

# **LOCAL GOVERNANCE, COOPERATION AND THE DISCIPLINING HAND OF REPUTATION: EXPERIMENTAL EVIDENCE FROM URBAN COMMUNITIES IN COSTA RICA**

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## Abstract

Rational choice theory assumes that individuals are fully rational and act in a self-interested manner. This perspective suggests what efficient and effective environmental policy is and focuses on policy which emphasizes the impact of income and prices on behavior. This represents, however, not a correct and complete picture of behavior. Pro-social behavior and its implication for improved environmental outcomes play an important role in influencing pro-environmental action such as household behavior of waste separation and recycling. This paper presents the results from a series of framed field experiments conducted in urban communities in San Jose, Costa Rica. The goal is to investigate the relative effectiveness of exogenous regulatory pressure and pro-social emotions in promoting cooperative behavior in a public goods context.

## 1. Introduction

The separation and proper disposal of waste at the household level is costly - messy and time consuming- yet the benefits of recycling are public in nature. Under the assumption that individuals are fully rational and act in a self-interested manner, free-riding emerges as the predicted strategy with respect to household solid waste management. This leads to an emphasis 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 (Bartone and Bernstein, 1993; Pearce and Turner, 1994).

This approach does, however, not represent a correct and complete picture of individual behavior where other determinants than income and prices play an important role. These cover psychological, demographic and social motives, i.e. concerns about social reputation shape individual decision making, where free-riding may come at the price of violating the socially accepted behavior. Economic behavior influenced by social concerns has been analyzed by several authors (e.g., Adreoni, 1989; Rabin, 1993; Frey, 1997; Lindbeck, 1997; Fehr and Schmidt, 1999). Our research tries to highlight the possibility for policy to influence pro-social behavior as relevant factor determining environmental significant efforts to reduce environmental problems related to waste management.

This paper investigates how the possibility to social approval and disapproval, which are familiar non-monetary reward and punishment mechanism, affects contributions in a public goods experiment. Moreover it compares informal institutions supported by local norms to more formal institutions such as regulatory control. The experiment was framed as a local community problem, i.e. contribution to recycling, and the subjects were household members from an urban community in San Jose, Costa Rica. We designed this public goods experiment to isolate the effects of being approved or disapproved, with non- monetary consequences, to test whether the expectation of negative or positive reputational information enforces pro-social behavior. To enhance external validity and to facilitate comprehension, we tried to keep the experiment as

close as possible to the subject's daily household behavior. In this way, participants were familiar with the context and the tasks demanded. We framed our 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.

We hypothesized that the disclosure of antisocial behavior, i.e. threat of being disapproved or shamed and the disclosure of social behavior, i.e. the prospect of being approved or honored may lead to increased public contributions. We also expected that disapproval or ostracism might be more effective than social approval 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 per cent 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. Moreover, as a result of the introduction of regulatory pressure, there was a sharp increase in donations compared with a baseline treatment.

Our results suggest several insights into the roles of emotions and regulatory pressure in promoting more efficient provision of public goods. The most important is that public disclosure of individual contributions produced significantly higher cooperation and social welfare. Nevertheless, regulatory pressure leads to more efficient outcomes than public disclosure. The results from our experiment can be viewed in the light of the fact that, in the absence of external sanctions, internalized norms existing in the community may not be sufficient in regulating public goods provision.