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The relation between 8- to 17-year-olds' judgments of other's honesty and their own past honest behaviors

Angela D. Evans[1] and Kang Lee[2]

Abstract

The present investigation examined whether school-aged children and adolescents' own deceptive behavior of cheating and lying influenced their honesty judgments of their same-aged peers. Eighty 8- to 17-year-olds who had previously participated in a study examining cheating and lie-telling behaviors were invited to make honesty judgments of their peers' denials of having peeked at the answers to a test. While participants' accuracy rates for making honesty judgments were at chance levels, judgment biases were found based on participants own past cheating and lie-telling behaviors. Specifically, those who cheated and lied were biased towards believing that their peers would behave in the same manner. In contrast, participants who had not cheated were biased towards judging their peers as honest. These findings suggest that by 8 years of age there is a relation between one's own deceptive behaviors and judgments of other's honesty.

Keywords

Adolescents, honesty, trust, deception, cheating, moral judgments

Trust is vitally important for our social functioning (Betts & Rotenberg, 2008; Betts, Rotenberg, & Trueman, 2009; Chagoya & Schkolne, 1986; Doster & Chance, 1976; Hochreich, 1973; Rotenberg, 1995; Rotenberg, MacDonald, et al., 2004; Rotenberg, McDougall, et al., 2004; Stouthamer-Loeber & Loeber, 1986). When we judge another person's trustworthiness, the trustee's past history of honesty is an important determining factor because dishonesty has been found to damage our trust of others (DePaulo & Kashy, 1998; DePaulo, Kashy, Kirkendol, Wyer & Epstein, 1996; Lewis, 1993). When a lie is told it has a long-term impact on whether the lie-teller is trusted, even after the lie-teller makes amends (Schweitzer, Hershey, & Bradlow, 2006).

While research has examined whether the trustee's characteristics (such as honesty, ability, and reliability) influences trust (see, for example, Birch, Vauthier, & Bloom, 2008; Harris, 2007; Jaswal, McKercher, & VanderBorght, 2008; Koenig, Clément, & Harris, 2004; Koenig & Harris, 2005a; Koenig & Harris, 2005b; Nurmsoo & Robinson, 2009; Pasquini, Corriveau, Koenig, & Harris, 2007; Sabbagh & Shafman, 2009; Schweitzer, Hershey, & Bradlow, 2006; Scofield & Behrend, 2008), little research has examined the trustor's own characteristics and behaviors (such as deception and honesty) in relation to whether they will trust others. Rotter (1980) examined the adult literature on interpersonal trust and dishonest behavior and found that people who trust others more are less likely to lie, cheat or steal. However, the relation between interpersonal trust and dishonesty remains to be directly experimentally examined with children and adolescents. Based on previous studies demonstrating a general decline in dishonest behaviors between late childhood into early adulthood (see, for example, Evans & Lee, 2011; Hartshorne & May, 1928; Jensen, Arnet, Feldman & Cauffman, 2004) it was predicted that with increased age there would be an increase in rates of honesty judgments. Understanding the development of such a relation is vitally important as it will allow for a greater understanding of how children and adolescents relate to their peers. Specifically, it will allow for a greater understanding of whether one's own delinquent behavior may influence the ability to trust the honesty of others. It will also provide insight into how to potentially implement moral education programs designed to improve children and adolescents' ability to trust others.

To address this important issue, we examined whether school-aged children and adolescents' own past trust-related behavior would influence their evaluations of others' trust-related behavior in the same context. Furthermore, Nickerson (1999) provided evidence to suggest that we often create a model of others based on the self, which can lead to errors in judgment. This propensity to perceive the self as a model for others has been well documented, indicating an egocentric bias (Flavell, 1977). For example, it has been found that when people engage in a behavior, they tend to estimate that behavior to be more prevalent compared to people who do not engage in that behavior (Burns & Knussen, 2005; Dorian, 2010; Marks & Miller, 1987; Mullen et al., 1985; Ross, Greene, & House, 1977).

In the present study, we examined one element of trust – honesty. Specifically, we examined the honesty judgments of school-aged children and adolescents of their same-aged peers. Furthermore, we examined how the trustor's own previous honesty (that is, whether they cheated or lied) would influence their judgments of others honesty. Participants were shown a series of videos in which the speaker was either telling the truth or a lie about having peeked at the answers to the test. All participants had previously participated in the same

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experiment themselves as the speaker. It was predicted that overall, participants would not be above chance levels at accurately making honesty judgments (based on: Bond & DePaulo, 2006; Bond & DePaulo, 2008; Vrij, Akehurst, Brown, & Mann, 2006). However, it was expected that participants' previous experience in the same situation may influence their honesty judgments. In particular, it was predicted that those who cheated and/or lied themselves would be more likely to have a bias towards judging the speaker as being dishonest while those who did not cheat and/or told the truth would be more likely to have a bias towards judging the speaker as being honest (based on: Burns & Knussen, 2005; Dorian, 2010; Marks & Miller, 1987; Mullen et al., 1985; Nickerson, 1999; Ross et al., 1977).

Method

Participants

Eighty 8- to 17-year-olds ($M = 12.31$ years, $SD = 2.33$, 45 males) participated: 21 8- to 10-year-olds ($M = 9.48$, $SD = .81$, 14 males), 32 11- to 13-year-olds ($M = 11.88$, $SD = .79$, 12 males) and 27 14- to 17-year-olds ($M = 15.04$, $SD = .90$, 12 males). All participants were recruited in a large Canadian city, using advertisements, and were of middle socioeconomic status. All participants in the present experiment had previously participated in an earlier study examining lie-telling behaviors. Participants were asked to complete a written trivia test to assess their general knowledge (for example, questions such as 'How many musicians are in a trio?'). While completing the test, participants were left alone in the room and asked not to peek at the answers on the inside of the testing booklet. Hidden cameras in the room captured whether participants peeked at the answers to the test. Later during the testing session, participants were asked to promise to tell the truth and were then asked whether they peeked at the answers to the test (Evans & Lee, 2010). Fifty-six percent ($N = 45$) of the eighty participants in the present investigation had previously cheated by peeking at the answers. Of those forty-five that peeked, 71% ($N = 32$) told a lie about cheating. Participants were categorized into one of three groups based on their previous deceptive behavior: non-cheater ($N = 35$; those who did not peek at the test answers), cheater-truth-teller ($N = 13$; those who peeked at the test answers and then confessed) and cheater-lie-teller ($N = 32$; those who peeked at the test answers and denied having cheated). After a period of 9 to 12 months, participants were invited back to the laboratory to participate in the current session. Informed consent was obtained from all parents prior to beginning the study and oral assent was obtained from all participants.

Materials

A series of video clips was created from the previous study where 8- to 16-year-olds were left alone in a room and asked not to peek at the answers to a test (Evans & Lee, 2010). Later during the original testing session participants were asked, 'While I was out of the room, did you peek at the answers to the test?'. Each video clip included the experimenter asking the question, the response to the question and five seconds of footage after the response ended. Each video clip was approximately 10 seconds in length ($M = 10.93$, $SD = 2.69$). The video clip was of a split screen that contained four camera angles (the face, the left side of the body and face, an overhead view and a lower body–foot level view from the left side).

In total, 46 video clips were created. Half of the clips were *honest videos* (containing someone who told the truth about not peeking at the test answers) and half were *dishonest videos* (containing someone who told a lie about having peeked). Thus, all responses to the question of whether they had peeked was 'no'. Since Evans and Lee (2010) previously found that lie-telling rates decreased with age, video clips were matched with respect to age for honest and dishonest videos. There was no significant difference in length between the honest videos ($M = 11.35$, $SD = 3.39$) and dishonest videos ($M = 10.52$, $SD = 1.70$), $t(44) = 1.04$, $p = .30$. All videos were presented on a 13.5 inch by 10.5 inch computer monitor using E-prime software which was programed to randomize the order of all videos between participants.

Procedure

Each participant completed the Honesty Judgment task individually in a quiet room. Participants were told that they would see a series of videos of people who were in the same study they participated in last time they visited the lab in which they were left alone with the answers to a test. Participants then viewed the series of forty-six videos and made judgments about whether they thought the person in the video was either telling the truth or a lie by pressing a corresponding key. If applicable, participants' own videos were excluded. After rating the series of videos, all participants were debriefed.

All participants viewed all 46 videos. Participants received 1 point for each video they correctly labeled. Three different scores were created. First, participants received an overall accuracy rate (mean accuracy rate of all videos). Second, participants received a 'hit rate' score: that is, the rate of accurately identifying dishonest videos as a lie. Finally, participants received a 'false alarm' score, the rate of inaccurately identifying honest videos as a lie. From the hit rate and false alarm scores, two aspects of the decision-making process were assessed using Signal Detection Analysis (Macmillan & Creelman, 1991, 2005): (1) the ability to discriminate between honest and dishonest videos (d' refers to their ability to discriminate between truths and lies and is calculated by subtracting participants z-scored false alarms from their z-scored hit rates); and (2) biases or their tendency to favor a specific response (criterion c refers to how conservative or liberal a person's criterion is for making an honest or dishonest judgment and is calculated by averaging the z-scored hit rate and the z-scored false alarm rate and multiplying the result by $-.5$).

Results

The results begin by examining participants' honesty judgment accuracy rates followed by the relation between participants' own previous cheating and lie-telling behavior and their honesty judgments. Preliminary Univariate ANOVAs including gender and age revealed that neither was related to honesty judgments, discrimination ability or biases. Thus, all analyses were collapsed across both gender and age. Furthermore, boxplots confirmed that the data were normally distributed for overall accuracy, discrimination ability and response bias scores.

Honesty judgments

To examine participants' ability to identify accurately the veracity of peers' statements, a one-sample t-test was performed, comparing

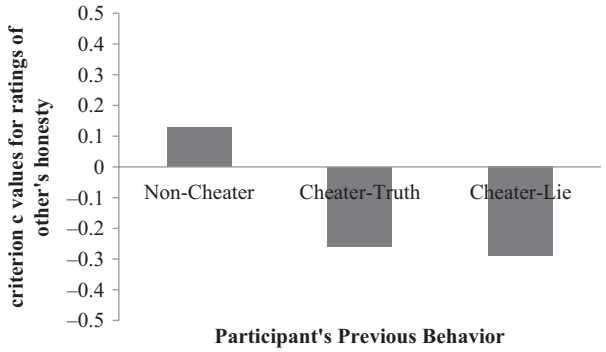

Figure 1. Participant's response biases based on their previous deceptive behaviour.

Notes: Criterion c refers to how conservative or liberal a person's criterion is for making an honest or dishonest judgment. Negative values indicate a dishonesty bias while positive values indicate an honesty bias.

overall accuracy rates against chance (.50). The results revealed that overall accuracy rates ($M = .50$, $SD = .07$) were not significantly different from chance, $t(79) = .33$, $p = .74$.

Discrimination. A one-sample *t*-test was performed on *d'* values, an index of discrimination ability with the level of sensitivity compared to 0 (no discrimination). However, participants' overall discrimination rate was not significantly different from 0, $t(79) = .30$, $p = .76$, indicating they were unable to discriminate between honest and dishonest videos ($M = -.01$, $SD = .27$).

Response bias. The response bias was assessed using criterion c, which assesses a person's tendency to identify statements as honest or dishonest. A one-sample *t*-test was performed comparing participants' criterion c value to 0 (no bias). Participants' responses significantly differed from zero indicating a response bias, $t(79) = 2.14$, $p < .05$. Given the negative direction of the mean criterion c ($M = -.11$, $SD = .46$) it appears as though participants had a bias towards labeling the targets in the videos as dishonest.

The relation between previous behavior and accuracy rates

Next, participants' own behavior during the previous study was assessed in relation to their honesty judgments. Participants were categorized into one of three groups: non-cheaters (those who did not peek at the test answers); cheater-truth-tellers (those who peeked at the test answers and then confessed); and cheater-lie-tellers (those who peeked at the test answers and denied having cheated).

Accuracy. A Univariate Analysis of Variance (ANOVA) was performed on participants' overall accuracy rate with participants' previous deceptive behavior (non-cheater, cheater-truth-teller, cheater-lie-teller) as the between-subjects variable. There was no significant main effect of previous behavior. Overall accuracy rates did not differ between non-cheaters ($M = .50$, $SD = .07$), cheater-truth-teller ($M = .52$, $SD = .07$), and cheater-lie-teller ($M = .49$, $SD = .08$) groups, $F(2, 77) = .47$, $p = .63$.

Discrimination. A Univariate ANOVA, with the participants' previous deceptive behavior (non-cheater, cheater-truth-teller, cheater-lie-teller) as the between subjects variable, was performed on *d'* values for honesty judgments. There was no significant main effect of previous behavior, indicating no significant difference between the non-cheater ($M = -.02$, $SD = .27$), cheater-truth-teller ($M = .05$, $SD = .25$), and cheater-lie-teller ($M = -.03$, $SD = .29$) groups ability to discriminate between honest and dishonest videos, $F(2, 77) = .44$, $p = .65$.

Response bias. A Univariate ANOVA, with participants' previous deceptive behavior as the between subjects variable (non-cheater, cheater-truth-teller, cheater-lie-teller), was performed on honesty judgment criterion c values. A significant main effect of previous behavior was found, $F(2, 77) = 9.96$, $p < .001$. Follow-up Bonferroni pairwise comparisons revealed no significant difference between cheat-truth-tellers ($M = -.26$, $SD = .11$) and cheat-lie-tellers ($M = -.29$, $SD = .07$), $p = 1.00$. However the non-cheaters ($M = .13$, $SD = .07$) were significantly different from both groups, $ps < .013$. *T*-tests comparing each group's criterion c values to 0 revealed a significant bias for non-cheaters and cheat-lie-tellers, $t(33) = 2.62$, $p < .05$, and $t(32) = 4.54$, $p < .001$, respectively (see Figure 1). Specifically, the positive criterion c value for participants who were non-cheaters suggests they have a bias towards rating the targets in the videos as honest, while the negative criterion c value for participants who were cheater-lie-tellers suggests they have a bias towards rating the videos as dishonest. No significant bias was found for cheater-truth-tellers.

Discussion

The present study assessed school-aged children and adolescents' honesty judgments of their same-aged peers. In addition, we examined whether participants' own previous trustworthiness (that is, whether they cheated or lied) was related to their honesty judgments of their peers. Consistent with previous findings examining the ability to identify the veracity of adults' statements (e.g., Bond & DePaulo, 2006; Bond & DePaulo, 2008), the present study indicates that overall 8- to 17-year-olds tend to be at chance levels for identifying the honesty of their same aged peers' statements and they were not able to discriminate successfully between honest and dishonest statements.

While 8- to 17-year-olds' own previous deceptive behaviors were not related to their accuracy rates, they was related to their judgments of honesty. Consistent with our predictions (based on Burns & Knussen, 2005; Dorian, 2010; Marks & Miller, 1987; Mullen et al., 1985; Nickerson, 1999; Ross et al., 1977), participants demonstrated an egocentric bias when making judgments of others' honesty. Specifically, a bias towards labeling the targets in the videos as honest was found for those participants who previously behaved honestly themselves by not cheating on the test. Furthermore, a bias towards labeling the targets in the videos as dishonest was found for those who previously behaved dishonestly themselves by cheating and telling a lie. These findings suggest that, consistent with adults (Rotter, 1980), children are, at least by 8 years of age, biased towards believing that other people will engage in the same behavior as themselves and utilize their own trustworthiness as the basis for determining the honesty of others. Future studies are required to examine the relation between younger children's trustworthy behavior and their trust judgments in order to assess at what age this relation begins. Furthermore, the lack of an age effect indicates that children will also extend this relation between their own behavior and their trust of others beyond just their same aged peers to both older and younger age groups (for example, 8-year-olds expect 17-year-olds to behave in the same

trustworthy manner as they themselves do). Additionally, future studies are required to assess whether there is a threshold for extending such an egocentric bias. Perhaps, 8–17-year-olds would not expect 3-year-olds or even adults to behave in the same manner as they themselves do, thus changing the relation between their own behavior and their ability to trust others.

One possible limitation of the present investigation is that participants were not asked whether they remembered their previous honest or deceptive behavior. Thus, it may not be a specific event that relates to a participant's deceptive behavior but rather a participant's general dishonesty. Furthermore, our quasi-experimental design prevents any causal conclusions from being derived. Future studies in which participants are primed by reporting specific memories of previous honest or deceptive behaviors prior to making honesty judgments would assist further in developing an understanding of the relation between 8- to 17-year-olds' own trustworthy behaviors and their ability to trust others, as well as possible methods for adjusting the mistrust of others.

Taken together, these results suggest that by 8 years of age there is a relation between 8- to 17-year-olds' own deceptive behaviors and their judgments of honesty of their peers within a wide age range. Given that honesty is an important determining factor of whether or not we will trust others, school-aged children's and adolescents' cheating and dishonesty may have important long term consequences on their ability to trust others. Teachers, parents, psychologists and other professionals working with children and adolescents should be aware of such a relationship to identify those who may be at risk of developing an unhealthy trust relationship with their peers.

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