can drive cooperation and can help alleviate collective action problems. Nevertheless, negative feedback via disclosure of antisocial behavior leads to situations with higher social welfare than positive feedback. Moreover, as a result of the introduction of regulatory pressure, there was a sharp increase in donations compared with a baseline treatment. The most important insight is that the expected positive effect (crowding-in) of reputational information produce significantly higher cooperation and social welfare than a situations without such a feedback mechanism. However, regulatory pressure leads to more efficient outcomes, while a crowding-out effect of intrinsic motivation is only observed to a very low extent.

Conclusions and Implications for Policy

Our results suggest several insights into the roles of public policy. We find that social control is stimulated if feedback is available and people prefer not to receive negative feedback. This point, in turn, suggests that scarce public funds should be allocated much more to discouraging antisocial behavior rather than rewarding pro-social behaviors. Our results also suggest that the value of social control in social dilemmas may reach close to efficient outcomes than can be produced with regulatory pressure. Regulations can come in different form such as fines, prohibitions, and subsidies, where crowding-out of intrinsic motivation may be smaller than expected.

ABOUT THIS BRIEF

This brief is based on results from: Alpízar, Francisco and Elisabeth Gsottbauer (2012) "Reputation and household recycling practices: Field experiments in Costa Rica"

FURTHER READING

Cardenas, J.C, Stranlund, J., and Willis, C (2000) Local environmental control and institutional crowding-out. *World Development* 28(10): 1719-1733.

Elster, J. (1998) Emotions and economic theory. *Journal of Economic Literature* 36(1): 47-74.

Editorial. (2010, June, 9) Mal pago a la naturaleza. *La Nación*. Costa Rica. <http://www.nacion.com/2010-06-09/Opinion/Editorial/Opinion2401029.aspx>

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RESEARCH BRIEF

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