

The cyclical nature of corruption.

Modeling how corruption comes about, diffuses, and declines.

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Abstract

Previous investigations on the topic of corruption tend to fall into one of these four classes: first, studies on the causes of the emergence of corruption (how corruption comes about). Second, studies about the processes through which corrupt practices spread among individuals (corruption diffusion). Third, studies about the conditions that hamper the reproduction of corrupt behavior (corruption decline). Fourth, studies about the relationship between individuals' perception of corruption and the real corruption level in their society (perceived vs actual corruption level). Each of these classes focuses on one phenomenon related to corruption, and provides a number of explanations of the social processes involved.

However, observational evidence points at the fact that these phenomena are intertwined with one another. The emergence, diffusion and decline of corruption, for instance, can be regarded as *phases* of corruption cycles. Our work explores theoretically and empirically the idea that the last piece of the puzzle, namely the difference between perceived and actual corruption, is crucial to explain how corruption moves through these phases. Thus, our aim is to combine these partial explanations and develop a comprehensive theory of corruption which accounts for its cyclicity.

To do so, we develop a formal and computational model implementing the processes concerning corruption emergence, diffusion, decline and its relationship with individuals' perception of corruption. The model is meant to generate simulated trends of corruption in a population, trends in individuals' perception of corruption, and trends in the frequency of news reports about corruption episodes. Focusing on the case of contemporary Italy, we calibrate the model's parameters and test its predictions against different sources of empirical data. In particular, we measure individuals' perception of corruption and its changes over time through survey data (Itanes). The media coverage of corruption-related news is measured by crawling news agencies' Twitter verified accounts.

KEYWORDS

Corruption · perception of corruption · agent-based modeling