

Don't Tell Me What to Do, Tell Me Who to Follow!

Evidence from a natural field experiment in Cahuita National Park, Costa Rica

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We conducted a natural field experiment to explore prosocial behavior by visitors to a protected area in Costa Rica. We use different treatments to affect the decision whether to donate and if so, how much: (i) a baseline treatment with no information added, (ii) a social reference treatment in which information on typical average donations is shared with the visitor; (iii) a direct suggestion on how much to donate, and (iv) a reciprocity treatment, which entailed handing out a full-color map with detailed information about the park. Preliminary results indicate that visitors look at the behavior of others in deciding if and how much to donate, but partially reject being told what to do. Also, as the social reference moves farther away from average behavior, its effect on the typical visitor is diminished, leading to lower and less frequent donations.

Donations are an important way of financing many public goods, such as national parks and museums. In contrast to the prediction of zero voluntary donations by people in the neoclassic modeling framework, which is based on the assumption of a selfish and rational *homo economicus*, people do voluntarily and unselfishly donate money for various reasons. A recent focus in the literature on voluntary donations is to evaluate different strategies to increase people's donations. Several natural field experiments have recently shown successful ways to increase donations by, for example, providing information on other people's donations and giving a small gift. However, the question remains on how these strategies differ when compared to each other.



Playa Blanca Sector entrance

Cahuita National Park (CNP) provides a unique setting for testing the effect of alternative treatments on the behavior of park visitors. Located in the Caribbean coast of Costa Rica, this park offers lush tropical vegetation leading to a white sandy beach and ultimately to an intricate coral formation surrounded by emerald waters. The park is divided into two sectors: the Playa Blanca and Puerto Vargas. Playa Blanca sector is the only protected area in Costa Rica that relies completely on donations, instead of fixed entrance fees.

The Playa Blanca sector has a single entrance and visitors are obliged to register and can make a voluntary contribution to the park. Approximately 75,000 people visited the Playa Blanca sector in 2007 and average donations were slightly above US\$1, far below the standard entrance fee to other protected areas (US\$6).

A park's impact on deforestation varies with observable characteristics

This leads to chronic underfunding and pressures from the national park authorities to abandon the use of donations as a mean to raise revenues. However, this sector is co-managed by the local community and local park authorities, and both oppose to the idea of introducing a fixed entrance fee. Right next to Playa Blanca, the town of Cahuita captures the tourists with a relaxed and friendly atmosphere. Local residents fear that using fixed entrance fees will drive tourists away from the lodges and restaurants in town. In this sector, the use of donations is determined by the co-management committee while entrance fees funds would go the national budget office, as stated in the national law. Simply put, the co-management committee desperately needs to raise average donations, in order to increase funding for the park, while maintaining the town's attractiveness and their right to allocate funds.

The objective of this study was to compare different strategies to raise revenue by conducting a natural field experiment on donations in the CNP. We obtained 2.603 usable observations. Our main source of information was the registration book, which included the amounts donated by visitors. We put extreme care in isolating our treatments from exogenous factors. For example, each treatment was separated by a week. Treatments requiring multiple levels were randomly assigned in different weekdays and times of the day. To control for exogenous factors affecting the decision to donate, we made sure that each visitor got no information from looking at the registration book; if information or further guidance about how much to donate was requested by the tourist and provided by park rangers, the respective observation was dropped.

To enter the Playa Blanca sector, visitors cross a narrow bridge that leads to the park ranger's booth, where they register and make a voluntary donation. A leaflet with general information is handed out to visitors at this point, and this was the place chosen to apply our treatment to each visitor.

Main results

We found a strong effect on behavior, in particular, on the share of people donating, when providing information about other people's donations, i.e. a positive correlation between social reference value and the donation. Visitors also reacted to suggestions on what to do, as a higher share of visitors made a donation. On the other hand, suggesting a donation resulted in lower degree of compliance as those making a donation tend to give even less than what they would have donated in the absence of the suggestion.

The need to reciprocate could be a strong incentive to increase the donation; the idea being that a small gift could trigger a significant positive response. Our results though show insignificant effect on both the probability of making a donation and the magnitude of the donations. In an attempt to trigger reputational and self image motives we combined the gift with information about the most common past behavior of other visitors. The result show decreased probability of donating compare to the treatment alone. A free map would result in a loss to the park.

Policy implications and recommendations

Simply put, the co-management committee could choose one of two alternatives. It could decide to suggest a donation to visitors. In this case, revenues will go up mostly due to an increase in number of visitors donating, but the amount donated. In this case, suggesting a donation of US\$2 seems to be the reasonable choice. Higher suggestions have little effect on visitor's behavior.

Another choice would simply be to provide information about the most common donation of previous visitors. In this case, the share of visitors making a donation will increase, which in itself could be seen as fair and attractive by the park authorities. Also, a social reference of US\$2 triggers the highest contributions.

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The reciprocity treatment, which at face value seems like an obvious choice, is clearly not viable, given the costs of printing the map and the insignificant effect on average donations.

As a whole, these results show that visitors look at the behavior of their peers as a reference to conform to, but partially reject being confronted with a suggestion on how to behave.

ABOUT THIS BRIEF

This brief is based on results from:

Alpizar, F. and Martinsson, P (2010) "Don't Tell Me What to Do, Tell Me Who to Follow! Field Experiment Evidence on Voluntary Donations", Efd Discussion Paper 10-16, Environment for Development Initiative and Resources for the Future, Washington DC, June 2010.

Alpizar, F. and Martinsson, P (2010), "Paying the Price of Sweetening Your Donation Evidence from a Natural Field Experiment", Efd Discussion Paper 10-06, Environment for Development Initiative and Resources for the Future, Washington DC, February 2010.

REFERENCES

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