Understanding Emotional Transitions: The Interpersonal Consequences of Changing Emotions in Negotiations

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Research on the interpersonal functions of emotions has focused primarily on steady-state emotion rather than on emotional transitions, the movement between emotion states. The authors examined the influence of emotional transitions on social interactions and found that emotional transitions led to consistently different outcomes than their corresponding steady-state emotions. Across 2 computer-mediated negotiations and a face-to-face negotiation, participants negotiating with partners who displayed a "becoming angry" (happy to angry) emotional transition accepted worse negotiation outcomes yet formed better relational impressions of their partners than participants negotiating with partners who displayed steady-state anger. This relationship was mediated through 2 mechanisms: attributional and emotional contagion processes. The "becoming happy" (angry to happy) emotional transition as compared with steady-state happiness was not significantly related to differences in negotiation outcomes but was significantly related to differences in relational impressions, where perceivers of the "becoming happy" emotional transition gave their partners lower relational impression ratings than perceivers of steady-state happiness.

Keywords: emotional transitions, emotions, interpersonal functions of emotions, negotiations, social interactions

A rich and growing body of research shows that emotions have interpersonal functions; that is, our own emotions not only influence ourselves but also influence the emotions, thoughts, and behaviors of the people with whom we interact (Frijda & Mesquita, 1994; Goffman, 1959; Keltner & Haidt, 1999; Morris & Keltner, 2000; Oatley, 2004). Research in this area has demonstrated the interpersonal functions and impact of both generalized positive and negative affect, as well as a range of discrete emotions, such as anger, jealousy, joy, and fear, on various social interactions and behavioral outcomes (Keltner & Buswell, 1997; Morris & Keltner, 2000; van Kleef, De Dreu, & Manstead, 2004a). To date, work in this area has focused mainly on the influence of steady-state emotions. However, during social interactions, people do not necessarily stay in one steady emotional state; they can and do move between emotional states based both on their own intrapsychic changes and in response to environmental stimuli (Frijda, 1993; Lazarus, 1991; Thagard & Nerb, 2002). Hence, we focus

here on the largely unexplored phenomenon of emotional transitions and how they influence social interactions.

An *emotional transition* is a movement between two or more affective, or emotional states. Specifically, we examine whether the *transition to* a particular emotion (e.g., the transition from happy to angry, or "becoming angry") has different outcomes from its steady-state counterpart (e.g., steady-state anger, where one begins angry and stays at the same level of anger). In the context of interpersonal negotiations, in which individuals communicate about their opposing preferences, we examine whether and how emotional transitions in one's counterpart influence one's own negotiation behavior and relational impressions. In three experiments, we compared both the "becoming angry" (happy to angry) transition and the "becoming happy" (angry to happy) transition to their corresponding steady-state emotion displays, steady-state anger and steady-state happiness.

How Emotional Transitions Influence Social Interactions

Past research on the interpersonal outcomes of discrete emotions has found that steady-state emotions influence perceivers' behavior via both inferential and affective processes. For instance, when confronted with anger, perceivers might cognitively seek to understand the cause of the displayer's anger, as well as actually experience anger themselves through emotional contagion (Barsade, 2002; Hareli & Rafaeli, 2008; Morris & Keltner, 2000; Van Kleef, 2009). In keeping with this work and, more broadly, with

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¹ We refer to the person expressing the emotion as the *displayer* and the person observing that emotion as the *perceiver*.

other multiprocess models (e.g., De Dreu, Baas, & Nijstad, 2008; E. R. Smith & DeCoster, 2000), we posit that emotional transitions influence perceivers' behavior through the same inferential and affective mechanisms, but with differing consequences than steady-state emotions.

Emotional displays signal the displayer's thoughts and intentions about the perceiver (Fridlund, 1994; Morris & Keltner, 2000; van Kleef et al., 2004a, 2004b). When faced with the behavior of another, including emotional displays, people seek to make sense of this by making inferences or attributions about the cause of that behavior. Specifically, perceivers may make either dispositional attributions, looking to the displayer's stable and inherent characteristics as cause for the emotional display, or situational attributions, attributing the displayer's actions to elements in the ongoing interaction, including the perceivers' own behaviors (Jones & Davis, 1966; Kelley & Michela, 1980; Reeder & Brewer, 1979).

We propose that perceivers of a steady-state emotion will make increasingly dispositional attributions. In this case, because the displayers' behaviors stay the same over the course of the interaction, perceivers may consequently believe that because they are unable to influence the displayer, the displayer's emotions must be the product of a dispositional inclination. For example, when exposed to steady-state anger, perceivers will be more likely to attribute the anger to the displayers' dispositions, labeling them as angry or hostile people (van Kleef et al., 2004a). However, due to the very nature of the change in emotion, perceivers of an emotional transition are predicted to make increasingly situational attributions. As such, when confronted with an emotional transition, perceivers are more likely to attribute the displayers' emotion change to something in the situation, including their own behavior, rather than the displayers' personality. Thus, a transition to an emotion can lead to different attributions about the cause of the emotion, and therefore different behavioral responses, than a steady-state display of that emotion.

Emotions can also influence perceiver behavior via affective processes such as emotional contagion (Hatfield, Cacioppo, & Rapson, 1994). *Emotional contagion* refers to people "catching" each other's emotions through a rapid process in which perceivers perceive and interpret the displayers' emotions and respond with similar emotions themselves (Hatfield et al., 1994). Emotional contagion has been shown to influence the perceiver's thoughts and subsequent behaviors across a range of domains, from social judgments (Doherty, 1998), to evaluations of service quality in customer interactions (Pugh, 2001), to group negotiation outcomes (Barsade, 2002).

Emotional contagion processes are predicted to differentially influence perceivers of emotional transitions versus steady-state displays of that emotion, because the first emotion sets the context for the emotion that follows in the transition. Because emotional contagion occurs rapidly (Barger & Grandey, 2006; Hatfield et al., 1994; Meltzoff & Moore, 1992), perceivers of an emotional transition are predicted to have "caught" the first emotion by the time they are exposed to the second one. To illustrate, perceivers of a "becoming angry" transition (from happy to angry) will catch the displayer's initial happiness, and as such be in a happier state when facing the subsequent anger than would perceivers of steady-state anger, who would have caught the displayer's initial anger. Because people's emotional states influence their reactions to stimuli (Forgas & Bower, 1987; Isen, 2000; Isen & Daubman, 1984), the

emotional contagion differences that come with emotional transitions versus steady-state emotions are predicted to generate different attitudinal, emotional, and behavioral responses on the part of the perceiver.

Emotional Transitions in a Negotiations Context

Because there has been much research examining the social functions of steady-state emotions in a negotiation context, we have chosen to study the influence of emotional transitions in this domain. Negotiations—or social interactions between two parties to resolve opposing preferences "with the goal of reaching agreement" (Carnevale & Pruitt, 1992, p. 531)—are a natural arena for the observation of affective influences (Barry & Oliver, 1996; Carnevale & Isen, 1986). There is some preliminary empirical evidence indicating that the negotiation setting is one in which transitions can differentially influence outcomes. For example, transitions in a negotiator's behavior, both from less cooperative to more cooperative (i.e., offering small, then larger concessions), and vice versa, have been found to elicit higher levels of cooperation from the negotiator's counterpart (Harford & Solomon, 1967; Hilty & Carnevale, 1993). Furthermore, in Rafaeli and Sutton's (1991) qualitative study, both criminal interrogators and bill collectors were observed using good-cop/bad-cop transition tactics, which included a strong emotional component, in attempts to gain compliance.

As most research on (steady-state) emotions in negotiations has focused on anger and happiness (e.g., Sinaceur & Tiedens, 2006; van Dijk, van Kleef, Steinel, & van Beest, 2008; van Kleef et al., 2004a, 2004b), we examine transitions between those two emotions. We hypothesize that the attribution and emotional contagion mechanisms described above will cause perceivers of a "becoming angry" transition (from happy to angry) to cede more in the negotiation than perceivers of steady-state anger.

The reason for this, from an attributional perspective, is that anger will carry a different meaning in an emotional transition versus steady-state emotion. For instance, whereas anger can signal that one's negotiation limits have been reached, leading to greater concessions on the part of the perceiver than displays of happiness (van Dijk et al., 2008; van Kleef et al., 2004a, 2004b), steady-state anger is predicted to also lead to increasing dispositional attributions, that is, signaling something about the generally angry disposition of the displayer, rather than the situation. The emotional transition from happy to angry, however, is predicted to lead to increasing situational attributions and decreasing dispositional attributions. This is because perceivers will be more likely to think that the change in the displayer's emotions (from happiness to anger) is due to something in the interaction or the perceiver's own behavior, such as making an offer that is getting close to the displayer's negotiation limits, rather than due to a stable characteristic of the displayer. Thus, because the transition from happiness to anger increases the perception that the anger display is due to the situation (i.e., something that happened in the negotiation), it makes the signal or social function of anger more clear (e.g., Morris & Keltner, 2000). We predict that this, in turn, will lead perceivers of an emotional transition to strategically modify their behavior and make even greater concessions than perceivers of steady-state anger.

In addition, having the anger attributable to something that happened in the negotiation may make it seem more appropriate (Shields, 2005) and procedurally fair (Steinel, Van Kleef, & Harinck, 2008) than anger attributed to the stable angry disposition of one's counterpart. Appropriate and procedurally fair anger would make perceivers more likely to concede versus retaliate (Van Kleef & Côté, 2007), again leading to greater concessions to displayers of the emotional transition.

Emotional contagion may amplify this effect by causing perceivers of a "becoming angry" transition to have caught their counterpart's initial happiness, leading to a "buffer" of good mood (Fredrickson & Levenson, 1998) when faced with the subsequent display of anger. Perceivers in a happy mood have been found to be more cooperative (Baron, Fortin, Frei, Hauver, & Shack, 1990; Forgas, 1998) and make more concessions (Baron, 1990; Barsade, 2002), thus aligning with the attribution effect described above and leading to even greater concessions in the emotional transition condition of "becoming angry." In contrast, perceivers of steady-state anger will have mimicked and "caught" their counterpart's initial anger, which in turn may make them more competitive and less likely to concede (Pillutla & Murnighan, 1996). From these arguments we predict the following:

Hypothesis 1: Displays of a "becoming angry" (happy to angry) transition will cause perceivers to cede more in a negotiation interaction than displays of steady-state anger.

In the opposite direction, the same attributional and emotional contagion mechanisms may cause perceivers of a "becoming happy" transition (from angry to happy) to cede less than perceivers of steady-state happiness. This is because the emotional transition from angry to happy is expected to generate increasing situational attributions and decreasing dispositional attributions relative to steady-state happiness. Happiness has been found to signal more generous negotiation limits (van Kleef et al., 2004a, 2004b) and possibly that the displayer has received more than expected (Thompson, Valley, & Kramer, 1995). The situational attribution that something in the negotiation happened to make the displayer happier is predicted to lead the perceivers to strategically modify their behavior and make even fewer subsequent concessions than in the steady-state happy condition.

Emotional contagion processes would again amplify this effect, because perceivers of an angry to happy transition will catch their counterparts' initial anger rather than catching the initial happiness of the steady-state happy condition. Experiencing this relatively greater anger can engender competition (Forgas, 1998) and in turn increase chances of the perceiver rejecting the counterpart's offer (Pillutla & Murnighan, 1996), resulting in fewer concessions than a perceiver who catches a counterparts' initial happy emotion in the steady-state happy condition. Thus, we predict that:

Hypothesis 2: Displays of a "becoming happy" (angry to happy) transition will cause perceivers to cede less in a negotiation interaction than displays of steady-state happiness.

However, an alternative explanation is that the differences in outcomes we predict in emotional transitions versus their corresponding steady-states occur simply because of the sum total of positive or negative emotion displayed across the two conditions rather than the emotional transition itself. Variations of this additive argument can be seen in other psychological literature. For example, the attraction of a person toward an evaluator was found to depend on the number of favorable evaluations received, and not on whether the positive evaluations were received before or after the negative ones (Byrne, 1969; Hewitt, 1972; Tognoli & Keisner, 1972; cf. Aronson & Linder, 1965). To rule out this competing additive hypothesis, we compared the effects of the opposite emotional transition conditions with each other, as each has identical "doses" of happiness and of anger. If the effect of the transition is due only to this absolute dose of happiness or anger, then the two transition conditions should lead to the same outcomes. If the nature of the transition is important, as we predict from the attributional and emotional contagion arguments above, then we would expect to see a significant difference across the two transition conditions:

Hypothesis 3: Displays of a "becoming angry" (happy to angry) transition will cause perceivers to cede more in a negotiation interaction than displays of a "becoming happy" (angry to happy) transition.

Negotiations generate not only negotiated outcomes—immediate and objective economic outcomes, such as how resources are divided and whether an agreement was reached—but also relational or subjective outcomes, such as how we feel toward our counterparts and the impressions we form of them (Allred, Mallozzi, Matsui, & Raia, 1997; Curhan, Elfenbein, & Xu, 2006; Thompson, 1990). These impressions can have important consequences over time because people are more likely to form relationships and choose to work with others whom they view positively.

The attribution and emotional contagion mechanisms discussed above may cause perceivers of a "becoming angry" transition to form better relational impressions of the displayer than perceivers of steady-state anger. As described earlier, the transition to anger is predicted to lead to greater situational, and lesser dispositional, attributions relative to steady-state anger. Thus, in the steady-state anger condition, the perceivers are likely to think that the displayer is a more dispositionally angry person, and dislike them (Kopelman, Rosette, & Thompson, 2006). In contrast, in the emotional transition condition, the anger is more likely to be attributed to the situation or to the perceivers' own actions and thus may seem deserving (Baumeister, Stillwell, & Wotman, 1990) and more appropriate (Shields, 2005), leading perceivers to form more positive impressions of the displayer. In addition, emotional contagion would cause perceivers of a "becoming angry" transition to first catch their counterpart's initial happiness, leading to a "buffer" of good mood (Fredrickson & Levenson, 1998) relative to perceivers of steady-state anger. People in a more positive mood form more favorable impressions of their counterparts and are more willing to work with them again in the future (Forgas & Bower, 1987; Gouaux, 1971; Veitch & Griffitt, 1976). Thus we predict that:

Hypothesis 4: Displays of a "becoming angry" (happy to angry) transition will cause perceivers to form better relational impressions of the displayer in a negotiation interaction than displays of steady-state anger.

In the transition from anger to happiness, the displayer's happiness will also likely be attributed to the situation rather than the displayer's disposition. Whereas people like happy others (Lyubomirsky, King, & Diener, 2005), this attribution to the situation would reduce the relational impression "credit" earned, in particular if the situational attribution is itself negative (i.e., "he's happy because I just gave up too much") (Thompson et al., 1995). In addition, from an affective perspective, perceivers of a "becoming happy" transition will have caught their counterpart's initial anger rather than the initial happiness of the steady-state happy condition. As such, perceivers in this emotional transition condition may feel relatively more angry posttransition than those in the steadystate happy condition, and will be less likely to trust the displayer (Dunn & Schweitzer, 2005) and more likely to blame and punish him or her (Lerner, Goldberg, & Tetlock, 1998; Quigley & Tedeschi, 1996). Thus, we predict that:

Hypothesis 5: Displays of a "becoming happy" (angry to happy) transition will cause perceivers to form worse relational impressions of the displayer in a negotiation interaction than displays of steady-state happiness.

To again rule out the competing hypothesis of additive rather than transitional effects, we compared the emotional transition conditions with each other. If only the additive effect holds, the two transition conditions, with identical "doses" of positive and negative emotions, should lead to identical outcomes. If, however, the mechanisms we outline above hold, then we predict the following:

Hypothesis 6: Displays of a "becoming angry" (happy to angry) transition will cause perceivers to form better relational impressions of the displayer in a negotiation interaction than displays of a "becoming happy" (angry to happy) transition.

The Present Studies

We explored the interpersonal consequences of emotional transitions in three laboratory studies. In the first study, we followed an established protocol for conducting a negotiation through a computer simulation (e.g., De Dreu & Van Lange, 1995; van Dijk et al., 2008; van Kleef et al., 2004a, 2004b). We used this method, previously used to examine the interpersonal consequences of steady-state emotions, to show that emotional transitions have outcomes different from their steady-state counterparts. In Study 2, we tested whether these different outcomes are mediated by different patterns of attributions made by perceivers of emotional transitions versus steady-state emotions. In Study 3, we extended this work to a richer interaction context, a face-to-face (vs. a computer-mediated) negotiation, allowing us to examine whether these effects are also mediated through emotional contagion (see Table 1 for a summary of the hypotheses).

Study 1

Study 1 closely followed a computer-mediated negotiation paradigm (e.g., van Kleef et al., 2004a, 2004b) in which participants were led to believe that they were negotiating with another person over e-mail, but in reality they were negotiating with a computer program. The experimental manipulation consisted of sending participants their (computer) counterparts' "bidding intentions," which contained emotionally laden sentences indicating their current emotional state. The emotion phrases in these bidding intentions either remained constant (in the steady-state emotion conditions) or changed midway through the negotiation (in the emotional transition conditions).

Method

Participants and experimental design. One hundred eighty-seven undergraduate students (91 women, 96 men², age M = 19.68, SD = 1.36) from the University of Pennsylvania participated in a six-round computer-mediated negotiation in exchange for \$10.³ Participants were randomly assigned to one of four conditions in which they observed their counterpart (the computer) displaying one of the following patterns of emotions over the course of the negotiation: (a) a happy to angry transition ("becoming angry"), (b) steady-state anger, (c) an angry to happy transition ("becoming happy"), or (d) steady-state happiness.

Procedure. On arrival to the laboratory, participants were informed that they would engage in a computer-mediated negotiation with another participant, who, unbeknownst to the participants, was a role played by a computer program.

Negotiation task. Participants learned that they had been randomly assigned the role of a seller of a consignment of mobile phones and that they would be engaging in an e-mail negotiation (with a buyer) to get the best deal on three dimensions: price, warranty period, and length of service contract for the phones. Participants were also provided with a payoff matrix (identical to the payoff matrix used by van Kleef et al., 2004a) with examples indicating which outcomes were most favorable to them as sellers. Participants were told that their objective was to earn as many points as possible and that if they did not reach an agreement, they would receive zero points.

The negotiation lasted for six rounds, each of which comprised four steps. Each round began with the buyer (the computer) making an initial offer on three attributes: price, warranty, and service contract. Buyers followed the same sequence of offers in all four experimental conditions, using a strategy that straddled both cooperation and competition (De Dreu & Van Lange, 1995). Second, participants responded with their counteroffer on the same three attributes, and their counteroffer was accepted if it equaled or exceeded the offer the (computer) buyer was about to make for the next round. Third, each time after sending a counteroffer, participants were asked to answer brief questions about the negotiation and their counterpart. Last, the experimental manipulation, that is, the (computer) buyer's emotional display, followed this question-

² Other than a main effect on agreeableness ratings (female participants rated their counterparts as more agreeable [M=3.60] than did male participants [M=3.20]), F(1,185)=6.96, p<.01), we found no gender main effects and no gender interactions on any of the dependent measures. As such, data for men and women were combined in the analyses.

 $^{^3}$ To increase engagement in the negotiation, a subset of these participants (n=112) was promised a bonus (\$0-\$5 paid to the participants), depending on participants' performance. As no differences were found between the bonus and nonbonus participants on any of the dependent measures, these data are combined in the analyses presented below.

Table 1
Summary of Hypotheses

Conditions: Emotions displayed by negotiation partner (computer or confederate)	Negotiated outcomes: Perceivers' level of yielding (via concessions or agreement rates) as a result of the emotions displayed	Relational impressions: Perceivers' positive relational impressions of the displayer as a result of the emotions displayed
"Becoming angry" vs. steady-state anger	H1: "Becoming angry" > steady-state anger	H4: "Becoming angry" > steady-state anger
"Becoming happy" vs. steady-state happiness	H2: "Becoming happy" < steady-state happiness	H5: "Becoming happy" < steady-state happiness
"Becoming angry" vs. "becoming happy"	H3: "Becoming angry" > "becoming happy"	H6: "Becoming angry" > "becoming happy"

Note. We manipulated the emotional displays of the negotiation partner (the computer program or the confederate) and observed the reactions of the perceiver (the participants) and the subsequent effect on the negotiation. H1–H6 = Hypotheses 1–6.

naire in the form of "bidding intentions" for the next round. These emotionally laden bidding intentions occurred in four of the six rounds, two before the transition (at the end of Rounds 2 and 3) and two after the transition (at the end of Rounds 5 and 6). As per the experimental paradigm (De Dreu & Van Lange, 1995; van Kleef et al., 2004a, 2004b), the negotiation was terminated after six rounds to prevent participants from becoming suspicious as to the identity of their counterparts.⁴

Experimental manipulation. Prior to beginning the negotiation, participants were informed that they would receive information about their partners' bidding intentions during the course of the negotiation. Bidding intentions comprised two components: the four condition-specific emotionally laden statements that constituted the emotional manipulation and the (computer) buyer's subsequent numerical offer that remained invariant across these conditions. To enhance realism, it was emphasized that counterparts would not know that the participants had seen their bidding intentions, the bidding intentions appeared in a separate window after a randomly generated delay (1 min on average), and the bidding intentions contained typing errors.

The emotional display statements embedded in the bidding intentions were pretested as follows: 16 participants from the same participant pool were asked how they would verbally express anger or happiness in a negotiation. These statements, along with those used by van Kleef et al. (2004a), provided 18 sample emotion statements (nine for anger, nine for happiness) that were presented to an additional 30 participants from the same population in two counterbalanced orders. Participants rated the statements on ease of understanding and the extent to which the person who made it seemed angry and happy $(1 = Not \ at \ all, 7 = Very)$ much). The eight statements (four for each emotion) that were equally comprehensible and had the largest difference between their angry and happy scores were selected. The angry scores were significantly higher than the happy scores for the angry statements chosen, and the happy scores were significantly higher than the angry scores for the happy statements chosen (all paired sample ts > 7.5, ps < .0001).

The emotional transition conditions contained two statements of anger and happiness each, with the order reversed as appropriate: two happy statements were followed by two angry statements in the "becoming angry" condition, whereas two angry statements were followed by two happy ones in the "becoming happy" condition. The steady-state conditions contained four statements conveying the same emotion: four angry statements in the steady-state

anger condition and four happy statements in the steady-state happiness condition.

Dependent measures.

Affect ratings of the (computer) partner. Participants rated their (computer) counterparts' affect in real time, after each negotiation round, on a 7-point bipolar scale: "How positive or negative do you think your partner feels right now?" (1 = Mostly negative, 7 = Mostly positive). To avoid cuing participants about the purpose of the study, we intentionally asked about their partners' general positive or negative feelings rather than using the specific terms of happy or angry.

Negotiated outcome-concessions. Concessions were calculated as the difference between the participant's offers before and after the transition and represent how much a participant gave up as a result of the counterpart's emotional displays. This pre- to posttransition drop was measured between Round 4 (after two rounds of exposure to the pretransition emotion) and Round 6 (after two rounds of exposure to the posttransition emotion). To ensure that concessions made in earlier rounds did not create a floor effect in the analyses, an analysis of covariance was used to control for concessions made prior to Round 4; adjusted means are presented in the analyses below.

Relational impressions. After the negotiation was completed, participants rated their perceptions of how agreeably their counterpart behaved, that is, how cooperative and other oriented the counterpart was acting, using nine items from Costa and McCrae's (1989) NEO-FFI Agreeableness scale that included attributes such as helpful and trustworthy ($\alpha = .87$).

Results and Discussion

The question investigated here is whether displays of emotional transitions versus their corresponding steady-states generate different negotiated and relational outcomes. We used single degree of freedom contrast analyses to address the research questions outlined above. To aid in comparability with other research, we

⁴ Previous researchers have found that participants who reached consensus before the sixth round did not take the task seriously and excluded these participants from their reported analyses (Tripp & Sondak, 1992; van Kleef et al., 2004a, 2004b). In this study, the percentage of participants reaching agreement early (n = 20, N = 207) was similar to that found by van Kleef et al. (2004a) (n = 10, N = 128) and was independent of experimental condition, $\chi^2(3) = 1.89$, ns. We also excluded these participants.

also present estimates of the magnitude of the effects investigated (η s and rs).

Manipulation check. To test the manipulation, we compared participants' ratings of the displayers' (the computers') affect before the transition (in Rounds 2 and 3) with ratings of the displayers' affect after the transition (in Rounds 5 and 6). The emotional transition manipulation was found to be successful. Displayers in the "becoming angry" (happy to angry) transition condition were perceived as becoming more negative (M =-0.80) than displayers in the steady-state angry condition (M =0.03), F(1, 179) = 12.28, p < .001. Displayers in the "becoming happy" (angry to happy) transition condition were perceived as becoming more positive (M = 1.03) than displayers in the steadystate happy condition (M = -0.03), F(1, 179) = 20.04, p < .0001. The steady-state emotion manipulation was also successful. Displayers in the steady-state happy condition were rated as significantly more positive (average rating across all rounds, M = 3.72) than displayers in the steady-state angry condition (average rating across all rounds, M = 2.42), F(1, 179) = 33.25, p < .0001.

Negotiated outcomes. As predicted by Hypothesis 1, perceivers of a "becoming angry" (happy to angry) transition conceded significantly more (M=56.28) than perceivers of steadystate anger (M=26.07), F(1,182)=6.00, p<.05, $\eta=.15$. Contrary to Hypothesis 2, there was no significant difference in concessions made by perceivers of a "becoming happy" (angry to happy) transition (M=20.04) and perceivers of steady-state happiness (M=19.52), F(1,182)=0.00, ns. To test the prediction that we are not simply observing an additive effect of the total dose of emotion displayed, we compared the two transition conditions with each other. Supporting Hypothesis 3, perceivers of a "becoming angry" transition conceded more (M=56.28) than perceivers of a "becoming happy" transition (M=20.04), F(1,182)=8.63, p<.01, $\eta=.21$.

Relational impressions. As predicted by Hypothesis 4, perceivers of a "becoming angry" (happy to angry) transition formed significantly better relational impressions of the displayers than did perceivers of steady-state anger, rating displayers of transitions as significantly more agreeable (M = 3.25 vs. M = 2.69), F(1,178) = 10.36, p < .01, $\eta = .23$. Supporting Hypothesis 5, perceivers of a "becoming happy" transition (angry to happy) rated displayers as significantly less agreeable than did perceivers of steady-state happiness (M = 3.27 vs. M = 4.45), F(1, 178) =45.98, p < .0001, $\eta = -.45$. Hypothesis 6, which predicted that the "becoming angry" transition would lead to better relational impressions than the "becoming happy" transition, was not supported. The two transitions conditions did not differ from each other on perceptions of the displayers' agreeableness ("becoming angry" M = 3.25, "becoming happy" M = 3.27), F(1, 178) = 0.01, $ns, \eta = -.01.$

Study 1 provides empirical evidence that emotional transitions to an emotion have different interpersonal consequences from steady-state displays of that emotion. In addition, it suggests that some forms of emotional transitions may allow the displayer to combine the benefits of both emotions to best effect. That is, displaying a "becoming angry" transition led perceivers to concede significantly more yet still form significantly better relational impressions of the displayers than displaying steady-state anger.

The findings here also suggest that it is not the mere presence of happiness in the "becoming angry" condition that differentiated it from steady-state anger: Perceivers of a "becoming angry" transition made different levels of concessions than did perceivers of a "becoming happy" transition, despite the fact that both transition conditions contained identical amounts of happiness and anger.

The transition conditions did not differ from each other on our poststudy relational impressions measure. And though, as predicted, perceivers of a "becoming happy" (angry to happy) transition formed a less positive relational impression of their partners than did perceivers of steady-state happiness, we did not find the expected differences in concession size. We return to these results in the General Discussion section.

Study 2

In Study 2, we examined whether Study 1 results are replicable and whether attributional processes mediated these results.⁵ We predicted that transitions to an emotion should lead to increasing situational attributions about the cause of that emotion, that is, that the displayer's emotion was likely caused by something in the situation, including something the perceiver did. In contrast, steady-state displays of an emotion should lead to increasing dispositional attributions, or attributions that the displayer's emotion was likely caused by some inherent and stable characteristic of the displayer. Thus, we sought to examine whether this is the case and whether these differences in attribution patterns between emotional transitions and steady-states account for observed differences in negotiation outcomes.

Method

Participants and experimental design. One hundred thirty-three undergraduate students (73 women, 60 men, age M=20.09, SD=1.41) from the University of Pennsylvania participated in a six-round computer-mediated negotiation in exchange for \$10. Participants were randomly assigned to one of four conditions, identical to those used in Study 1, in which they observed their counterpart (the computer) displaying one of the following patterns of emotions over the course of the negotiation: (a) a "becoming angry" transition, (b) steady-state anger, (c) a "becoming happy" transition, or (d) steady-state happiness.

Procedure. The procedure was the same as in Experiment 1 with the exception that an additional measure of participants' attributions of the cause of their counterparts' emotions was added after every round to test for mediation.

Affect ratings of the (computer) partner. Participants rated their (computer) counterparts' affect in real time, after each negotiation round. Participants rated their (computer) partner's emotions in terms of the discrete emotions of anger and happiness to complement the measure of general affect used in Study 1. The possibility of demand effects or bias was controlled for by embedding the two discrete emotions (happy and angry) in a longer list of emotions. Participants were asked "How happy do you think your partner feels right now?" and "How angry do you think your

⁵ We wish to thank our Editor and reviewers for their suggestions on how to test this mechanism directly.

partner feels right now?" on a 7-point scale (1 = Not at all to 7 = Extremely).

Attribution ratings about the (computer) partners' affect. Dispositional attributions were measured by asking participants to rate, on a 7-point scale (1 = Not at all to 7 = Extremely), the extent to which their counterparts' feelings occurred "because this is their [the counterpart's] personality." Situational attributions were measured by asking participants to rate, on the same 7-point scale, the extent to which their counterparts' feelings occurred "because of the offer they [the participants] had just made." These ratings were made in real time after every round.

Relational impressions. To further complement the Study 1 findings with prior research, at the end of the experiment, the participants' relational impression of their opponents were assessed using an 11-item scale from van Kleef et al. (2004a), which included ratings of honesty, trustworthiness, morality, and cooperativeness. The items in this scale were scored on a 7-point scale $(1 = Strongly\ disagree\ to\ 7 = Strongly\ agree)$, with Cronbach's alpha of .88.

Results

Manipulation check. To confirm the effectiveness of our manipulation, we compared participants' ratings of their (computer) counterparts' emotions before (in Rounds 2 and 3) and after (in Rounds 5 and 6) the transition. As in Study 1, the emotional transition manipulation was successful such that computer counterparts in the "becoming angry" transition condition were perceived as becoming more angry (M = 1.61) than those in the steady-state angry condition (M = 0.14), F(1, 128) = 18.05, p <.001. Computer counterparts in the "becoming happy" transition condition were perceived as becoming more happy (M = 1.50)than those in the steady-state happy condition (M = 0.17), F(1,128) = 25.81, p < .001. As expected, computer counterparts in the steady-state happy condition were rated as significantly more happy (M = 3.89), t(115) = 6.08, p < .001, and less angry (M =2.86), t(128) = -6.82, p < .001, than those in the steady-state angry condition (M = 2.41 and M = 4.82, respectively).

Negotiated outcomes. As in Study 1, we determined the differences in concessions elicited by the emotional transitions by calculating the size of concessions made between Round 4 (pretransition) and Round 6 (posttransition), while controlling for concessions made prior to Round 4.

As predicted by Hypothesis 1, perceivers of a "becoming angry" transition conceded significantly more (M=56.71) than perceivers of steady-state anger (M=16.49), F(1,128)=5.56, p<.05, $\eta=.20$. Also similar to the findings from Study 1 and contrary to Hypothesis 2, there was no significant difference in concessions made by perceivers of a "becoming happy" transition (M=17.21) and perceivers of steady-state happiness (M=17.41), F(1,128)=0.01, ns. Last, replicating Study 1 and supporting Hypothesis 3, we found that perceivers of a "becoming angry" transition conceded more (M=56.71) than perceivers of a "becoming happy" transition (M=17.21), F(1,128)=4.67, p<.05, $\eta=.19$.

Relational impressions. As predicted by Hypothesis 4 and similar to the results of Study 1, perceivers of a "becoming angry" transition rated the displayers as having made a significantly better impression than did perceivers of steady-state anger (M = 3.45 vs. M = 3.01), F(1, 129) = 4.32, p < .05. $\eta = .18$. As predicted by

Hypothesis 5 and again similar to the results of Study 1, perceivers of a "becoming happy" transition rated the displayers as having made a significantly worse impression than did perceivers of steady-state happiness (M=3.33 vs. M=4.15), F(1, 129)=14.99, p<.001, $\eta=-.32$. As in Study 1, Hypothesis 6 was not supported. Perceivers on the receiving end of a "becoming angry" transition formed similar relational impressions of the displayers as those who were on the receiving end of a "becoming happy" transition (M=3.45 vs. M=3.33), F(1, 129)=.32, ns, $\eta=.05$.

Attributions. Having again established that emotional transitions generate different interaction outcomes from steady-state emotions, we then examined whether emotional transitions and steady-state emotions generated different patterns of attributions. Controlling for perceivers' pretransition attributions, we found that when confronted by a counterpart who "became angry," perceivers made significantly more situational attributions (M = 5.52) than when they were confronted by a counterpart who displayed steadystate anger (M = 4.94), F(1, 69) = 10.61, p < .01, $\eta = .36$. Similarly, these same participants who were confronted by a counterpart who became angry made significantly fewer dispositional attributions (M = 3.12) than those whose counterparts displayed steady-state anger (M = 3.96), F(1, 69) = 10.96, p <.01, $\eta = -.37$. There were no differences in the pattern of attributions made by participants in the "becoming happy" transition condition versus the steady-state happy condition: dispositional attributions, F(1, 58) = 3.63, ns; situational attributions, F(1, 58) = 1.36, ns, and as such we did not conduct any additional mediation analyses for this comparison.

As we are testing the mediating effects Mediation analyses. of both situational and distributional attributions, we used Preacher and Hayes' (2008) bootstrapping methods for estimating direct and indirect effects with multiple mediators. This method enabled us first to assess the existence of an overall mediation effect and then simultaneously to test and contrast multiple mediating variables. In line with our hypotheses that require single degree-of-freedom comparisons of a transition condition with its experimentally matched steady-state condition, we tested for mediation by constructing a model in which the experimental condition ("becoming angry" vs. steady-state anger) was individually entered as a predictor variable, the concessions made after the transition was entered as the dependent variable, and the posttransition measures of situational and dispositional attributions were entered together as proposed mediators. We also statistically controlled for the participants' pretransition dispositional and situational attributions and their pretransition offers to control for their influence on the dependent variable. To determine how situational and dispositional attributions uniquely accounted for the effects of the experimental condition ("becoming angry" vs. steady-state anger) on concessions, we conducted analyses using 5,000 bootstrap samples with bias-corrected confidence estimates. In the results below, we report unstandardized coefficients, because they are the standard metric used in causal modeling (Kim & Ferree, 1981; Kim & Mueller, 1976).

We found evidence for mediation: The total direct effect of the experimental condition, "becoming angry" versus steady-state anger, on concessions (B = 56.37), t(72) = 2.03, p < .05, became nonsignificant when including the two mediators in the model (B = 52.68), t(72) = 1.85, ns (see Figure 1). More specifically, the indirect effects of the two mediators, situational attributions (B = 1.85) and B = 1.85.

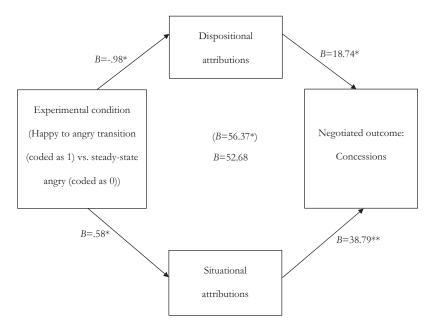


Figure 1. Mediation of the relationship between experimental condition and negotiated outcomes by dispositional and situational attributions. * p < .05. ** p < .01.

22.12 and a 95% [bias-corrected and accelerated] bootstrap confidence interval [(BCa CI] of [3.96, 60.44]) and dispositional attributions (B = -18.43 and 95% BCa CI [-53.91, -2.79]) did not include zero in their 95% confidence intervals and therefore showed evidence of mediation. These results indicate that the "becoming angry" transition led to significantly more situational attributions and significantly fewer dispositional attributions, the combined effect of which was more concessions. The relative strength of the two types of attributions was examined via contrasts of the significant indirect effects (situational attributions vs. dispositional attributions), which indicated that the indirect effect of experimental condition on negotiated outcomes through situational attributions was significantly larger than the indirect effects through dispositional attributions, 95% BCa CI [12.25, 104.99]. These results indicate that situational attributions played a larger role in mediating the relationship between emotional transitions and negotiated outcomes than did dispositional attributions.

As described above, we did not test for mediation between the "becoming happy" versus steady-state happiness conditions because perceivers in both conditions made the same degree of dispositional and situational attributions.

Discussion

Study 2 again provides empirical evidence that emotional transitions to an emotion have different interpersonal consequences from steady-state displays of that emotion. As in Study 1, perceivers of a "becoming angry" transition conceded more yet formed a better relational impression of the displayer than did perceivers of steady-state anger. Furthermore, the results showed that the transition itself, rather than the presence of one particular emotion, mattered, because the "becoming angry" transition caused perceivers to concede more than the "becoming happy" transition, despite

the fact that both transitions contained identical amounts of happiness and anger.

As predicted, attributions about the cause of displayers' emotions were found to mediate between the display of emotion and negotiation outcomes. Specifically, the transition to anger led to more situational attributions and less dispositional attributions, relative to steady-state anger. As the displayer transitioned to anger, perceivers both considered themselves increasingly responsible for that emotional display and attributed it less to the displayers' personality, relative to perceivers of steady-state anger. The mediation analysis showed that these different patterns of attributions accounted for the observed differences in negotiation outcomes between the participants in the "becoming angry" transition and the steady-state anger conditions. Situational attributions were found to be significantly more powerful mediators than dispositional attributions.

As in Study 1, the emotional transition conditions did not differ from each other on our poststudy relational impressions measure. In addition, we predicted that perceivers of the "becoming happy" (angry to happy) transition would concede less than perceivers of steady-state happiness, yet in both Studies 1 and 2, concession size did not differ across these conditions. Interestingly, the attribution patterns did not differ across these conditions either, providing a possible explanation for the null results. We return to these findings in the General Discussion section.

Study 3

In Study 3, we investigated the second posited mechanism in the emotional transition—outcome relationship, the influence of emotional contagion on the consequences of emotional transitions. To better examine this mediator, we conducted this study using a face-to-face negotiation, which offers a richer context in which to

study interpersonal emotions (e.g., Barsade, 2002; Sinaceur & Tiedens, 2006). To do so, we trained actors to serve as confederates who played the role of displayers in the face-to-face negotiation setting. We videotaped the study participants (or perceivers) in this interaction, using subsequent video-coded ratings of participants' affect as the measure of emotional contagion, which we then tested as a mediator between the experimental conditions and behavioral outcomes. Also, because our interest was in examining a full range of outcomes in social interactions, we focused on examining a basic yet important behavioral consequence in a negotiation context: Does the negotiation end in impasse or agreement between the participants?

Method

Participants and experimental design. One hundred seventy-three undergraduate students (93 women, 80 men, age M=19.96, SD=1.44) at the University of Pennsylvania participated in a 10-min face-to-face negotiation with one of two trained confederates (one male and one female) in exchange for \$10. As in Studies 1 and 2, participants were randomly assigned to one of four conditions in which they observed their counterpart displaying either (a) a happy to angry transition ("becoming angry"), (b) steady-state anger, (c) an angry to happy transition ("becoming happy"), or (d) steady-state happiness. Participants negotiated with either the male (n=83) or the female (n=90) confederate, and roughly equal numbers of male and female participants negotiated with each.⁶

Procedure. First, participants were randomly assigned to one of the four experimental conditions. To ensure that participants believed the confederate was also a participant, one of the later participants to arrive to the laboratory was chosen and brought to an adjoining focus room, where the confederate (ostensibly one of the earlier participants to arrive) was already waiting. Once seated, the participants were given their negotiation materials and were then told that they would have up to 10 min to complete the negotiation. Each negotiation was videotaped with two cameras, one focused on the participant, and the second, to alleviate suspicion, was focused on the confederate.

As soon as the negotiation began, the confederate started to display either anger or happiness as per the experimental condition. For the first half of the negotiation (i.e., for 5 min), the participant and the confederate were instructed to argue their cases without giving specific offers. We did so to be sure that all participants received the same dose of the first emotion and were exposed to the emotional transition prior to terminating the negotiation. To ensure that the confederate's emotions were being conveyed purely through nonverbal channels and for consistency of content across conditions during the negotiation, confederates followed the same negotiation script across conditions, varying only their displayed emotions. They were also instructed to avoid lengthy comments, thus allowing more participant involvement and reducing the risk of variance in content. For the emotional transition conditions, the confederates were trained to begin the emotional transition halfway through the negotiation, or between 4:30 min and 5:00 min. For the steady-state emotional conditions, they were trained to maintain the same levels of anger or happiness throughout the negotiation.

The negotiation task was a single-dimension distributive negotiation in which participants, in the role of a returning summer employee, negotiated their weekly salary for an upcoming summer job at a high-end sporting goods store with a confederate, who always played the role of the participant's manager. Participants were told that they had been offered a position at \$400 per week and given an aspiration level of \$800 per week, but were also told that this number was based on a comparison to *full-time* employees—not other summer employees such as themselves.

As prior research has shown that people are more attentive to the emotions and behaviors of those in higher power positions (Fiske, 1993; Keltner, Gruenfeld, & Anderson, 2003; Van Kleef et al., 2004b), to increase the influence of the emotion manipulation, we ensured that our experimental design reduced participant power relative to their (confederate) counterpart. Participants were given the role of employee rather than the supervisor and were told that they did not have any other offers for the summer, stood very little chance of finding another job, and had already rented an apartment in the area.

This power differential was also embedded into the concession structure. Confederates made the same sequence of counteroffers across all conditions. They began by asking participants to make the first offer and then proposed \$410, which was a concession from the initial offer of \$400. We chose this concession structure for two reasons. It made it a more difficult bargaining zone, adding greater meaning to the idea that both impasse and agreement were viable options (vs. a pressure to come to agreement). Also, the concession structure offered a strong situation for paying attention to the confederate partner's emotions. It not only gave the manager greater power, but the specific amount of concession was based on prior studies showing that if the counterparts' concessions are too large, participants simply ignore the emotional information (van Kleef et al., 2004a). Those studies find that anger influenced participants' negotiation behaviors more when angry counterparts made smaller (i.e., 2% of the negotiation range) rather than larger (i.e., 7% of the negotiation range) concessions. In line with this work, we chose the concession size of \$10, representing 2.5% of the difference between the opening offer (\$400) and the participant's aspiration level (\$800). Confederates were instructed to respond quickly with counteroffers, increasing their counteroffers by \$10 each time the participant ceded in their salary requests.

As part of the negotiation, participants also completed short questionnaires at two different points in the course of the negotiation: at 3 min and 6 min into the negotiation (signaled by knocks on the door). These questionnaires took approximately 15–20 s to complete; confederates completed all questionnaires so as not to arouse suspicion.

The negotiation ended after 10 min (if participants did not reach agreement earlier), thus generating the primary negotiated outcome of whether the pair did or did not reach agreement. The mean

⁶ No gender main effects or interactions were observed for any of the dependent measures. As such, data for men and women were combined in these analyses.

⁷ To avoid a bias in participant selection, this process was also reversed in a counterbalanced manner. One of the first participants to arrive was selected at random and brought to an empty focus room. After a delay, one of the later participants (the confederate) was then brought to the room.

length of a negotiation was 9.18 min (SD = 1.38 min); the shortest one was 5.63 min. After completing the negotiation, the participant was brought to a separate room and asked to fill out a poststudy survey (participants were told that their negotiation partner would be completing the survey in a different room to give each of them privacy). Participants were then debriefed.

Experimental manipulation. The experimental manipulation consisted of the nonverbal emotional displays of the confederates. Two confederates (one female, one male), both seniors in the University of Pennsylvania's Theater Arts program with extensive training and experience as actors, were hired from a pool of applicants based on their ability to portray anger and happiness powerfully, realistically, and consistently across conditions. Undergraduates were hired to ensure that they would fit in with the subject pool. The confederates were coached both to express emotions clearly and coherently and to transition smoothly from one emotion to another while engaging in a negotiation.

As part of their training, each confederate practiced the negotiation with a pretest population of participants from the same population as the actual study (N=46) and then extensively reviewed, with the authors, videotapes of both their own and the other confederate's practice negotiations as well as the ratings the participants gave them as part of the training negotiations. Consistency of emotional expressions across confederates, conditions, and successive participants was also maintained through several mechanisms: In addition to the training described above, the confederates received feedback on participants' ratings of the confederates' displayed emotions after every six negotiations as well as feedback from the authors based on periodic reviews of the videotapes. Though confederates understood that the study had four conditions, they remained blind to the experimental hypotheses.

Dependent measures.

Measure of (confederate) counterpart affect. Participants rated the confederates' affect in real time, at 3:00 min (pretransition) and at 6:00 min (posttransition), on a 7-point bipolar scale: "How has the other person been acting?" (1 = Extremely unpleasant, 7 = Extremely pleasant). Given the confirmation of the results with anger and happiness in Study 2, we returned to the less obtrusive outcome measure of affective valence in this study so as to not disrupt the flow of the in-person negotiation.

Measure of participant emotional contagion. Emotional contagion was measured by outside raters' assessments of participants' affect through watching videotapes of the negotiations. Three coders were extensively trained to rate emotions using a global behavioral coding system (Ekman & Friesen, 1975; Gross & Levenson, 1993) that takes into account facial expression, verbal tone, and body language. These coders only viewed the videotapes of the participants so that they would not be biased by the confederates' behaviors. Per the procedure used by Barsade (2002) to code emotional contagion from videotaped recordings, coders assessed the participants' degree of pleasant affect every 30 s throughout the experiment. Intraclass coefficients (ICCs) for each 30-s phase were acceptable, with ICCs ranging from .73 to .92.

Negotiated outcome-agreement rate. The negotiated outcome of interest was whether the negotiating pair (participant plus confederate) was able to reach an agreement in the 10-min time limit or whether they came to an impasse (76 out of 173 pairs [44%] reached agreement). This was assessed in the poststudy

survey, and the responses were verified using videotapes of the negotiation.

Relational impressions. After the negotiation was completed, participants rated their perceptions of their counterparts' agreeable behavior in the interaction, using the same nine items from Costa and McCrae's (1989) NEO-FFI Agreeableness scale, as used in Study 1 ($\alpha = .89$).

Results

Manipulation check. To test the manipulation, we compared participants' ratings of the displayers' (the confederates') emotions before the transition (at 3:00 min) to ratings of the displayers' emotions after the transition (at 6:00 min). The emotional transition manipulation was successful. Displayers in the "becoming angry" (happy to angry) transition condition were perceived by participants as becoming more unpleasant (M = -1.23) than displayers in the steady-state angry condition (M = -0.22), F(1,168) = 13.09, p < .001. Displayers in the "becoming happy" (angry to happy) transition condition were perceived by participants as becoming more pleasant (M = 0.70) than displayers in the steady-state happy condition (M = -0.43), F(1, 168) = 16.38, p < .0001. The steady-state emotion manipulation was also successful. Displayers in the steady-state happy condition were rated by participants as significantly more pleasant overall (average of 3- and 6-min rating, M = 5.12) than displayers in the steady-state angry condition (average of 3- and 6-min rating, M = 3.34), F(1,168) = 60.08, p < .0001.

Negotiated outcomes. To assess the effects of experimental condition on the categorical agreement variable, we used logistic regressions. To rule out the possibility that any observed differences in agreement rates were simply because participants received more (or less) money, we controlled for concessions across conditions.⁹

As predicted by Hypothesis 1 and similar to Study 1 and 2 outcomes, controlling for concessions, dyads in which confederates displayed a "becoming angry" transition reached agreement significantly more frequently (M = 59.57%) than dyads in which confederates displayed steady-state anger (M = 36.58%; Z = 1.99, p < .05, OR = 2.42).

Contrary to Hypothesis 2 but similar to Study 1 and 2 outcomes, controlling for concessions, dyads in which confederates displayed a "becoming happy" transition reached agreement as frequently (M = 34.88%) as dyads in which confederates displayed steady-state happiness (M = 42.86%; Z = -0.68, ns, OR = 0.74). Last, as predicted by Hypothesis 3 and similar to the results of Study 1 and 2, dyads in which confederates displayed a "becoming angry"

⁸ Video coders made ratings every 30 s. If the negotiation ended within those 30 s, we observed a spike in pleasantness ratings, presumably because the negotiation was resolved. To keep these spikes from biasing our results, ratings from the last 30 s of each negotiation were removed for the analyses presented here. We obtained the same (but stronger) findings if we left the final 30 s of ratings in the data.

 $^{^9}$ We also ran these analyses without controlling for concessions, using the chi-square analogue to contrast analysis by partitioning the four (conditions) by two (agreement vs. impasse) table into appropriate 2×2 tables and using the expected means from the full table (Rosenthal & Rosnow, 1991, p. 532). This led to the same results as reported below.

(happy to angry) transition reached agreement significantly more frequently (M=59.57%) than dyads in which the confederate displayed a "becoming happy" (angry to happy) transition (M=34.88%; Z=2.28, p<.05, OR = 2.71), even after controlling for concessions, indicating that the results above are due to more than a simple additive effect of the total amount of emotion displayed.

Relational impressions. As predicted by Hypothesis 4 and also replicating Study 1 and 2 outcomes, perceivers of a "becoming angry" (happy to angry) transition formed significantly better relational impressions of the displayers than did perceivers of steady-state anger (M = 3.89 vs. M = 3.11), F(1, 168) = 14.64,p < .001, $\eta = .28$. As predicted by Hypothesis 5 and again replicating Study 1 and 2 outcomes, perceivers of a "becoming happy" (angry to happy) transition formed significantly worse relational impressions of the displayers than perceivers of steadystate happiness (M = 3.81 vs. M = 4.92), F(1, 168) = 29.66, p <.0001, $\eta = -.39$. There was no support for Hypothesis 6; that is, the transition condition participants did not differ from each other on their relational impressions of their counterparts ("becoming angry" M = 3.89, "becoming happy" M = 3.81), F(1, 168) = 0.15, $ns, \eta = .03.$

Mediation analyses. We tested the mediating effect of emotional contagion in a two-step procedure. First, we examined whether the pretransition emotions that participants caught from the displayer mediated the relationship between experimental condition and the emotions the participants caught after the transition. Second, we examined whether these posttransition emotions mediated the relationship between the experimental condition and negotiated outcomes.

In the first part of our mediation procedure, we used mediation analyses (Baron & Kenny, 1986) to show that, first, participants' posttransition emotions were due to the experimental condition (transitions vs. steady-states) second, that participants' pretransition emotions were also due to the experimental condition and, last, to show that the pretransition emotions fully mediated the relationship between experimental con-

dition and posttransition emotions. We found that the experimental condition ("becoming angry" vs. steady-state anger) led to significantly higher levels of posttransition pleasantness (i.e., posttransition pleasantness was higher for participants in the "becoming angry" condition; $\beta = .38$, p < .001). The experimental condition also led to higher levels of pretransition pleasantness (i.e., pretransition pleasantness was higher for participants in the "becoming angry" condition; $\beta = .61$, p < .001). When both experimental condition and participants' pretransition emotion were used to predict participants' posttransition emotion, the coefficient for pretransition emotion remained significant ($\beta = .68$, p < .001), such that higher pretransition pleasantness led to higher posttransition pleasantness, while the coefficient for experimental condition became nonsignificant ($\beta = -.04$, ns), showing full mediation. Thus, the experimental condition, or pretransition differences in the confederate's displayed emotions, led to differences in participants' "caught" pleasant emotion prior to the transition, which then fully explained participants' posttransition pleasant emotion (see Figure 2).

In the second part of the mediation procedure, we assessed whether these differences in participants' posttransition emotion mediated the relationship between the experimental condition and the negotiated outcome: agreement rate. Again following Baron and Kenny (1986), we first tested whether the experimental condition ("becoming angry" vs. steady-state anger) predicted the (dichotomous) outcome variable of whether the negotiating dyad reached agreement or impasse. The logistic regression showed that experimental condition significantly predicted agreement such that those in the "becoming angry" emotional transition condition had greater chances of reaching agreement (OR = 2.55, p < .05, pseudo $R^2 = .04$). Second, an ordinary least squares regression showed that the experimental condition significantly predicted participants' posttransition pleasant emotion (the proposed mediator, $\beta = .38$, p < .001, $R^2 = .14$), such that participants in the "becoming angry"

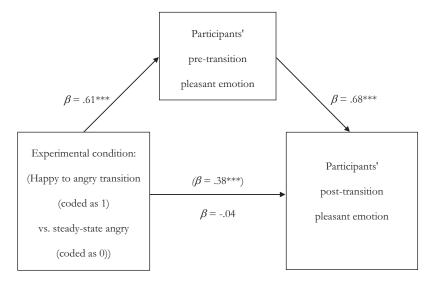


Figure 2. Mediation of the relationship between experimental condition and contagion of posttransition emotion (pleasantness) by contagion of pretransition emotion. *p < .05. *** p < .01. **** p < .001.

emotional transition condition felt more posttransition pleasant emotion (despite facing an equally angry posttransition confederate). Third, when both participants' posttransition pleasant emotion and experimental condition were used to predict the dependent variable, agreement, the coefficient for participants' posttransition pleasant emotion remained significant (OR = 2.65, p < .01, pseudo $R^2 = .11$), such that higher pleasantness was associated with higher chances of reaching agreement, whereas the coefficient for experimental condition was no longer significant (1.63, ns). This indicates that the participants' posttransition pleasant emotion completely mediated the relationship between experimental condition and the negotiated outcome (see Figure 3).

Discussion

In this study, we found that emotional contagion processes served as a mediator in the relationship between the emotional transition condition and negotiated outcomes. Specifically, emotional contagion of the pretransition emotion set the emotional context in the perceiver, which then influenced the perceiver's contagion of the confederate's posttransition emotion. Before the transition, participants facing the happy-to-angry transition confederates caught more pleasantness than participants facing the steady-state angry confederates. These pretransition differences in caught pleasantness, in turn, led to posttransition differences in participants' emotions, even though participants faced identically angry posttransition confederates in both conditions. These posttransition differences in participants' emotions reflected a carryover contagion, a term we use here to describe the process of the initial emotional contagion carrying over to participants' contagion of the confederates' posttransition affect. The resulting differences then fully mediated the relationship between experimental condition (emotional transition vs. steady state) and agreement rate, our negotiated outcome of interest.

This study helps to increase the robustness and ecological validity of the findings in Studies 1 and 2. We find very similar

results, but, in this case, in a face-to-face negotiation that offered the opportunity to examine an additional negotiation outcome, that of whether the negotiation ended in agreement or impasse. Specifically, displays of a "becoming angry" transition caused perceivers to yield more, this time in terms of agreements, than did displays of steady-state anger, and yet still form more positive relational impressions of the displayers. These effects were not simply due to the presence of happiness in the transition condition, because the two transition conditions—containing identical emotional displays (i.e., identical amounts of happiness and anger) but in a different order—generated significantly different agreement rates.

Also as in Studies 1 and 2, the "becoming happy" transition generated different relational but not negotiated outcomes from steady-state happiness, despite the use of a different negotiation outcome in this study. We address this issue in the General Discussion section.

General Discussion

Across three studies, we gained an understanding of the divergent consequences and processes involved in emotional transitions versus steady-state emotions. We focus first on the becoming angry transition, in which displaying a transition to anger from happiness led to better outcomes for displayers than did steadystate anger. It led perceivers to yield more on negotiation outcomes yet still form more positive relational impressions of the displayers than in the steady-state anger condition. This finding was consistent across two studies using a computer paradigm identical to that used in negotiation research on steady-state emotions (e.g., van Kleef et al., 2004a) as well as in a richer face-to-face negotiation context with a trained confederate. We also found that the negotiation outcomes could not be additively explained by the relative amount of happiness (or anger) displayed in the emotional transition, because the two transition conditions contained identical amounts of emotional displays overall-yet generated signifi-

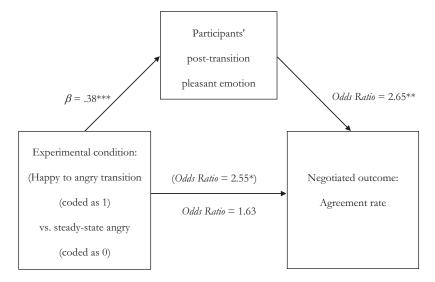


Figure 3. Mediation of the relationship between experimental condition and negotiated outcome by emotional contagion. * p < .05. *** p < .01. **** p < .001.

cantly different negotiation outcomes on the basis of the direction of the transition.

Two mechanisms, attributional inferences and emotional contagion, were found to mediate the relationship between the becoming angry emotional transition (vs. steady-state anger) and its outcomes. Regarding the first mechanism, participants engaged in strategic deliberation, forming differing attributions about why their partners were displaying these emotions. The transition from happiness to anger led to greater situational attributions (i.e., perceivers became more convinced that the displayed emotion was due to the something in the negotiation, that is, their own actions) and less dispositional attributions, whereas steady-state anger led to greater dispositional attributions (i.e., perceivers became more convinced that the expressed emotion was a result of the displayer's own personality), and less situational attributions. These differences in situational and dispositional attributions completely mediated between the experimental condition and the negotiation outcomes, with the situational attributions mediating more strongly than the dispositional attributions.

The second mechanism, emotional contagion, fully accounted for the differences in agreement rates in the face-to-face negotiation. We found that differences in the initial happiness of the displayer (between the becoming angry transition and steady-state anger conditions) were caught by the perceivers and carried over into the posttransition period. Participants in the transition condition caught more pretransition happiness, which carried over as a positive emotional buffer for the subsequent anger to which they were exposed. Consequently, participants in the transition condition caught less of the posttransition anger from the confederate than did participants in the steady-state anger condition, despite facing identical levels of confederate posttransition anger. These posttransition differences in caught emotions fully mediated between the experimental condition and the negotiated outcome.

Relationship and Distinction Between Attribution and Contagion Processes

With the mediation findings outlined above, we show that emotional transitions influence interactions through both attribution and contagion mechanisms. Although these two observed mechanisms showed similar influences on negotiated and relational outcomes when comparing the becoming angry with the steady-state anger condition, it is important to keep them conceptually separate because understanding both processes gives a more complete understanding of the cognitive and affective mechanisms involved in this phenomenon. For example, the two processes may operate differently depending on the context, or at times they could even operate in opposition.

With regard to context, the type of social interaction may lead to different relative strength of the attribution versus emotional contagion processes on the perceivers' behavior. Extrapolating from findings of steady-state emotions, one would expect attribution processes to have a greater influence when the perceiver is both willing and able to consider the signal inherent in the displayer's emotional transitions. Attribution processes will recede more into the background when perceivers are not motivated to pay attention to the displayer's emotional transition, for example, when the perceivers have higher levels of power as compared with the displayer (Van Kleef, et al., 2004b), trust the displayer (Van Kleef,

De Dreu, & Manstead, 2006), are under high levels of time pressure or cognitive load (Van Kleef et al., 2004b), or are influenced by their cultural background (Adam, Shirako, & Maddux, 2010). Yet perceivers can catch displayers' emotions without having to actively pay attention to those emotions (Hatfield et al., 1994), suggesting that emotional contagion processes can also operate independently of the perceivers' willingness and ability to attend to the displayers' emotional transitions. Relatedly, drawing from theoretical and empirical work on emotional contagion (e.g., Hatfield et al., 1994; Wild, Erb, & Bartels, 2001), we would expect interactions that are face-to-face, involve intense emotions, large emotional transitions (e.g., from ecstatic to furious), and more emotionally attuned perceivers would result in the emotional contagion mechanism coming to the fore, with the opposite leading to weaker effects.

Attributional and emotional contagion processes may at times lead to opposing behavioral tendencies in perceivers, which may help explain the surprising lack of differing negotiation outcomes between the "becoming happy" emotional transition and steadystate happiness found here. Specifically, across the three studies, although the transition from anger to happiness consistently resulted in the predicted poorer relational impressions than did steady-state happiness, there were equally consistently no significant differences between the becoming happy transition and steady-state happiness in terms of negotiated outcomes. This may be because the transition from anger to happiness may have triggered inferences of reciprocity on the part of the perceiver. This emotional transition may have been perceived as a favor, causing perceivers to concede more in an attempt to repay displayers for their positive behavior (e.g., Rafaeli & Sutton, 1991), thus matching the inclination of participants in the steady-state happiness condition to make more concessions. Concurrently, in this transition to happiness, the participants caught the initial anger, which then, similar to the process we found in the becoming angry transition, would have carried over into the posttransition period, causing participants to catch less of the confederate's happy emotion, and by feeling less pleasant, leading them to make less concessions. Thus, these two possibly opposing processes may have led to the overall null effect found in our three studies. Overall, further exploration into the dynamics between these two mechanisms and their influence on the outcomes of emotional transitions is an important next step for future research.

Limitations and Future Directions

As this article is a first step into opening a new research domain, that of the influence of emotional transitions rather than steady-state emotions, it is not without its limitations. First, even though the transition conditions involved the same two emotions, anger and happiness, across the three studies, we only found support for our hypotheses in the becoming angry transition. These results make it clear that in addition to taking into account the nature of the emotions in the emotional transition, it is also critical to take into account the directionality of that transition. Indeed, similar to discrete emotions that convey different types of information to perceivers by virtue of their distinctive antecedents, cognitive appraisals, social functions, and nonverbal displays (e.g., Frijda, 1986; Lazarus, 1991; Morris & Keltner, 2000; C. A. Smith &

Ellsworth, 1985), the direction of emotional transitions can be seen as one more important source of information for perceivers.

In addition, although we focused here on the transition between the two emotions most frequently investigated within the negotiations domain, anger and happiness, we did not examine a broader array of emotions. Not only might different discrete emotions operate through different mechanisms or lead to different outcomes, there may be important differences based on valence due in part to the asymmetric information value of positive and negative emotions. For example, positive emotions may not garner as much attention as negative emotions, thus reducing their impact in an emotional transition. This would occur because positive emotions have been found to be less salient than negative emotions (Cacioppo, Gardner, & Berntson, 1997; Rozin & Royzman, 2001), and also may be considered to convey less meaningful information, as it is more normative for people to stay pleasant in their interactions with others (Skowronski & Carlston, 1989). This could lead to people paying less attention to the emotion as well as less strength in the attributional processes. There would be some support for this in impression formation studies showing that people pay more attention to negative information (Kanouse & Hanson, 1972), including in the marital domain in which Holtzworth-Munroe and Jacobson (1985) found that positive marital behaviors did not elicit as much attributional activity as negative behaviors. The attribution findings from Study 2 offer some initial evidence for this suggestion. Participants in the transition from anger to happiness in comparison to steady-state happiness conditions showed no significant differences in their situational or dispositional attributions. Thus, future researchers need to carefully consider the difference between positive and negative emotions overall, as well as studying the effects of emotional transitions between varying levels of intensity of one emotion, such as that from mild to intense anger; transitions between other discrete emotions; and eventually more complex, multistep transitions, or theorized emotion cycles (Hareli & Rafaeli, 2008).

Another area for future research is the study of emotional transitions in varying contexts. Within the negotiation domain, we examined an emotional transition in a distributive (or fixed-pie) negotiation, but examining how emotional transitions influence integrative negotiations would be important as well. More broadly, as emotional transitions are a natural part of peoples' emotional repertoire, examining the influence of such transitions more generally across life domains and relationships is critical. Differing social contexts may lead to different responses to the same emotional transition display. For instance, it is likely that people in close or romantic relationships may be especially sensitive to their partners' emotions and may then respond in more emotionally and interpersonally powerful ways to these changing emotions. In the workplace, status differences or organizational culture could be intriguing moderators in how people respond to others' emotional transitions. Last, there may be individual differences in how responsive people are to emotional transitions. For instance, the study of affective chronometry, or how rapidly an individual's affect increases or decreases over time (Davidson, 1998), and the study of differences in emotion regulation abilities and motives (Larsen, 2000; Tamir, 2005; Tice & Bratslavsky, 2000) indicate that people may have dispositional variants in their tendencies toward transitioning from one emotion to another or in their ability to actively regulate their emotions when this happens.

Conclusion

A growing body of research suggests that emotions have interpersonal functions and influence the behaviors of those who perceive them as well as those who express them. To date, this work has focused exclusively on the interpersonal outcomes of displaying steady-state emotions. Our research highlights that emotional transitions have important consequences that differ significantly from their corresponding steady-state counterparts. As people's emotions do not necessarily stay steady in an interaction, but can ebb, flow, and change, examining emotional transitions is an important component in researchers' understanding of the influence of emotions in interpersonal life.

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