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Do cheaters in the lab also cheat in the field?

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ABSTRACT

In this paper, we study the correlation between cheating in the lab and cheating in the field. We conduct a laboratory experiment using a variant of the Mind game (Jiang, 2013). Payoffs above a certain threshold are indicative of cheating behavior. Subjects are paid their earnings by bank transfer. A fraction of the subjects is deliberately paid more than their earnings. We send subjects a reminder e-mail stating their earnings and asking them if they have received their payment. We find a significant correlation of 0.31 between cheating in the lab and in the field. Subjects with higher payoffs in the Mind game are also less likely to report the overpayment. Our results speak to the lab-field generalizability of cheating behavior.

1. Introduction

There is a growing literature in economics and psychology that studies honesty and cheating in the laboratory (see Rosenbaum et al., 2014 for a review). In the most popular class of designs, subjects self-report the outcome of some simple, privately conducted, task such as rolling a die or tossing a coin. Since subjects know that the experimenter cannot monitor the outcomes, they have a credible incentive to misreport outcomes to obtain higher payoffs.

One robust finding in this literature is that subjects generally do not lie to the maximum extent possible, nor are they completely honest (Abeler et al., 2014; Fischbacher and Föllmi-Heusi, 2013; Lewis et al., 2012; Shalvi et al., 2012). Moreover, there is considerable heterogeneity in cheating across subjects. Within an experiment, different subjects cheat in different degrees (Bucciol and Piovesan, 2011; Conrads et al., 2013; Houser et al., 2012; Shalvi et al., 2011).

Little is known, however, about the generalizability of laboratory results on cheating. A possible concern is that design features which ensure internal validity may also jeopardize external validity. Subjects self-report their earnings while the experimenter could observe those if really necessary. Subjects may question why the experimenter would follow such a procedure, if not for testing honesty. Experimenter scrutiny, even if incomplete, could trigger different ethical norms (Levitt and List, 2007). Scrutiny may cause a 'demand for cheating' that would not be taken into account otherwise.

In this paper, we employ a laboratory experiment on cheating, a variant of the Mind game (Jiang, 2013), and relate this behaviour to a field setting where subjects are unaware that they participate in an experiment. In our lab experiment, student subjects guess the color (black or white) on the backside of a card that generates the highest payoffs. Forecasts are self-reported and are written down before or after drawing each card. Then, when subjects are paid their earnings by bank

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account, we overpay them by an amount of €5. An e-mail is sent to each subject, asking if payment was received successfully.

Our main finding is that behaviour in the laboratory correlates significantly with behaviour in the field. Subjects who have suspiciously high payoffs in the laboratory are also less likely to report being overpaid. We find a correlation of 0.31 between these two types of cheating behavior. Interestingly, absolute levels of cheating differ quite substantially between the laboratory and the field. A minority of the subjects cheated detectably in the lab, while in the field a majority did not report being overpaid.

Our paper contributes to the literature on lab-field generalizability of experiments (for a general discussion see Levitt and List, 2007; Falk and Heckman, 2009; Camerer, 2011; Al-Ubaydli and List, 2013). This literature mainly focuses on social preferences. Using within-subject evidence, mixed results have been reported for the public goods game (Carpenter and Seki, 2011; Englmaier and Gebhardt, 2011; Fehr and Leibbrandt, 2011; Voors et al., 2012), the dictator game (Franzen and Pointner, 2013; Galizzi and Navarro Martinez, 2015), the trust game (Baran et al., 2010; Galizzi and Navarro Martinez, 2015), and for charitable giving (Benz and Meier, 2008; Galizzi and Navarro Martinez, 2015). As far as we know, ours is among the first studies to focus on cheating. Dai et al. (2016) report a study similar to ours, conducted independently. Among others, they run a treatment where student subjects are overpaid, after completing a laboratory experiment on cheating. The findings are in line with ours: subjects with high scores in the lab task are less likely to report the mistake in payment.

2. Experimental designs and procedures

The experiment consists of two parts, a laboratory part and a field part. We describe the experimental design of each part below. We conclude this section by describing how we measure cheating behaviour.

2.1. Part 1: The laboratory experiment

The laboratory experiment, based on the Mind game (Jiang, 2013), is a single person game that measures cheating behaviour. At the start of the experiment, subjects are given a shuffled deck of twenty cards. The top side of each card has a letter ranging from A to T (identifying the round). The bottom side of each card is divided in a black and white part. Each part has a red number and the two numbers sum to seven. For example, if the white part contains a 4, then the black part contains a 3. These numbers represent earnings. Fig. 1 shows an example of a card in the deck.

Subjects face three tasks: (i) choose a color in their mind (black or white), (ii) turn the top card of the deck to see the earnings of the chosen color, (iii) write down the chosen color. As in Jiang (2013), we conduct two treatments that differ in the order of the three steps. In both treatments, subjects first choose a color in their mind. In 'Turn first', subjects are instructed to first turn over the top card, and then write down their chosen color. In 'Write first', subjects are instructed to first write down their chosen color, and then turn over the top card of the deck. Table 1 summarizes the two treatments.

The experiment was conducted on one day in November 2014 at a University college in Tilburg, the Netherlands. This college has students of economics, communication, and applied math, but experiments are rarely conducted. The laboratory was a classroom, and recruiting was done on the day of the experiment. Subjects reported at the desk outside of the classroom and received a shuffled deck of cards, instructions, and a record sheet (see Appendix A). They then privately conducted the experiment in the classroom. When finished, subjects reported back outside of the classroom.

The instructions informed subjects that their total earnings consisted of the sum of three randomly determined rounds. When a subject reported back outside of the classroom, we shuffled the deck of cards, and the subject randomly picked three cards. All subjects were paid by bank transfer. Payment was promised at the next business day. Each subject was given a small reminder card with their earnings written on it, and the e-mail address of one of the experimenters. We informed the subjects that the card was given in case the subjects had any questions about (payment of) the experiment.

Subjects should realize that the experimenter cannot monitor the color a subject takes in mind. Hence, there is an incentive to break the experimental rules by reporting the color with the greatest payoffs. Breaking the rules is more explicit in the 'Write first' treatment. Subject then either have to overwrite the initial choice on the form, or violate the requested order of steps and draw the card before they write down the color. Our motivation to distinguish between the 'Turn first' and 'Write first' treatment is that it allows us to observe what correlates stronger with our field task, implicit or explicit cheating.

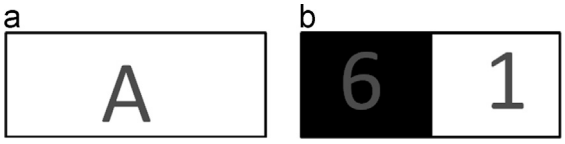

Fig. 1. (a) Example of the top side of a card. (b) Example of the bottom side of a card.