

Pre-analysis Plan: An Experiment on Property Rights and Cheating Behavior

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1 Introduction

A well functioning system of property rights is a key component of the rule of law and ultimately of development. An important trend in development policies has emphasized the need to establish formalized property rights of land (De Soto, 2000, Sjaastad and Cousins, 2009). However, a well-functioning property rights' system is built both on formal and efficient public institutions that guarantee top-down public enforcement as well as on the bottom-up emergence of coordination on the Hume's property convention where people find it privately convenient to respect each others entitlements (Sugden, 1989, Fabbri et al., 2019). An effective property system thus blends third-party enforcement of formal titles with second-party enforcement, (social norms whereby owners are willing to fight to defend and enforce their entitlements) and first-party enforcement (moral norms suggesting non-owners to resist cheating). The interplay between the formalization of property rights and the development of moral norms is the subject of the present research project.

Indeed there is a growing experimental literature studying preferences for truth-telling (Abeler et al., 2019) and showing how resistance to cheating is a very robust moral norm.

In this project, we study whether an institutional reform formalizing land's rights carried out ten years before influenced individuals' moral norms suggesting to resist cheating.

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2 Research Strategy

We will run a lab-in-the-field experiment that uses a standard dice-rolling task modelled on the Fischbacher and Föllmi-Heusi (2013): subjects privately observe the outcome of a dice roll, report the outcome and receive a monetary payoff proportional to their report. While no individual report can be identified as truthful or not, we can assess whether the reports of a group of subjects are distributed as truthful reports would be. This paradigm is the one used most widely in the literature and several recent studies have shown that behavior in it correlates well with cheating behavior outside the lab (Abeler et al., 2019).

To achieve identification, we combine the present lab-in-the-field experiment with a previous Randomized Control Trial implemented by a West African country between 2009-2011 by with the support of the World Bank and Millenium Change Corporation to study the formalization of lands' property rights in rural villages.

The beginning of the data collection for the research project is scheduled for the end of January 2020. This pre-analysis plan has been submitted before the data collection started. The participants will be recruited during fieldwork sessions in Beninese rural villages. A team of research assistants will visit 32 villages and request voluntary participation in the research study to the local population. We plan to recruit 18 participants (9 males and 9 females) for each village, for a total of 576 participants.

3 Design

3.1 The experiment

The cheating task follows the protocol introduced by Jiang (2013) and implemented in several subsequent papers as for instance Ariely et al. (2019). This protocol adds another potential decision on which the subject can cheat. Subjects are asked to choose in advance which side of the die counts for their earnings: the side facing up or the side facing down. Since subjects self-report their choice after they see the die outcome, they can cheat by lying about the side chosen to get a higher earning as well as the actual outcome of the dice roll.

Moreover the choice is repeated 6/12 times for each subject while only one outcome is paid randomly.

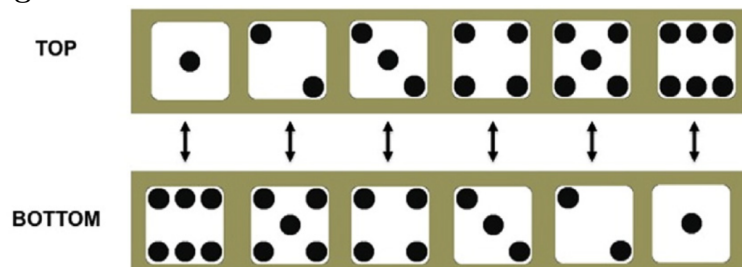
3.2 Instructions

These instructions are adapted from Ariely et al. (2019).

In this task, you are asked to throw a 12 faces dice for 10 times. Every time, before you roll the dice, you will be asked to choose one side of the dice in your mind: top or bottom. Be sure to make your choice before you roll the dice. Then, after rolling the dice, please enter the outcome of your roll, i.e. the number shown on the chosen side of the dice (top or bottom),

on each line of this sheet. Bear in mind that for each roll there are two possible sides: top or bottom. Here, the figure shows the different outcome combinations

Figure to be shown if 12 faces dice will be used



Please return your record sheet to the experimenter after you threw the dice 10 times. The experimenter will then randomly draw a number from 1 to 10 by rolling a 10 faces dice. This dice determines which of your rolls is relevant for your payment. Once determined the relevant roll, you will be paid a number of tokens equal to the number you reported for that particular line of the sheet. For example, assume the experimenter rolls the 10 faces dice and obtains number 3, then the number you reported on the third line determines your payment. The experimenter will check your record sheet and pay you a number of tokens equal to the number you reported on the third line.

Please discuss any questions with the experimenter before starting the task!

3.3 Survey questions

In addition to the choices in the activities, participants will answer a set of non-incentivized survey questions regarding: age, gender, religion, marital status, number of family members, participation to household finance management, education, literacy, village of birth, years of residence in the village, income.

4 Empirical Strategy

The project is designed to study whether the institutional reform that changed the structure and organization of land rights institutions influenced the moral norm that prevents people from cheating.

4.1 Main Hypothesis

Formalization of property rights and the establishment of a more certain rule of law may have ambiguous effects on the moral norms that govern individual's resistance against cheating.

On one hand it might be that the formalization of property rights induces more law-abiding behaviour and this reinforces the moral norm that internalizes law abidance and thus reduces cheating. On the other hand it may well be the case that the formalization of property rights leads to an easier enforcement of such rights and thus crowds out intrinsic motivation to obey moral norms against cheating. Since theoretical reasoning provide no clear prediction we will apply two-sided tests of significance. Notice that we refer to villages where property rights have been previously formalized as *treated* villages and villages where no formalization has been implemented as *control* villages.

Hypothesis 1 *The resistance to cheat is equal in treated and control villages.*

4.1.1 Heterogeneity

We will study heterogeneity in resisting cheating in the treated and control villages by using data on the level of market integration. As a proxy for market integration, we will use a village distance from the closest paved road (below and above the median in the sample).

We will additionally test whether background data collected in the survey – including gender and income – generate differences.

4.2 Specification and analysis

Hypothesis 1 will be tested by using both

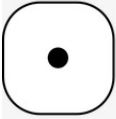
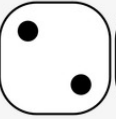
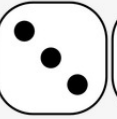
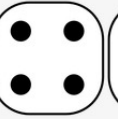
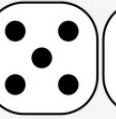
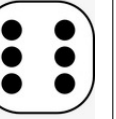
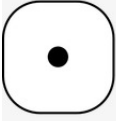
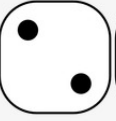
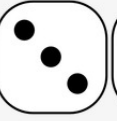
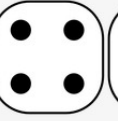
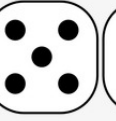
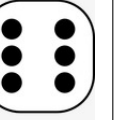
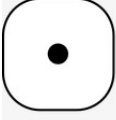


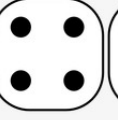
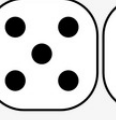
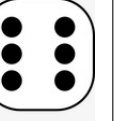
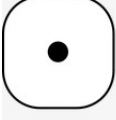


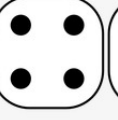
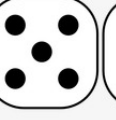
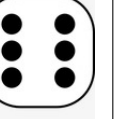
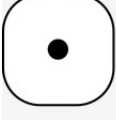


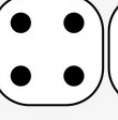
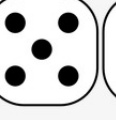
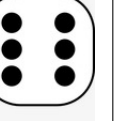
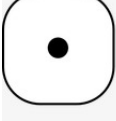


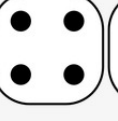
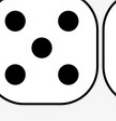
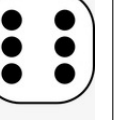
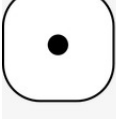


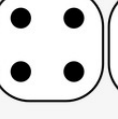
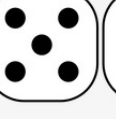
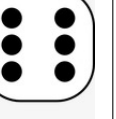
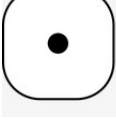
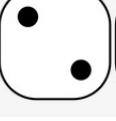
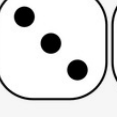
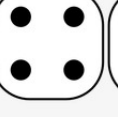
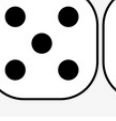
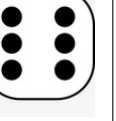
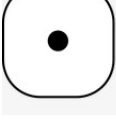
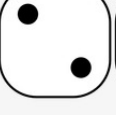
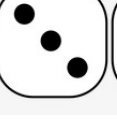
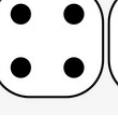
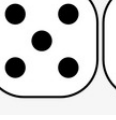
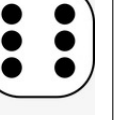
- t-tests on the distributions of reported outcomes in treated and control villages
- regression models that use common control variables (age, gender, education) and include a dummy for the treated villages.

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Table 1: Record Sheet

Roll	Outcome
1st	     
2nd	     
3rd	     
4th	     
5th	     
6th	     
7th	     
8th	     
9th	     
10th	