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Conference Paper

Spot On For Liars! How Public Scrutiny Influences Ethical Behavior

Beiträge zur Jahrestagung des Vereins für Socialpolitik 2017: Alternative Geld- und Finanzarchitekturen - Session: Experiments - Decision Theory I, No. C18-V2

Provided in Cooperation with:

Verein für Socialpolitik / German Economic Association

Suggested Citation: Ostermaier, Andreas; Uhl, Matthias (2017) : Spot On For Liars! How Public Scrutiny Influences Ethical Behavior, Beiträge zur Jahrestagung des Vereins für Socialpolitik 2017: Alternative Geld- und Finanzarchitekturen - Session: Experiments - Decision Theory I, No. C18-V2, ZBW - Deutsche Zentralbibliothek für Wirtschaftswissenschaften, Leibniz-Informationszentrum Wirtschaft, Kiel, Hamburg

This Version is available at:

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

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Spot On For Liars!

How Public Scrutiny Influences Ethical Behavior

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Abstract

We examine whether people are more honest in public than in private. In a laboratory experiment, we have subjects roll dice and report outcomes either in public or in private. Higher reports yield more money and lies cannot be detected. We also elicit subjects' ethical mindsets and their expectations about others' reports. We find that outcome-minded subjects lie less in public to conform with their expectations about others' reports. Ironically, these expectations are false. Rule-minded subjects, in turn, do not respond to public scrutiny. These findings challenge the common faith in public scrutiny to promote ethical behavior. While public scrutiny can improve ethical behavior, this effect is contingent on people's mindsets and expectations.

1 Introduction

Some say that ethics starts with asking yourself whether you would want to see what you do reported in the newspaper. The intuition for this ethical rule of thumb is straightforward: what you do in private cannot be ethical unless it stands up to public scrutiny. It is not obvious, though, whether people really act more ethically in public than in private. Empirical evidence on the effect of public scrutiny on ethical behavior is surprisingly scant. As a step toward closing this gap, we examine the impact of public scrutiny on lying, which is considered unethical in most cultures [1].

Ethical behavior is contingent on empirical expectations about others' behavior [2]. People first form expectations and then potentially conform to these. We conduct a laboratory experiment to examine both steps. We have subjects roll dice and report their outcomes to earn money. The experiment invites subjects to lie because higher reports yield more money and reports cannot be verified [3]. To study the effect of public scrutiny, we manipulate whether these unverifiable reports are made in public or in private. Before rolling dice, subjects state their expectations about others' reports. After reporting, they take a test which allows us to categorize them as either outcome-minded or rule-minded [4].

The experimental setup protects liars from being caught individually, whether reports are made in public or in private. However, we can infer lies on the group level. Hence, the experiment allows us to investigate the impact of public scrutiny both on expectations about others' honesty and on conformity with these expectations. It is important to distinguish outcome-minded from rule-minded subjects, because the former are susceptible to public scrutiny, whereas the latter are not.

2 Theory

Expectations about others are crucial in shaping ethical behavior. People will not conform to norms unless they expect others to conform as well [2]. In particular, people have been found to condition their level of lying on how much they believe others lie, and they adjust their level of lying when their beliefs turn out wrong [5, 6]. While there are prescriptive norms saying that one ought to tell the truth, it is common knowledge that lies are frequent [7], and this observation informs expectations about how much others lie in a given situation. People will therefore expect others, on average, neither to tell the truth nor to lie to the maximum extent when these have to choose between being honest or dishonest.

It is less clear, though, whether expectations about others' honesty differ in public and private. While we are unaware of direct evidence, it is interesting to note that transparency is called for in all realms of life to promote ethical behavior. These calls for transparency apparently reflect the expectation that people act more ethically in public, which includes that they are more honest. Specifically, the prospect of public scrutiny has arguably a similar effect as situational cues which increase the salience of norms [8, 9]. Although it does not directly remind people to tell the truth, it reminds them that ethical behavior is in order. It seems reasonable to infer that expectations about honesty are at least as high in public as in private.

Given their expectations about others' behavior, people may conform to these expectations even when this is not in their immediate self-interest [2, 10]. For example, economic experiments offer evidence that people forgo monetary gains to follow fairness or reciprocity norms, albeit in total anonymity [11]. This said, an important motivation for conformity is to garner social approval or avoid rejection [12]. While non-conformity may be psychologically costly in private, it is certainly more costly in public, where it attracts direct negative attention. In addition to the psychological cost, lying in public is also costly from an ethical viewpoint. Liars give others a bad example, which these may imitate and thus spread unethical behavior.

It is important to note, however, that ethical behavior depends heavily on people's mindset. The distinction between outcome-based and rule-based mindsets has proven particularly helpful in predicting ethical behavior [4]. Rule-minded individuals feel obliged to conform to rules per se, regardless of the specific situation [13, 14]. Outcome-minded individuals, by contrast, consider the consequences of what they do, such as attracting negative attention or giving a bad example to others [15, 14]. This makes them responsive to situational factors, including public attention. Hence, the argument that public scrutiny leads to conformity with empirical expectations about others holds for outcome-minded much more than for rule-minded people.

To illustrate this intuition, imagine a pedestrian who is about to run the light. An outcome-minded pedestrian will consider whether other people and especially children are around. He will have no qualms about running the light per se, but he will be ashamed to be seen breaking the law and refrain from offering a bad model to children, who may be crushed by a car when following his example. A rule-minded pedestrian will stop because it is the law, whether or not others see him and possibly follow his example. Rule-minded individuals are consistent in their ethical behavior, while outcome-minded individuals respond differently to different situations, which also explains why they engage in moral balancing [4].

3 Experiment

3.1 Overview

To examine the effect of public scrutiny on honesty, we conducted the dice experiment, which allows subjects to lie without any risk of being caught [3, 5]. The subjects were placed in separate booths where they were isolated from each other and could not be observed. They rolled a six-sided die and reported their outcome. The setup encouraged lying because pay increased with the reported outcome and the reports could not be verified. To examine the effect of public scrutiny, we manipulated, between subjects, whether subjects reported their outcome in public or in private. The laboratory permits us to investigate honesty, expectations, and ethical mindsets in a highly controlled environment.

Each session consisted of two tasks. First, the subjects guessed the average outcome to be reported by the other subjects in their session. Second, they rolled a die and reported their outcome in private. In the public condition, they then also reported their outcome in public. Next, the subjects answered post-treatment questions, starting with a trolley dilemma to elicit their ethical mindset. At the end of the session, a coin was tossed to determine whether they were paid for guessing or reporting. They were finally paid individually and in cash when leaving the laboratory. Except for the public report, all communication used a tailor-made graphical computer interface without any face-to-face interaction [16].

The subjects were students from various disciplines of a major European university. Student samples are commonly used to gain insights into social and ethical behavior [17]. The subjects were randomly assigned to one of the two conditions. After entering the laboratory, they received full written instructions. These instructions were also read out by an experimenter to establish common knowledge. The instructions explained both tasks of the experiment, so that the subjects had all information about the second task, which they needed to make their guess in the first task (see Section 6 for the instructions).

3.2 Guessing task

The subjects made an incentivized guess of the outcome that all other subjects in their session would report on average. Each session had 13 subjects. If the other twelve subjects reported their outcomes truthfully, their reports would average 3.5. Each subject's pay for guessing depended on the accuracy of his or her guess. Table 1 lists the pay-off for each level of accuracy.

Table 1. Payoffs for guesses.

Deviation	Payoff
± 0.1	€ 12
± 0.2	€ 10
± 0.3	€ 8
± 0.4	€ 6
± 0.5	€ 4
$> \pm 0.5$	€ 2

Before the subjects entered their guesses into their computers, the instructions reminded them that the average report would be 3.5 if each outcome were reported equally often, i.e. twice. The task was finished when everyone had entered their guess. Dice were distributed to the subjects only then for the second task.

3.3 Reporting task

The subjects rolled their dice as often as they wanted to convince themselves that these were not loaded. However, they were asked to retain and report the outcome of their first die roll [3]. Each subject's pay was his or her reported outcome multiplied by two (i.e., €2, 4, ..., 12). The task was finished when everyone had entered their outcome into their computer.

3.4 Private and public condition

In the public condition, subjects were asked to stand up and turn face-to-face after entering their outcome. When they stood face-to-face, they were called on in random order to announce their reported outcome loud and clearly in this forum. To prevent path-dependency, the experimenter double-checked that everyone announced the same outcome that they had entered before into to their computer. Hence, the subjects could not adapt their report ex post in response to the others' reports.

Once all subjects had publicly reported one by one, they went on to answer post-treatment questions. In the private condition, they moved to the questions immediately after entering their report into their computers, without any public announcement.

3.5 Categorization by mindset

The post-treatment questions started with a trolley dilemma to determine the subjects' ethical mindset [18]. The dilemma read as follows: "A trolley is out of control and threatens to run over five people. By hitting a switch, the trolley can be diverted to another track. Unfortunately, there is another person on that track. Is it permissible (by hitting the switch) to take the loss of a person's life to save the life of five people?"

The subjects had to select one of two answers: "Yes, it is permissible (by hitting the switch) to take the loss of a person's life to save the life of five people," or "No, it is not permissible (by hitting the switch) to take the loss of a person's life to save the life of five people." The subjects who answered yes were categorized as outcome-minded, while those who answered no were categorized as rule-minded.

4 Results

We recruited 104 subjects for the experiment [19]. The subjects' age averaged 21 years (SD 3.05). About half of the subjects were male. 52 subjects were randomly assigned to the private condition, 52 to the public condition.

The experiment created a situation where subjects had to choose whether to be honest or dishonest. We have argued that people will expect others neither to tell the truth nor to lie as much as possible in such a situation. In line with this argument, the average outcomes that the subjects expected others to report—4.15 in the public condition and 4.22 in the private condition—differ significantly both from the average outcome of 3.5 under truthful reporting and from the maximum report of 6.0 (two-tailed *t*-tests, $p < 0.001$).

For lack of a compelling theory to derive a prediction of whether expectations differ between the public and private condition, we have conjectured that people expect at least as much honesty in public as in private. This argument is based on the observation that transparency—and thus public scrutiny—is often implied to promote ethical behavior. In fact, expectations do not significantly differ between the public and private conditions ($4.15 < 4.22$, $p = 0.664$), which is in line with our conservative conjecture. Hence, we note the following result.

Result 1. People expected others to lie both in public and private. They expected the same level of dishonesty in both cases.

To test whether the subjects conformed to their empirical expectations about others more readily when reports were made in public, we compare the differences between reports and expectations. A small difference indicates that the subjects' reports matched their expectations about others' reports. Since we have argued that subjects' conformity depends on their ethical mindset, we break down these differences by mindsets. In the public condition, 30 subjects were categorized as outcome-minded and 22 as rule-minded. Similarly, we had 31 outcome-minded and 21 rule-minded subjects in the private condition. The differences between reports and expectations are depicted in Fig. 1.

Insert **Fig. 1** about here.

Caption: Difference between reports and expectations by condition and mindset. The number of observations are, from left to right, 31, 30, 21, and 22.

From the figure, it is striking that the outcome-minded subjects' reports perfectly matched their expectations about others in the public condition. The difference of -0.01 does not differ from zero ($p = 0.962$). In the private condition, by contrast, their reports exceeded their expectations by 0.73 ($p < 0.001$). Comparing these differences, we find that conformity is significantly higher in public than in private ($-0.01 < 0.73$, $p = 0.026$). Contrarily, the rule-minded subjects' conformity did not differ between the public and private condition ($0.34 > 0.19$, $p = 0.686$). While their reports exceeded their expectations, the differences are not significant ($p = 0.161$ in public and $p = 0.514$ in private), which implies conformity in both conditions. We retain this result.

Result 2. Only outcome-minded people conformed to their expectations about how much others lie in public more than in private.

Taking together these findings, expectations about others' honesty were the same across conditions. However, the subjects differed in how they conformed to these expectations depending on their mindsets and on whether reports were submitted in public or in private. We have started with the question, though, whether people are more honest in public. To answer this question, we compare the subjects' reports, which are depicted in Fig. 2. The figure shows that outcome-minded subjects' public reports are significantly more honest than their private reports ($4.03 < 4.96$, $p = 0.009$). The rule-minded subjects' reports, in turn, do not differ between conditions ($4.64 > 4.38$, $p = 0.537$).

While the outcome-minded subjects' low public reports exceeded the threshold of 3.5 , which statistically results under truthful reporting, the difference is only marginally significant ($p = 0.061$). Their high private reports, in turn, were clearly above 3.5 ($p < 0.001$). The rule-minded subjects' reports exceeded the threshold in both conditions ($p < 0.001$ in public and $p = 0.006$ in private). Although we think of rule-minded subjects as observing prescriptive rules (such as not to lie or not to run the light), compliance with rules is not a privilege of either one mindset. Across conditions, the outcome-minded and rule-minded subjects reports were equal (4.51 , SE 1.41 and 1.33 , $p = 0.990$).

Insert **Fig. 2** about here.

Caption: Reports in public and private by mindset. The number of observations are, from left to right, 31, 30, 21, and 22.

To complement these results, we consider honesty and conformity across mindsets. The overall difference between reports and expectations was 0.14 (SE 0.19) in the public

condition and 0.51 (SE 0.16) in the private condition. The former difference does not significantly differ from zero, indicating conformity between reports and expectations in public ($p = 0.473$). In private, however, the subjects' reports did not match their expectations ($p = 0.002$). Turning to honesty, reports average 4.29 (SE 0.20) in public and 4.73 (SE 0.17) in private. Reports are therefore higher in public than in private. However, this difference is not significant ($p = 0.101$) and we cannot conclude that people lie less in public than in private.

5 Conclusion

We set out to investigate the common belief that public scrutiny promotes ethical behavior. This belief is reflected, for example, in the popular newspaper test, as much as in common calls for transparency. Specifically, we conducted a laboratory experiment to examine whether people are more honest in public than in private. We find that some people are more honest in public, in order to conform with their expectations about others' honesty. Our results therefore show that public scrutiny reinforces the effect of empirical expectations, which are crucial in shaping ethical behavior [2, 10]. While our findings thus offer some support for the faith in public scrutiny, they also highlight its contingencies.

Specifically, whether people conform with their expectations about others' behavior is contingent on their mindset. Public scrutiny had a large effect on the outcome-minded subjects, who matched their expectations in public but lied much more than they expected others to lie in private. The rule-minded subjects, by contrast, were unimpressed by public scrutiny; their reports differed hardly in public and in private, slightly exceeding their expectations about others in both cases. Hence, public scrutiny can enhance ethical behavior provided that a large portion of the population is outcome-minded. Variation in the prevalence of ethical mindsets may also explain inconclusive prior evidence from cross-cultural research on honesty [20].

The private condition revealed the intriguing insight that the very people who were susceptible to public scrutiny systematically overestimated others' honesty or, put differently, allowed themselves transgressions but believed that others would not. This bias was hidden in public, where subjects conformed to their false expectations. Similar biases have been observed in other contexts, where people, on average, consider themselves better or worse than the average [21]. Nonetheless, it is ironic to note that public scrutiny results in more honesty because it leads people to conform with false expectations about others' honesty. It thus turns the expectation of honesty into an—ethically desirable—self-fulfilling prophecy.

This finding points out another contingency. As public scrutiny reinforces conformity with empirical expectations, it can promote unethical as much as ethical behavior. Imagine an individual who has a conditional preference to conform with some prescriptive norm, but falsely expects that others do not share this preference. Conformity with this false expectation will lead that individual to act unethically despite her preference. Pessimistic expectations may also be used for motivated reasoning to justify one's own unethical behavior [22]. Many would rather be the crook than the sucker [2, 23]. Prior evidence also argues for an asymmetry in how people respond to ethical and unethical behavior [5], which may extend to expectations about others' behavior.

In summary, this study shows that the effect of public scrutiny on ethical behavior is not as straightforward as one might assume. We believe that our insights warrant further research on the ethical effects of public scrutiny or transparency. In particular, adverse effects are certainly a promising avenue for future research.

6 Materials and methods

6.1 Instructions

The instructions were the same for both conditions except for the section “Establishing outcomes,” which appeared only in the instructions for the public condition.

General instructions

Please keep calm and follow the experimenter’s instructions during the experiment. Note that experimenters will never deceive you in experiments conducted in this laboratory.

Please don’t talk unless you are told to. If you have any questions, raise your hand. The experimenter will come to you and answer your questions in private. Switch off your mobile devices and stow them in the pocket next to you.

Participants who don’t follow the instructions will be excluded from the experiment and will receive only a fixed compensation of € 2.

Tasks

The experiment consists of two tasks: the guessing and the dice task. You will be paid for one of these two tasks. A coin will be tossed to determine the paying task at the end of the experiment.

You will first perform the guessing task and then the dice task. However, the guessing task builds on the die task. The dice task will therefore be explained first.

Dice task

You will receive a six-sided die soon. You roll the die repeatedly to convince yourself that it isn’t loaded.

You retain the outcome of your first die roll. You enter the outcome of your first die roll into your computer.

Your pay is *twice the outcome you enter*. Your pay is therefore as follows:

Outcome	Payoff
1	€ 2
2	€ 4
3	€ 6
4	€ 8
5	€10
6	€12

Guessing task

You guess the *average of the outcomes reported* by the *other twelve* participants in this room. You enter your guess into your computer.

Please round to one decimal place. For instance, if you expect that each number is entered equally often (i.e., twice), you enter 3.5.

The better your guess of the average of the outcomes entered by the other participants, the more you earn. Your pay is determined as follows:

Deviation	Payoff
± 0.1	€12
± 0.2	€10
± 0.3	€ 8
± 0.4	€ 6
± 0.5	€ 4
$> \pm 0.5$	€ 2

Establishing outcomes

All participants stand up and turn face-to-face. The numbers of your workstations are called in random order.

When your number is called, you announce your outcome loud and clearly. The experimenter double-checks that the outcome that you announce is the same as the outcome you have entered into your computer.

Payment

A coin is tossed to determine whether you are paid for the guessing task or for the dice task.

In addition to your payoff of €2–12 from the experiment, you receive a fixed payoff of €2. Hence, you earn at least €4 overall.

You receive your payoff at the end of the experiment in return for the card with the number of your workstation. You are paid confidentially in cash. You are called one by one to the reception room.

6.2 Compliance with Ethical Standards

Funding: This study was funded by the experimenters' university. The funder had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent: Informed consent was obtained from all individual participants included in the study.

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