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The Impact of Positive Mood on Trust in Interpersonal and Intergroup Interactions

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Although the trust development literature has been characterized overwhelmingly by rationality-based models, the current research attempts to explain how affect can influence this process. To better understand how and why affect would influence trust development, 5 experiments were conducted to examine the effects of positive mood on people's tendencies to trust and distrust others. Consistent with theory, which argues that positive mood promotes schema reliance, the relationship between positive mood and trust was influenced by the presence of cues that indicated whether the other party was trustworthy or untrustworthy. Across 5 studies, trusting behaviors (Experiments 1–3) and perceptions of trustworthiness (Experiments 4 and 5) were found to be influenced by cues associated with trust or distrust. Specifically, when available cues about the other party promoted trust, people in a positive mood increased their trust; when cues promoted distrust, people in a positive mood decreased their trust. The data support the expectation that affect can influence trust development, although the relationship is more complex than main effect predictions of mood-congruency models.

Keywords: trust, distrust, positive mood, intergroup behavior, discontinuity effect

Trust makes interactions easy. Supervisors and subordinates can coordinate their work efforts more effectively in the context of mutual trust. Likewise, international relations can progress rather than stall or regress when parties trust each other. Research in many fields supports this logic (cf. Fukuyama, 1995; Gambetta, 1988; Kramer & Cook, 2004). Negotiators, for instance, share more information and reach more mutually beneficial agreements when they trust each other (e.g., Kimmel, Pruitt, Magenau, Konar-Goldband, & Carnevale, 1980; Kramer & Carnevale, 2001; Thompson, 1991). Trust also decreases transaction costs and facilitates beneficial relationships both within and between groups (e.g., Gulati, 1995; Williamson, 1993).

Although theorists have identified both affective and cognitive antecedents to trust (e.g., Lewis & Weigart, 1985; McAllister, 1995; Rempel, Holmes, & Zanna, 1985), research has primarily concentrated on understanding trust's cognitive antecedents (see Kramer, 1999; Lewicki, Tomlinson, & Gillespie, 2006, for reviews). This focus reflects a central tenet of many trust development models: The decision to trust others is primarily a rational, calculative process (Blau, 1964; Holmes, 1991; Kelley, 1979; Lewicki & Bunker, 1995; Rempel et al., 1985). On the other hand, research has only rarely investigated affective influences on trust (e.g., Dunn & Schweitzer, 2005). Our limited understanding of how affect influences trust is particularly unfortunate because trusting decisions are often made in emotionally charged environments.

Affect can be a critical factor in influencing whether or not people trust others. In particular, research showing that positive mood can promote top-down processing (i.e., where people are more likely to rely on cues and preexisting general knowledge structures when making social judgments; for reviews, see Bless & Fiedler, 2006; Bodenhausen, Mussweiler, Gabriel, & Moreno, 2001; Schwarz & Clore, 2007) leads to the prediction that positive mood can either increase or decrease trust. Specifically, this article argues that the relationship between positive mood and trust is determined by the dominant target cues and schemas (e.g., the target's group membership).

Trust

Kramer's (1999) review of the trust literature noted that "a concise and universally accepted definition has remained elusive" (p. 571). Mayer, Davis, and Schoorman (1995), for instance, defined trust as "the willingness to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (p. 712). Zand's (1997) definition is similar: "a willingness to increase your vulnerability to another person whose behavior you cannot control, in a situation in which your potential benefit is much less than your potential loss if the other person abuses your vulnerability" (p. 91).

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Rousseau, Sitkin, Burt, and Camerer's (1998) review of the trust literature in multiple disciplines led them to define trust as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another" (p. 395). Although these definitions vary, they all conceptualize trust as the willingness to make oneself vulnerable to another party combined with a hope or expectation of positive outcomes.

Rational models of trust predict that trust between strangers grows gradually (e.g., Blau, 1964; Holmes, 1991; Kelley, 1979; Lewicki & Bunker, 1995; Rempel et al., 1985), and as people repeatedly fulfill each others' expectations, the accumulation of positive interactions cements their perceptions of an implicit contract (Rousseau & McLean Parks, 1993). These models predict that high levels of trust are only warranted after many positive repeated interactions. Although rational models initially predict minimal trust, several investigations have found initial trust between strangers can be considerable (Berg, Dickhaut, & McCabe, 1995; Kim, Ferrin, Cooper, & Dirks, 2004; Lount, Zhong, Sivanathan, & Murnighan, 2008; Meyerson, Weick, & Kramer, 1996; Yamagishi & Yamagishi, 1994). For instance, Kim et al. (2004) found that people reported substantial trust in others whom they had never met and that allegations of untrustworthy behavior were needed before people would reduce their high expectations. Likewise, participants in economic experiments have engaged in fairly risky trusting behavior even when they are paired with anonymous counterparts whom they have never met (Berg et al., 1995).

Messick and Kramer's (2001) *shallowness hypothesis* and Brewer's (2008) notion of *depersonalized trust* help explain why people might choose to trust strangers. Building on earlier research about the impact of heuristics on cooperative behavior (Allison & Messick, 1990; cf. Messick, 1999), the shallowness hypothesis suggests that in many situations, a reliance on cues and economical schemas—sets of beliefs or knowledge structures that organize and guide memory for past events and expectations regarding future events—promote trusting behaviors. Messick and Kramer have suggested that because people must manage multiple sources of information, they frequently rely on available cues and schemas relevant to the situation and the social target when making trust judgments. Kramer (1999) has argued that information about the target's group membership (e.g., in-group vs. out-group member) is an important cue that can guide the propensity to trust/distrust. Supporting this expectation, several studies have found that highlighting shared group membership with a stranger can help facilitate trusting behaviors (e.g., Maddux & Brewer, 2005; Tanis & Postmes, 2005; Yuki, Maddux, Brewer, & Takemura, 2005). Brewer (2008) has interpreted these results as evidence for depersonalized trust and argues that our decisions to trust or distrust are often influenced by stereotypes and expectations held about the other party. According to Brewer, people typically have positive expectations about the intended actions and motives of other in-group members that serve as a substitute for personal knowledge. When the categorical membership of a target is largely positive (e.g., in-group members, nurses, Red Cross volunteers), we should be inclined to trust these people.

Although relying on cues and stereotypes may help promote trust when this information suggests that the target is trustworthy (e.g., Brewer, 2008; Orbell, Dawes, & Schwartz-Shea, 1994), a reliance on this information may harm trust development when this information suggests that the target is untrustworthy (e.g., Bodenhausen, Macrae, & Sherman, 1999). A multitude of physical (e.g., someone wearing an eye patch), informational (e.g., being employed as a used-car salesperson), and categorical cues (e.g., being a member of an opposing political party) are associated with distrust.

The development of trust/distrust is influenced by the trust/distrust associations connected with the available target cues—that is, by the dominant associations between cues and whether trust/distrust is found in preexisting knowledge structures. Thus, when available cues are associated with trust, schema reliance should promote trust development; in contrast, when cues associated with distrust, the same processes should impair trust development.

The Impact of Mood on Social Judgments

Over the past few decades, researchers have documented that people's mood influences how they perceive and behave toward others (see Bless & Fiedler, 2006; Bodenhausen et al., 2001; Clore, Schwarz, & Conway, 1994; Forgas, 2006; Schwarz & Clore, 2007, for reviews). Some findings suggest that positive mood promotes positive social judgments (e.g., Forgas, 1990; Haddock, Zanna, & Esses, 1994), whereas other findings suggest that positive mood can actually promote negative social judgments (e.g., Abele, Gendolla, & Petzold, 1998; Bless, Schwarz, & Wieland, 1996; Bodenhausen, Kramer, & Susser, 1994). These mixed findings are accompanied by a variety of theoretical models that make differing predictions about how and why positive mood influences our social judgments.

Mood-congruency models (e.g., Bower, 1991; Bower & Forgas, 2001) predict that moods will color judgments in the direction of the valence of the mood being experienced (Mayer, Gaschke, Braverman, & Evans, 1992). These models are essentially judgment-based, as they predict that positive mood should either directly (Mayer et al., 1992) or indirectly (Forgas, 1995) impact how we evaluate the social target. Mood-congruency models make intuitive sense and have been adopted by theorists to predict the relationship between positive mood and trust (Jones & George, 1998; Olson, 2006; Williams, 2001). One such mood-congruency based speculation is found in Jones and George (1998), who have suggested that "experiencing positive moods or emotions may cause one to have more positive perceptions of others and see the world through 'rose-colored glasses,' resulting in a heightened experience of trust in another person" (p. 534).

Although mood-congruency models predict that positive mood should positively bias our judgments of others, this approach has been challenged by researchers who have demonstrated that, under certain circumstances, positive mood can actually negatively bias our judgments of others. Several studies have found that happy people rely on negative stereotypes more than people in a neutral (Abele et al., 1998; Bodenhausen et al., 1994; Park & Banaji, 2000) or negative mood (Bless, Schwarz, & Wieland, 1996; Krauth-Gruber & Ric, 2000). For example, Bodenhausen et al. (1994) had both positive and neutral mood participants judge the guilt of a student who was accused of either assault or cheating. Information about the infraction was manipulated so that it was either congruent or incongruent with cultural stereotypes (student athletes and Hispanics were operationalized as stereotypic defendants in cheating and assault cases, respectively). As predicted,

they found that happy participants were significantly more likely to assume guilt when the information about the student's social group (athlete vs. Hispanic) was stereotypically consistent with the transgression (cheating vs. assault).

Fiedler and colleagues have reconciled these and other findings not adequately accounted for by mood-congruency models with a model that describes how positive and negative mood influences the regulation of a wide spectrum of cognitive processes and behaviors (Bless & Fiedler, 2006; Fiedler, 2001a, 2001b; Fiedler, Nickel, Asbeck, & Pagel, 2003). Namely, the accommodation–assimilation model argues that negative mood promotes *accommodation* (i.e., a bottom-up processing approach in which internal knowledge structures are modified in accordance with external constraints) and positive mood promotes *assimilation* (i.e., a top-down processing approach in which one's internal knowledge structures are imposed onto the external world). The model argues that assimilation and accommodation serve as separate adaptive functions and can help explain how mood influences our social judgments (see Fiedler, 2001a, for a review). Specifically, in assimilation, people tend to generate evaluations about the social target based upon prior knowledge (e.g., activated schemas); in accommodation, people are more careful and thus are less likely to rely upon prior knowledge when forming evaluations about a social target. According to this model, the relationship between positive mood and schema reliance is due to assimilation and is not attributed to reduced processing motivation or reduced cognitive capacity. This assumption has received empirical support (Bless, Clore, et al., 1996; Isbell, 2004).

Applied to the domain of person perception, the accommodation–assimilation model argues that positive mood promotes assimilation toward dominant stereotypes and traits (Bless & Fiedler, 1995; Bless & Fiedler, 2006). Thus, the model argues that when people feel happy, they are inclined to use these general knowledge structures to help them evaluate the social target. This process can result in either a negative evaluation when the cues (e.g., someone wearing an eye-patch) present about the target activate negative stereotypes and traits (e.g., untrustworthy individual) or a positive evaluation when target cues activate positive stereotypes and traits.

In addition to describing the influence of mood on social judgment, the accommodation–assimilation model provides a useful framework for understanding the influence of mood on cooperative behavior. Although several studies have applied mood-congruency models to argue that positive mood increases cooperation (e.g., Baron, 1993; Forgas, 1998; Isen & Baron, 1991), Hertel and colleagues have shown that the relationship between positive mood and cooperation is not so straightforward (Hertel & Fiedler, 1994; Hertel, Neuhof, Theuer, & Kerr, 2000). Consistent with the expectation that positive mood should promote assimilation, Hertel et al. (2000) found that people in a positive mood playing a social dilemma game were especially sensitive to the available cues about whether others were cooperating or competing. Compared to people experiencing a negative mood, people in a positive mood cooperated more [less] after receiving feedback that suggested that other group members were behaving cooperatively [competitively].

Given that the dynamics of trust and cooperation are closely related (e.g., Brewer, 2008; Lount et al., 2008; Yamagishi, Kanazawa, Mashima, & Terai, 2005) the accommodation–assimilation model provides a useful framework for understanding the influence of positive mood on trust. If the available cues are associated with a trust schema, then happy people should be more trusting than affectively neutral people; if these cues are associated with a distrust schema, then happy people should be less trusting than affectively neutral people.

Both mood-congruency models and the accommodation–assimilation model predict that positive mood will increase trust when available cues suggest the other party is trustworthy. However, the two models make opposite predictions when available cues suggest the other party is untrustworthy. In this case, mood-congruency models predict increased trust, whereas the accommodation–assimilation model predicts decreased trust. Thus, mood-congruency models predict a strong main effect: Positive mood (compared to neutral mood) should increase trust. The accommodation–assimilation model, on the other hand, predicts an interaction: Positive mood (compared to neutral mood) should (a) increase trust when the social context signals "trust" but (b) decrease trust when the social context signals "don't trust." Five experiments were conducted to better understand the relationship between positive mood and trust.

Experiment 1

Although theorists have argued that positive mood should increase trust (e.g., Jones & George, 1998; Olson, 2006; Williams, 2001), the evidence for this causal relationship is limited. In a recent investigation, Dunn and Schweitzer (2005; Experiment 1) found that happy people had more trust in a coworker than sad people. Although these are important findings, the absence of a neutral mood control condition makes it unclear whether people who were happy increased their trust or people who were sad decreased their trust. Moreover, given that a "trust bias" has also been frequently observed in a variety of two-person settings that invoke trust (e.g., Kim et al., 2004; Yamagishi & Yamagishi, 1994), happy people may have evaluated their coworkers as more trustworthy because they relied more on this script (i.e., coworkers are trustworthy). Thus, to better understand the relationship between positive mood and trust, it is important to investigate this relationship in settings where cues and scripts exist that either promote or inhibit trust.

In recent years, there has been an increased recognition that group membership can serve as an important cue that can influence whether or not we trust others (e.g., Brewer, 2008; Kramer, 1999; Tanis & Postmes, 2005; Yuki et al., 2005). On the basis of the argument that out-group members are generally perceived as less honest, cooperative, and trustworthy than in-group members (e.g., Brewer, 1981; Campbell, 1967), theorists have argued that even minimal intergroup boundaries are sufficient to promote distrust (Brewer, 2008; Hewstone, Rubin, & Willis, 2002; Kramer, 1999). Consistent with this expectation, several studies have documented a decreased willingness to exhibit trusting behaviors in settings where individuals interact with an out-group member (e.g., Maddux & Brewer, 2005; Tanis & Postmes, 2005; Yuki et al., 2005) and in settings where small groups interact with other groups (e.g., Insko, Kirchner, Pinter, Efaw, & Wildschut, 2005; Kugler, Bornstein, Kocher, & Sutter, 2007; Schopler et al., 1993; see Wildschut, Pinter, Vevea, Insko, & Schopler, 2003, for a meta-analytic review). Researchers studying the *discontinuity effect* (i.e., the find-

ing that intergroup settings tend to elicit more competitive behavior than interpersonal settings) have provided evidence showing that the anticipation of interaction with another group activates a negative out-group schema that promotes distrust (see Insko & Schopler, 1998; Wildschut, Insko, & Pinter, 2004, for reviews). Therefore, settings where intergroup boundaries are made salient should activate people's distrust schema.

Examining the influence of positive mood on trust in intergroup settings provides a diagnostic context to test the contrasting predictions of a mood-congruency approach (i.e., positive mood should increase trust) with the accommodation–assimilation approach (i.e., positive mood should decrease trust). Thus, Experiment 1 sought to examine the relationship between positive mood and trust by examining this relationship in the context of an interpersonal (i.e., where a trust schema is active) versus intergroup setting (i.e., where a distrust schema is active). Whereas mood-congruency based models would predict that positive mood should increase trust in both interpersonal and intergroup settings, the accommodation–assimilation model argues that the relationship between positive mood and trust should depend on the cues associated with the context (i.e., other individuals are seen as generally trustworthy and other groups are seen as untrustworthy). Consistent with the accommodation–assimilation model, which suggests that positive mood should promote increased reliance on preexisting knowledge structures, it was hypothesized that positive mood would increase trust in an interpersonal setting but would decrease trust in an intergroup setting.

Method

Participants and design. One hundred and eighty undergraduates (102 women and 78 men) from a large Midwestern university were randomly assigned to one of four conditions in a 2 (setting: interpersonal vs. intergroup) $\times$ 2 (mood: positive vs. neutral) between-subjects factorial design. They each received $10 for their time and were informed that their decisions might earn them more money.

Procedure. Upon arrival, participants sat at a computer in a private room. After completing a consent form, they were asked to help another researcher by rating the sound and video quality of a 3-min video clip. Positive mood was induced with a video clip of Robin Williams in *Mrs. Doubtfire*, and a neutral mood with a clip describing the history of golf (Levin, Kurtzberg, Phillips, & Lount, in press). The effectiveness of these mood primes was pilot tested on a comparable group of participants who did not participate in the main experiment. Twenty participants viewed each clip and then reported a variety of feeling states on a 7-point scale that included *happy* and *joyful* ($\alpha = .93$). As anticipated, *Mrs. Doubtfire* led to a more positive mood ($M = 5.08$, $SD = 1.26$) than the golf clip ($M = 3.47$, $SD = 0.99$), $F(1, 39) = 19.90$, $p < .01$, $d = 1.42$. Each participant in the interpersonal conditions viewed the clip alone; same-gender three-person groups viewed the clip together in the intergroup conditions.

After the video clip, all participants were told by the experimenter that they had been randomly assigned to the role of sender (referred to as "Player 1" in the instructions) in a decision-making game (i.e., the *trust game*; Berg et al., 1995). Participants were allotted $10 and could send whatever amount ($0–$10) they wanted to receivers (referred to as "Player 2"), who could then return as much or as little as they chose. The experimenter took care to note that any money sent would be tripled on its way to the receivers, but that the amount returned would not be tripled on its way back to the sender. For instance, if Player 1 sent all $10, Player 2 would receive $30; if Player 2 returned $15, each party would walk away with $15. Alternatively, if Player 1 decided to send only $4, Player 2 would receive $12; if Player 2 returned $0, Player 1 would walk away with $6 and Player 2 with $12. Thus, any amount of money not sent or returned to the other party would be kept by that player. It is important to note that participants were led to believe that receivers (i.e., Player 2) had full information. In actuality, there was no Player 2. All participants were informed that they would be completing only one transaction and that they would not meet their counterparts. Because sending money to an unknown receiver makes the sender vulnerable, the amount sent is operationally defined as a behavioral measure of trust (Pillutla, Malhotra, & Murnighan, 2003). Moreover, the trust game was chosen because it is sensitive to context, with people tending to trust more (i.e., send more money) in an interpersonal context than in an intergroup context (Kugler et al., 2007). Participants were informed that at the end of the study, several participants would be randomly awarded the actual amount that they earned in the task in addition to their $10 participation payment; this was done to motivate full participation.

In the interpersonal conditions, participants were told that the receiver was another participant in a nearby room; in the intergroup conditions, participants were all members of three-person sender groups who, as a group, could choose to send money to another three-person group. They were told that if their group was selected in the lottery, each of them would receive the amounts in play in the exercise. In other words, they would not split the total amount returned (or not sent); instead, if the group ended up with $15, each group member would receive $15 (thus keeping equal the potential lottery a participant could earn in both the interpersonal and intergroup conditions).

Participants either alone (interpersonal conditions) or as a group (intergroup conditions) wrote the amount of money they wished to send ($0–$10) on a form and placed it in a sealed envelope for the experimenter to deliver to the receiver. They then completed a posttask questionnaire and were checked for suspicion, debriefed, and thanked.

Results

Analysis of trust game behavior. Amounts sent were analyzed in a 2 (setting: interpersonal vs. intergroup) $\times$ 2 (mood: positive vs. neutral) between-participants analysis of variance (ANOVA). As anticipated, individual senders sent significantly more money to individuals ($M = \$6.89$, $SD = 3.35$) than groups sent to groups ($M = \$5.16$, $SD = 3.53$), $F(1, 84) = 5.46$, $p < .05$, $d = 0.50$. The main effect for mood, predicted by mood congruency, was not significant, $F(1, 84) = 0.02$, $p = .89$, $d = 0.04$. The interaction predicted by the accommodation–assimilation model, however, was significant, $F(1, 84) = 4.03$, $p < .05$ (see Figure 1).

Participants experiencing positive mood sent more money in an interpersonal setting ($M = \$7.65$, $SD = 3.24$) compared to an intergroup setting ($M = \$4.50$, $SD = 3.32$), $t(84) = 3.10$, $p < .01$, $d = 0.96$. In contrast, the amount of money sent by people in neutral mood did not reliably differ depending on whether they

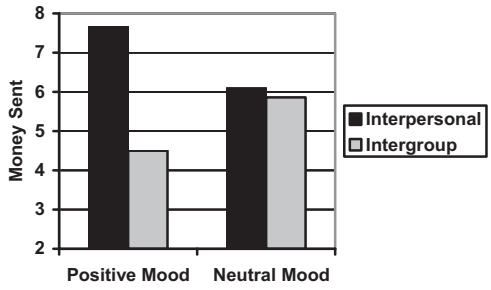

Figure 1. Mean amounts of money sent ($) in the trust game in Experiment 1.

were sending money to an individual ($M = \$6.09$, $SD = 3.37$) or a group ($M = \$5.86$, $SD = 3.70$), $t(84) = 0.23$, $p < .84$, $d = 0.07$.

Discussion

The findings of this experiment suggest that although a positive mood may help to increase trust for interactions between individuals, positive mood may actually harm trust in intergroup interactions. These findings are consistent with the predictions of the accommodation–assimilation approach, which argues that people in a positive mood will rely more on internal knowledge structures that can promote trust (i.e., other individuals are generally trustworthy) or reduce trust (i.e., other groups are generally untrustworthy). These findings are inconsistent with mood-congruency models, which would have predicted irrespective of context (i.e., intergroup vs. interpersonal) that positive mood should have increased trust.

Although these findings suggest that positive mood may have accentuated one group's distrust of another, a positive mood might also have accentuated intergroup competition. In other words, groups in a positive mood may have sent less because they wanted to ensure that they would receive more money than the other group. This could also be conceptualized as a form of in-group favoritism. Studies have consistently found, for instance, that people frequently favor in-group members and discriminate against out-group members when they allocate resources (see Brewer, 1979; Brewer & Brown, 1998; Hewstone et al., 2002, for reviews). Relevant to the current article is research that has shown that positive mood can facilitate greater intergroup discrimination (Abele et al., 1998; Forgas & Fiedler, 1996; see Wilder & Simon, 2001, for a review). For example, Abele et al. (1998) found that in minimal group settings, people in a positive mood formed more favorable evaluations of other in-group members and more unfavorable evaluations of out-group members, compared to people in a neutral mood. Furthermore, compared to people in a negative mood, people in a positive mood have been shown to display more intergroup discrimination in their resource allocations (Forgas & Fiedler, 1996). Therefore, it is possible that people in a positive mood are simply relying upon an in-group favoritism script when in an intergroup setting (Hertel & Kerr, 2001). Thus, Experiment 2 investigated whether positive mood increased intergroup distrust or in-group favoritism (or both).

Experiment 2

A typical discontinuity-effect experiment focuses on the frequency of noncooperative choices by groups and individuals in a prisoner's dilemma game (see Wildschut et al., 2003, for a review). These noncooperative choices, however, can be interpreted as either attempts to do better than one's counterpart or as attempts to avoid the lowest possible outcome. To assess the unique impact of out-group distrust, Insko, Schopler, Hoyle, Dardis, and Graetz (1990) examined how intergroup behavior changed when groups interacted in a revised version of the prisoner's dilemma, the PDG-Alt (see Figure 2). The corner cells of this PDG-Alt game matrix resemble a standard prisoner's dilemma, but the PDG-Alt includes a third choice (referred to as a *withdrawal*) that guarantees an intermediate outcome regardless of the opponent's choice. If either party withdraws, both parties receive a moderate outcome, less than the mutually cooperative but more than the mutually competitive outcome. As noted by Insko et al. (2005), "Whereas competition is the rational choice when trust is high and it is assumed that the opponent will cooperate, withdrawal is the rational choice when trust is low and it is assumed that the opponent will compete" (p. 366). Research employing the PDG-Alt (Insko et al., 1990, 2005; Schopler et al., 1993) has consistently demonstrated that groups choose to withdraw more than individuals, suggesting that distrust contributes to reductions in intergroup cooperation.

In the current study, consistent with Tajfel and Turner's (1986, p. 8) argument that salient boundaries between people are likely to elicit intergroup behaviors, an intergroup setting was created where individual participants were led to believe that they would play a PDG-Alt with an out-group member. The accommodation–assimilation model suggests that people in a positive mood who are facing an out-group member in a PDG-Alt should be more inclined to rely on the categorical membership of the other person (thereby facilitating a greater reliance on the distrust schema associated with intergroup settings); thus, they should exhibit more withdrawal choices than people in a neutral mood paired with an out-group member. Alternatively, if positive mood is simply promoting intergroup discrimination (e.g., Abele et al., 1998; Forgas & Fiedler, 1996), one would anticipate that positive mood would lead to more competitive choices.

	X	Y	Z
X	10 / 10	6 / 6	15 / 0
Y	6 / 6	6 / 6	6 / 6
Z	0 / 15	6 / 6	2 / 2

Figure 2. The payoff matrix for the prisoner's dilemma, PDG-Alt (X = Cooperate; Y = Withdrawal; Z = Compete).

Experiment 2 explicitly tests these competing predictions by investigating the behaviors of individuals in either positive or neutral moods facing an out-group member in a PDG-Alt. To increase the generalizability of the results, the current study employed another mood manipulation where participants were asked to write about a life event that made them feel happy (Gasper & Clore, 2002) instead of relying on video clips to elicit positive mood. Consistent with the findings from Experiment 1, which showed that positive mood reduced trusting behaviors in intergroup settings, it was hypothesized that participants in a positive mood would be less cooperative and would choose to withdraw more than participants in a neutral mood.

Method

Participants and design. Fifty undergraduate participants (41 women and 9 men) from a large Midwestern university were randomly assigned to either a positive or neutral mood condition. Each participant was led to believe that they were randomly paired with an out-group member to play the PDG-Alt. Participants received $10 for their time and were informed that their decisions might earn them more money.

Procedure. In a private room, participants completed a consent form and on a separate sheet of paper were asked to "circle the political party that you most identify with (Democrat or Republican)." They were then informed that they would be doing several tasks; some concerned how political attitudes influenced decision making. Participants then completed an attitude survey measuring how strongly their views aligned with the Democratic or Republican Party, as well as their political views on 10 issues such as handgun control, affirmative action, and abortion. Each participant was also asked to write a short "political identification" paragraph, to accentuate their political identity:

> Please take about five minutes to write down why you identify with your political party. Try to describe how you came to your current views and why you support your party, and what you think is the best thing about your party.

The senders' mood was manipulated by asking these participants to help pretest materials for another study while waiting for others to arrive. They all agreed and were then asked to either write about an experience that made them either happy or, for control participants, write about "what they do in a typical day" (Gasper & Clore, 2002). The mood was reinforced by asking participants after they finished their story to list three things that make them happy or three normal things that they do every day. As in Experiment 1, the effectiveness of these mood primes was pilot tested on a comparable group of participants who did not participate in the main experiment. Twenty participants completed each mood prime and then reported a variety of feeling states on a 7-point scale that included *happy* and *joyful* ($\alpha = .86$). As anticipated, participants who wrote about a happy event reported feeling more positive mood ($M = 5.35$, $SD = 0.65$) than participants who wrote about a typical day ($M = 4.65$, $SD = 1.33$), $t(38) = 2.17$, $p < .05$, $d = 0.67$, suggesting that the mood manipulation was successful.

After completing the mood prime, participants were then introduced to an interactive decision-making task (the PDG-Alt). They were told that they would never meet their counterparts (who did not actually exist) and that several people would be randomly selected to receive monetary payoffs based on their decisions. Their counterparts were always affiliated with the other political party, which they learned when they were told, "You've been randomly paired with another student here, ID DEM-324 [REP-324]." Counterpart affiliation was manipulated with the beginning letters DEM or REP, such that participants were always led to believe that they were paired with an out-group member. All participants successfully recalled the political affiliation of their counterpart at the end of the study.

They also received the payoff matrix (see Figure 2) and a description of the procedure—that is, that outcomes depended on both parties' choices. The experimenter explained the instructions of the game and answered any questions. As noted earlier, the PDG-Alt allowed for participants to choose to cooperate, compete, or withdraw. (It is important to highlight that the option to withdraw was not included in the trust game employed in Experiment 1, signifying one of the key differences between these two games.) After participants made their choice, they answered a brief questionnaire and were checked for suspicion, paid, debriefed, and thanked.

Results

PDG-Alt behavior. The data were analyzed using chi-square tests (see Table 1 for means and standard deviations). The positive mood condition led to significantly fewer cooperative choices (24%) than the neutral mood condition (54%), $\chi^2(1, N = 50) = 4.16$, $p < .05$, $d = 0.59$. More important, the positive mood condition led to significantly more withdrawal choices (60%) than participants in a neutral mood (32%), $\chi^2(1, N = 50) = 3.95$, $p < .05$, $d = 0.57$, suggesting that distrust was accentuated for participants in a positive mood. No differences emerged when comparing competitive choices.

Discussion

Happy people paired with an out-group member cooperated less than emotionally neutral participants. More important, they also withdrew from the game more than emotionally neutral people. Because withdrawal choices signal distrust (Insko & Schopler, 1998), these data provide additional evidence that positive mood can increase distrust toward out-group members. These findings are consistent with Experiment 1, where positive mood was found to reduce money sent in the trust game in an intergroup setting. Moreover, these findings are incongruent with the predictions made by mood-congruency models, which would have argued that positive mood should reduce, not increase distrust. Taken together, the findings support the accommodation–assimilation approach

Table 1
Percentages (SD) of the Three Choices in the PDG-Alt for Neutral and Positive Mood Participants in Experiment 2

Choice	Neutral	Positive	χ^2
Cooperate (X)	52% (.51)	24% (.44)	$\chi^2 = 4.16$, $p < .05$, $d = 0.59$
Withdrawal (Y)	32% (.48)	60% (.50)	$\chi^2 = 3.95$, $p < .05$, $d = 0.57$
Compete (Z)	16% (.37)	16% (.37)	$\chi^2 = 0.00$, $p = n.s.$, $d = 0.00$

and suggest that positive mood can increase distrust in intergroup settings.

Experiment 3

Thus far, the results are consistent with the predictions of the accommodation–assimilation model. Specifically, the relationship between positive mood and trust depends on available cues and schemas, resulting in increased distrust when a distrust schema is present and increased trust when a trust schema is present. The results from the first two studies are not consistent with the predictions of theorists who, on the basis of mood-congruency models, have argued that positive mood should increase trust (Jones & George, 1998; Olson, 2006; Williams, 2001).

Although the first two studies relied on intergroup contexts to highlight that positive mood may exacerbate distrust of out-group members, other salient types of information about another person's trustworthiness should also impact trusting decisions. More specifically, relevant information that activates our schemas about trustworthiness or untrustworthiness should be especially influential to people experiencing positive mood.

Thus, in Experiment 3, participants in positive or neutral mood assigned to the role of sender in the Trust game were given the opportunity to trust an ostensibly untrustworthy or trustworthy target. Target trust was manipulated by providing participants with the results of a "trustworthiness survey" that the target had purportedly just completed (Insko et al., 2005). Consistent with the pattern of data from Experiments 1 and 2, it was expected that people in a positive mood would be more trusting than participants in a neutral mood, (i.e., send more money) when the target appeared trustworthy, and would be less trusting (i.e., send less money) when the target appeared untrustworthy.

Method

Participants and design. One hundred and thirty-four participants (77 women and 57 men) at a large Midwestern University were randomly assigned to one of four conditions in a 2 (mood: positive vs. neutral) × 2 (other party: trustworthy vs. untrustworthy) between-subjects factorial design. Participants received $10 for their time and were informed that their decisions might earn them more money.

Procedure. Upon arrival at the laboratory, participants were seated at a computer in a private room. After completing a consent form they were asked to complete a "trustworthiness" inventory, previously used by Insko et al. (2005), which was described to participants as a reliable measure of an individual's trustworthiness. Participants used 7-point rating scales ranging from 1 (*feel pretty good*) to 7 (*feel pretty bad*) to estimate how they would feel if they had committed 10 acts (e.g., *stealing something from a store without anyone else finding out*, *revealing something about a person that s/he told you confidentially*, and *winning a prize for a paper that someone else had written*). Participants were then asked to help another researcher by rating the sound and video quality of a 3-min video clip. Positive and neutral moods were induced by using the same video clips used in Experiment 1.

The computer then presented the rules of the trust game. As in Experiment 1, all participants were assigned to the role of sender (i.e., Player 1) and were told that they could send as little or as much of their $10 endowment to a receiver (i.e., Player 2) as they wished; the money would triple, and the ostensible receivers could return as much of the tripled amount as they wished. Prior to their choice, participants were told:

> Because some people like to know something about Player 2, we will provide you with their score from the trustworthiness scale. Higher percentage values indicate high levels of trustworthiness. Player 2 will not see any information about you, and they will only receive information about how much money (if any) you choose to send.

Following Insko et al. (2005), participants in the *trustworthy partner* conditions were informed that their partner had an 85% score on the trustworthiness scale; participants in the *untrustworthy partner* conditions were informed that their partner had a 41% score. After choosing how much money to send to Player 2, participants completed a postexperiment questionnaire and were checked for suspicion, debriefed, paid, and thanked.

Results

Amounts sent in the trust game were analyzed in a 2 (mood: positive vs. neutral) × 2 (other party: trustworthy vs. untrustworthy) between-participants ANOVA. As anticipated, participants sent more money (M = \$6.48, SD = 3.06) to a trustworthy versus an untrustworthy partner (M = \$4.20, SD = 3.20), $F(1, 130) = 18.10$, $p < .01$, $d = 0.73$. The main effect for mood, predicted by mood-congruency, was not significant, $F(1, 130) = .02$, $p = .88$, $d = 0.05$. The interaction predicted by the accommodation–assimilation model, however, was significant, $F(1, 130) = 4.63$, $p < .05$ (see Figure 3).

Simple effect tests show that positive mood participants sent more money to a trustworthy coworker (M = \$7.09, SD = 2.66) than an untrustworthy coworker (M = \$3.66, SD = 3.01), $t(130) = 4.53$, $p < .001$, $d = 1.21$. Although emotionally neutral participants tended to send more money to a trustworthy coworker (M = \$5.85, SD = 3.35) than an untrustworthy coworker, (M = \$4.72, SD = 3.33), this difference was not significant, $t(130) = 1.49$, $p < .14$, $d = 0.34$.

Discussion

The results continue to support the accommodation–assimilation approach over a mood-congruence based argument for the relationship between positive mood and trust. Compared to their neutral mood counterparts, behaviors of trust (i.e., money sent in

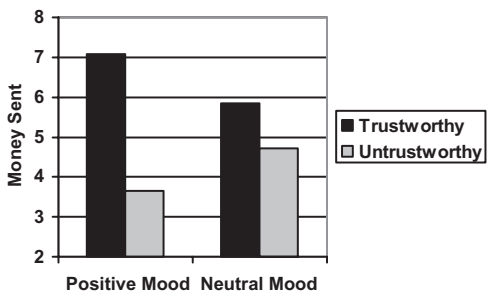

Figure 3. Mean amounts of money sent ($) in the trust game in Experiment 3.

the trust game) for participants in a positive mood were more influenced by available information about their partner's trustworthiness. These findings, although consistent with the accommodation–assimilation model, which argues that positive mood increases reliance on available cues and schemas, are inconsistent with mood-congruency models, which would have predicted that positive mood should have also increased trust with both partners. Furthermore, in addition to replicating the findings from Experiments 1 and 2, these findings help generalize the relationship between positive mood and trust beyond intergroup contexts.

Several elements of this experiment, however, prompt one to be cautious in these conclusions. First, the trustworthiness manipulation was quite explicit. Realistically, such strong cues may be rare. Thus, reliance on this salient cue may not be indicative of what would happen when the cues were more subtle. Secondly, this experiment, along with the prior two studies, relied on measuring trusting behaviors in contexts involving the possession and acquisition of money. Given that settings that involve the possession of money have been shown to alter people's interpersonal motives (e.g., Vohs, Mead, & Goode, 2006), it would be useful to investigate the relationship between positive mood and trust in a context where money was not involved. Moreover, given that the trusting behaviors examined thus far undoubtedly involve some level of risk, the behavior documented in these experiments may have also reflected altered risk perceptions caused by positive mood (see Slovic & Peters, 2006, for a review). Lastly, because the studies have examined only trusting behaviors and have largely ignored perceptions of trustworthiness or the other party's strategies, they provide limited insight into people's thoughts. Although it is assumed that increased schema reliance underlies the findings documented in the first three studies, a more direct measure of trust evaluations and people's reliance on trust schemas would strengthen this assumption. To address these issues and to examine the generalizability of the findings documented thus far, Experiments 4 and 5 used more subtle trustworthiness cues and measured their effects on trust perceptions.

Experiment 4

It should come as little surprise to both lay people and psychologists alike that first impressions are heavily influenced by the target's appearance. Regarding trust, research has shown that people are quick to make inferences about a person's trustworthiness based upon the appearance of someone's face (Schul, Mayo, & Burnstein, 2004; Zebrowitz, Voinescu, & Collins, 1996; see Zebrowitz, 1997, for a review). Moreover, these inferences about another's trustworthiness are activated almost instantaneously (Willis & Todorov, 2006) and have been shown to have lasting implications for how we remember and evaluate the target (Mueller, Thompson, & Vogel, 1988; Zebrowitz et al., 1996). Given that cues present in a face are sufficient to activate our trust and distrust schemas, it is unsurprising that recent work has shown that facial features can influence the degree to which we cooperate with and trust others (Boone & Buck, 2003; Krumhuber et al., 2007).

The current study sought to test the prediction that positive mood increases reliance on trust schemas by measuring trust perceptions in settings where the target's facial cues were associated with trust or distrust. Specifically, in this experiment participants in either a positive or neutral mood provided an evaluation of trustworthiness to one of two faces: one that was made to look trustworthy, and the other untrustworthy. Participants' reliance on the activated trust schema was measured with an established interpersonal trust inventory (Johnson-George & Swap, 1982), which asked them to evaluate how trustworthy the person would be in a variety of settings. Consistent with the pattern of data from Experiments 1–3, compared to participants in a neutral mood, it was expected that people in a positive mood would report more favorable trust evaluations when the target appeared trustworthy and less favorable trust evaluations when the target appeared untrustworthy.

Method

Participants and design. One hundred and twenty-nine undergraduate students (84 women and 45 men) from a large Midwestern university were randomly assigned to one of four conditions in a 2 (mood: positive vs. neutral) $\times$ 2 (other trustworthiness: low vs. high) between-subjects factorial design. Participants, who were paid $10 for their time, were asked to evaluate the trustworthiness of a computer-generated face that possessed features associated with either trust or distrust.

Procedure. Participants were informed that they would be working on several unrelated decision-making studies. They each sat in a private room where the experimenter asked them "to complete a filler task," which was actually the mood manipulation used in Experiment 2—that is, writing about an experience that made them happy or about "what they do in a typical day." When they finished, they were asked to list three things that make them happy or three things that they do every day. As noted in the procedure section of Experiment 2, pilot testing showed this prime was effective in eliciting the intended mood.

Following the mood prime, the experimenter presented a packet of questions that were described as stimuli for a future experiment. The packet contained a picture of either a trustworthy or an untrustworthy face; both were created by a computer program called FACES (Version 4.0; 2003). The program allows one to create faces that appear trustworthy or untrustworthy. For instance, "baby faced" features (e.g., large round eyes) tend to be perceived as a sign of trustworthiness (Zebrowitz et al., 1996). As in Schul et al. (2004), two faces were created: one with trustworthy features (i.e., round face, open round eyes, clean shaven), and the other with untrustworthy features (i.e., narrow face, narrow eyes, facial hair).

Participants then completed the Specific Interpersonal Trust Scale (Johnson-George & Swap, 1982), as adapted by Dunn and Schweitzer (2005). The scale includes 10 items, each with a 9-point scale ranging from 1 (*not at all likely*) to 9 (*very likely*). Examples include: (a) "If he borrowed something of value and returned it broken, he would offer to pay for the repairs"; (b) "He would never intentionally misrepresent my point of view to others." The items were highly correlated ($\alpha = .85$) and were averaged to form an overall trustworthiness score that served as the dependent variable.

Results

Trustworthiness scores were analyzed in a 2 (other trustworthiness: low vs. high) $\times$ 2 (participant mood: positive vs. neutral)

between-participants ANOVA. As anticipated, the trustworthy face led to significantly higher ratings ($M = 5.27$, $SD = 1.05$) than the untrustworthy face ($M = 4.33$, $SD = 1.04$), $F(1, 125) = 27.19$, $p < .001$, $d = 0.90$. The main effect for mood, predicted by mood-congruency, was not significant, $F(1, 125) = 0.08$, $p = .77$, $d = 0.07$. The interaction, however, was significant, $F(1, 125) = 7.25$, $p < .01$ (see Figure 4).

Simple effect tests showed that participants in a positive mood evaluated the trustworthy face as significantly more trustworthy ($M = 5.49$, $SD = 0.97$) than the untrustworthy face ($M = 4.07$, $SD = 0.99$), $t(125) = 5.57$, $p < .001$, $d = 1.45$. In contrast, although emotionally neutral participants tended to evaluate the trustworthy face as more trustworthy ($M = 5.06$, $SD = 1.09$) than the untrustworthy face, ($M = 4.61$, $SD = 1.03$), this difference was not statistically significant, $t(125) = 1.79$, $p < .08$, $d = 0.42$.

Discussion

Participants in a positive mood evaluated a face with trustworthy features as more trustworthy and a face with untrustworthy features as less trustworthy than neutral mood participants. These data continue to support the accommodation–assimilation model over mood-congruency models in the context of interpersonal trust evaluations, suggesting that the relationship between positive mood and trust is moderated by available cues associated with trust and distrust. Whereas the first three studies had relied on behaviors in various experimental games to examine the relationship between positive mood and reliance on trust schemas, the results obtained in the current study help to bolster this relationship by measuring participants' explicit evaluations of the target's trustworthiness.

These results demonstrate that people in a positive mood were sensitive to relatively subtle cues about the target's trustworthiness (i.e., facial features). Thus, explicit cues about categorical membership (Experiments 1 and 2) or explicit information about one's trustworthiness (Experiment 3) need not be present to influence the relationship between positive mood and trust. Moreover, given that participants in the current study made evaluations about another's trustworthiness in a "low-cost" context where there was no gamble or risk associated with their decisions, these data help alleviate concerns that the results from the first three experiments may have merely reflected the influence of positive mood on risk perceptions in situations that involved money.

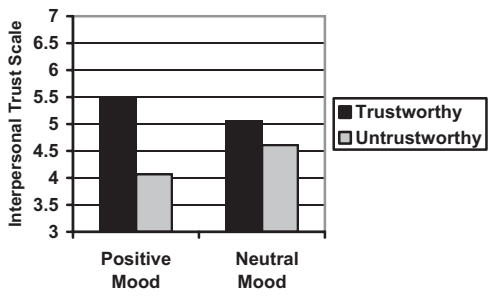

Figure 4. Trustworthiness ratings in Experiment 4.

Experiment 5

Thus far, the findings largely support the predictions of the accommodation–assimilation model. Specifically, the relationship between positive mood and trust is influenced by activated knowledge structures that promote or inhibit trust. The current study, in addition to replicating the finding that positive mood can reduce trust when people evaluate untrustworthy looking faces, sought to provide additional evidence for the expectation that an increased reliance on our activated trust schemas can influence trust judgments. More specifically, trust judgments for people in a neutral mood should be similar to the trust judgments of people in a positive mood in circumstances in which the former individuals are more likely to rely upon their activated trust schemas.

People who have additional demands on their cognitive resources have been shown to rely more on their activated internal knowledge structures (e.g., Bodenhausen & Lichtenstein, 1987; Dijksterhuis & van Knippenberg, 1995; Gilbert & Hixon, 1991; van Knippenberg, Dijksterhuis, & Vermeulen, 1999). Thus, given that schema reliance should influence trust judgments, one may anticipate that when available cues are associated with distrust, people experiencing a cognitive load should make similar evaluations to people in a positive mood. In the current experiment, cognitive load and positive mood were independently manipulated, and participants were asked to evaluate the trustworthiness of several faces (which were created to possess untrustworthy features). It was expected that participants in a neutral mood who experienced a cognitive load would be unable to carefully process information and would be likely to rely upon available cues and schemas about the target, resulting in more negative trust evaluations than neutral mood participants without a cognitive load. That is, people evaluating untrustworthy-looking faces while experiencing either a positive mood or a cognitive load should form lower trust judgments than participants in a neutral mood without a cognitive load.

Method

Participants and design. One hundred and thirty-four undergraduate students (74 women and 60 men) from a large Midwestern university were randomly assigned to one of four conditions in a 2 (mood: positive vs. neutral) × 2 (cognitive load: low vs. high) between-subjects factorial design. Participants were paid $10 for their time.

Procedure. Participants were informed that they would be working on several unrelated studies on decision-making. Participants were seated at a private computer terminal where they read instructions. All participants were first given the mood manipulation used in Experiments 2 and 4, where they were asked to recall and write about a happy event or typical day. Following the mood manipulation, participants were told that we were interested in memory, and they were given 15 s to commit a two-digit (low load condition) or nine-digit number (high load condition) to memory. After seeing the number for 15 s, the computer informed participants that in a few minutes they would be asked to recall the number. In the meantime, they were informed that they would be asked to evaluate how trustworthy several faces looked to them. They were then shown four faces that were created and piloted (using the same software used in Experiment 4) to be slightly

untrustworthy looking. Participants were shown one face at a time and below each face were asked to respond on a 9-point scale, "How trustworthy does the above person look to you?" (1 = *not at all*; 9 = *very much so*).

Results

Trustworthiness scores for the four faces were averaged together ($\alpha = .73$) and were analyzed in a 2 (mood: neutral vs. positive) × 2 (cognitive load: low vs. high) between-participants ANOVA. A main effect for mood emerged, such that participants in a positive mood evaluated the faces as less trustworthy than participants in a neutral mood did ($M = 3.06$, $SD = 1.12$ vs. $M = 3.42$, $SD = 1.15$), $F(1, 130) = 4.05$, $p < .05$, $d = 0.32$. Although participants experiencing a high cognitive load tended to evaluate the faces as less trustworthy compared to participants in the low load conditions ($M = 3.16$, $SD = 1.16$ vs. $M = 3.33$, $SD = 1.13$), this difference was not reliable, $F(1, 130) = 1.24$, $p = .27$, $d = 0.15$. However, as anticipated, the interaction between mood and load was statistically significant, $F(1, 130) = 4.32$, $p < .05$, $d = 0.36$ (see Figure 5).

Simple effect tests showed that for participants with a low cognitive load, people in a positive mood evaluated the faces as less trustworthy ($M = 2.98$, $SD = 0.98$) than people in a neutral mood ($M = 3.78$, $SD = 1.17$), $t(130) = 2.85$, $p < .01$, $d = 0.75$. Furthermore, people experiencing positive mood with a high cognitive load also evaluated the faces as less trustworthy ($M = 3.17$, $SD = 1.08$) than people in a neutral mood with a low load, $t(130) = 2.09$, $p < .05$, $d = 0.50$. More important, similar to participants experiencing positive mood, neutral mood participants in the high cognitive load condition made lower trust evaluations ($M = 3.15$, $SD = 1.08$) than neutral mood participants who had a low cognitive load, $t(130) = 2.27$, $p < .05$, $d = 0.56$.

Discussion

In the current study it was found that subtle cues associated with distrust influenced trust perceptions more when people made their evaluations following a positive mood induction or while experiencing a cognitive load. Specifically, participants in a neutral mood who experienced a cognitive load relied more on facial cues that suggested that the other party was untrustworthy, resulting in lower trust evaluations than neutral mood participants without a cognitive load. It is important to note that the lowered trust evaluations of participants in a neutral mood who had a cognitive load mirrored the trust evaluations of participants in a positive mood. The findings provide additional evidence for the expectation that an increased reliance on activated trust schemas can underlie trust evaluations. In addition to replicating the results from Experiment 4, these findings are in line with the expectation that trust evaluations made by people in a positive mood are influenced by top-down processing strategies, where cues about the target shape impression formation. Building on the behavioral evidence obtained in the first three experiments, these results continue to support the accommodation–assimilation approach, which appears to best account for the relationship between positive mood and trust.

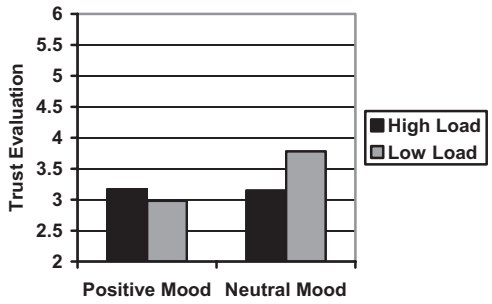

Figure 5. Trustworthiness ratings in Experiment 5.

General Discussion

The relationship between positive mood and trust is more complicated than the main effect predictions of mood-congruency models. Rather than simply increasing trust, situational factors determined whether positive mood led to increased or decreased trust. When available cues promoted trust, people in a positive mood increased their trust; when cues promoted distrust, people in a positive mood decreased their trust. Moreover, this pattern of data was reliably documented across five experiments—employing a variety of mood and trust manipulations—for both trusting behaviors and attitudes. Experiments 1 and 2 found that positive mood increased behavioral acts of distrust in intergroup settings. In Experiment 1, this was evidenced by less money sent in the trust game. In Experiment 2, people in a positive mood exhibited more behavioral distrust (i.e., more withdrawal choices in a PDG-Alt) than neutral mood participants paired with an out-group member. The remaining experiments more closely examined the relationship between positive mood and trust in interpersonal settings where explicit (Experiment 3) or subtle trustworthiness cues (Experiments 4 and 5) influenced trust. Specifically, compared to people in a neutral mood, participants in a positive mood trust sent more [less] money in a trust game (Experiment 3) and formed more favorable [unfavorable] interpersonal evaluations (Experiments 4 and 5), depending on the presence of cues that made the target appear trustworthy [untrustworthy].

The results in this article are consistent with work demonstrating that a positive mood increases reliance upon stereotypes (Bless, Schwarz, & Wieland, 1996; Bodenhausen et al., 1994; Park & Banaji, 2000) and scripts in interdependent situations (Hertel et al., 2000). More pointedly, the findings from all five experiments supported the predictions of the accommodation–assimilation model (see Bless & Fiedler, 2006; Fiedler, 2001b, for reviews) over mood-congruency models. This leads to a fairly strong conclusion that the relationship between positive mood and trust depends, in large part, on available schemas, cues, and stereotypes.

Taken together, these results also contribute to the empirical and theoretical foundations of the discontinuity effect (see Insko & Schopler, 1998; Wildschut et al., 2003, for reviews), showing that positive mood can increase trust in interpersonal settings but decrease trust in intergroup settings. In other words, positive mood exacerbated the magnitude of the discontinuity effect. In line with the accommodation–assimilation model, which argues that positive mood encourages a reliance on internal knowledge structures, these effects resulted from increased reliance on a trust bias (trust schemas) in interpersonal settings and from increased reliance on

a distrust bias (distrust schemas) in intergroup settings. It is also important to highlight that positive mood does not always increase trust in interpersonal settings: Positive mood led to less trust in interpersonal settings when salient cues were associated with distrust schemas. For example, compared to people in a neutral mood, people in a positive mood trusted others less when available cues suggested that the other party was untrustworthy (Experiments 3–5).

The findings of Experiments 1 and 2 also offer insight into how positive mood can influence intergroup relations. Contrary to lay expectations that positive mood should help intergroup relations, people in a positive mood displayed less trust in out-group members than people in a neutral mood. Thus, behavioral evidence now suggests that positive mood, if managed incorrectly, can actually hurt rather than help intergroup trust. Future research might explore whether salient trust cues can promote trusting behaviors in intergroup settings. Research on the common in-group identity model (Gaertner, Mann, Murrell, & Dovidio, 1989), for instance, has shown that highlighting a superordinate identity can reduce intergroup bias via recategorization, leading people to view former out-group members as in-group members. Moreover, positive mood has facilitated recategorization when shared group membership cues are available (Dovidio, Gaertner, Isen, & Lowrance, 1995; Dovidio, Gaertner, Isen, Rust, & Guerra, 1998). For example, when a superordinate identity was made salient (i.e., university affiliation), Dovidio et al. (1998) found that positive mood led to less intergroup bias than neutral mood. When the superordinate identity was not made salient, however, positive mood led to greater intergroup bias than neutral mood. Thus, although positive mood has exacerbated intergroup discrimination (Forgas & Fiedler, 1996) and, in the current research, intergroup distrust, highlighting group members' shared identity could reduce or even eliminate these effects.

Conflict Resolution

These studies also have important implications for understanding the effects of positive mood on conflict resolution. To date, conflict resolution research has examined how positive mood influences cooperative and competitive negotiation strategies (Baron, 1990; Carnevale, 2008; Carnevale & Isen, 1986; Forgas, 1998). Although the findings suggest that positive mood increases cooperation (but see Hertel et al., 2000), it is important to note that these studies have exclusively focused on interpersonal interactions—that is, conditions that promote a trust bias. This suggests that the results of these investigations might be quite different in the presence of distrust schemas. This expectation is consistent with Forgas (1998), who found that a positive mood increased cooperative strategies when people worked with an in-group member but not with an out-group member.

Also, consistent with Thompson, Nadler, and Lount's (2006) contention that reliance on schemas and stereotypes can impede conflict resolution, positive mood could interfere with conflict resolution when parties already distrust each other. Thus, conducting tense peace negotiations between distrusting parties (e.g., two nations at war with one another) at an excessively comfortable or lavish setting (e.g., Versailles) might inadvertently accentuate available biases present in difficult negotiations (Ross & Stillinger, 1991). One hopes that experienced negotiators could move beyond these effects to make progress, but this also suggests that future research might investigate whether people actually realize how positive mood affects them in tense interactions. It is not yet apparent whether they do.

Thus, professional mediators, who often want to improve the relationship between competing, distrustful disputants, might think twice before inducing positive moods in an effort to improve trust. The current findings suggest that third parties who are interested in increasing trust between two conflicting parties should pay careful attention to cues which signal trustworthiness. If, for instance, only one party is experiencing a positive mood, it could be critical to highlight the other party's trustworthy features and simultaneously reduce untrustworthy cues or associations.

Implications for Trust Development

This article also contributes to understanding how affect can influence trust development. Because models of trust development have traditionally focused on the cognitive influences on trust (see Kramer, 1999; Lewicki et al., 2006, for reviews), research has largely ignored the influence of mood on trust between strangers. Although prior models suggest that cognitive antecedents can increase affective antecedents (e.g., McAllister, 1995), the current findings show that this relationship can be reversed, with affect (positive mood) accentuating cognition (e.g., reliance on activated internal knowledge structures which promote trust/distrust).

Moreover, these experiments provide additional support for recent models that entertain the possibility of strangers trusting each other quickly (Brewer, 2008; Messick & Kramer, 2001; Meyerson et al., 1996) or precipitously (Weber, Malhotra, & Murnighan, 2005). Although rational models argue that trusting behaviors should result from careful, deliberative processing, Messick and Kramer's (2001) shallowness hypothesis argues that trusting decisions are often made quickly and are influenced by available cues that signal if the other party is trustworthy or untrustworthy. The findings support the expectation that trusting decisions can be heavily influenced by salient cues about the target (Brewer, 2008), especially for people in a positive mood. Thus, although *swift trust* (Jarvenpaa & Leidner, 1999) may occur when a trust schema is associated with the target (e.g., in-group members), *swift distrust* may occur when a distrust schema is associated with the target (e.g., out-group members).

Conclusion

This article has investigated the relationship between positive mood and trust. Across five experiments, the findings consistently supported the predictions of the accommodation–assimilation model (see Bless & Fiedler, 2006; Fiedler, 2001b, for reviews): Compared to being in a neutral mood, people in a positive mood displayed more trust when available schemas and cues encouraged trust and displayed less trust when available schemas and cues discouraged trust. In a broad sense, the data illustrate that trusting or distrusting actions depend not just on affect, but on a combination of cognitive and affective information.

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