

# Preferences for sadness when eliciting help: Instrumental motives in sadness regulation

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**Abstract** This investigation tested whether people are more willing to experience and express sadness, the more useful they expect sadness to be. Building on assumptions about the function of sadness, we predicted that people would expect sadness to be more useful when eliciting help to prevent a loss (vs. not). In Study 1, we examined preferences for sadness and its expected usefulness when eliciting donations for the sake of preventing a loss (vs. not). In Study 2, participants expected to elicit help to prevent a loss (vs. attain a benefit). In both studies, participants expected sadness to be more useful and were more willing to experience and express sadness when eliciting help to prevent a loss (vs. other reasons). Furthermore, the more useful participants expected experiencing and expressing sadness to be, the more willing they were to experience and to express sadness, respectively. We discuss the implications for research on emotion regulation.

**Keywords** Helping · Emotion regulation · Emotions · Sadness

Sadness is an unpleasant state that people are typically reluctant to experience. Regardless, there are times when sadness may offer certain benefits. For instance, the experience of sadness can motivate a person to recruit help from others (Ellsworth and Smith 1988; Frijda 1994;

Levenson 1999) and expressing sadness can signal to others that a person is unable to deal with a loss and needs help (Frijda 1986). There may be times when sending such signals can be beneficial (e.g., when it results in getting help from others). In such cases, are people more inclined to experience and express sadness? The current investigation examined this and related questions by assessing preferences for the experience and expression of sadness when sadness is likely to be more (vs. less) useful.

## The instrumental approach to emotion regulation

According to the instrumental approach to emotion regulation (e.g., Tamir 2009), people are not necessarily motivated to optimize short-term pleasure at every moment. Instead, people are sometimes willing to experience even unpleasant emotions, when such emotions offer instrumental benefits. For instance, participants were motivated to increase their level of fear before completing a task that required them to avoid threats (Tamir and Ford 2009). Similarly, participants preferred to increase their levels of anger, before engaging in a task that required them to be aggressive and confrontational (Tamir and Ford 2010; Tamir et al. 2008).

Consistent with expectancy-value models of self-regulation (e.g., Atkinson 1957), stronger preferences for unpleasant emotions may be linked to the expectation that these emotions would be useful in obtaining the goal individuals are pursuing. For instance, the more participants expected fear to promote successful avoidance, the more they preferred to experience fear before engaging in a threatening task (Tamir et al. 2007). Similarly, the more participants expected anger to promote successful confrontation, the more they preferred to experience anger

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before engaging in a confrontational task (Tamir and Ford 2010).

To demonstrate the role of instrumental considerations in emotion regulation, independent of short-term hedonic considerations, research on the instrumental regulation of emotions has focused on unpleasant emotions such as anger and fear. What is yet to be determined is whether the instrumental approach to emotion regulation applies also to an unpleasant state such as sadness. The main aim of the present investigation, therefore, was to test whether the instrumental approach to emotion regulation can inform our understanding of preferences for sadness.

### The instrumental benefits of sadness

Sadness often occurs in relation to a meaningful loss (Lazarus 1991; Levenson 1999). The loss may be physical or symbolic (Averill 1968). For example, people experience sadness when a loved one is dying or after failing to attain an important goal (Camras and Allison 1989; Ellsworth and Smith 1988; Izard 1991; Shaver et al. 1987). Sadness is typically experienced when people feel helpless about preventing the loss (Frijda 1986; Seligman 1975). Therefore an important feature of sadness is that it signals helplessness about a loss because it is experienced when people believe they are unable to prevent or restore the loss (Smith and Lazarus 1993).

Functional theories of emotion have proposed several potential benefits of experiencing and expressing sadness. The experience of sadness signals to the individual that a loss, that she can do little about, has or is about to take place. Thus, it motivates the individual to conserve energy and resources (Averill 1968; Bowlby 1980; Cunningham 1988; Mahler 1961; Marris 1974) through the reduction of effort and withdrawal (Clark and Watson 1994) or by triggering the action tendency to withdraw into oneself (Frijda 1986). The experience of sadness also motivates the person to call for help (Ellsworth and Smith 1988; Frijda 1994; Levenson 1999).

The expression of sadness, in turn, communicates to others that the person is in trouble and in need of help (Folkman et al. 1986; Frijda 1986; Tomkins 1963). When individuals express sadness they are perceived as more in need of assistance (Clark and Taraban 1991) and more dependent on others (Chrisman and Clark 1991). Such perceptions, in turn, can evoke sympathy and elicit prosocial behaviors (Batson and Shaw 1991; Izard 1977; Keltner and Kring 1998; Lazarus 1991). Sadness may be useful in eliciting help, in part, because it signals helplessness to others (Smith and Lazarus 1993).

The research described above suggests that both the experience and the expression of sadness can offer

instrumental benefits under certain circumstances. In particular, experiencing and expressing sadness may be useful when a person is trying to recruit help to cope with a loss. Therefore, we expected preferences for sadness to be relatively higher in this context.

### Help for different causes

People need help for different reasons. Sometimes people need help to handle a current or imminent loss. At other times, people need help to promote future advancement. It is likely that different types of signals may be beneficial when people need different types of help. When people need help to handle a loss, helplessness is appropriate and so sadness may serve as a useful signal. In contrast, when people need help for other reasons, like advancement, helplessness is not appropriate and so sadness may not be useful.

For example, when a failed businessman needs help to avoid bankruptcy, the experience of sadness signals to the individual that an important loss is about to occur. The expression of sadness can signal to others that the individual is helpless and needs assistance. In such instances, therefore, the experience and expression of sadness may be useful in that it increases the chances of getting help. In contrast, when a successful businessman needs help to launch a promising venture, the experience of sadness signals to the individual that a loss is about to occur, where in fact a gain may be more likely. The expression of sadness can signal to others that the individual is helpless, where this is unlikely to be the case. In such instances, therefore, the experience and expression of sadness may not be useful and it can even diminish the chances of getting help.

In light of these arguments, we hypothesized that people would expect sadness to be more useful and have relatively stronger preferences for sadness when eliciting help to handle a loss than for other reasons. This is despite the fact that sadness is an unpleasant emotional state that people are generally motivated to minimize. Given that sadness serves both intrapersonal and interpersonal functions, both the experience and the expression of sadness may be useful. Therefore, we expected preferences for sadness to extend to both the experience and the expression of sadness.

### Current investigation

This investigation tested two main hypotheses. First, we tested whether there are circumstances in which people might show increased preferences for sadness, despite its unpleasant nature, by assessing preferences for sadness in a

context where sadness may be beneficial (i.e., when trying to elicit help to prevent an imminent loss). Second, we tested whether the expected usefulness of sadness and preferences for sadness depend on the reason that help is being elicited. We expected preferences for sadness to be higher when people elicit help to prevent a loss, because in such cases they might expect sadness to be more beneficial.

We conducted two studies to test our hypotheses. In both studies, participants considered eliciting help from another person to prevent a loss (vs. not) and reported the extent to which they preferred to experience and express sadness, happiness and calmness, when eliciting help for both types of causes. We predicted that people would be relatively more willing to experience as well as express sadness when eliciting help to prevent a loss (vs. not). Furthermore, we predicted that preferences for experiencing and expressing sadness would be linked to the expectation that experiencing and expressing sadness would be useful. Specifically, we predicted that people would be more willing to experience and express sadness, the more useful they expect experiencing and expressing sadness to be, respectively.

## Study 1

In Study 1, participants considered asking another person for donations for causes that involve preventing a loss (e.g., starvation in poor countries) and those that do not (e.g., promoting public radio broadcasting). We predicted, first, that participants would report stronger preferences for experiencing as well as expressing sadness when eliciting donations to prevent a loss (vs. not). Second, we predicted that participants would expect experiencing and expressing sadness to be more useful when eliciting donations to prevent a loss (vs. not). Third and finally, we predicted that across both contexts the more participants expected experiencing and expressing sadness to be useful, the more they would prefer to experience and express sadness, respectively.

## Methods

### Participants

Participants were 76 undergraduate students (68% female; age:  $M = 20.00$ ,  $SD = 3.88$ ), who participated for partial research credit to satisfy a course requirement or for \$5. The sample was composed of 64% Caucasians, 17% Asians, 11% African Americans, 5% Latinos, and 3% who identified themselves as multiracial.

## Materials

### Manipulation

Participants imagined asking another person to donate money to 10 distinct causes. Half of the causes highlighted help for the sake of preventing a loss, whereas the other half did not.<sup>1</sup> Causes were selected based on a pilot test, in which participants ( $N = 20$ ) rated the degree to which they felt helpless in achieving the goal of each of the 10 causes (1 = not at all, 9 = extremely). Three items were used to assess feelings of helplessness for each cause (e.g., to what extent do you feel somewhat helpless about ending homelessness?). To create a helplessness composite, we averaged across the three items, separately for each cause, then averaged across causes of the same type ( $\alpha s = .85$  and  $.82$ , for the loss and non-loss causes, respectively). A repeated measures ANOVA with Cause (loss vs. non) as a within subjects factor confirmed that people felt significantly more helpless in regard to loss-focused causes ( $M = 4.57$ ,  $SD = 1.07$ ) compared to other causes ( $M = 3.33$ ,  $SD = 1.06$ ),  $F(1, 19) = 18.94$ ,  $p < .001$ , partial  $\eta^2 = 0.50$ .

### Preferences for emotion experience and expression

Participants rated the extent to which they preferred to experience and express sadness, happiness, and calmness when eliciting donations for each cause on a 5-point Likert scale (1 = not at all, 5 = extremely).

### Expected usefulness of emotion experience and expression

Participants rated how successful they expected to be in eliciting donations for each cause on a 5-point Likert scale (1 = not at all, 5 = extremely) when experiencing and expressing sadness, happiness, and calmness.

### Procedure

Participants completed the study individually. After providing demographic information, participants were asked to imagine themselves asking another person to donate

<sup>1</sup> All causes were presented in random order. The loss focused causes included a local homeless shelter, cancer research, a charity fundraiser, hurricane victims, and an impoverished child. The non-loss focused causes included a local art museum, deep sea research, National Public Radio Broadcasting, preservation of a historic site, a politician's election campaign.

money for 10 different causes. Focusing on each cause, participants rated their preferences for emotion experience and expression, and the expected usefulness of emotion experience and expression.

**Results**

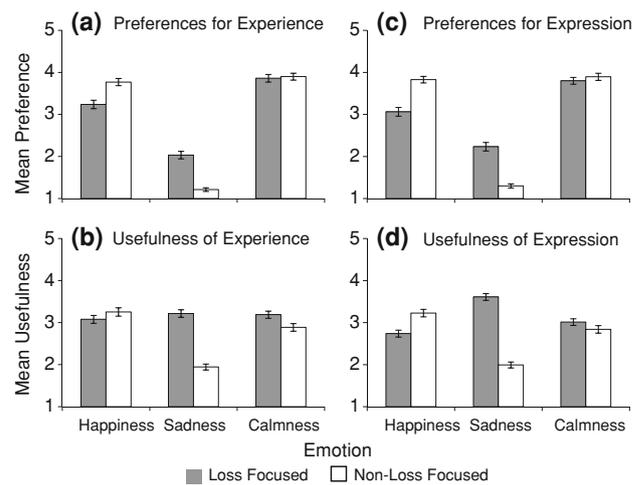
To test our predictions, for each measure we averaged across causes of the same type ( $\alpha$ s ranged from .81 to .94) and ran a repeated measures ANOVA with Cause (loss vs. non) and Emotion (happiness, sadness, calmness) as within-subject factors. We ran pairwise comparisons to examine the significance of the simple effects.<sup>2</sup>

**Emotion experience**

Preferences

Consistent with our predictions, we found a significant Cause  $\times$  Emotion interaction,  $F(2,74) = 71.59, p < .001$ , partial  $\eta^2 = 0.49$ . Participants reported stronger preferences for experiencing sadness when eliciting donations to prevent losses (vs. not),  $F(1,75) = 100.31, p < .001$ , partial  $\eta^2 = 0.57$  (see Fig. 1a). On the other hand, participants reported weaker preferences for experiencing happiness in this context,  $F(1,75) = 42.16, p < .001$ , partial  $\eta^2 = 0.36$ . The interaction qualified a main effect of Emotion,  $F(2,74) = 278.95, p < .001$ , partial  $\eta^2 = 0.79$ , such that across both helping contexts preferences for calmness were the highest ( $M = 3.88, SD = 0.72$ ), followed by happiness ( $M = 3.50, SD = 0.74$ ), then sadness ( $M = 1.62, SD = 0.50$ ),  $F(2,74)s > 200.69, ps < .001$ , partial  $\eta^2$ s  $> 0.84$ . The interaction also qualified a main effect of Cause,  $F(1,75) = 7.58, p < .01$ , partial  $\eta^2 = 0.09$ , indicating that participants preferred to experience more emotions, in general, when eliciting donations to prevent losses compared to not ( $M$ s = 3.04 and 2.96,  $SD$ s = 0.43 and 0.43, respectively).

<sup>2</sup> In Study 1, some of the variables were not normally distributed. We therefore ran Wilcoxon’s matched-pairs signed-ranks tests and found the same pattern of results. Preferences for experiencing sadness remained significantly higher when eliciting donations to prevent losses (vs. non),  $z = 7.00, p < .001$  and the expected usefulness of sadness was also higher in that context,  $z = 7.38, p < .001$ . The same pattern was obtained for the expression of sadness, ( $z = 6.92, p < .001$ , and,  $z = 7.57, p < .001$ , for preferences and expected usefulness, respectively).



**Fig. 1** Preferences for emotion experience (a) and the expected usefulness of emotion experience (b), and preferences for emotion expression (c) and the expected usefulness of emotion expression (d) as a function of the type of help elicited (Study 1). Error bars represent standard errors

Expected usefulness

As expected, the Cause  $\times$  Emotion interaction was significant,  $F(2,74) = 74.07, p < .001$ , partial  $\eta^2 = .50$ . Participants expected the experience of sadness to be more useful when eliciting donations to prevent losses (vs. not),  $F(1,75) = 183.27, p < .001$ , partial  $\eta^2 = 0.71$  (see Fig. 1b). Participants expected that experiencing calmness would also be more useful in this context,  $F(1,75) = 28.07, p < .001$ , partial  $\eta^2 = 0.27$ . The interaction qualified a main effect of Emotion,  $F(2,74) = 21.75, p < .001$ , partial  $\eta^2 = 0.23$ , such that on average, participants expected experiencing happiness ( $M = 3.17, SD = 0.72$ ) or calmness ( $M = 3.04, SD = 0.72$ ) to be more useful than experiencing sadness ( $M = 2.58, SD = 0.57$ ),  $F(2,74)s > 15.30, ps < .001$ , partial  $\eta^2$ s  $> 0.29$ . Lastly, there was a main effect of Cause,  $F(1,75) = 88.57, p < .001$ , partial  $\eta^2 = .54$ , indicating that participants expected experiencing more emotion, in general, to be more useful when eliciting donations to prevent losses (vs. not) ( $M$ s = 3.16 and 2.70,  $SD$ s = 0.51 and 0.55, respectively).

Associations between preferences and expected usefulness

Consistent with our expectations and as shown in Table 1, across both helping contexts, the more people expected experiencing an emotion to be useful, the more they preferred to experience that emotion.

**Table 1** Simple correlations between preferences for emotional experiences and expected usefulness of these experiences (Study 1)

Expected usefulness of emotion experience	Preferences for emotion experience		
	Happiness	Sadness	Calmness
Loss focused			
Happiness	0.52**	−0.24*	0.30*
Sadness	−0.26*	0.57**	0.06
Calmness	−0.02	0.21	0.37**
Non-loss focused			
Happiness	0.38**	−0.01	0.21
Sadness	0.08	0.42**	−0.09
Calmness	0.24*	−0.08	0.24*

\*  $p < .05$ \*\*  $p < .001$ 

## Emotion expression

### Preferences

Consistent with our predictions, we found a significant Cause  $\times$  Emotion interaction,  $F(2,74) = 90.36$ ,  $p < .001$ , partial  $\eta^2 = 0.55$ . As shown in Fig. 1c, participants reported stronger preferences for expressing sadness when eliciting donations to prevent losses (vs. non),  $F(1,75) = 94.00$ ,  $p < .001$ , partial  $\eta^2 = 0.56$ . Participants also expressed weaker preferences for expressing happiness in this context,  $F(1,75) = 75.21$ ,  $p < .001$ , partial  $\eta^2 = 0.50$ . The interaction qualified a main effect of Emotion,  $F(2,74) = 229.94$ ,  $p < .001$ , partial  $\eta^2 = 0.75$ , showing that on average, preferences for expressing calmness were the highest ( $M = 3.85$ ,  $SD = 0.69$ ), followed by preferences for expressing happiness ( $M = 3.45$ ,  $SD = 0.71$ ) and sadness ( $M = 1.77$ ,  $SD = 0.55$ ),  $F(2,74)s > 183.44$ ,  $ps < .001$ , partial  $\eta^2$ s  $> 0.83$ .

### Expected usefulness

As predicted, the Cause  $\times$  Emotion interaction was significant,  $F(2,74) = 195.86$ ,  $p < .001$ , partial  $\eta^2 = 0.72$ . When eliciting donations to prevent losses (vs. not), participants expected the expression of sadness to be more useful and the expression of happiness to be less useful,  $F(1,75)s > 25.81$ ,  $ps < .001$ , partial  $\eta^2$ s  $> 0.26$  (see Fig. 1d). Participants also expected the expression of calmness to be more useful in this context,  $F(1,75) = 9.54$ ,  $p < .01$ , partial  $\eta^2 = 0.11$ . There was also a main effect of Cause,  $F(1,75) = 81.91$ ,  $p < .001$ , partial  $\eta^2 = 0.52$ , indicating that participants expected expressing more emotion, in general, to be more useful when eliciting donations to prevent losses ( $M = 3.12$ ,  $SD = 0.41$ ) than not ( $M = 2.69$ ,  $SD = 0.53$ ).

**Table 2** Simple correlations between preferences for emotional expression and expected usefulness of these expressions (Study 1)

Expected usefulness of emotion expression	Preferences for emotion expression		
	Happiness	Sadness	Calmness
Loss focused			
Happiness	0.53**	−0.25*	0.34*
Sadness	−0.16	0.52**	0.03
Calmness	0.04	0.10	0.37**
Non-loss focused			
Happiness	0.48**	−0.01	0.30*
Sadness	0.08	0.36**	0.00
Calmness	0.30**	−0.01	0.24*

\*  $p < .05$ \*\*  $p < .001$ 

### Associations between preferences and expected usefulness

As shown in Table 2, across both contexts the more participants expected the expression of an emotion to be useful the more they preferred to express that particular emotion.

## Discussion

The findings from Study 1 provide initial evidence that preferences for experiencing as well as expressing sadness and the expected usefulness of experiencing and expressing sadness vary depending on the type of help sought. When seeking help to prevent losses people expected sadness to be more useful and had relatively stronger preferences for sadness than when seeking help for other reasons. In addition, greater expected usefulness was associated with stronger preferences for sadness. Finally, preferences for happiness were higher than those for sadness across contexts indicating, as might be expected, that both pleasure and usefulness influence emotional preferences.

## Study 2

Study 2 was designed to both extend the findings of Study 1 and address some of its limitations. First, in Study 1, participants considered eliciting help from another person, in theory, but did not expect to elicit help, in actuality. It is important to examine whether the findings of Study 1 also apply to a situation in which people actually expect to elicit help from another person. Therefore, in Study 2 participants expected to ask another person for help.

Second, in Study 1 the two types of causes differed in the extent to which they focused on preventing losses but they may have also differed in other respects. For instance, causes that elicit help to prevent losses are likely more negative than causes that elicit help for other reasons. If so, individuals may prefer sadness more when eliciting help to prevent losses (vs. not), because sadness matches the valence of the situation. It is important, consequently, to examine situations that vary in the extent to which they involve losses, but do not vary on other important dimensions (e.g., negativity, personal importance). In Study 2 we tried to eliminate such potential confounds by presenting participants with the same negative situation, except that in one condition help was sought to prevent a potential loss and in the other, to attain a potential benefit.

Finally, in Study 1, participants considered eliciting help for the sake of others but not themselves. In Study 2, we examined preferences for sadness and the expected usefulness of sadness when eliciting help for more personal reasons. We expected preferences for experiencing and expressing sadness to be relatively stronger in Study 2, compared to Study 1.

In Study 2, we manipulated whether participants expected to elicit help to prevent a loss or attain a benefit, using a between-subjects design. All participants were presented with the same negative scenario and expected to ask another person for help. They were asked to imagine that they were behind on a class paper and would be asking a classmate for help. Half of the participants were led to believe they needed help to prevent a potential loss and half were led to believe they needed help to attain a potential benefit. We measured preferences and beliefs about the usefulness of emotions, as in Study 1. In addition, we measured concurrent feelings to rule out the possibility that preferences were driven by concurrent affect.

We predicted that participants who expected to elicit help to prevent a loss would be more willing to experience as well as express sadness, compared to participants who expected to elicit help to attain a benefit. In addition, we predicted that the expected usefulness of sadness would mediate the relationship between the type of help being elicited and preferences for sadness.

## Method

### Participants

Participants were 57 undergraduate students (54% female; age:  $M = 19.65$ ,  $SD = 1.09$ ) who participated for partial research credit to satisfy a course requirement or for \$10 cash. The sample was composed of 53% Caucasians, 25% Asians, 12% Latinos, 5% African Americans, 2% Middle

Easterners, and 3% who identified themselves as multiracial.

### Procedure

Participants completed the study individually. After providing informed consent, participants were told that to allow us to examine the process of impression formation, they would engage in a role-playing task with another participant. They were told that they should imagine they are talking to a classmate, played by the other participant, regarding a paper for class. The paper they would discuss with their classmate is due in 1 week and they have not started writing it because they were recently in a car accident and spent the last several weeks in the hospital. Participants were told they would complete several surveys before engaging in the role-playing task and be allowed time to prepare.

Participants were then randomly assigned to one of two conditions. Participants in the loss condition were told: “If you do not succeed in this particular course your GPA will drop dramatically and you will lose your chance of getting a high paying summer internship.” Participants in the no-loss condition were told: “If you succeed in this particular course your GPA will rise dramatically and you will earn your chance of getting a high paying summer internship.”

Participants provided demographic information, rated their concurrent feelings, and rated their motivation to ask for help and how successful they expect to be in attaining it. Then, participants rated the degree to which they preferred to experience and express different feelings as they interact with the other participant, as well as how useful they expected the experience and expression of each feeling to be in eliciting help from the other person. Finally, participants completed a funnel debriefing interview and were thanked for their participation.

### Materials

#### *Manipulation*

In a pilot test, participants ( $N = 20$ ) were assigned to the loss or the no-loss manipulation. To assess helplessness, participants rated how critical and important it was for them to get help (1 = not at all, 9 = extremely). A one-way ANOVA confirmed that people felt significantly more helpless in the loss ( $M = 7.79$ ,  $SD = 0.83$ ) compared to the no-loss ( $M = 6.42$ ,  $SD = 1.46$ ) condition,  $F(1,18) = 6.56$ ,  $p < .05$ .

Participants also rated how negative and how positive the potential outcome would be for them. A one-way ANOVA confirmed that conditions were equivalent in the degree to which the outcome would be negative

( $M_s = 6.50$  and  $6.70$ ,  $SD_s = 1.51$  and  $1.95$ , in the loss and no-loss conditions, respectively) and the degree to which it might be positive ( $M_s = 4.20$  and  $3.80$ ,  $SD_s = 2.30$  and  $2.44$ , in the loss and no-loss conditions, respectively),  $F_s < 1$ .

Finally, participants rated the extent to which they considered the outcome to be personally relevant and consistent with their personal goals. Follow up tests confirmed that the two outcomes were equally personally relevant ( $M_s = 7.70$  and  $6.90$ ,  $SD_s = 1.90$  and  $1.70$ , for the loss vs. no-loss condition, respectively) and equally consistent with one's personal goals ( $M_s = 6.85$  and  $7.70$ ,  $SD_s = 2.58$  and  $1.92$ , for the loss vs. no-loss condition, respectively),  $F_s < 1$ .

#### Preferences for emotion experience and expression

Participants rated the extent to which they preferred to experience and express sadness-related feelings (*sad, gloomy, blue, down*;  $\alpha = .96$  and  $.94$  for experience and expression, respectively), happiness-related feelings (*happy, elated, upbeat, cheerful*;  $\alpha = .90$  and  $.90$  for experience and expression, respectively) and calmness-related feelings (*calm, relaxed*;  $\alpha = .82$  and  $.81$  for experience and expression, respectively). Items were presented in a random order and responses were made on a 9-point Likert scale (0 = not at all, 8 = extremely).

#### Expected usefulness of emotion experience and expression

Participants rated how successful they expected to be in eliciting help when experiencing and when expressing sadness-related feelings (*sad, gloomy, blue, down*;  $\alpha = .95$  and  $.92$  for experience and expression, respectively), happiness-related feelings (*happy, elated, upbeat, cheerful*;  $\alpha = .96$  and  $.93$  for experience and expression, respectively), and calmness-related feelings (*calm, relaxed*;  $\alpha = .84$  and  $.73$  for experience and expression, respectively). Items were presented in a random order and responses were made on a 9-point Likert scale (0 = not at all, 8 = extremely).

#### Concurrent feelings

Participants rated the extent to which they were currently experiencing five positive feelings (*happy, cheerful, calm, relaxed, pleasant*;  $\alpha = .81$ ), four negative feelings (*sad, unhappy, unpleasant, nervous*;  $\alpha = .75$ ) and ten filler items (e.g., *engaged, focused, hungry*). Ratings were made on a 5-point Likert scale (1 = not at all, 5 = extremely) and all items were presented in a random order.

## Results

To test our predictions, for each measure we ran a repeated measures ANOVA, with Emotion (happiness, sadness, calmness) as a within-subject factor and Condition (loss vs. no-loss) as a between-subjects factor. We ran pairwise comparisons to examine the significance of the simple effects.

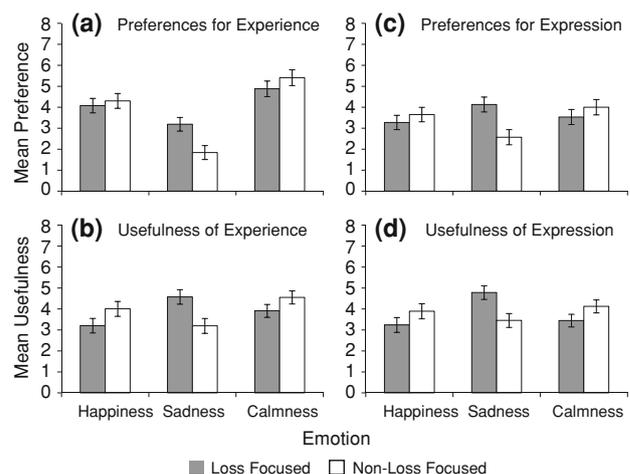
### Emotion experience

#### Preferences

Consistent with our expectations, the Condition  $\times$  Emotion interaction was significant,  $F(2,54) = 3.68$ ,  $p < .05$ , partial  $\eta^2 = 0.06$ . As shown in Fig. 2a, participants preferred to experience more sadness when eliciting help to prevent a loss than attain a benefit,  $F(1,55) = 8.44$ ,  $p < .01$ , partial  $\eta^2 = 0.13$ . The interaction qualified a main effect of Emotion,  $F(2,54) = 25.58$ ,  $p < .001$ , partial  $\eta^2 = 0.32$ , such that on average, participants preferred to experience more calmness ( $M = 5.14$ ,  $SD = 1.99$ ) than happiness ( $M = 4.19$ ,  $SD = 1.85$ ) and more calmness or happiness than sadness ( $M = 2.53$ ,  $SD = 1.87$ ),  $F(2,54)s > 20.28$ ,  $p_s < .001$ , partial  $\eta^2_s > 0.43$ .

#### Expected usefulness

As predicted, we found a significant Condition  $\times$  Emotion interaction,  $F(2,54) = 5.73$ ,  $p < .01$ , partial  $\eta^2 = 0.09$  (see Fig. 2b). Participants expected the experience of sadness to



**Fig. 2** Preferences for emotion experience (a) and the expected usefulness of emotion experience (b), and preferences for emotion expression (c) and the expected usefulness of emotion expression (d) as a function of the type of help elicited (Study 2). Error bars represent standard errors

be more useful when eliciting help to prevent a loss than to attain a benefit,  $F(1,55) = 7.74, p < .001, \text{partial } \eta^2 = 0.12$ .

#### Expected usefulness as a mediator of emotional preferences

To test whether the expected usefulness of experiencing sadness mediated the relationship between the type of help people expected to elicit and preferences for experiencing sadness, we followed the steps outlined by Baron and Kenny (1986). Helping Condition predicted preferences for experiencing sadness,  $t(55) = 2.90, p < .01, s\beta = .37$ , as well as the expected usefulness of experiencing sadness,  $t(55) = 2.78, p < .01, s\beta = .35$ . When Helping Condition and expected usefulness were entered as simultaneous predictors, only expected usefulness of sadness experience remained a significant predictor,  $t(54) = 2.84, p < .01, s\beta = .36$ , whereas Helping Condition did not,  $t < 1.90, s\beta = .14$ , Sobel's  $z = 1.93, p < .05$ , indicating full mediation.

### Emotion expression

#### Preferences

As we predicted, the only significant effect was a Condition  $\times$  Emotion interaction,  $F(2,54) = 4.64, p < .01$ , partial  $\eta^2 = 0.08$ . As shown in Fig. 2c, participants preferred to express more sadness when eliciting help to prevent a loss than to obtain a benefit,  $F(1,55) = 9.48, p < .01$ , partial  $\eta^2 = 0.15$ .

#### Expected usefulness

Consistent with our predictions, there was a significant Condition  $\times$  Emotion interaction,  $F(2,54) = 5.32, p < .01$ , partial  $\eta^2 = 0.09$  (see Fig. 2d). Participants expected the expression of sadness to be more useful when eliciting help to prevent a loss than to attain a benefit,  $F(1,55) = 8.27, p < .01$ , partial  $\eta^2 = 0.13$ .

#### Expected usefulness as a mediator of emotional preferences

We found that the type of help people expected to elicit determined their preferences for expressing sadness. To test whether the expected usefulness of expressing sadness mediated this relationship, we again followed the steps outlined by Baron and Kenny (1986). Helping Condition (0 = no-loss, 1 = loss) predicted preferences for sadness,  $t(55) = 3.08, p < .01, s\beta = .38$ . Helping Condition also predicted the expected usefulness of expressing sadness,

$t(55) = 2.88, p < .01, s\beta = .36$ . When Helping Condition and expected usefulness were entered as simultaneous predictors, only expected usefulness remained a significant predictor,  $t(54) = 6.88, p < .001, s\beta = .68$ , whereas Helping Condition did not,  $t < 1.41, s\beta = .24$ , Sobel's  $z = 2.63, p < .01$ , indicating full mediation.

### Affective experiences

We tested whether our manipulation influenced concurrent feelings, by running a repeated-measures ANOVA, with Affect (positive, negative) as a within-subject factor and Condition (loss vs. not) as a between-subjects factor. As predicted, the only significant effect was a main effect of Affect,  $F(1,55) = 106.74, p < .001$ , partial  $\eta^2 = 0.66$ , indicating that participants in both conditions reported feeling more positive ( $M = 4.73, SD = 1.25$ ) than negative ( $M = 1.96, SD = 1.27$ ). We also ran a one-way ANOVA, predicting concurrent feelings of sadness from Helping Condition, which was not significant,  $F < 2.03$ . Together, these findings demonstrate that concurrent feelings cannot account for the present findings.

### Discussion

The findings from Study 2 supported our hypotheses. First, preferences for sadness and the expected usefulness of sadness depended on the type of help sought. Participants eliciting help to prevent a loss (vs. attain a benefit) reported stronger preferences for sadness. This was evident when participants were reporting on how much sadness they would like to experience as well as how much sadness they would like to express. As predicted, participants expected experiencing as well as expressing sadness to be more useful when eliciting help to prevent a loss (vs. attain a benefit).

Second, consistent with the idea that people prefer to experience and express sadness when they expect it to be useful to them (e.g., when eliciting help to prevent a loss), in Study 2 the expected usefulness of experiencing as well as expressing sadness mediated the relationship between the type of help sought and preferences for experiencing and expressing sadness, respectively. Although very encouraging, this finding should be interpreted with caution, given the cross-sectional design of Study 2.

### General discussion

Emotions are instrumental in interpersonal communication (e.g., Ekman 1993; Keltner and Gross 1999; Van Kleef

2009). Sadness, in particular, conveys that a loss has or is about to occur (Smith and Lazarus 1993) and that the individual is in need of help (Folkman et al. 1986; Frijda 1986; Tomkins 1963). Therefore, sadness may carry instrumental benefits when people need help to handle a loss than for other reasons. Indeed, the current research showed that people expected the experience and expression of sadness to be more useful when eliciting help to handle a loss (vs. not). Participants in two studies were also more motivated to experience and express sadness when eliciting help to handle a loss (vs. not). These preferences for sadness were positively linked with and appear to be mediated by the expectation that sadness would be useful.

### Implications for emotion regulation

The instrumental approach to emotion regulation (e.g., Tamir 2009) proposes that what people want to feel depends not only on how pleasant emotions are but also on how instrumental they are to the task at hand. Because people are sometimes willing to forego immediate pleasure to attain future benefits, they may sometimes be willing to experience unpleasant emotions, when such emotions could be useful. The current research provides support for these propositions by showing that people are willing not only to experience, but also to express, sadness in a context in which they expect it to be useful. Such findings extend the available evidence in support of the instrumental approach, which to date has been limited to demonstrating preferences for anger and fear. In doing so, it suggests that people may be willing to experience very different types of unpleasant feelings when they believe such feelings to be useful.

The current research also extends the instrumental approach to preferences for emotion expression and, in doing so, links it to the available research on emotion regulation in interpersonal contexts (e.g., Rimé 2007). Such research has shown that people often strategically control the expression of their emotions to optimize social benefits. People control their emotional expressions in accordance with display rules (Ekman and Friesen 1969; 1975) or to achieve specific social goals (Zaalberg et al. 2004). Whereas research on instrumental emotion regulation has focused almost exclusively on emotion experience, research on emotion regulation in interpersonal contexts focused almost exclusively on emotion expression. What has been missing, therefore, are studies that look at both emotion experience and emotion expression in conjunction.

In this investigation, we examined preferences for the experience as well as expression of sadness. Consistent with the assumption that sadness offers both intrapersonal and interpersonal benefits, we found that preferences for

both the experience and the expression of sadness were higher when people expected to elicit help to handle a loss (vs. not). Of course, experience and expression tend to be closely related to each other. Future research should try to examine whether people have independent preferences for the experience and expression of sadness, or whether preferences for one aspect of sadness drive preferences for the other (e.g., people may be motivated to feel sad only so that they can express sadness persuasively).

### Limitations and future directions

Our investigation focused on knowledge about experience and expression of emotions, rather than emotion expression or experience per se. In both studies participants were presented with hypothetical scenarios and reported how useful they expected certain emotions to be as well as their preferences for emotions. Participants anticipated elicited help from others, yet they did not actually interact with another person and their emotional experiences and expressions during such an interaction were not recorded. Future research should examine sadness regulation in real time, before and during an interpersonal interaction, where people need to elicit help from others. In such research, it would also be important to examine the actual effects of sadness on helping behavior, as it is experienced and expressed to others.

We examined emotional preferences by asking people to rate the extent to which they prefer to experience and express specific emotions. Given the obvious limitations of self-report, it would be important in the future to assess such preferences, using other means. For instance, would people select activities that increase sadness when asking for help to prevent a loss? Furthermore, it may be important to assess preferences for experience and expression separately, to make sure that reporting on preferences for one aspect of emotion does not influence reported preference for the other aspect.

In the current investigation participants were motivated to experience and express sadness. However, participants were more motivated to express than experience sadness. This may be because expressing sadness serves an important communicative function in social interactions, or because the experience but not the expression of sadness involves a hedonic cost. Future studies can examine whether the experience and the expression of sadness serve unique functions (i.e., conserving resources and eliciting help) and whether preferences for experience and expression can be independent of each other.

Finally, this investigation focused on sadness, in particular. However, both sadness and fear may arise with regard to a potential loss. Follow-up studies could examine

preferences for sadness as well as fear, particularly when feelings of helplessness with respect to preventing a loss are either high or low. For instance, would people show relatively stronger preferences for sadness when they feel more helpless, but relatively stronger preferences for fear when they feel less helpless? Moreover, future research could extend the present work to examine the degree to which people use pleasant emotions to elicit different types of help from others.

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