

## BEHAVIOURAL ECONOMICS

## Corruption corrupts

**A cross-cultural experiment involving thousands of people worldwide shows that the prevalence of rule violations in a society, such as tax evasion and fraudulent politics, is detrimental to individuals' intrinsic honesty.**

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Does society affect intrinsic moral values? In a paper online in *Nature*, Gächter and Schulz<sup>1</sup> address this question with an experiment involving 2,568 participants in 23 countries. The authors show that a country's prevalence of rule violations, which for this study included tax evasion, corruption and political fraud, is positively associated with the tendency for residents of that country to lie for a small amount of extra cash. The finding rejects the idea that intrinsic honesty levels are similar in countries around the globe, and suggests that corruption corrupts.

Experimental research on human moral behaviour, for which intrinsic honesty is a proxy, is not overly concerned with how people 'should' behave. Instead, economists, psychologists and other researchers are descriptively mapping the situations in which people are likely to violate moral rules. The goal of such attempts is to craft useful interventions for encouraging moral conduct.

Indeed, people's deviant behaviour is influenced by their immediate environment. For example, people are more likely to drop litter, avoid returning their shopping trolleys and even trespass on private property when there are evident signs of disorder in their surroundings, such as graffiti<sup>2</sup>. But the extent to which corrupt societal norms trickle down to shape people's intrinsic standards of honesty remained unknown, until now. Tackling this fascinating issue, Gächter and Schulz used existing indices for the democratic quality of a country's political practices, its illicit economic activity and levels of corruption, to create a 'prevalence of rule violations' (PRV) index (Fig. 1).

The authors then used this index to classify 159 countries for which PRV-index data were available as of 2003, and investigated 23 representative countries. In each country, they sampled adult participants who were too young to have influenced the computed index. This is an essential ingredient in suggesting a causal path — that low exposure to rule violations increases people's intrinsic honesty, not vice versa.

Participants rolled a standard six-sided dice to determine their earnings in the experiment<sup>3</sup>. Operating in private, they rolled the dice, peeked at the outcome, then rolled and peeked a second time, and were asked to report the outcome of the first roll only. Higher reported numbers translated to higher earnings, with the exception of reporting a six, which meant getting nothing.

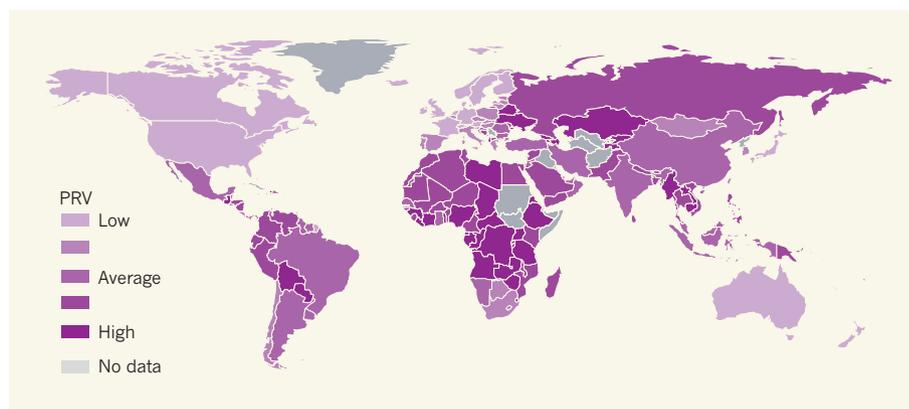
Because rolls were done in private, participants could easily misreport the outcome (lie) to increase their earnings. Although the task does not allow individual honesty or dishonesty to be pinpointed, the reports can be used to assess the degree and pattern of lying at the country level. In an honest country, given a large enough sample and a fair dice, the distribution of reported outcomes should be flat. The authors refer to this as the full-honesty benchmark. In a country in which people maximize profit at all costs, even by lying, only the most profitable value for the dice roll (five) should be reported — the full-dishonesty benchmark. Many people, however, like to feel moral even when lying, and thus prefer to shuffle facts rather than invent them. That is, people often report the higher observed outcome of the two rolls<sup>4</sup>, not the value that appears on the first roll, as the rules dictate — the justified-dishonesty benchmark.

Gächter and Schulz found that participants

were neither fully honest nor fully dishonest. Reported outcomes clustered around the justified-dishonesty benchmark, especially in countries with a high PRV score. This suggests that high exposure to rule violations turns people into truth stretchers, but not brazen liars. The authors also identify a positive correlation between a country's PRV score and participants' earnings in the task, suggesting that participants from more-corrupt countries lied more than those from less-corrupt ones. Given that participants were not involved in activities that could affect their country's score on the PRV index, the probable causal path is from society-level rule violations to individual-level dishonesty. Gächter and Schulz provide multiple tests that assess the robustness of the findings; for example, they show that use of the earliest available data related to PRV score, such as corruption levels in 1996, also predicts participants' dishonesty.

The underlying assumption of Gächter and Schulz's work is that country-level PRV score shapes country members' honesty, which is intrinsic and thus stable across situations. However, ample work suggests that the same person may be both honest and dishonest, according to situation<sup>5–8</sup>. For example, when people interact with a lying partner, they are likely to lie as well<sup>9</sup>. This elusive dynamic is missing when considering only snapshots of (dis)honesty.

Several intriguing questions remain open for future work. How long does it take for an individual's honesty to be shaped by their country's PRV score? According to a survey by Transparency International<sup>10</sup>, corruption levels fell significantly in several countries, including Britain, Greece and Senegal, between 2012 and 2015. When should we expect to see more honesty in these countries? Furthermore, people are not confined to interacting with



**Figure 1 | Rule violations across the globe.** Gächter and Schulz<sup>1</sup> developed a 'prevalence of rule violations' (PRV) index on the basis of a country's political democracy, illicit economic activity and levels of corruption. They assigned a PRV score to 159 countries, and investigated the effect of the relative prevalence of societal rule violations on individuals' honesty in 23 of those countries.

members of their own society. They travel abroad, do business internationally, attend student-exchange programmes and migrate. The impact of interacting with members of other countries on people's honesty remains an intriguing puzzle.

Most importantly, this study demonstrates that behavioural economic experimentation can provide insight into how to tackle burning global problems. A European Union anti-corruption report<sup>11</sup> estimated that corruption costs the EU €120 billion (US\$132 billion) each year, just shy of its annual budget. The report concluded that "corruption seriously harms the economy and society as a whole". Gächter and Schulz's work makes it clear that

the costs are not just financial. Corruption not only deprives people of economic prosperity and growth, but also jeopardizes their intrinsic honesty. ■

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