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Original Article

Dishonest behavior is not affected by an image of watching eyes

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ABSTRACT

Previous research has demonstrated that implicit reputation cues promote prosocial behaviors. However, the effect of implicit reputation cues on dishonesty has not been investigated in the laboratory. An image depicting observant eyes has been used as an implicit reputation cue in previous studies. Three experiments were conducted to investigate whether the use of such an image was significantly associated with dishonesty. In the current study, participants had opportunities to cheat to obtain higher economic profits (Experiments 1 and 2) or to appear more intelligent (Experiments 1 and 3). The participants were randomly assigned to the watching eyes image or a neutral image conditions. There was no difference in the extent of dishonesty between the two conditions. Notably, these results were consistent across different tasks and different motivations for dishonesty. Our results extended findings from previous studies on the effects of an image of watching eyes and demonstrated that implicit reputation cues may not decrease dishonest behaviors. Thus, explicit reputation cues may be necessary in interventions for dishonesty.

1. Introduction

If you noticed an image of watching eyes on a wall, would it influence your behavior? Burnham (2003) found that dictators in an experimental paradigm wanted to give more money to recipients if they saw the recipient's photo before making a decision, and Haley and Fessler (2005) demonstrated that simply presenting an image of watching eyes, which represents an *implicit reputation cue*, could also increase individuals' prosocial behaviors. However, to the best of our knowledge, only a few studies have attempted to examine the effects of implicit reputation cues on dishonest behaviors. For example, one study (Nettle, Nott, & Bateson, 2012) demonstrated that an image of watching eyes with an associated verbal message (e.g., "Cycle thieves: We are watching you") decreased theft on campus. However, it is already known that verbal messages are sufficient to reduce thefts effectively (McNees, Egli, Marshall, Schnelle, & Risley, 1976), but the effect of an image of watching eyes alone on dishonesty is still unknown. Therefore, this study explored the influence of an image of watching eyes on dishonest behaviors.

In ancestral environments (and currently), dishonest people can always obtain resources at less cost, if at any cost at all (if they are not caught and punished), than honest people can (Buss, 1999). However, when individuals realize that others might be observing their behaviors, they often consciously adjust their behaviors in meet social norms to build and maintain a good reputation (Fehr & Gachter, 2002; Wedekind & Milinski, 2000). In relation to sustaining a good reputation, researchers have distinguished between two distinct reputation cues: *explicit reputation* and *implicit reputation cues*. Explicit reputation cues (e.g., a camera) clearly indicate that an individual's behaviors are being observed by others, whereas implicit reputation cues (e.g., an image of watching eyes) are subtle cues that "over the course of human evolution, would have reliably indicated the potential observability of one's behaviors" (p 249, Haley & Fessler, 2005). Because implicit reputation cues are very simple, economical, and easily manipulated, many studies have examined whether and how they influence behaviors. Since Burnham (2003) introduced the idea that an implicit reputation cue could increase individual's prosocial behavior, abundant research on this topic has demonstrated a positive effect of an image of watching eyes, as an implicit reputation cue, on prosocial behaviors in both laboratory experiments and field studies (Burnham & Hare, 2007; Haley & Fessler, 2005; Mifune, Hashimoto, & Yamagishi, 2010; Nettle et al., 2013; Raihani & Bshary, 2012; Rigdon, Ishii, Watabe, & Kitayama, 2009). These effects may be due to activation of an automatic cognitive mechanism shaped by reputational concerns in an ancestral environment (Burnham & Hare, 2007; Haley & Fessler, 2005; Izuma, 2012; Nettle et al., 2013). However, it is still unknown whether this mechanism would also be effective as an implicit reputation cue for dishonest behaviors.

Before acting dishonestly, people weigh the external and internal benefits and costs of the dishonesty (Allingham & Sandmo, 1972; Becker, 1968, 1993; Mazar, Amir, & Ariely, 2008). The external trade-off of ensuring that their behaviors will not be observed by others is a key factor for potential cheaters (Gneezy, 2005; Hechter, 1990; Mazar et al., 2008). However, in anonymous conditions that can elicit dishonest behaviors, such as a dark room (Zhong, Bohns, & Gino, 2010), the

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impact of a watching eyes image may disappear because individuals might be aware that they cannot be identified and that the image of watching eyes is a false cue. As Haley and Fessler (2005) noted, implicit reputation cues work by activating the automatic cognitive mechanisms that formed in ancestral environments based on reputation concerns. Therefore, when individuals are motivated to take some conscious control over their cognitive processes and find the implicit reputation cue to be invalid, the effects of implicit reputation cues may disappear (Fehr & Schneider, 2010; Sparks & Barclay, 2013). Although none of the previous studies directly demonstrated a null effect of an image of watching eyes on dishonesty, there is some suggestive evidence. For example, previous studies have shown that people are more selfish in a truly anonymous situation (Burnham, 2003) and that explicit and implicit reputation cues have no effect on cooperative behaviors in such anonymous situations (Lamba & Mace, 2010; Tane & Takezawa, 2011; Raihani & Bshary, 2012). Specifically, Tane and Takezawa (2011) used the same materials and experimental settings as Haley and Fessler (2005) except for their use of light. They turned off all of the lights in the experimental cubicle, leaving only the light of the computer screen, and found that the watching eyes image had no effect on generosity in a dictator game. In addition, Raihani and Bshary (2012) conducted an anonymous online large-scale cross-cultural dictator game using the online labor market Amazon Mechanical Turk and did not observe the "watching eyes" effect on generosity. Therefore, given that dishonest behavior often occurs under such anonymous situations, it is reasonable to hypothesize that an image of watching eyes, as an implicit reputation cue, would not exert an influence.

Moreover, people also use positive self-concept maintenance as a key method to increase internal rewards during the process of internal trade-offs before acting dishonestly (Mazar et al., 2008). According to previous research, two main mechanisms allow for maintaining self-concept: categorization malleability and inattention to moral standards (Mazar et al., 2008). However, to the best of our knowledge, no evidence has indicated that implicit reputation cues might influence these factors. First, categorization malleability is the extent to which people "reinterpret themselves in a self-serving manner" to the self and others, which "depends heavily on stimuli and actions" (Mazar et al., 2008). For example, it is easier to reinterpret stealing a book from a friend than stealing money from the friend's wallet because friends borrow books from each other, and the act of taking a book can be construed as unintentional. In addition, the image of watching eyes has no effect on the stimuli itself (i.e., the book or money itself would not change because of the watching eyes image); therefore, it would not influence the categorization malleability. Second, inattention to moral standards is the unawareness of one's own criteria for moral conduct, which "relies on internal awareness or salience" (Mazar et al., 2008). However and also to the best of our knowledge, no evidence has indicated that an image of watching eyes could elicit individuals' self-awareness in the same way as a mirror (Diener & Wallbom, 1976). Thus, it would not influence the inattention-to-moral-standards mechanism either. In addition, previous research has also shown that the image of watching eyes is related to the expectation of future rewards from a third party, not fear of punishment (Oda, Niwa, Honma, & Hiraishi, 2011). Dishonest behavior, however, may decrease when individuals' perceived punishment exceeds their rewards (Allingham & Sandmo, 1972; Becker, 1968, 1993).

In summary, the aim of this study was to explore the influence of an implicit reputational cue on dishonest behaviors. This investigation will help us understand more about the nature of dishonest behaviors and reputational cues, and define the boundaries of the effect of implicit reputational cues. Considering the available evidence previously summarized, we hypothesized that an image of watching eyes may not influence dishonest behaviors.

To explore our hypotheses, one pilot experiment and three experiments were conducted. The pilot experiment replicated a classical experiment about the effect of an image of watching eyes on generosity (Haley & Fessler, 2005) to test the validity of the materials and setting in China. Experiment 1 used a typical dishonesty task (matrices task; Gino, Ayal, & Ariely, 2009; Mazar et al., 2008; Zhong et al., 2010) to measure the extent of dishonesty after exposure to an image of watching eyes. Experiment 2 focused on the effect of economic motivation using a simple click-button task without calculation to remove the motivation of appearing to be more intelligent, whereas in Experiment 3, a modified matrices task was used to exclude economic motivation. We hypothesized that regardless of participants' assigned motivation group, there would be no effect of the image of watching eyes on dishonesty.

2. Pilot experiment

To test the validity of the eyes image and setting in China, we replicated a classic study on the effect of the watching eyes image on generosity by Haley and Fessler (2005).

2.1. Method

2.1.1. Participants and design

A total of 49 paid undergraduates (11 males; age $M \pm SD = 21.63 \pm 2.32$) participated in the study. No selection criteria were used. Participants were randomly assigned to the eyes condition (presented with an image of watching eyes; $n = 25$) or the control condition (presented with a neutral image; $n = 24$). The images were 249 mm × 89 mm in size and presented on a 17" color monitor.

2.1.2. Procedure and materials

The experiment was carried out with participants in groups of four. The study began with the experimenter delivering a verbal overview of the task to the four participants gathered in a common area. The participants needed to complete a generosity measure known as the dictator game (e.g., Haley & Fessler, 2005), answer some questions about the task, and then respond to a demographic questionnaire.

The dictator game requires two people: a divider and a recipient. The participants were then asked to draw lots for the roles, and the anonymity of participants' responses from each other and from the experimenter was stressed. Participants were not allowed to read the lots until they had randomly entered one of the four separate cubicles. All of the participants in this study were dividers and were asked to divide 10 *yuan* (10 *yuan* ≈ 1.61 dollars) between himself or herself and an anonymous other participant.

During this study, participants saw the image stimulus twice, as depicted in Fig. 1. First, it was presented on the computer's desktop background when the participants entered their separate cubicles and before they begin to use the computer program. Second, it was presented after confirming that the participants knew the allocation rules, just before they made the distributive decision. For each participant, the image presented was consistent. In the eyes condition, the participants were exposed to an image of watching eyes used in previous research (Fehr & Schneider, 2010; Haley & Fessler, 2005; Mifune et al., 2010; Oda et al., 2011; Sparks & Barclay, 2013), whereas the control participants saw a neutral image.

After the dictator game, all participants completed questions about the perceived anonymity in the game using a 7-point Likert scale (six items; e.g., *I believed that no one else had any idea about my distributive decision.* Cronbach's $\alpha = .72$). Finally, they completed a demographic questionnaire and were debriefed and paid by the experimenter.

2.2. Results and discussion

A one-sample t-test was used to test whether participants believed that the experimental situation was anonymous. The results showed that mean perception of anonymity was higher ($M = 4.23$, $SD = 1.24$) than the midpoint (3.5) of the 7-point Likert scale, $t(48) = 4.11$, $p < .001$. This finding suggests that people really felt that their behavior in the experiment was anonymous.