New Advances in Experimental Research on Corruption

Danila Serra
Leonard Wantchekon

Editors

NEW ADVANCES IN EXPERIMENTAL RESEARCH ON CORRUPTION

EDITED BY

DANILA SERRA
Florida State University, Tallahassee, FL, USA

LEONARD WANTCHEKON
Princeton University, Princeton, NJ, USA

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NEW ADVANCES IN EXPERIMENTAL RESEARCH ON CORRUPTION

RESEARCH IN EXPERIMENTAL ECONOMICS

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LIST OF CONTRIBUTORS

Klaus Abbink	Department of Economics, Monash University, Clayton Campus, Victoria, Australia
Olivier Armantier	Federal Reserve Bank of New York, New York, NY, USA
Sheheryar Banuri	The World Bank, Development Research Group, Washington, DC, USA
Amadou Boly	United Nations Industrial Development Organization, Wagramestrasse, Vienna, Austria
Ananish Chaudhuri	Department of Economics, University of Auckland, Auckland, New Zealand
Catherine Eckel	School of Economic, Political and Policy Sciences, University of Texas at Dallas, Richardson, TX, USA
Mark M. Fredrickson	Department of Political Science, University of Illinois at Urbana-Champaign, Urbana, IL, USA
Jorge Gallego	Department of Politics, New York University, New York, NY, USA
James R. Hollyer	MacMillan Center for International and Area Studies, Yale University, New Haven, CT, USA
Johann Graf Lambsdorff	Department of Economics, University of Passau, Bavaria, Germany

Sandra Sequeira	Department of International Development, London School of Economics and Political Science, London, UK
Danila Serra	Department of Economics, Florida State University, Tallahassee, FL, USA
Paul Testa	Department of Political Science, University of Illinois at Urbana-Champaign, Urbana, IL, USA
Leonard Wantchekon	Department of Politics, Princeton University, Princeton, NJ, USA
Matthew S. Winters	Department of Political Science, University of Illinois at Urbana-Champaign, Urbana, IL, USA

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CHAPTER 1

EXPERIMENTAL RESEARCH ON CORRUPTION: INTRODUCTION AND OVERVIEW

Danila Serra and Leonard Wantchekon

When a public servant puts his or her own private benefits above the interests of the general public, it is corruption. When an official abuses his or her position of power for personal enrichment or to provide unfair advantages to members of his or her knit group, it is corruption. When a policy-maker offers (or promises) monetary or nonmonetary favors in exchange for political support, it is corruption. Bribery, embezzlement, clientelism, nepotism, and vote-buying are different manifestations of the same problem. They are acts of corruption sharing two important features: (1) they all rely on rule breaking on the part of public officials for the achievement of some form of illicit private gain and (2) they all take place behind closed doors.

The illegality and secrecy of corrupt transactions make any attempt to quantify their occurrence especially challenging. Nevertheless, in the last two decades empirical research on corruption has proliferated. Until very recently, the standard approach to measuring corruption has been to employ country-level corruption perception indexes based on surveys of ordinary citizens or businessmen, or to rely on experts' assessments.[1] Since the seminal work by Mauro (1995), which investigated the relationship between corruption and economic growth through cross-country regression analysis, an increasing number of studies correlating country-level *perceived*

corruption with economic, political, and sociocultural variables have emerged.[2] While these studies have certainly contributed to our understanding of the relationship between corruption and important country aggregates, their biggest limitation lies in the inherent bias in measuring corruption through perception indexes,[3] and the difficulty in identifying causal effects when employing observational data that is subject to endogeneity bias.

In the last decade, the application of experimental methods to the study of corruption has allowed researchers to address both the measurement and endogeneity problems constraining the results obtained by previous studies. Indeed, experimental research has led to significant advances in our understanding of both how corruption occurs and how potentially corrupt individuals respond to different sets of monetary and nonmonetary incentives. It is this research that the present volume surveys. In particular, the chapters in the volume present and discuss the most recent advances in the study of corruption based on laboratory, field, and natural experiments.

Chapters 2–5 of the volume focus on insights generated by lab-type experimental studies of corruption.[4] The use of laboratory experiments to investigate corrupt transactions dates back to the early 2000s, when the seminal works of Frank and Schulze (2000) and Abbink, Irlenbusch, and Renner (2002) first appeared. The literature is fast growing; what the different studies have in common is their attempt to simulate scenarios conducive to (different forms of) corruption in a perfectly controlled environment, making it possible to identify the effects of various monetary and nonmonetary incentives on individuals' propensities to act corruptly. Besides relying on a controlled environment and allowing for identification of causal effects, laboratory experiments have the advantage of providing a *direct* measure of individuals' willingness to engage in corrupt acts, under a given set of incentives. Furthermore, laboratory experiments make it possible to investigate possible determinants of corruption, such as intrinsic motivations and social norms, which are especially difficult to manipulate or even measure in the field.

The value of applying lab-type experimental methods to the study of corruption is made clear in Chapters 2–4 of the volume. In Chapter 2, Ananish Chaudhuri surveys the literature on corruption and gender. In particular, he discusses the insights provided by laboratory experiments manipulating the gender of potentially corrupt decision-makers. In Chapter 3, Sheheryar Banuri and Catherine Eckel tackle another important issue that is especially difficult to investigate using observational data or field experiments: whether individuals' propensities to act

corruptly relate to the culture – that is, shared norms, values, and attitudes – prevailing in their home countries. In Chapter 4, Klaus Abbink and Danila Serra discuss lab-experimental findings concerning the effectiveness of different anticorruption policies relying on specific monetary and nonmonetary incentives. Finally, in Chapter 5, Olivier Armantier and Amadou Boly address a critical issue in corruption research based on laboratory experiments: the external validity of such research, that is, the extent to which experimental results can be generalized to, and hence can be used to predict, individuals' (un)corrupt behavior outside the lab.

Chapters 6–9 of the volume focus on corruption research relying on field and natural experiments. By "field" experiments we mean studies evaluating the effectiveness of specific interventions by randomly assigning units of analysis (individuals, villages, schools, etc.) to either a treatment or a control group, and comparing the outcomes of interest in the two groups over time, with the aim of identifying treatment effects. Contrary to laboratory experiments, field experiments – also referred to as "randomized interventions" or "randomized control trials" – are implemented in naturally occurring settings and the participants, both in the treatment and the control group, do not know that they are part of an experimental study. "Natural" experiments exploit exogenous changes in the environment; they are similar to a field experiment in that different units of analysis are randomly either exposed or not exposed to the change. In this case, researchers have no control over the environmental changes or the selection of control and treatment groups, but can still estimate treatment effects.

Moving from the lab to the field reduces the extent of experimental control and removes the possibility of directly measuring individuals' propensities to engage in corruption, forcing field experimentalists to find clever ways to measure differences in corruption outcomes between control and treatment groups. On the other hand, the lack of experimental scrutiny and the naturally occurring environment where participants make their decisions partly alleviate the external validity problem. In the last decade, field experiments have become increasingly popular in development economics[5] and in the study of political behavior.[6] Recently, a few attempts to investigate how corrupt transactions occur and to evaluate possible anticorruption interventions through field and natural experiments have been made.

Chapters 6–9 of the volume survey the most recent advances in the study of corruption made by field experimentalists while highlighting themes especially worthy of attention. This section of the volume begins with Sandra Sequeira's critical categorization and discussion of the different methodologies employed by field researchers to measure corruption

(Chapter 6). In the following chapter (Chapter 7), Jorge Gallego and Leonard Wantchekon review and assess the experimental evidence relating to two important forms of corruption: clientelism, that is, "the exchange of material goods and services for political support" and vote-buying, that is, "the exchange of cash for votes before an election." In Chapter 8, Matthew S. Winters, Paul Testa, and Mark M. Fredrickson provide a critical survey of the experimental evidence concerning the role that access to information might play in the fight against corruption. In Chapter 9, James R. Hollyer compares the effectiveness of top-down and bottom-up anticorruption interventions and discusses factors that may condition the success of both types of interventions. The volume concludes with Johann Graf Lambs-dorff's assessment in Chapter 10 of the role that behavioral and experimental economics might (and should) play in the design of novel anticorruption reforms.

SUMMARY OF THE CHAPTERS

In Chapter 2, Ananish Chaudhuri surveys the empirical evidence on the existence of gender differences in individuals' propensity to engage in corruption. While the chapter begins with a review of the findings generated by cross-country studies, the main focus of the discussion is in the insights provided by laboratory experiments specifically designed to test for gender differentials in corrupt transactions. According to the carefully conducted survey of the literature, the existing experimental evidence suggests that females are either equally or less willing to engage in corruption than males; there is very little evidence that women behave more corruptly than men. The author discusses possible reasons for gender differentials in corrupt behavior, such as risk aversion and preferences for reciprocation. Finally, Chaudhuri emphasizes that gender effects are more likely to be observed in studies conducted in developed countries and calls for further research to be conducted in developing countries, with the aim of shedding light on the relationships between gender differences in corrupt behavior and the cultural background of the experimental participants.

In Chapter 3, Sheheryar Banuri and Catherine Eckel survey the experi-mental evidence relating to the relationship between culture and corruption. The authors review the results generated by studies conducting the same corruption experiment in two or more countries (or in one

country but involving participants coming from many countries) characterized by different levels of corruption, as measured by the Transparency International's Corruption Perception Index. The authors discuss possible channels through which culture might interact with corruption, and attempt to reconcile contrasting results obtained by different studies by highlighting the differences in the experimental designs employed. The comprehensive survey of Banuri and Eckel suggests that experimental research on corruption and culture is still at its infancy and there is large scope for future work.

In Chapter 4, Klaus Abbink and Danila Serra provide a critical review of the lab-experimental studies that have generated results with clear anticorruption policy implications. The authors discuss the experimental findings relating to possible anticorruption interventions acting on individuals' monetary incentives and/or intrinsic motivations, as well as changes in the institutional setting. They present evidence of the effectiveness of policies imposing severe penalties on corrupt officials (even if conditional on a very small probability of detection), increasing transparency in decision-making, assuring accountability of those given the task to monitor potentially corrupt individuals, allowing for whistle-blowing with leniency, establishing staff rotation in public offices, and prohibiting the use of intermediaries (or middlemen) for the provision of public services. Finally, the authors discuss and reconcile contrasting results concerning the effectiveness of anticorruption policies aimed at changing value systems rather than incentive systems.

The section of the volume dedicated to corruption investigations based on laboratory experiments concludes with Chapter 5, where Olivier Armantier and Amadou Boly present a critical assessment of the external validity of corruption lab experiments. The authors tackle this important issue by comparing the results obtained in *conventional* laboratory experiments, which employ student samples and abstract framing, with results generated by experiments characterized by a greater extent of "field context," that is, in order, *artefactual*, *framed*, and *natural field experiments*, following the categorization of Harrison and List (2004). The main result of the comparison is that while the *levels* of corruption differ across the four categories of experiments, such differences can be systematically explained by differences in participants' demographics (age, religiosity, culture, etc.). Moreover, the direction of the treatment effects seems consistent across the four types of experiments. Finally, the authors report results from the only study that was designed to directly test for the lab-field generalizability of laboratory experiments on corruption. The results are encouraging: the

direction and magnitude of most treatment effects obtained in the lab and in the field, after controlling for differences in the characteristics of the participants, are statistically indistinguishable from one another.

Chapter 6, written by Sandra Sequeira, denotes the beginning of the section of the volume dedicated to recent advances in the study of corruption conducted by field researchers. Sequeira provides a critical categorization of different methodologies employed to measure corruption in the field. She distinguishes among survey-based measures of corruptions; estimates of corruption based on "mismatches" between different data sources; estimates generated by comparing official data with predictions from theoretical models and market equilibrium conditions; measures of corruption generated by direct observations of bribe payments. The author assesses advantages and disadvantages of each methodology and draws important lessons for future field research.

In Chapter 7, Jorge Gallego and Leonard Wantchekon survey the empirical evidence on clientelism and vote-buying generated by field experiments. In particular, based on results generated by studies conducted in Benin, Sao Tome and Principe, Nicaragua, Nigeria, and India, the authors are able to address important questions, including whether clientelism and vote-buying are effective tools to win elections, whether they are used to different extents by incumbents and challengers, and how their use could be limited.

In Chapter 8, Matthew S. Winters, Paul Testa, and Mark M. Fredrickson explore the relationship between access to information and corruption based on findings from a growing body of field-experimental research. In their critical survey of the literature, the authors distinguish between political and bureaucratic corruption, the nature of the information provided and different types of accountability mechanisms that access to information is supposed to activate. While the evidence relating to bureaucratic corruption is scarce – indeed the authors call for further research – the experimental studies on political corruption reveal that (1) providing voters with information about corruption on the part of electoral candidates leads to lower voter turnout, and not necessarily to less votes to corrupt candidates; (2) providing voters with information about the importance to vote for "clean politicians" does not seem to induce changes in voters' behavior; (3) providing voters with information about the importance of rejecting vote-buying seems effective in reducing vote-buying. In their discussion, Winters, Testa, and Fredrickson stress that the experimental evidence on the role that access to information plays in reducing corruption is still at an early stage, and suggest interesting avenues for future research.

In Chapter 9, James R. Hollyer presents a critical overview of the experimental and quasi-experimental evidence concerning the effectiveness of top-down and bottom-up anticorruption interventions. After noting that both types of interventions seem to be successful in some settings yet not in others, the author engages in an important discussion of the factors that might condition the effectiveness of both interventions, with special focus on the mediating role of political institutions. On a more general note, Hollyer illustrates the difficulty in assessing conditional relationships, and provides methodological guidance on how to mitigate the resulting estimation problems.

The volume concludes with Chapter 10, where Johann Graf Lambsdorff shares interesting reflections on the role that behavioral and experimental economics should play in the anticorruption dialogue. In particular, Lambsdorff suggests that norms of reciprocity – both positive and negative – can at least partly explain the (corrupt or honest) relationships between upper-level and lower-level bureaucrats (the principal and the agent in principal-agent models of corruption respectively) and between service providers and service recipients. The primary message of the chapter is that understanding the behavioral foundations of the complex relationships that might lead to either corruption or lack thereof should be the starting point in any process aimed at designing effective anti-corruption reforms. The author argues that experimental research plays a crucial role in making such understanding possible.

DISCUSSION AND CONCLUSION

Over the last 10 years we have witnessed a gradual shift from investigations of corruption based on aggregate data and perception indexes to micro-based analyses relying on the use of experimental methods. This volume provides a critical assessment of the current state of corruption research based on both lab and field experiments. One of the objectives of the volume is to encourage discussion and collaboration between lab and field experimentalists who share an interest in corruption research. Indeed, despite the similarities of the research methods applied in the lab and in the field, researchers in each subfield seem to prefer highlighting methodological differences while arguing for the superiority of their own chosen subfield. We believe that laboratory and field experiments each have their own merits and limitations, and if a combination of the two can help mitigate the limitations, then it should certainly be pursued in future research.

Laboratory experiments have the advantage of allowing for perfect control of the environment in which corrupt decisions are made and for direct measurement of individuals' propensities to engage in corruption. Not only do laboratory experiments make it possible to investigate individuals' responses to changes in the incentive system, but they also allow the study of the role that nonmonetary costs, such as feelings of guilt and shame, might play in preventing individuals from acting corruptly. Similar investigations are unfeasible or simply impossible in the field. The main critique of corruption research based on laboratory experiments is obvious: it concerns the extent to which individuals' response to changes in monetary and nonmonetary incentives in a lab setting predicts their (or others') response to similar changes in the corresponding field setting.[7]

Field experiments have the main advantage of taking place in the natural environment of the experimental participants. The fact that members of both control and treatment groups are unaware of being part of an experimental study provides an additional advantage.[8] As a result, field experiments might appear more externally valid than lab experiments, and indeed they are often presented as such by field experimentalists. On the other hand, the extent to which findings generated by a field experiment involving a given population in a given environment can be generalized to other field settings is also the subject of active debate among development economists. Mookherjee (2005), for instance, observes that field experiments allow one to analyze "a particular phenomenon in a particular location in considerable depth, data permitting. The research is consequently increasingly microscopic in character. We have very little sense of the value of what we have learned for any specific location to other locations."[9] The problem of field-to-field generalizability follows from the fact that the identification of average treatment effects does not make it possible – and it is usually not finalized – to identify "the mechanisms through which certain outcomes are generated (the 'why' and the 'how') and the social dynamics that are involved" (Bardhan, 2005). Without these mechanisms, the causal explanations suffer from the inherent difficulty in determining under what different conditions the success of an experiment can be replicated and/or the failure of an experiment can be avoided.

In this volume we focus on results generated by both laboratory and field experiments because we strongly believe in the importance of each methodology in increasing our understanding of corruption determinants and possible deterrents. Moreover, we think that there exist unexplored synergies between laboratory and field experimenters that, if explored,