# When Feeling Bad Is Expected to Be Good: Emotion Regulation and Outcome Expectancies in Social Conflicts

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According to the instrumental approach to emotion regulation, people may want to experience even unpleasant emotions to attain instrumental benefits. Building on value-expectancy models of self-regulation, we tested whether people want to feel bad in certain contexts specifically because they expect such feelings to be useful to them. In two studies, participants were more likely to try to increase their anger before a negotiation when motivated to confront (vs. collaborate with) a negotiation partner. Participants motivated to confront (vs. collaborate with) their partner expected anger to be more useful to them, and this expectation in turn, led them to try to increase their anger before negotiating. The subsequent experience of anger, following random assignment to emotion inductions (Study 1) or engagement in self-selected emotion regulation activities (Study 2), led participants to be more successful at getting others to concede to their demands, demonstrating that emotional preferences have important pragmatic implications.

Keywords: emotion regulation, goals, negotiation, emotion, self-regulation, expectancies

Until recently, it has been typically assumed that people always want to experience pleasant emotions and avoid unpleasant ones. Recent evidence, however, demonstrates that in certain contexts people actually want to experience unpleasant emotions, such as fear and anger (e.g., Tamir, 2005; Tamir & Ford, 2009; Tamir, Mitchell, & Gross, 2008). What is the mechanism that gives rise to such preferences? Building on value-expectancy models of self-regulation (e.g., Atkinson, 1957), we tested whether people are motivated to feel unpleasant emotions to attain their goals, to the extent that they expect such emotions to be useful to them.

# The Instrumental Approach to Emotion Regulation

Research on emotion regulation (i.e., the processes by which people influence which emotions they have and when they have them; Gross, 1998) is often based on an assumption that people always prefer pleasant to unpleasant emotions and regulate accordingly (e.g., Larsen, 2000; Thayer, 2000; Tice & Bratslavsky, 2000). There is now a growing body of evidence, however, showing that people do not always prefer to increase pleasant emotions and decrease unpleasant ones. People differ in their preferences for equally pleasant emotions (e.g., Tsai, Knutson, & Fung, 2006). People are sometimes motivated to decrease pleasant emotions (e.g., Erber, Wegner, & Therriault, 1996). Furthermore, people are sometimes motivated to increase unpleasant emotions (e.g., Tamir

& Ford, 2009; Tamir et al., 2008). Such preferences have been demonstrated both in self-reported emotional preferences (e.g., Tamir, 2005; Tsai et al., 2006) and in preferences for emotion-inducing activities (e.g., Erber et al., 1996; Heimpel, Wood, Marshall, & Brown, 2002; Tamir et al., 2008).

This evidence indicates that there may be motives other than maximizing short-term pleasure that drive emotion regulation. Self-regulation, broadly construed, is organized around the pursuit of goals (Carver & Scheier, 1999). Because behavior is often directed toward achievement and away from failure (Atkinson, 1957), people generally prefer activities that promote goal attainment. Applying these principles to the emotion domain, an instrumental approach to emotion regulation (e.g., Bonanno, 2001; Erber & Erber, 2000; Parrott, 1993; Tamir, 2009) suggests that people can be motivated to regulate their emotions to promote goal attainment. When people pursue immediate hedonic goals, they are likely to seek out pleasant emotions. However, when people pursue instrumental goals, they may seek out useful emotions, whether they are pleasant to experience or not (Tamir, 2009).

Consistent with the instrumental approach there is evidence that people prefer emotions that match the goals they pursue. For instance, preferences for excitement versus calmness are influenced by the pursuit of influence versus adjustment goals, respectively (Tsai, Miao, Seppala, Fung, & Yeung, 2007). Preferences for fear versus excitement are influenced by the pursuit of avoidance versus approach goals, respectively (Tamir & Ford, 2009). Preferences for anger are influenced by the pursuit of confrontational goals (Tamir et al., 2008). There is also evidence that emotions that are consistent with the goals people pursue can indeed be useful to experience. The experience of anger, for instance, can promote the attainment of confrontational goals by promoting aggression (Tamir et al., 2008).

Although the existing evidence is consistent with an instrumental approach to emotion regulation, it does not provide conclusive

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support for this approach, because it fails to show that people prefer certain emotions because they are useful. Instead, people may prefer emotions that are simply associated with the goal at hand, regardless of their instrumental benefits. One possibility, for instance, is that pursuing a particular goal inherently leads to preferences for a particular emotion, regardless of its instrumental implications. Another possibility is that people prefer to experience emotions that they think match certain goal pursuits, regardless of their instrumental implications. The main goal of the current investigation, therefore, was to test whether people prefer emotions that are useful for goal pursuit, precisely because of their potential instrumental benefits.

# The Expected Usefulness of Emotions

As highlighted in value-expectancy models of self-regulation (e.g., Atkinson, 1957), the *expectation* that a behavior would promote goal attainment is a critical determinant of preferences. People are more likely to prefer a behavior, if they expect it to lead to desirable consequences (Carver & Scheier, 1982; Feather, 1990; Fishbein & Ajzen, 1975; Klinger, 1975; Rotter, 1954). Goals do not directly determine preferences for self-regulation. Instead, the outcomes people expect their behaviors to have (i.e., outcome expectancies) link the goals they pursue to their behavioral preferences.

We argue that the same principles that guide self-regulation, broadly construed, are also applicable to the regulation of emotion. Goals do not determine preferences for emotion regulation directly. Instead, the outcomes people expect their emotions to have should link the goals they pursue to their emotional preferences. We hypothesized that goals give rise to certain expectancies regarding the outcomes of emotional experiences, and it is those expectancies, in turn, that shape what people want to feel. To examine the mechanism that gives rise to emotional preferences, we tested whether emotional preferences are associated with the expected usefulness of emotions. Particularly in the case of unpleasant emotions that offer no immediate hedonic benefits, we hypothesized that the expected usefulness of emotions would mediate the effects of goals on emotional preferences. We tested these hypotheses by examining emotional preferences and expectancies about the usefulness of emotions in the context of social conflicts.

# **Instrumental Emotion Regulation in Social Contexts**

To date, the strongest empirical support for the instrumental approach to emotion regulation involved cases where people showed stronger preferences for unpleasant emotions, such as worry (Tamir, 2005), fear (Tamir & Ford, 2009), or anger (Tamir et al., 2008), when preparing for goal pursuits that can benefit from such emotions. For instance, when participants were expecting to play a confrontational computer game, they were more likely to prefer anger-inducing activities, than when expecting a game that was not confrontational (Tamir et al., 2008). This finding is consistent with the idea that anger can be useful for confrontations (Frijda, 1986; Parrott, 2001), and indeed, participants assigned to an anger (vs. excitement) induction performed better on the confrontational game, but not the nonconfrontational game (Tamir et al., 2008).

Such cases provide support for the instrumental approach, yet they examine emotional preferences that arise in solitary and relatively artificial settings (e.g., playing computer games). Outside the laboratory, emotion regulation typically takes place within a social context and may have important social consequences ( Rimé, 2007). An additional goal of the current investigation, therefore, was to assess instrumental emotion regulation as it occurs in social contexts. Negotiations are mixed-motive situations, where people are motivated to compete with or confront one another to maximize personal gain as well as collaborate with one another to reach an agreement (Carnevale & De Dreu, 2006; De Dreu, Beersma, Steinel, & Van Kleef, 2007). According to the instrumental approach to emotion regulation, if different emotions are useful for confrontation and collaboration, people should differ in their emotional preferences, depending on the goal they pursue in the negotiation.

Research on negotiations has consistently demonstrated that emotions can influence negotiation outcomes (e.g., Barry, 2008; Van Kleef, van Dijk, Steinel, & van Beest, 2008). Angry negotiators appear to be more confrontational and yield greater concessions from their negotiation partners. In contrast, happy negotiators appear to be more collaborative and are more successful in establishing long-term relationships with their partners.

We hypothesized that participants would prefer to experience emotions that can help them attain their goals, to the extent that they expect them to do so. Therefore, we predicted that people motivated to confront their negotiation partner would show stronger preferences for anger, and that such preferences would be linked to the expectation that anger would be useful. Similarly, we predicted that people motivated to collaborate with their partner would show stronger preferences for happiness and such preferences would be linked to the expectation that happiness would be useful. Because anger is likely prioritized for instrumental reasons, whereas happiness is likely prioritized for both instrumental and hedonic reasons, we predicted that preferences for anger would be mediated by the expected usefulness of anger, but that this may not necessarily be the case for happiness. Finally, we predicted that participants who expected anger to be useful in confrontation would increase their experience of anger in preparation for the negotiation, and attain higher personal gains as a result.

# Study 1

In Study 1, participants were told that they are a landlord whose tenant had not paid rent in 2 months. Participants in the confrontation condition were told their goal was to get their money back quickly. Participants in the collaboration condition were told their goal was to maintain a long-term relationship with their tenant. To examine spontaneous goal pursuit, we included an unprompted condition, where we provided no goal-related instructions.

We assessed preferences for anger, happiness, and fear. To increase the reliability of our emotional preference measures, participants rated how much they wanted to engage in two unrelated types of emotion-inducing activities (i.e., recalling past events, watching film clips) before a negotiation task. To confirm that participants expected the activities to induce their target emotions, at the end of the study, we asked them to indicate how they expected to feel when engaging in each of these activities. We predicted that participants in the confrontation (vs. collaboration)

condition would show stronger preferences for anger-inducing activities, whereas those in the collaboration (vs. confrontation) condition would show stronger preferences for happiness. Because participants can adopt both confrontation and collaboration goals, we expected the emotional preferences of participants in the unprompted condition to fall between those of participants in the other conditions.

To test for potential links between emotional preferences and outcome expectancies, participants in Study 1 indicated how successful they expected to be in the negotiation when feeling angry and happy. Consistent with a value-expectancy account, we predicted that the expected usefulness of anger would fully mediate any links between goal conditions and preferences for angerinducing activities. In contrast, because happiness may be useful but is also pleasant to experience, we predicted that the expected usefulness of happiness would not mediate any links between goal conditions and preferences for happiness-inducing activities.

To test the instrumental approach to emotion regulation, we induced anger, neutral feelings, or happiness in participants, using an activity they did not rate earlier (i.e., music). Participants then recorded a message for their negotiation partner. By having people communicate with a negotiation partner indirectly, we were able to minimize potential effects of extraneous social variables, while also reflecting the fact that interpersonal communication is often technology-dependent (Van Kleef, De Dreu, & Manstead, 2004). The effectiveness of the messages was later evaluated by objective raters. We expected angry participants to be more effective in leading others to concede to their demands.

#### Method

**Participants.** Seventy-one students (57% females; mean age = 19.45) participated for course credit or \$15. Two participants were excluded from the analyses because they failed to follow instructions.<sup>1</sup>

#### Materials.

Emotional preferences. Participants rated on a 0 (not at all) to 8 (extremely) Likert scale how much they wanted to watch film clips and recall certain events from their past before the social interaction. Films included short and fictitious descriptions of scenes expected to induce anger (i.e., racial injustice), happiness (i.e., finding a treasure), and fear (i.e., being followed at night). Past events included: "An event from the past in which I was angry", "An event from the past in which I was happy," and "An event from the past in which I was afraid." Within each category, items were presented in a random order.

**Emotion induction.** Instrumental music clips were used to induce anger (i.e., *Inquisition Symphony* and *Refuse/Resist* by *Apocalyptica*), happiness (i.e., *Bingo Bang* by *Basement Jaxx*, *Opening Theme* from the soundtrack of *The Triplets de Belleville* and *Dreamoz* by Jay Hannan) and neutral feelings (i.e., *Pickles* by Yo Yo Ma and *Baby Sweetcorn* (*Come Here*) by Howie B). A pilot test (N = 20) confirmed that angry music induced more anger than neutral or happy music (Ms = 3.05, 0.58, and 0.00, respectively), t(18)s > 2.89, p < .05, and happy music induced more happiness than neutral or angry music (Ms = 4.05, 2.48, and 2.20, respectively), t(18)s > 2.39, p < .05.

*Expected emotional reactions*. Participants rated how *happy*, how *angry*, and how *nervous* they expected to feel in response to

watching each of the film clips and recalling each of the events they rated earlier.

**Procedure.** Participants were told the study concerned the link between memory and social interactions. They were told they would either recall an event from their past or watch film clips before completing a social interaction task, where they would play the role of a landlord and another person would play a tenant who had not paid rent in 2 months. They then provided demographic information and rated their current experiences. To avoid drawing participants' attention to the emotions examined in the investigation, participants rated a list of filler items (e.g., *hungry*, *tired*, *concentrated*), in which were embedded the following target items: *angry*, *happy*, and *afraid*.

Participants were randomly assigned to goal conditions. Participants in the confrontation condition were told their goal was to get the tenant to pay the rent immediately. Participants in the collaboration condition were told their goal was to cultivate a healthy long-term relationship with the tenant. Participants in the unprompted condition were not given specific instructions. Participants rated their preferences for events to recall and film clips to watch before the social interaction. They then rated how successful they expected to be in the interaction when experiencing different feelings (e.g., *hungry*, *tired*), including *angry*, *happy*, and *afraid*. All ratings were made on a 9-point scale from 0 (*not at all*) to 8 (*extremely*).

To assess the actual effects of emotions, participants were told they had been assigned to the control condition but that they would listen to music instead of watch film clips before the interaction. They were randomly assigned to listen to angry, happy, or neutral music for 5 min and then rated the extent to which they were experiencing different feelings, including angry, happy, and afraid. Participants were told their task was to communicate their message to the tenant by recording a 2-min voice message on the tenant's answering machine. After recording their message, participants rated how much pleasure, anger, happiness, and fear they would expect to experience upon watching each of the film clips and recalling each of the events they rated earlier. Several weeks later, four objective raters, blind to the hypotheses and conditions, listened to participants' recorded messages in a random order. To assess successful confrontation, raters indicated how likely they would be to pay the rent quickly, borrow money from family or friends, or get a loan to pay the rent if they were the tenant. To assess successful collaboration, raters indicated how likely they would be to stay in the apartment, recommend their landlord to other potential tenants, and collaborate with the landlord on a payment plan. Ratings were made on a scale of 1 (not at all) to 7 (extremely).

# Results

**Preferences for emotions.** To test whether goal conditions influenced emotional preferences, we ran a repeated-measures ANOVA with Activity (films, memories) and Emotion (anger, happiness, fear) as within-subject factors and Goal Condition (confrontation, collaboration, unprompted) as a between-subjects factor. As predicted, we found a significant Goal Condition ×

<sup>&</sup>lt;sup>1</sup> None of the analyses below were qualified by sex. Therefore, sex was omitted from the reported analyses.

Emotion interaction, F(4, 65) = 3.30, p < .05. As shown in Figure 1, when motivated to confront (vs. collaborate with) their partner, participants showed stronger preferences for anger-inducing activities. In contrast, when motivated to collaborate with (vs. confront) their partner, participants showed stronger preferences for happiness-inducing activities. These effects were confirmed in follow-up t tests, t(66)s > 2.06, ps < .05. Goal conditions did not differ in preferences for fear-inducing activities, t(66)s < 1, and participants in the confrontation condition showed stronger preferences for anger than fear, t(23) = 2.05, p < .05. Thus, preferences for anger were not driven by preferences for unpleasant or high arousal states (e.g., fear), more generally. The interaction qualified a significant main effect of Emotion, F(2, 67) = 40.09, p < .05, such that across conditions, preferences for happiness were higher (M = 4.87, SE = .19) than preferences for anger (M =3.00, SE = .20) or fear (M = 2.88, SE = .20). No other effects were significant, Fs < 1.32.

Our findings indicate that when participants expect to confront (vs. collaborate with) another, they are more willing to engage in anger-inducing activities. Perhaps, however, participants did not think that such activities would make them angry. To test this possibility, at the end of the study we asked participants to indicate how they expected each activity to make them feel. We ran a repeated-measures ANOVA predicting their responses, with Activity (films, memories), Target Emotion (anger, happiness, fear), and Expected Emotion (anger, happiness, fear) as within-subject factors. As predicted, we found a significant Target Emotion X Expected Emotion interaction, F(4, 65) = 534.42, p < .05, demonstrating that participants expected to feel more anger than fear and happiness in response to anger-inducing activities (Ms = 6.54, 3.19, and 1.54, respectively), more happiness than fear and anger in response to happiness-inducing activities (Ms = 6.40, 1.61, and 0.79, respectively), and more fear than anger and happiness, in response to fear-inducing activities (Ms = 6.07, 3.33, and 1.12,respectively).

Another possibility is that participants in the confrontation condition expected anger-inducing activities to be more pleasant than those in the collaboration condition. To test this possibility, we ran a repeated-measures ANOVA, predicting expected pleasure from Activity (film, memories) and Target Emotion (anger, happiness, fear) as within-subject factors and Goal Condition as a between-subjects factor. As expected, we found only a main effect for Target Emotion, F(2, 67) = 879.76, p < .05, demonstrating that

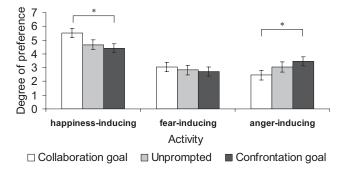


Figure 1. Preferences for emotion-inducing films to watch and memories to recall before a social interaction, as a function of goal condition (Study 1).

across conditions, participants expected anger- (M = .49, SE = .09) and fear- (M = .76, SE = .10) inducing activities to make them feel significantly less pleasure than happiness-inducing ones (M = 5.96, SE = .13).

Finally, to test whether emotional preferences were driven by concurrent emotional experiences, we centered ratings of concurrent anger, happiness, and fear and entered them as covariates in the analysis described earlier, where we predicted emotional preferences from Goal Condition. We found a significant Emotion X Happiness interaction, F(2, 67) = 3.41, p < .04, such that happier people tended to have stronger preferences for happiness-inducing activities and weaker preferences for fear-inducing activities (rs =.23 and -.25, respectively), and a marginally significant Emotion  $\times$  Anger interaction, F(2, 67) = 2.52, p < .10, such that angrier people tended to have stronger preferences for angerinducing activities (r = .30). More importantly, however, the Emotion  $\times$  Goal Condition interaction remained unchanged, F(4,(65) = 3.52, p < .05, and none of the interactions between Emotion, Goal Condition, and concurrent feelings were significant,  $F_{\rm S}$  < 1.94. Thus, the obtained patterns were not the result of differences in concurrent feelings.

The expected usefulness of emotions. To test whether the expected usefulness of emotions differed as a function of goal condition, we ran a repeated-measures ANOVA with Emotion (anger, happiness, fear) as a within-subject factor and Goal Condition (confrontation, collaboration, unprompted) as a betweensubjects factor. As expected, we found a significant Emotion X Goal Condition interaction, F(4, 65) = 9.35, p < .05. As shown in Figure 2, participants motivated to confront their partner expected anger to be more useful, whereas participants motivated to collaborate with their partner expected happiness to be more useful than participants in the other conditions. This was confirmed in follow-up t tests, t(66)s > 2.16, ps < .05. Conditions did not differ in the expected usefulness of fear. As shown in Table 1, regardless of conditions, the more useful participants expected anger and happiness to be, the more likely they were to prefer anger- and happiness-inducing activities, respectively. Possibly because of floor effects, this was not the case for fear.

Consistent with a value-expectancy account of emotional preferences, we predicted that the expected usefulness of anger would fully mediate the effect of goals on preferences for anger. As shown in Figure 3, our results supported this prediction. When entered into linear regressions, Goal Condition (-1 = collaboration, 0 = unprompted, 1 = confrontation) was a significant predictor of preferences for anger-inducing activities, t(68) = 2.08,  $s\beta$ = .25, p < .05, and the expected usefulness of anger, t(68) = 4.71,  $s\beta$  = .50, p < .05. When Goal Condition and the expected usefulness of anger were entered as simultaneous predictors, expected usefulness remained a significant predictor, t(68) = 3.15,  $s\beta = .41, p < .05$ , whereas Goal Condition did not, t < 1, Sobel's z = 2.62, p < .05 (when using bootstrapping,  $CI_{.95} = -.87, -.18$ ). The expected usefulness of anger, therefore, fully mediated the link between goal conditions and preferences for anger. Participants motivated to confront their partner wanted to feel angry only to the extent that they expected anger to be useful in the interac-

One alternative explanation to the mediation pattern is that people prefer emotions that are consistent with their goals, and because these emotions are preferred people tend to view them as



Figure 2. The expected usefulness of emotions in a negotiation, as a function of goal condition (Study 1).

more useful. To examine this possibility, we tested the reverse mediation path, where preferences for anger serve as the mediator of the expected utility of anger. When both Goal Condition and Preferences for anger (centered) were entered as predictors of the expected usefulness of anger, both remained significant predictors, t(68) < 3.09, p = .004 (when using bootstrapping,  $CI_{.95} = -.11$ , .11), indicating that the reverse mediation path was not significant. Thus, we were able to rule out this alternative explanation.

We ran a similar mediation analysis to examine whether the expected usefulness of happiness mediated the effects of goal condition on preferences for happiness. Although Goal Condition was a significant predictor of preferences for happiness-inducing activities, t(68) = 2.48,  $s\beta = .29$ , p < .05, and the expected usefulness of happiness, t(68) = 3.01,  $s\beta = .35$ , p < .05, when Goal Condition and the expected usefulness of happiness were entered as simultaneous predictors, none of the effects remained significant, ts < 1.80 (when using bootstrapping,  $CI_{.95} = -.05$ , .38).

The actual usefulness of emotions. To test whether our emotion inductions were successful, we ran a series of one-way ANOVAs, predicting ratings of anger, happiness, and fear from Emotion Induction (anger, happiness, neutral) and found significant effects on both anger and happiness, Fs > 3.66, ps < .05. Follow-up t tests confirmed that following the emotion induction, participants in the anger condition were angrier (M = 2.25, SE = .37) than those in the happy (M = 1.34, SE = .36) and neutral conditions (M = 89, SE = .24), and participants in the happiness condition were happier (M = 4.73, SE = .34) than those in the

Table 1
Simple Correlations Between the Expected Usefulness of
Emotions and Preferences for Activities That Induce Such
Emotions (Study 1)

Expected usefulness	Preferences for emotion-inducing activities		
	Anger	Happiness	Fear
Anger Happiness Fear	.42* 29* .03	21** .27* 23**	0.18 -0.13 0.06

<sup>\*</sup> p < .05. \*\* p < .10.

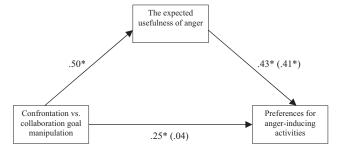


Figure 3. Regression coefficients depicting how the effect of goal condition on preferences for anger-inducing activities was fully mediated by the expected usefulness of anger (Study 1).

anger condition (M = 3.50, SE = .43), t(66)s > 1.96, ps < .05. Conditions did not differ in the experience of fear, ts < 1.

To assess successful confrontation, we averaged across the three confrontation-related items, separately for each rater (within-rater reliabilities were .96, .95, .75, .86) and then averaged across raters ( $\alpha=.78$ ). We ran a univariate ANOVA, with Goal Condition, Emotion Induction, and their interaction as predictors of confrontational outcomes. There were main effects for Goal Condition, F(2,57)=27.24, p<.05, and for Emotion Induction, F(2,57)=4.61, p<.05, and no significant interaction, F<2. As expected, participants in the confrontation condition were more successful (M=5.49, SE=.13) than those in the neutral (M=4.60, SE=.14) and collaboration (M=4.20, SE=.12) conditions. More importantly, supporting the idea that anger can promote confrontations, angry participants were more successful (M=5.07, SE=.13) than those in the neutral (M=4.54, SE=.13) or happy (M=4.67, SE=.13) conditions.

Next, we assessed successful collaboration. Because the item referring to willingness to collaborate with the landlord on a payment plan led to a substantial drop in the reliabilities of two of our raters (mean corrected item-total correlation was .19), we dropped this item from the analysis and averaged across the remaining two collaboration-related items, separately for each rater (within-rater reliabilities were .91, .95, .84, .82) and then averaged across raters ( $\alpha = .85$ ). We ran a univariate ANOVA, with Goal Condition, Emotion Induction, and their interaction as predictors of collaborative outcomes. Again, we found a main effect for Goal Condition, F(2, 57) = 22.76, p < .05 and a marginally significant effect for Emotion Induction, F(2,57) = 2.89, p = .06. Participants in the collaboration condition tended to be more successful (M = 5.55, SE = .15) than those in the neutral (M = 4.87, SE = .17) and confrontation (M =4.05, SE = .16) conditions. Also, happy participants tended to be more successful (M = 4.89, SE = .17) than those in the anger (M = 4.52, SE = .16) condition. Performance in the control condition fell in between (M = 4.52, SE = .16). We also found a significant Goal Condition × Emotion Induction interaction, F(4, 55) = 3.79, p < .05, indicating that participants in the confrontation and neutral conditions were the least collaborative when angry. Such findings suggest that anger may be useful for confrontation, but relatively detrimental for collaboration.

#### Discussion

The findings of Study 1 supported our predictions in showing that the goals people pursue determine their preferences for emotions. Participants who expected to confront their partner showed stronger preferences for activities that would increase their anger, whereas participants who expected to collaborate with their partner showed stronger preferences for activities that would increase their happiness. Participants in the unprompted condition largely fell between those in the collaboration and confrontation conditions. Such preferences did not depend on the type of activity that was rated (i.e., films and memories) nor were they driven by concurrent emotional experiences.

Most importantly, in Study 1 we found support for a value-expectancy account of emotional preferences. Preferences for emotions were positively correlated with the expected usefulness of these emotions. Moreover, the expected usefulness of anger fully mediated the link between goals and preferences for anger. Participants in the confrontation condition were more likely to expect anger to be useful, leading to stronger preferences for anger.

Participants showed differential preferences for anger and happiness across conditions. Nonetheless, participants generally showed stronger preferences for happiness than anger. This may demonstrate that instrumental and short-term hedonic considerations can simultaneously influence emotional preferences (Tamir, 2009). Alternatively, this pattern can be explained from a purely instrumental perspective. To the extent that some degree of collaboration (but not confrontation) is necessary for any successful negotiation, preferences for happiness may be higher across conditions than those for anger, when preferences for happiness and anger can be assessed independently of each other. To directly compare preferences for anger and happiness and assess the impact of short-term hedonic considerations on emotional preferences, participants in Study 2 chose between emotion-inducing activities instead of rating their simultaneous preferences for them, as in Study 1.

Finally, the findings of Study 1 provide further support for an instrumental account of emotion regulation, by showing that increasing one's level of anger before an anticipated social interaction promoted successful confrontation, regardless of the goal people pursued. Such findings also suggest that, on average, the expectancies people have regarding the usefulness of their emotions in certain contexts may be relatively accurate. In Study 1, however, participants were asked to leave a message for an imagined tenant and such behavior may or may not reflect the way people behave in actual social interactions. In addition, performance was assessed in a relatively subjective manner, based on observers' ratings. To address these limitations, following an emotion induction, participants in Study 2 engaged in a real face-to-face negotiation with another participant and performance was assessed objectively, based on negotiation outcomes.

# Study 2

Study 2 was designed to complement Study 1 on several issues. First, preferences and choices do not always coincide (Mellers & Cooke, 1996). To examine whether our basic patterns would be replicated even when participants choose between emotion-

inducing activities, participants in Study 2 selected musical clips to listen to before a negotiation from an array of clips that differed in emotional tone. Second, to examine whether our findings hold in face-to-face social interactions and to increase the external validity of our findings, participants in Study 2 negotiated with another participant on the terms of a contract. Building on existing paradigms in negotiation research (e.g., De Dreu et al., 2007), performance was assessed as a function of the total points participants gained in the negotiation.

Finally, we have argued that it is critical to identify and understand what influences emotional preferences because such preferences set the direction of emotion regulation and impact subsequent emotional experiences and behavior. To demonstrate the implications of emotional preferences for emotion regulation, after indicating their emotional preferences, participants in Study 2 regulated their emotions according to such preferences and the implications for emotional experiences and subsequent performance were assessed.

# Method

**Participants.** Forty-eight students (38% females, mean age = 20.31) participated for course credit or \$20. Forty-six of them were paired with another same-sex participant.<sup>1</sup>

#### **Materials**

*Music clips*. Clips including 2 anger-inducing clips (i.e., *Refuse/Resist* by *Apocalyptica* and *Curse of the Werewolf – Finale* by Benjamin Frankel), 2 happiness-inducing clips (i.e., *Opening Theme* from the soundtrack of *The Triplets de Belleville* and *Estudiante* by Emile Waldteufel), and 2 neutral clips (i.e., *Aerial Boundaries* by Michael Hedges and *Indecision* by Yo Yo Ma). A pilot test (N = 10) confirmed that angry music induced more anger than neutral or happy music (Ms = 2.95, 0.10, and 0.40, respectively), t(9)s > 3.75, ps < .05, and happy music induced more happiness than neutral or angry music (Ms = 4.53, 2.90, and 1.58, respectively), t(9)s > 2.84, ps < .05.

**Procedure.** Participants were randomly assigned to play a landlord or a tenant in a negotiation. Those assigned to play the landlord were given the same cover story as in Study 1, only they were told that they would either recall an event or listen to music (rather than watch film clips). Participants then rated their concurrent experiences (e.g., *tired*, *hungry*), including *angry* and *happy*. Landlords were assigned to one of two goal conditions. Participants in the confrontation condition were told their goal was to get their tenant to pay rent quickly. Participants in the collaboration condition were told their goal was to reach a fair agreement.

Landlords were told they had been assigned to the music condition and were asked to pick musical clips to listen to. To do so, they listened to 30-s excerpts of each music clip, presented in a random order, and selected 3 clips to listen to before the negotiation. Participants then rated the degree to which they expected to be successful in the negotiation when experiencing different feelings (e.g., concentrated, distracted), including angry and happy. To allow participants to regulate their emotions according to their preference, participants listened to the music clips they selected in full length (i.e., approximately 8 min total) and then rated their current experiences, including angry and happy.

All participants were then introduced to their negotiation partners and instructed to negotiate the number of payments the tenant

would make to pay the debt (i.e., 1-8) and the interest to be paid (i.e., 0-4%). Participants were given a payoff chart (see Appendix), indicating the value each outcome had for them and were instructed to earn as many points as possible. Participants did not see the payoff chart of their negotiation partner, but were told that it may be different than their own. The negotiation began with an offer from the landlord and continued for up to 10 rounds, where each round included an offer and a counteroffer.

After the negotiation, participants assigned to the landlord condition listened to short excerpts of all the musical clips and rated how *pleasant*, *unpleasant*, *angry*, and *happy* they expect to feel after listening to each clip in full length. Responses were made on a 1 (*not at all*) to 5 (*extremely*) scale. Finally, to assess the potential for demand characteristics, at the end of the study landlords were asked what type of music they thought the experimenter had expected them to pick.

#### Results

Preferences for emotions. To examine whether goals influenced the emotional tone of the music selected, we coded musical clips by their emotional tone (-1 = happiness, 0 = neutral, 1 =anger) and created an emotional preference score by summing across selected clips, such that higher scores reflect a selection of more anger-inducing music. We then ran a one-way ANOVA, predicting emotional preferences from Goal Condition (confrontation, collaboration). As predicted, we found a significant main effect for Goal Condition, F(1, 45) = 8.40, p < .05, such that participants chose more anger-inducing music when motivated to confront (vs. collaborate with) their partner (see Figure 4). When concurrent experiences of anger and happiness were centered and entered as covariates in a univariate ANOVA, the main effect of Goal Condition remained unchanged, F(1, 45) = 7.97, p < .05, and the effects of concurrent emotions were not significant, Fs < 1.

To test whether participants in both conditions viewed the anger-inducing music as less pleasant than the happiness-inducing music, we ran a repeated-measures ANOVA predicting mean ratings of pleasure, with Music Type (angry, happy, and neutral) as a within-subject factor and Goal Condition (confrontation, collaboration) as a between-subjects factor. The only significant effect was a main effect for Music Type, F(2, 42) = 35.53, p < .05. Follow-up paired-sample t tests indicated that anger-inducing music was expected to induce less pleasure than neutral and happy music (Ms = 1.85, 2.94, and 3.23, respectively), t(43)s > 6.63,

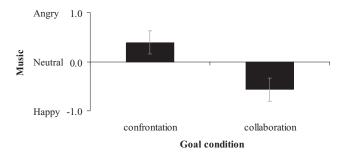


Figure 4. The emotional tone of music clips participants chose to listen to before a negotiation, as a function of goal condition (Study 2).

ps < .05. We repeated the analysis using ratings of displeasure and found the same pattern, such that the angry music was expected to be more unpleasant (M = 2.45, SE = .16) than the neutral (M = 1.51, SE = .09) and happy (M = 1.38, SE = .10) music, t(43)s > 5.19, ps < .05. The anger-inducing music was also expected to lead to greater displeasure than pleasure, F(1, 42) = 6.12, p < .05, whereas happiness-inducing music was expected to lead to greater pleasure than displeasure, F(1, 42) = 90.55, p < .05.

The above analyses were repeated to predict expected anger and happiness. As predicted, we found that participants expected the anger-inducing clips to induce more anger (M=2.39, SE=.17) than the neutral (M=1.33, SE=.09) and happy (M=1.19, SE=.05) clips, t(43)s > 6.03, ps < .05, and happiness-inducing clips to induce more happiness (M=3.39, SE=.14) than neutral (M=2.63, SE=.12) and angry (M=1.79, SE=.11) clips, t(43)s > 4.31, ps < .05. None of these effects were qualified by Goal Condition, Fs < 1.83. Together, these findings indicate that participants in the confrontation condition selected more angerinducing than happiness-inducing music, fully knowing that such music will make them feel angry and unpleasant.

The expected usefulness of emotions. To test whether the expected usefulness of emotions differed as a function of goals, we ran a repeated-measures ANOVA, with Emotion (anger, happiness) as a within-subject factor and Goal Condition (confrontation, collaboration) as a between-subjects factor. We found a significant Emotion  $\times$  Goal Condition interaction, F(1, 46) = 9.33, p < .05. Follow-up tests of simple effects confirmed that, as predicted, participants motivated to confront their partner expected anger to be more useful (Ms = 3.96, SE = .45) than participants motivated to collaborate (M = 1.96, SE = .45), F(1, 47) = 10.04, p < .05. Furthermore, regardless of goal condition, the more participants expected anger to be useful, the more anger-inducing the music they chose to listen to, r = .48, p < .05. Musical preferences were not significantly related to the expected usefulness of happiness, r = .23.

Next, we tested whether the expected usefulness of anger mediated the effect of goal condition on preferences for anger. As shown in Figure 5, when entered into linear regressions, Goal Condition (1 = confrontation, 0 = collaboration) was a significant predictor of anger-inducing music, t(45) = 2.90,  $s\beta = .40$ , p < .05, and of the expected usefulness of anger, t(45) = 3.17,  $s\beta = .42$ , p < .05. When Goal Condition and the expected usefulness of anger were entered as simultaneous predictors, expected usefulness remained a significant predictor, t(45) = 2.56,  $s\beta = .38$ , p < .05, whereas Goal Condition did not, t < 1.5, Sobel's z = 1.98, p < .05 (when using bootstrapping, CI<sub>.95</sub> = -1.01, -.11). Thus, as in Study 1, the expected usefulness of anger fully mediated the effect of goal condition on preferences for anger.

**Did emotional preferences influence subsequent emotional experience?** To test whether listening to relatively more angerinducing music influenced the subsequent experience of anger, we ran a repeated-measures ANOVA, with Goal Condition and centered Emotional Preference (i.e., the emotional tone of selected music) as between-subjects factors, and Time (before vs. after listening to music) as a within-subject factor. As predicted, we found a significant Time  $\times$  Emotional Preference interaction, F(1, 42) = 5.40, p < .05. Follow-up tests of simple effects demonstrated that participants who selected more (vs. less) angerinducing music showed an increase in anger experience after

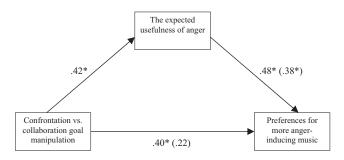


Figure 5. Regression coefficients depicting how the effect of goal condition on preferences for anger-inducing music was fully mediated by the expected usefulness of anger (Study 2).

listening to the music they selected, demonstrating successful emotion regulation. No other effects were significant, Fs < 3.65.

**Did emotional preferences influence subsequent performance?** To assess performance, we computed the total number of points landlords gained in the final negotiation agreement. We ran a regression analysis to predict that amount from Goal Condition (1 = confrontation, 0 = collaboration), centered Emotional Preference, and their interaction. We found a main effect for Emotional Preference, t(41) = 2.39,  $s\beta = .54$ , p < .05, such that participants who selected more anger-inducing music were more successful at the negotiation. No other effects were significant, ts < 1.69.

**Demand characteristics.** To explore whether our findings were the result of demand characteristics, we asked participants what type of music they thought the experimenter expected them to choose. In general, the most common response in both conditions (25% of responses) was that the experimenter must have expected the participant to select music that made them calm. Only four participants in each condition correctly identified our predictions. When these participants were omitted from the analyses, results remained unchanged. Given that participants were unable to identify our predictions, it is likely that our findings did not result from demand characteristics.

#### Discussion

The findings of Study 2 replicate and extend those of Study 1. First, the findings show that when motivated to confront (vs. collaborate with) a negotiation partner, participants showed stronger preferences for anger. In fact, participants were more likely to select anger- than happiness-inducing music, despite fully realizing that such music will make them feel less pleasant. Importantly, in support of a value-expectancy account of emotional preferences, the effect of goals on emotional preferences was fully mediated by the expected usefulness of anger. Participants motivated to confront (vs. collaborate) with their partner were more likely to expect anger to be useful in the negotiation, leading them to select more anger-inducing music to listen to before they negotiate.

In Study 2, we were also able to demonstrate that emotional preferences shape the course and consequences of emotion regulation, by influencing subsequent emotional experiences and performance. Participants who selected more (vs. less) anger-inducing music felt angrier after listening to such music. Such emotion regulation, in turn, resulted in improved performance in the nego-

tiation, as indicated by better negotiation outcomes. Together, these findings suggest that the goals people pursue determine what they want to feel, which in turn, can influence their subsequent emotional experiences and behavior.

#### **General Discussion**

Because emotions have a substantial impact on daily life, people often try to change what they feel to match what they want to feel. But what do people want to feel? The current findings demonstrate that there are times when people want to experience emotions they expect would lead to successful goal attainment, even when they are unpleasant to experience. In doing so, our findings highlight the importance of emotion regulation as a process that is shaped by different motives and has important pragmatic implications.

### **Motives in Emotion Regulation**

In any process of self-regulation, desired end states serve as reference points toward which behavior is directed (Fishbach & Ferguson, 2007). In the emotion domain, what people want to feel determines the trajectory of emotion regulation. To the extent that there is variation in what people want to feel, identifying such variation and the factors that give rise to it become necessary for understanding the process of emotion regulation. This investigation makes a critical step in this direction.

Prior research demonstrates that there is substantial variation in what people want to feel (e.g., Erber et al., 1996; Tamir, 2005; Tamir et al., 2008; Tsai et al., 2006; Wood et al., 2009). Extending such research, our findings show that some motives in emotion regulation can override the desire to maximize immediate pleasure. In two studies, participants motivated to confront (vs. collaborate with) another person were more likely to try to increase their anger, despite knowing that they would feel less pleasant as a result. When forced to select between different emotion-inducing activities, participants motivated to confront (vs. collaborate with) another person chose to engage in activities that induce more anger than happiness. Thus, even in relatively prevalent social contexts, people can be motivated to experience unpleasant emotions.

Our findings demonstrate that these emotional preferences were driven by instrumental considerations. First, what people wanted to feel was determined by the goals they pursued. Preferences for anger were stronger when pursuing a goal that could benefit from anger (i.e., confrontation), whereas preferences for happiness were generally stronger when pursuing a goal that could benefit from happiness (i.e., collaboration). Such preferences were independent of the nature of the rated activity (e.g., films, memories), which varied across as well as within studies. Such preferences were not driven by concurrent feelings and were obtained when rating simultaneous preferences for various activities and when selecting from them.

Second, preferences for emotions were stronger the more people believed the emotions would be useful to them. The more people expected anger to be useful, the more motivated they were to try to increase their anger, regardless of the goals they pursued. Finally, preferences for anger were fully mediated by the expected outcomes of anger. Participants motivated to confront (vs. collaborate with) their partner were more likely to expect anger to be useful, and it was precisely these expectancies that led them to try

to increase their anger. Such findings are consistent with the predictions of value-expectancy models of self-regulation (e.g., Atkinson, 1957; Fishbein & Ajzen, 1975). Such findings also seem to be inconsistent with some competing explanations. For instance, our findings are inconsistent with the idea that goals automatically give rise to certain emotional preferences or that, as a result of dissonance-reduction mechanisms, people prefer emotions that seem to match certain goal pursuits.

As our findings demonstrate, when people want to experience emotions for instrumental benefits, what they want to feel may depend on the goals they pursue, on the relative importance of such goals, and on how useful they expect emotions to be in the pursuit of these goals. These factors, in turn, may vary across contexts (e.g., Tamir et al., 2008) and across individuals (Tamir, Chiu, & Gross, 2007). Identifying the factors that influence instrumental emotion regulation and how they vary is an important challenge for future research.

Future research on motives in emotion regulation faces other challenges. The current hypotheses build on the idea (previously expressed in Bonanno, 2001; Erber & Erber, 2000, and Parrott, 1993) that emotions can be regulated for different reasons. Maximizing short-term pleasure is one motive. As this investigation demonstrates, maximizing instrumental benefits may be another. Yet, there may be additional motives in emotion regulation. For instance, people may be motivated to experience emotions they believe they deserve to feel (Wood et al., 2009). Future research should identify the full range of motives that guide emotion regulation and how they interact with one another.

# **Pragmatic Implications of Instrumental Emotion Regulation**

By allowing people to regulate their emotions as they preferred, we were able to demonstrate that emotional preferences set the course for emotion regulation and shape subsequent emotional experiences. People who preferred anger-inducing activities became angrier after engaging in them. What people want to feel, therefore, determines the direction in which people regulate their emotions, and how they actually feel as a consequence.

Our findings demonstrate that emotion regulation also carries implications that go beyond the realm of emotions per se. Regulating one's emotional experience influences subsequent behavior and changes the outcomes of interpersonal interactions. Participants who were motivated to get their money back (vs. maintain a relationship) chose to listen to music that was more angerinducing, felt angrier after doing so and consequently, gained the upper hand in a negotiation. Such effects on performance were reflected in observers' judgments (Study 1) and in objective negotiation outcomes (Study 2). These results indicate not only that people prefer emotions they *expect* to be useful, but that on average, they prefer emotions that actually *are* useful.

Our findings suggest that people are relatively accurate in how useful they expect their emotions to be in certain contexts. Most people expected anger to be more useful for confrontation than collaboration and happiness to be more useful for collaboration than confrontation. These findings raise several important questions for future research. Where do expectations about the usefulness of emotions come from? Are they a function of cultural norms (Hochschild, 1979), rule-based learning, or direct personal expe-

rience (Roese & Sherman, 2007)? These possibilities and others remain to be tested.

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Appendix

Participants' Payoff Chart in Study 2 (Top = Landlord, Bottom = Tenant)

Number of payments		Interest		
# Payments	Payoff	Interest rate	Payoff	
8	(0)	0%	(0)	
7	(25)	1%	(50)	
6	(50)	1.5%	(100)	
5	(75)	2%	(150)	
4	(100)	2.5%	(200)	
3	(125)	3%	(250)	
2	(150)	3.5%	(300)	
1	(175)	4%	(350)	
Number of payments		Interest		
# Payments	Payoff	Interest rate	Payoff	
8	(350)	0%	(175)	
7	(300)	1%	(150)	
6	(250)	1.5%	(125)	
5	(200)	2%	(100)	
4	(150)	2.5%	(75)	
3	(100)	3%	(50)	
2	(50)	3.5%	(25)	
1	(0)	4%	(0)	

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