

# How Implicit Beliefs Influence Trust Recovery

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## Abstract

After a trust violation, some people are quick to forgive, whereas others never trust again. In this report, we identify a key characteristic that moderates trust recovery: implicit beliefs of moral character. Individuals who believe that moral character can change over time (*incremental beliefs*) are more likely to trust their counterpart following an apology and trustworthy behavior than are individuals who believe that moral character cannot change (*entity beliefs*). We demonstrate that a simple but powerful message can induce either entity or incremental beliefs about moral character.

## Keywords

trust erosion, deception, implicit beliefs

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Trust is critical for successful social interactions and efficient economic systems (Fukuyama, 1996). Yet despite its importance, trust is routinely violated (Elangovan & Shapiro, 1998). Given the importance of trust and the frequency with which it is broken, researchers know surprisingly little about how trust can be rebuilt following a violation.

Recent research has begun to explore the trust-recovery process. This work has considered how different types of violations and repair efforts (e.g., apologies, promises to change) influence trust recovery (Kim, Ferrin, Cooper, & Dirks, 2004; Schweitzer, Hershey, & Bradlow, 2006; Tomlinson, Dineen, & Lewicki, 2004). Although this research has found wide individual variation—some targets refuse to give transgressors a second chance, though others are very receptive to trust-recovery efforts (Schweitzer et al., 2006)—no prior work has considered how characteristics of the target might affect trust repair. In this article, we identify a critical factor that influences whether or not targets are receptive to trust-repair efforts: implicit beliefs regarding moral character.

Some people believe that moral character is fixed (entity beliefs), whereas others believe that moral character can change over time (incremental beliefs; Chiu, Hong, & Dweck, 1997; Dweck, Hong, & Chiu, 1993; Dweck & Leggett, 1988). Although people implicitly hold entity or incremental beliefs, these beliefs are surprisingly labile (Dweck, Chiu, & Hong, 1995). Prior research has substantially manipulated implicit beliefs with simple inductions, such as having participants read an essay. For example, Bergen (1992) manipulated implicit beliefs by having participants read a fictitious magazine article

espousing either an entity or an incremental view (see also Chiu et al., 1997; Kray & Haselhuhn, 2007). Similarly, Heslin, Latham, and VandeWalle (2005) induced incremental beliefs through self-persuasion (e.g., asking participants to recall events from their own lives when they were able to change) in conjunction with having participants read an essay.

In the work we report here, we studied how implicit beliefs influence trust recovery. People with incremental views believe that people can change. As a result, people with incremental views may perceive trust-repair efforts (e.g., an apology or a promise to change) as sincere, believing that a previously untrustworthy counterpart may become trustworthy. Conversely, people with entity beliefs believe that people cannot change. After experiencing a trust violation, people with entity beliefs may be skeptical of, and insensitive to, trust-repair efforts.

## Method

### Participants and procedure

We recruited 207 students to participate in two ostensibly unrelated experiments in exchange for \$10 and the potential to earn additional money. In the first part of our study, the

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implicit-belief induction, we asked participants to read one of two versions of an essay. We wrote the essay, an adapted version of Kray and Haselhuhn's (2007) induction, to induce either incremental or entity beliefs.

In the second part of our study, we had participants play a repeated trust game designed to measure changes in trust over time (Berg, Dickhaut, & McCabe, 1995). We told participants that they would play several rounds of a game with a randomly selected counterpart. In reality, all participants played the same role against a common, computer-simulated counterpart.

We informed participants that in each round they would be endowed with \$6, which they could either pass to their counterpart or keep. If they chose to pass the \$6 to their counterpart, the money would be tripled (to \$18). The counterpart could then either keep the \$18 or pass half of the money (\$9) back. Following prior work, we operationalized trust as the participants' decision to pass their endowment of \$6 to their partner.

We explained to participants that they and their counterpart would make decisions simultaneously, and that they would learn about their counterpart's decision regardless of what their counterpart chose to do. For example, if participants chose not to pass their endowment to their counterpart, they would still learn whether their counterpart would have returned \$9.

We also allowed limited communication. Specifically, participants received two scripted messages from their counterpart. Prior to Round 1, they received a generic message ("Hey, what's up?"). Prior to Round 4, they received a trust-recovery message ("Hey, sorry I gave you a bad deal. I can change and return \$9 from here on out.").

Our experiment unfolded in three stages. First, in Rounds 1 through 3, we exposed participants to untrustworthy behavior. To erode any initial trust, counterparts returned no money in these rounds. Second, in Rounds 4 through 6, the confederate took actions to rebuild trust. Specifically, the confederate chose to return half of the endowment in each round and, prior to Round 4, sent a message apologizing for prior untrustworthy behavior. Third, in Round 7 (the final round), we measured trust repair by observing passing decisions. Before Round 7, we announced that everyone would know that this was the last round. Passing decisions in the final round are the best measure of trust. In the final round, passing decisions are not affected by strategic considerations (such as reputation building to elicit future cooperation) that might have influenced behavior in earlier rounds (Bohnet & Huck, 2004; Engle-Warnick & Slonim, 2004; Malhotra & Murnighan, 2002).

We took several actions to conceal the link between the induction and the repeated trust game. First, we introduced the induction part of the study as a stand-alone study. We described our induction as a reading comprehension and recall experiment, and we asked participants to answer comprehension questions and to evaluate the writing style of the essay. Second, we used different software platforms in the two studies. Third, in recruiting participants, we indicated that they would

take part in several unrelated studies during an hour-long laboratory session. Fourth, we had participants complete a filler task between the induction and the trust game. Fifth, we did not ask participants to complete an extensive manipulation check. Rather, we included a single item in the essay evaluation that asked participants, "To what extent is moral character stable?" (1 = *not at all stable*, 9 = *extremely stable*).

To gauge suspicion, we asked participants at the conclusion of the study to describe, in their own words, what they thought the experiment was about. Only 5 of the 207 participants mentioned a possible link between the implicit-belief induction and the trust game. We conducted analyses both with the full sample and without the 5 suspicious participants. These analyses yielded the same pattern of results, and we report results excluding these 5 participants.

### Pilot study

We conducted a pilot study with a separate population to test our induction. We recruited 139 participants to read one of the two induction essays: an essay espousing an incremental view of moral character or an essay espousing an entity view of moral character. After reading the essay, participants completed a three-item measure of implicit beliefs of moral character (taken from Chiu et al., 1997).

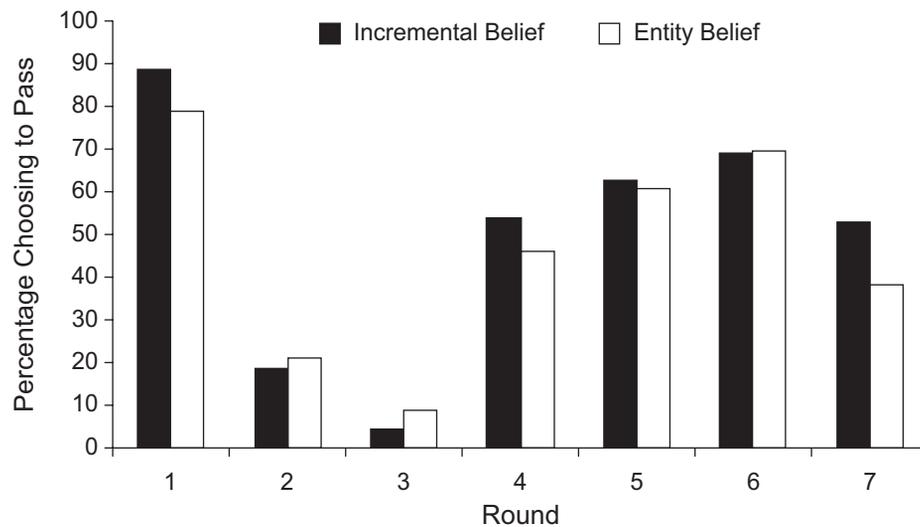
We found that our induction significantly influenced implicit beliefs. Participants in the incremental condition rated moral character as more malleable than did participants in the entity condition ( $M = 3.75$ ,  $SD = 1.31$ , vs.  $M = 4.40$ ,  $SD = 1.52$ ),  $F(1, 137) = 7.25$ ,  $p = .008$ .

### Results

We first conducted a manipulation check on the single-item measure of implicit beliefs in the main study. As expected, participants in the incremental-belief condition rated moral character as significantly more malleable than did participants in the entity-belief condition ( $M = 3.73$ ,  $SD = 1.54$ , vs.  $M = 6.66$ ,  $SD = 1.54$ ),  $F(1, 200) = 179.42$ ,  $p < .001$ .

Participants in the incremental-belief condition were marginally more likely to pass their endowment in the first round (89%) than were participants in the entity-belief condition (79%),  $\chi^2(1, N = 202) = 3.62$ ,  $p = .06$  (see Fig. 1 for all passing decisions). We found no significant differences in trust between conditions in Rounds 2 through 6, all  $\chi^2(1, N = 202)s < 1.72$ ,  $ps > .18$ .

We were able to erode trust. After two rounds in which the counterpart proved untrustworthy (i.e., Round 3), only 6% of participants in the two conditions combined chose to pass their endowment. Trust, however, substantially recovered. In the final round, a significantly greater proportion of participants in both the incremental-belief condition (53%),  $\chi^2(1, N = 113) = 633.00$ ,  $p < .001$ , and the entity-belief condition (38%),  $\chi^2(1, N = 89) = 92.85$ ,  $p < .001$ , passed their endowment compared to passing behavior in Round 3.



**Fig. 1.** Trust in the incremental- and entity-belief conditions as a function of round. Trust is represented by the percentage of participants who chose to pass their endowment to their partner.

To test our thesis, we conducted a logistic regression with passing decision in Round 7 as the dependent variable and implicit-belief condition as the independent variable, controlling for initial trust (decisions in Rounds 1–3) and gender. Results supported our thesis: Participants in the incremental-belief condition were more likely to trust the confederate counterpart following trust-recovery efforts than were participants in the entity-belief condition,  $b = 0.65$ ,  $SE = 0.31$ , Wald  $\chi^2(1, N = 202) = 4.52$ ,  $p = .03$ .

## Discussion

Trust recovery is an important, yet understudied process. Prior work has found that individuals can react to the same transgressions very differently. Though some individuals are very slow to forgive, others are very quick to forgive. We have identified a key characteristic that influences the effectiveness of trust-recovery efforts: implicit beliefs regarding moral character. In our experiment, individuals with incremental beliefs were significantly more likely to trust their counterpart following an apology and trustworthy behavior than were individuals with entity beliefs.

Theoretically, these results add to researchers' understanding of the trust-recovery process and highlight the importance of the target's characteristics in determining the effectiveness of trust-recovery efforts. Just as specific trust-repair efforts are more or less effective depending on the type of violation (Kim et al., 2004), different trust-repair efforts may work differently for different targets. For instance, targets who have incremental beliefs may be particularly receptive to trust-repair efforts that include a promise to change. In contrast, targets who have entity beliefs may be particularly receptive to trust-repair efforts that include denials or attempts to deflect blame.

Practically, our findings suggest that individuals who seek to rebuild trust should consider, and possibly shift, the implicit beliefs of their target. For example, individuals may be able to make their apologies more effective by including a message about how readily people can change. Ultimately, the effectiveness of trust-recovery efforts may have as much to do with the target's mind-set as with the actions themselves.

## Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

## References

- Berg, J., Dickhaut, J., & McCabe, K. (1995). Trust, reciprocity, and social history. *Games and Economic Behavior*, *10*, 122–142.
- Bergen, R. (1992). *Beliefs about intelligence and achievement-related behaviors*. Unpublished doctoral dissertation, University of Illinois at Urbana-Champaign.
- Bohnet, I., & Huck, S. (2004). Repetition and reputation: Implications for trust and trustworthiness when institutions change. *American Economic Review*, *94*, 362–366.
- Chiu, C., Hong, Y., & Dweck, C.S. (1997). Lay dispositionism and implicit theories of personality. *Journal of Personality and Social Psychology*, *73*, 19–30.
- Dweck, C.S., Chiu, C., & Hong, Y. (1995). Implicit theories and their role in judgments and reactions: A world from two perspectives. *Psychological Inquiry*, *6*, 267–285.
- Dweck, C.S., Hong, Y., & Chiu, C. (1993). Implicit theories: Individual differences in the likelihood and meaning of dispositional inference. *Personality and Social Psychology Bulletin*, *19*, 644–656.
- Dweck, C.S., & Leggett, E.L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, *95*, 256–273.

- Elangovan, A.R., & Shapiro, D.L. (1998). Betrayal of trust in organizations. *The Academy of Management Review*, 23, 547–566.
- Engle-Warnick, J., & Slonim, R.L. (2004). The evolution of strategies in a repeated trust game. *Journal of Economic Behavior and Organization*, 55, 553–573.
- Fukuyama, F. (1996). *Trust: The social virtues and the creation of prosperity*. New York: Simon and Schuster.
- Heslin, P.A., Latham, G.P., & VandeWalle, D. (2005). The effect of implicit person theory on performance appraisals. *Journal of Applied Psychology*, 90, 842–856.
- Kim, P.H., Ferrin, D.L., Cooper, C.D., & Dirks, K.T. (2004). Removing the shadow of suspicion: The effects of apology versus denial for repairing competence- versus integrity-based trust violations. *Journal of Applied Psychology*, 89, 104–118.
- Kray, L.J., & Haselhuhn, M.P. (2007). Implicit negotiation beliefs and performance: Longitudinal and experimental evidence. *Journal of Personality and Social Psychology*, 93, 49–64.
- Malhotra, D., & Murnighan, J.K. (2002). The effects of contracts on interpersonal trust. *Administrative Science Quarterly*, 47, 534–559.
- Schweitzer, M., Hershey, J., & Bradlow, E. (2006). Promises and lies: Restoring violated trust. *Organizational Behavior and Human Decision Processes*, 101, 1–19.
- Tomlinson, E., Dineen, B., & Lewicki, R. (2004). The road to reconciliation: Antecedents of victim willingness to reconcile following a broken promise. *Journal of Management*, 30, 165–188.