

Social Emotion Regulation Strategies are Differentially Helpful for Anxiety and Sadness

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Supplementary Online Materials (SOM)

This file contains Figures S1-S3, Tables S1-S7, methods details, additional analyses, and documentation of instructions and items administered. Raw data and scripts for reported analyses can be accessed at <https://osf.io/2cd3f/>.

Questionnaire Measures Administered

Autism Quotient (AQ)

Berkeley Expressivity Questionnaire (BEQ)

Beck Depression Inventory (BDI)

Brief Wisdom Screening Scale (BWSS)

Center for Epidemiological Studies Depression Scale (CES-D)

Emotion Regulation Questionnaire (ERQ). Includes the Reappraisal subscale (ERQ-R)

Interpersonal Reactivity Index (IRI)

Positive and Negative Affective Schedule (PANAS)

Spielberger State-Trait Anxiety Inventory (STAI). Includes the state (STAI-S) and trait (STAI-T) scales

Figure S1. Counts of topics reported by targets in the anxiety condition for Phase 1 of Study 1

($n = 100$)

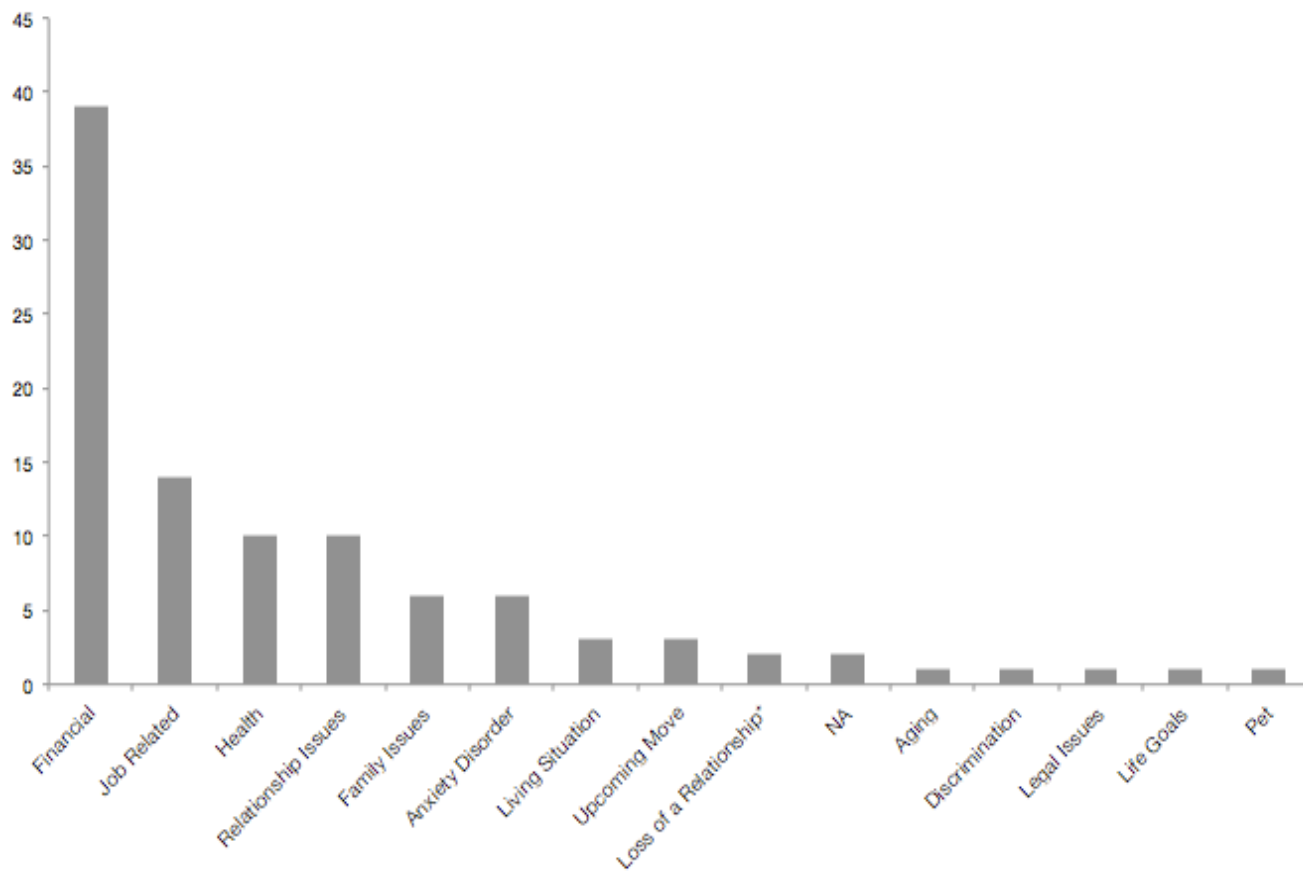


Figure S2. Counts of topics reported by targets in the sad condition for Phase 1 of Study 1

($n = 100$)

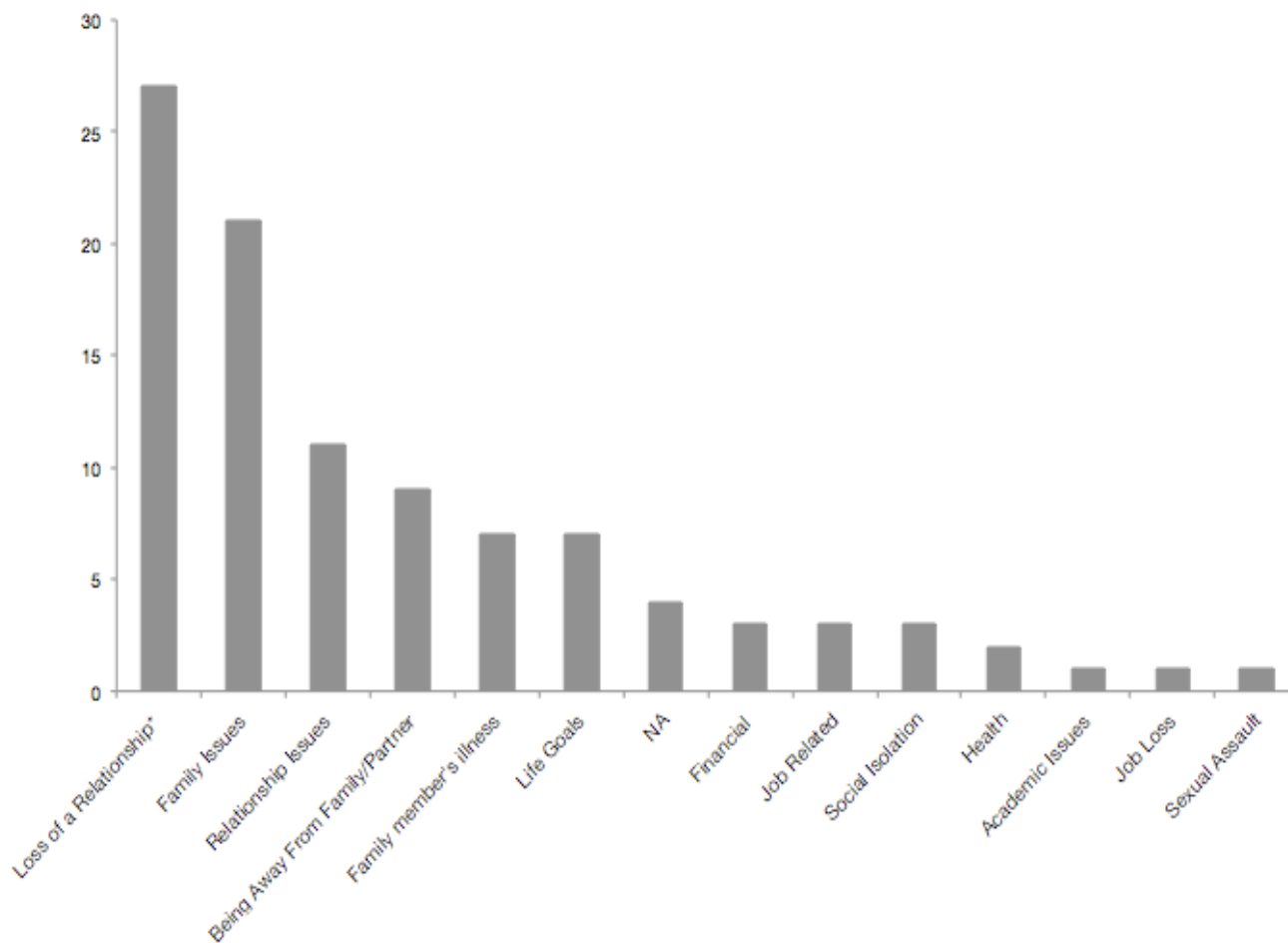


Figure S3. Counts of topics reported by targets in the “Loss of a Relationship” category for the sad condition in Phase 1 of Study 1.

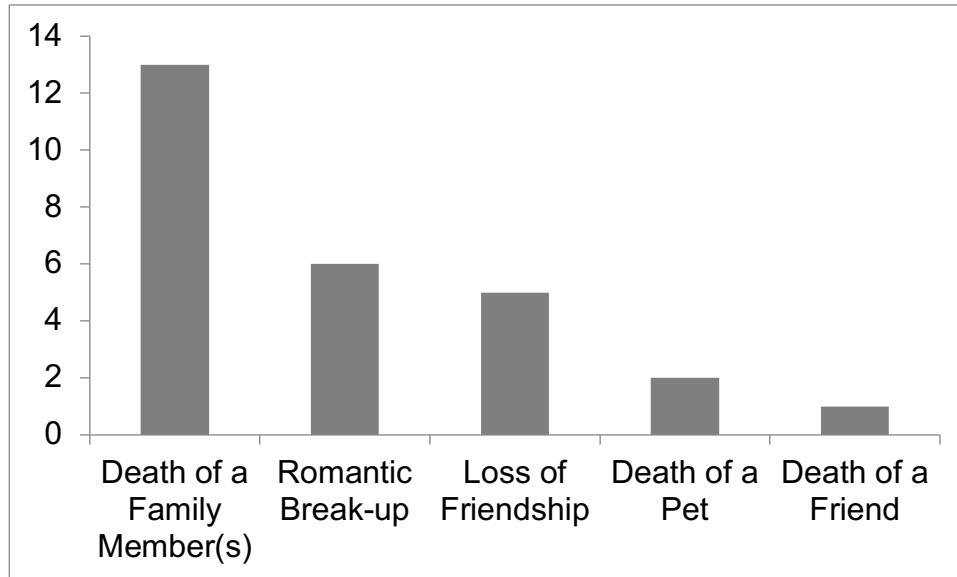


Table S1

Emotion Ratings by Targets (Phase 1) and Providers (Phase 2) in Study 1

Emotion Category	Targets Phase 1 (<i>n</i> = 100)			Providers Phase 2 (<i>n</i> = 88)		
	Rating <i>M</i> (<i>SD</i>)	Difference from primary emotion <i>M</i> _{Diff} [95% CI]	<i>d</i>	Rating <i>M</i> (<i>SD</i>)	Difference from primary emotion <i>M</i> _{Diff} [95% CI]	<i>d</i>
Anxiety Condition						
Anxiety	7.77 (1.59)			8.08 (1.68)		
Sadness	6.00 (2.41)	-1.77** [-2.40, -1.14]	-.85	6.13 (2.37)	-1.96** [-2.66, -1.25]	-.94
Interest	5.09 (2.56)	-2.68** [-3.54, -1.82]	-1.26	6.14 (2.50)	-1.94** [-2.80, -1.09]	-.91
Surprise	2.83 (2.26)	-4.94** [-5.66, -4.22]	-2.52	4.23 (2.61)	-3.85** [-4.71, -3.00]	-1.74
Sadness Condition						
Sadness	7.81 (1.47)			7.98 (1.66)		
Anxiety	6.23 (2.24)	-1.58** [-2.15, -1.01]	-.81	7.14 (2.19)	-.84* [-1.43, -.25]	-.43
Interest	4.96 (2.68)	-2.85** [-3.65, -2.05]	-1.31	5.76 (2.75)	-2.22** [-3.06, -1.37]	-.96
Surprise	2.92 (2.62)	-4.89** [-5.71, -4.07]	-2.31	4.52 (2.75)	-3.46** [-4.33, -2.58]	-1.51

Notes. Emotions were rated on a 9-point Likert scale to reflect how much the target experienced each emotion from their event (Phase 1), and how much the provider perceived the target to experience each emotion from their event (Phase 2; 1 = Not at all, 5 = Somewhat, 9 = Extremely). 95% CIs are adjusted with Bonferroni correction for pairwise comparisons within the anxiety/sad conditions. **p* < .01, ***p* < .001, FWE corrected.

Table S2

Excerpts of Targets' and Providers' Responses in Study 2

Target's Emotion Condition	Target's Event	Provider's Regulation Strategy	Provider's Response to Target
Anxiety	"I have had a lot more bills than I did before and have been using credit cards and running really behind on money and payments."	Situation modification	"There are a few steps you can take to dig yourself out of this hole. To help you get ahead, you need to create a careful budget of only your necessities. Once that is figured out you should know how much extra money you have each month that must go toward paying down your credit card debts"
Anxiety	"Right now I'm experiencing some financial issues thanks to the burden of years of student loans that have piled up since graduate school."	Reappraisal	"Consider this, being in all that debt now has put you in a position to be more stable later. There are people in a similar amount of debt who didn't get anything so useful as an education out of it."
Sadness	"About five years ago my mother was diagnosed with melanoma skin cancer; it is the most deadly kind. She struggled to survive during those five years and just late last year she finally succumbed to the disease."	Situation modification	"Another thing you can do to make your situation even better is to seek out a therapist... In our darkest times we often seclude ourselves from others, but in times like this it is best to reach out to people who can help us."
Sadness	"I recently ended a long term relationship that I really did not want to see end. While things could have been better, I did not think that they were at a critical point that necessitated a break up."	Reappraisal	"I know regret is something that is hard to shake when these things happen, but keep in mind that you made a bold, thoughtful decision - on the part of both parties."

Table S3

Emotion Ratings by Targets (Phase 1) and Providers (Phase 2) in Study 2

Emotion Category	Targets			Providers		
	Phase 1 (<i>n</i> = 100/condition)			Phase 2 (<i>n</i> = 187)		
	Rating M (SD)	Difference from primary emotion M _{Diff} [95% CI]	<i>d</i>	Rating M (SD)	Difference from primary emotion M _{Diff} [95% CI]	<i>d</i>
Anxiety Condition						
Anxiety	5.80 (1.28)			6.12 (1.11)		
Sadness	4.37 (1.96)	-1.43* [-1.95, -.91]	-.81	4.74 (1.58)	-1.38* [-1.71, -1.05]	-1.00
Calm	2.03 (1.17)	-3.77* [-4.51, -3.03]	-3.08	2.19 (1.25)	-3.93* [-4.35, -3.52]	-3.33
Surprise	1.80 (1.44)	-4.00* [-4.60, -3.40]	-2.93	2.44 (1.52)	-3.68* [-4.10, -3.26]	-2.78
Happiness	1.84 (1.26)	-3.96* [-4.70, -3.21]	-3.12	1.78 (1.05)	-4.34* [-4.71, -3.97]	-4.02
Sadness Condition						
Sadness	5.84 (1.25)			5.96 (1.11)		
Anxiety	4.69 (1.75)	-1.15* [-1.79, -.51]	-.74	4.94 (1.49)	-1.02* [-1.37, -.66]	-.77
Calm	2.44 (1.28)	-3.39* [-4.17, -2.62]	-2.67	2.45 (1.32)	-3.50* [-3.89, -3.12]	-2.88
Surprise	2.41 (1.66)	-3.43* [-4.16, -2.70]	-2.33	3.42 (1.72)	-2.54* [-2.93, -2.15]	-1.74
Happiness	1.61 (1.02)	-4.23* [-4.86, -3.60]	-3.70	1.65 (.95)	-4.31* [-4.66, -3.96]	-4.18

Notes. Emotions were rated on a 7-point Likert scale to reflect how much the target experienced each emotion from their event (Phase 1), and how much the provider perceived the target to experience each emotion from their event (Phase 2; 1 = Not at all, 4 = Somewhat, 7 = Extremely). 95% CIs are adjusted with Bonferroni correction for pairwise comparisons within the anxiety/sad conditions. * $p \leq .001$, FWE corrected.

Table S4

Correlations Between Targets' Trait Measures and Judged Helpfulness of Provider's Response in Study 2 (n = 131)

Measure	1	2	3	4	5
1. CES-D					
2. ERQ-R	-.26**				
3. IRI	-.011	.29***			
4. STAI-T	.86***	-.25**	.007		
5. Judged helpfulness upon receiving social emotion regulation (Phase 3)	-.19*	.17*	.17*	-.24**	
6. Judged helpfulness after a month (Phase 4)	-.077	.20*	.10	-.11	.67***

Notes. Pearson's correlation coefficients displayed. * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table S5

Simple Main Effects for Replication Results in Study 2

Phase 1: Target's beliefs						
	M_{Diff} [95% CI]	SE	t	df	p	d
1. Anxiety Condition: Advice > Emotional Support	.63 [.030, 1.24]	.24	2.66	126	.009*	.45
2. Sad Condition: Emotional Support > Advice	.32 [-.33, .97]	.26	1.25	126	.22	.23
3. Advice Condition: Anxiety > Sadness	.25 [-.50, 1.00]	.30	.86	126	.39	.18
4. Emotional Support Condition: Sadness > Anxiety	.70 [-.038, 1.44]	.29	2.40	126	.018	.50
Phase 2: Providers' beliefs						
	M_{Diff} [95% CI]	SE	t	df	p	d
1. Anxiety Condition: Advice > Emotional Support	.91 [.52, 1.30]	.15	5.90	186	<.001***	.63
2. Sad Condition: Emotional Support > Advice	.26 [-.15, .67]	.16	1.58	186	.12	.18
3. Advice Condition: Anxiety > Sadness	.43 [.17, .70]	.11	4.15	186	<.001***	.33
4. Emotional Support Condition: Sadness > Anxiety	.73 [.43, 1.04]	.12	6.12	186	<.001***	.47

Notes. Study 2 (Phase 1) results reflect differences of estimated marginal means when adjusting for targets' traits (ERQ-R, STAI-T, IRI). Beliefs were rated on a 7 pt. Likert scale (1 = not helpful at all, 4 = somewhat helpful, 7 = Extremely helpful). 95% CIs adjusted with Bonferroni correction for number of comparisons within each phase. * $p < .05$, ** $p < .01$, *** $p < .001$, FWE corrected.

Table S6

Targets' Emotion Ratings Before and After Social Emotion Regulation in Study 2 (Phase 3, n = 131)

Emotion Rating	After reading event (T1)	Difference from primary emotion	<i>d</i>	After reading provider's response (T2)	Difference from primary emotion	<i>d</i>	T2 – T1	
	<i>M (SD)</i>	<i>M_{Diff}</i> [95% CI]		<i>M (SD)</i>	<i>M_{Diff}</i> [95% CI]		<i>M_{Diff}</i> [95% CI]	<i>d</i>
Anxiety Condition								
Anxiety	4.89 (1.78)			3.20 (1.69)			-1.69*** [-2.02, -1.35]	-.97
Sadness	3.93 (1.98)	-.96*** [-1.49, -.42]	-.51	2.66 (1.71)	-.54* [-1.06, -.023]	-.32	-1.27*** [-1.62, -.92]	-.68
Calm	3.31 (1.73)	-1.57*** [-2.67, -.48]	-.89	4.37 (1.63)	1.17* [.17, 2.17]	.70	1.06*** [.65, 1.46]	.63
Happiness	2.47 (1.63)	-2.41*** [-3.37, -1.46]	-1.41	3.90 (1.79)	.70 [-.29, 1.69]	.40	1.43*** [1.09, 1.76,]	.83
Surprise	1.90 (1.38)	-2.99*** [-3.73, -2.24]	-1.87	3.27 (2.03)	.071 [-.77, .91]	.038	1.37*** [.94, 1.80]	.76
Sadness Condition								
Sadness	5.46 (1.54)			4.05 (1.77)			-1.41*** [-1.78, -1.04]	-.84
Anxiety	4.11 (1.74)	-1.34*** [-1.92, -.77]	-.81	3.02 (1.69)	-1.03*** [-1.54, -.53]	-.60	-1.10*** [-1.51, -.69]	-.64
Calm	2.95 (1.66)	-2.51*** [-3.59, -1.43]	-1.57	4.02 (1.57)	-.033 [-1.05, .99,]	-.02	1.07*** [.63, 1.50]	.66
Happiness	1.95 (1.30)	-3.51*** [-4.49, -2.52]	-2.47	3.08 (1.58)	-.97 [-2.10, .16,]	-.58	1.13*** [.76, 1.50]	.77
Surprise	1.92 (1.14)	-3.54*** [-4.23, -2.85]	-2.60	2.80 (1.50)	-1.25*** [-2.10, -.39]	-.76	.89*** [.49, 1.28]	.66

Notes. Emotions were rated on a 7-point Likert scale (1 = Not at all, 4 = Somewhat, 7 = Extremely) by targets before and after receiving providers' responses. 95% CIs are adjusted with Bonferroni correction for pairwise comparisons. * $p \leq .05$, *** $p \leq .001$, FWE corrected.

Table S7

Judged Helpfulness of Providers' Responses by Targets in Study 2

Model	Provider's social emotion regulation strategy	Target's Emotion Condition	
		Anxiety <i>EMM</i> [95% CI]	Sadness <i>EMM</i> [95% CI]
Phase 3			
ANOVA	Situation modification	5.03 [4.53, 5.52]	4.77 [4.22, 5.33]
	Reappraisal	4.48 [3.93, 5.04]	5.17 [4.60, 5.73]
ANCOVA 1	Situation modification	5.07 [4.59, 5.54]	4.65 [4.12, 5.18]
	Reappraisal	4.39 [3.86, 4.93]	5.33 [4.78, 5.89]
ANCOVA 2	Situation modification	5.01 [4.52, 5.50]	4.68 [4.14, 5.22]
	Reappraisal	4.48 [3.93, 5.02]	5.29 [4.72, 5.85]
Phase 4			
ANOVA	Situation modification	4.62 [4.10, 5.13]	4.23 [3.65, 4.81]
	Reappraisal	4.26 [3.68, 4.84]	4.70 [4.11, 5.29]
ANCOVA 1	Situation modification	4.63 [4.12, 5.14]	4.13 [3.56, 4.70]
	Reappraisal	4.17 [3.59, 4.74]	4.87 [4.28, 5.47]
ANCOVA 2	Situation modification	4.47 [3.95, 4.98]	4.18 [3.61, 4.75]
	Reappraisal	4.29 [3.72, 4.87]	4.90 [4.30, 5.49]

Notes. Targets judged the helpfulness of the provider's response upon receiving it in Phase 3, and how helpful the response had been for them after one month in Phase 4 (1 = Not at all, 4 = Somewhat, 7 = Extremely). The ANOVA presents estimated marginal means (EMM) without adjusting for covariates. ANCOVA 1 adjusts for targets' scores on trait variables assessed in Phase 1 (ERQ-R, STAI-T, IRI). ANCOVA 2 adjusts for these traits and additional confounds (targets' ratings of importance of events, perceived controllability, and beliefs about social support strategies).

Study 1 (Phase 2)

Methods

Criteria for selecting target events. The following criteria were used to select the targets from Phase 1 that providers would respond to in this phase: 1) the event in the anxiety condition had to be rated by the target to be higher on anxiety than sadness by at least two points, 2) the event in the sad condition had to be rated by the target to be higher on sadness than anxiety by at least two points, and 3) the target must have wanted to receive social support, as indicated by their consent to receive written support from other participants. These criteria were implemented in order to have providers respond to events that primarily caused anxiety and sadness for targets in the respective conditions, and that were intended by targets to elicit support from providers. Twenty targets from Phase 1 fulfilled all three of these criteria.

Analyses

Emotions perceived in targets. Similar analyses to those performed in Phase 1 of Study 1 confirmed that providers perceived anxiety to be the primary emotion experienced by targets in the anxiety condition, and sadness to be the primary emotion experienced by targets in the sad condition. For the anxiety condition, a repeated measures ANOVA (Greenhouse-Geisser corrected) indicated a significant difference amongst the four emotion categories ($F(2.77, 241.07) = 47.84, p < .001$) and post-hoc tests with Bonferroni correction for multiple comparisons demonstrated that the mean for anxiety ratings was significantly (all $ps \leq .001$) greater than the means for all other emotions (see Table S1). For the sad condition, a repeated measures ANOVA (Greenhouse-Geisser corrected) indicated a significant difference amongst the emotion categories ($F(2.60, 226.11) = 54.39, p < .001$) and post-hoc tests with Bonferroni

correction for multiple comparisons demonstrated that the mean for sadness ratings was significantly (all p s < .01) greater than the means for all other emotions (see Table S1).

Comparisons between the anxiety and sad conditions using paired t -tests confirmed that anxiety was greater in the anxiety condition than in the sad condition ($M_{\text{Diff}} = .94$, 95% CI [.37, 1.52], $t(87) = 3.25$, $p = .002$, $d = .48$), whereas sadness was greater in the sad than in the anxiety condition ($M_{\text{Diff}} = 1.85$, 95% CI [1.28, 2.42], $t(87) = 6.43$, $p < .001$, $d = .90$). In this phase, interest was rated to be significantly greater in the anxiety than in the sad condition ($M_{\text{Diff}} = .38$, 95% CI [.001, .75], $t(87) = 1.99$, $p = .049$, $d = .14$). There was no significant difference between conditions for surprise ($M_{\text{Diff}} = -.30$, 95% CI [-.99, .40], $t(87) = -.84$, $p = .40$, $d = -.11$).

Study 2 Recruitment and Exclusion Criteria

In Phase 1, 245 participants were recruited with the aim of having 100 targets in each of the anxiety and sad conditions who 1) provided responses that met inclusionary criteria (see below), and 2) consented to being re-contacted to receive responses from a provider.

Recruitment was terminated when 100 participants fulfilled these criteria in both conditions.

This recruitment number was determined prior to running this study by doubling the sample size used in Phase 1 of Study 1. To obtain the recruitment number, 120 targets were recruited in the anxiety condition. Out of these participants, one participant was excluded for not following instructions in their written response, and one participant was excluded due to having an identical IP address as another participant in the prior study. Eighteen participants did not consent to being re-contacted. Data from these 20 participants were excluded from analyses. In the sad condition, 125 targets were recruited. Of these, two targets were excluded for not

submitting the HIT, and 23 targets did not consent to being re-contacted. Data from these 25 participants were excluded from analyses.

Out of the 200 targets recruited in Phase 1 who consented to being re-contacted, there were 20 targets (10 in the anxiety condition, 10 in the sad condition) for whom we were unable to recruit providers for in Phase 2 who could implement social emotion regulation according to our inclusion criteria for providers' responses (see coding procedures in Methods section for Phase 2 in SOM). These 20 targets were not re-contacted for Phase 3. In Phase 3, an additional 40 targets were unable to be contacted or did not respond to our request to participate in this phase of the study. In Phase 4, nine participants were unable to be contacted or did not respond to our request for participation.

Study 2 (Phase 1)

Methods

Rationale for limiting target events. Financial problems and the loss of a relationship were the two types of events most commonly reported to cause anxiety and sadness respectively in Phase 1 of Study 1 (see Figures S1-S3), and are consistent with the appraisal patterns associated with anxiety as a response to potential threat and sadness as a response to irrevocable loss. In this study, we constrained the types of situations reported by targets so that providers could respond to roughly consistent types of events in Phase 2. This procedure also ensured that targets primarily reported experiencing anxiety and sadness in the respective conditions with a between-groups design (see Methods section for Phase 1 of Study 1 for further discussion).

Rationale for emotion categories. As in Study 1, anxiety and sadness were assessed to confirm that these emotions were primarily elicited respectively in the anxiety and sad conditions.

Surprise, calm, and happiness were administered as control and filler items that were either neutral or positive in valence. We had no a priori predictions for differences between conditions for these emotions.

Analyses

Emotions induced by targets' events. In the anxiety condition, a repeated measures ANOVA (Greenhouse-Geisser corrected) indicated a significant difference amongst the five emotion categories ($F(2.44, 168.52) = 109.47, p < .001$) and post-hoc tests with Bonferroni correction for multiple comparisons confirmed that the mean for anxiety was significantly (all $ps \leq .001$) greater than the means for all other emotions. In the sad condition, a repeated measures ANOVA (Greenhouse-Geisser corrected) indicated a significant difference amongst the five emotion categories ($F(2.93, 175.81) = 99.98, p < .001$) and post-hoc tests with Bonferroni correction for multiple comparisons confirmed that the mean for sadness was significantly (all $ps \leq .001$) greater than the means for all other emotions (see Table S3).

Independent samples *t*-tests confirmed that anxiety was greater in the anxiety than in the sad condition ($M_{\text{Diff}} = 1.11, 95\% \text{ CI } [.57, 1.65], t(108.65) = 4.10, p < .001, d = .73$), whereas sadness was greater in the sad condition than in the anxiety condition ($M_{\text{Diff}} = 1.47, 95\% \text{ CI } [.90, 2.03], t(118.96) = 5.16, p < .001, d = .88$). Surprise was rated less in the anxiety than in the sad condition ($M_{\text{Diff}} = -.61, 95\% \text{ CI } [-1.15, -.069], t(119.85) = -2.23, p = .027, d = -.39$). There was no significant difference between conditions for calm ratings ($M_{\text{Diff}} = -.41, 95\% \text{ CI } [-.84, .013]$),

$t(122.30) = -1.92, p = .057, d = -.34$ and happiness ratings ($M_{\text{Diff}} = .23, 95\% \text{ CI } [-.16, .63]$),
 $t(128.38) = 1.19, p = .24, d = .20$).

Replication of Study 1, Phase 1 results. Replicating findings from Phase 1 of Study 1, a mixed-design ANCOVA (adjusting for ERQ-R, STAI-T, and IRI) yielded a significant interaction effect between the target's emotion (between-subjects levels: anxiety, sadness) and type of social support strategy (within-subjects levels: advice, emotional support) for how helpful targets believe social support strategies to be ($F(1, 126) = 7.38, p = .008, \eta^2_G = .020$). There were no significant main effects for either targets' emotion ($F(1, 126) = .90, p = .34, \eta^2_G = .005$) or type of social support strategy assessed ($F(1, 126) = .82, p = .37, \eta^2_G = .002$).

After Bonferroni correction, only one planned comparison out of four was significant. Targets experiencing anxiety believed advice ($EMM = 5.35, SE = .20$) to be significantly more helpful than emotional support ($EMM = 4.71, SE = .20$). However, targets experiencing sadness did not believe emotional support ($EMM = 5.41, SE = .21$) and advice ($EMM = 5.09, SE = .22$) to be differentially helpful. No other comparison was significant (see Table S5). An ANOVA conducted without adjusting for covariates yielded similar results for the interaction effect ($F(1, 129) = 6.83, p = .010, \eta^2_G = .016$).

Study 2 (Phase 2)

Methods

Details on training procedures. Providers trained to use situation modification were instructed to help the target change or modify their situation so that it causes the target less distress (e.g., suggest actions that the target could take to change their situation, or people they could seek who

may be able to help them directly). Here, it was noted that providers should avoid telling targets how to think about their situation and what it means to them. Providers trained to use reappraisal were instructed to help the target change the way the target thinks about their situation, or reframe what it means to them, so that the target's situation causes them less distress (e.g., help the target look on the bright side, or help them understand how some aspect of their situation may not be as bad as it seems). Here, it was noted that providers should avoid telling targets what actions they should take to change their situation.

After reading the instructions, participants completed a training session in which they read an example of an event (which was identical across conditions) and an example of a response to the event. For providers in the situation modification condition, the example response suggested various ways to help the target change or modify their situation. For providers in the reappraisal condition, the example response suggested various ways to help the target think about their situation differently. After reading the example event and response, participants completed a practice trial by reading another sample event (which was identical across conditions) and writing a response for the event using the emotion regulation strategy they had been instructed to use.

Coding of providers' responses. To ensure that providers wrote responses using the emotion regulation strategy they were trained to use in their condition, three coders (two who were blind to the hypotheses of the study and the providers' condition, and one who was only blind to the providers' condition) coded all responses written by providers. For each response written by a provider, coders indicated whether the response helps the target to a) think about the situation differently, b) change or modify the situation, c) neither, or d) both equally. In addition to other

ratings, coders also indicated a binary response indicating whether or not the response was rude or hurtful. A provider's responses were excluded if one of their responses to an anxiety or sad event met at least one of the following exclusion criteria: 1) two out of three coders did not correctly identify the type of strategy that the provider was trained to use ("think about the situation differently" for the reappraisal condition, and "change or modify the situation" for the situation modification condition), or 2) one of the coders classified the response as rude or hurtful. If a participant's responses were excluded, another participant was recruited on MTurk to respond to the same targets' events. This procedure was repeated until a participant provided responses to the targets' events that met inclusion criteria. If valid responses to a set of events could not be obtained after three rounds of provider recruitment, the targets who provided those events were excluded from Phase 3. As a result of this, 20 targets from Phase 1 (ten from each of the anxiety and sad conditions) were not re-contacted in Phase 3.

Analyses

Emotions perceived in targets. For the anxiety condition, a repeated measures ANOVA (Greenhouse-Geisser corrected) indicated a significant difference amongst the five emotion categories ($F(2.98, 554.39) = 377.74, p < .001$) and post-hoc tests with Bonferroni correction for multiple comparisons confirmed that the mean for anxiety ratings was significantly (all $ps \leq .001$) greater than the means for all other emotions. For the sad condition, a repeated measures ANOVA (Greenhouse-Geisser corrected) indicated a significant difference amongst the five emotion categories ($F(3.15, 585.33) = 316.88, p < .001$) and post-hoc tests with Bonferroni correction for multiple comparisons confirmed that the mean for sadness ratings was significantly (all $ps \leq .001$) greater than the means of all other emotions (see Table S3).

Paired *t*-tests indicated that anxiety was rated to be greater in the anxiety than in the sad condition ($M_{\text{Diff}} = 1.18$, 95% CI [.92, 1.43], $t(186) = 9.10$, $p < .001$, $d = .89$), whereas sadness was rated to be greater in the sad condition than in the anxiety condition ($M_{\text{Diff}} = 1.22$, 95% CI [.96, 1.47], $t(186) = 9.44$, $p < .001$, $d = .89$). Surprise was rated less in the anxiety than in the sad condition ($M_{\text{Diff}} = -.98$, 95% CI [-1.28, -.68], $t(186) = -6.44$, $p < .001$, $d = -.60$), as was calm ($M_{\text{Diff}} = -.27$, 95% CI [-.48, -.059], $t(186) = -2.53$, $p = .012$, $d = -.21$). There was no significant difference between conditions for happiness ($M_{\text{Diff}} = .13$, 95% CI [-.027, .29], $t(186) = 1.65$, $p = .10$, $d = .13$).

Replication of results from Study 1, Phase 2. Replicating findings from Phase 2 of Study 1, a repeated measures ANOVA indicated a significant interaction effect in the predicted directions between the targets' emotion (levels: anxiety, sadness) and type of social support strategy assessed (levels: advice, emotional support) for how helpful providers believed social support would be for targets ($F(1, 186) = 44.35$, $p < .001$, $\eta^2_G = .040$). Unlike Study 1, there were significant main effects for both the emotion condition and type of support strategy. Support was perceived to be more helpful for sad events regardless of strategy ($F(1, 186) = 4.51$, $p = .035$, $\eta^2_G = .003$), and advice was believed to be more helpful than emotional support regardless of emotion condition ($F(1, 186) = 6.14$, $p = .014$, $\eta^2_G = .013$). With Bonferroni correction, three out of four planned comparisons were significant. Simple main effects analyses indicated that for targets experiencing anxiety, providers believed advice ($EMM = 5.80$, $SE = .092$) to be significantly more helpful than emotional support ($EMM = 4.89$, $SE = .12$). However, for targets experiencing sadness, providers did not believe emotional support ($EMM = 5.62$, $SE = .11$) would be significantly more helpful than advice ($EMM = 5.36$, $SE = .099$). Providers believed

advice to be significantly more helpful for targets experiencing anxiety than for targets experiencing sadness. Conversely, emotional support was believed to be significantly more helpful for targets experiencing sadness than for targets experiencing anxiety (see Table S5 for comparisons).

Study 2 (Phase 3) Analyses

Emotion ratings before receiving social emotion regulation. For targets in the anxiety condition, a repeated measures ANOVA (Greenhouse-Geisser corrected) indicated a significant difference amongst the five emotion categories ($F(1.94, 133.60) = 32.56, p < .001$), and post-hoc tests with Bonferroni correction for multiple comparisons confirmed that the mean for anxiety ratings was significantly (all $ps \leq .001$) greater than the means for all other emotions. For targets in the sad condition, a repeated measures ANOVA (Greenhouse-Geisser corrected) indicated a significant difference amongst the five emotion categories ($F(1.95, 116.69) = 56.85, p < .001$), and post-hoc tests with Bonferroni correction for multiple comparisons confirmed that the mean for sadness ratings was significantly (all $ps \leq .001$) greater than the means for all other emotions (see Table S6).

Strategy identification. Independent samples t -tests indicated that targets who received responses from providers implementing situation modification did not rate these responses as helping them to leave or change their situation ($M = 3.66, SD = 1.81$) significantly more than targets who received responses from providers implementing reappraisal ($M = 3.18, SD = 1.71$; $M_{Diff} = .48, 95\% \text{ CI } [-.13, 1.09], t(128.15) = 1.55, p = .12$). Likewise, targets who received responses from providers implementing reappraisal did not rate these responses as helping them

to think about their situation in a different way ($M = 4.82$, $SD = 1.55$) significantly more than targets who received responses from providers implementing situation modification ($M = 4.56$, $SD = 1.85$; $M_{\text{Diff}} = .26$, 95% CI [-.33, .85], $t(128.82) = .88$, $p = .38$). Paired t -tests indicated that targets who received responses from providers using situation modification ($M_{\text{Diff}} = .9$, 95% CI [.57, 1.23], $t(69) = 5.52$, $p < .001$) and reappraisal ($M_{\text{Diff}} = 1.64$, 95% CI [1.25, 2.03], $t(60) = 8.38$, $p < .001$) both perceived the responses as helping them to change how they thought about their situation more so than as helping them to actively modify their situation.

Relationships between beliefs about strategies and judged helpfulness of providers' responses.

We performed a correlation to assess the relationship between targets' beliefs from Phase 1 and judgments from Phase 3. Here, we correlated ratings assessed in Phase 1, of how helpful they believed *either* situation modification or reappraisal would be for their event (depending on the strategy subsequently implemented for them by a provider), and ratings of how helpful they judged the response from the provider to be. Across all targets, there was no relationship between how helpful targets believed either situation modification or reappraisal to be, and how helpful they judged the response they received from a provider to be ($r = -.010$, 95% CI [-.18, .16], $p = .91$).

As providers' responses were judged to differ in their degree of advice and emotional support depending on whether they used situation modification or reappraisal (see manuscript), we then performed a correlation to assess the relationship between how helpful advice (for targets who received responses implementing situation modification) or emotional support (for targets who received responses implementing reappraisal) was believed to be, as assessed in

Phase 1, with how helpful targets judged the provider's response to be. This correlation was not statistically significant ($r = .15$, 95% CI [-.027, .31], $p = .098$).

Documentation of Instructions and Materials

Study 1 (Phase 1)

The protocol consisted of the following steps listed in order of administration:

1. **Informed consent**
2. **Captcha verification**
3. **State emotion measures:** measures are presented in random order across participants.
 - a. PANAS
 - b. STAI-S
4. **Instructions:**
You will now be asked to write about two different dilemmas that you are currently experiencing, one dilemma that is causing you to feel anxiety and another dilemma that is causing you to feel sad. You will make ratings about the dilemmas after writing about each dilemma.
5. **Write about first dilemma:** Anxiety and sad conditions are presented in random order across participants.

Instructions for the anxiety condition:

Describe a current dilemma in your life that is causing you to experience *anxiety*, and that you would like to receive social support from someone on.

Please provide adequate information so that someone reading this description could potentially understand your situation and provide social support to you. Your response must be between 600-1200 characters including spaces (roughly 100-200 words).

Instructions for the sad condition:

Describe a current dilemma in your life that is causing you to experience *sadness*, and that you would like to receive social support from someone on.

Please provide adequate information so that someone reading this description could potentially understand your situation and provide social support to you. Your response must be between 600-1200 characters including spaces (roughly 100-200 words).

6. **Rate dilemma:** Items within each set of ratings are presented in random order across participants.

a. Using the scale below, please indicate the greatest amount of EACH emotion you experienced while thinking about the dilemma. (1 = Not at all, 5 = Somewhat, 9 = Extremely)

- Anxiety
- Sadness
- Interest
- Surprise

b. Please indicate how helpful you think each type of support would be on a scale from 1 = Not helpful at all, to 9 = Extremely helpful. (1 = Not helpful at all, 5 = Somewhat helpful, 9 = Extremely helpful)

- To receive emotional support
- To receive advice on what to do

c. Using the scale below, please answer the following questions: (1= Not at all, 5 = Somewhat, 9 = Extremely)

- How important is this dilemma to you?
- How complicated is this dilemma for you?

7. **Steps 5-6 are repeated for the second dilemma:** the dilemma is for either the anxiety or sadness condition, whichever was not completed in Steps 5-6.

8. **Consent for re-contact:**

Thank you for writing about your dilemmas. We may share your dilemmas anonymously to people in future studies and ask them to provide social support in response to your dilemmas. If you are interested in reading the responses that other people may have to your dilemmas, please indicate that we may contact you in the future to provide you with the responses of others and to have you read and rate these responses. Participation for this will be compensated at a rate equal to or higher than the rate for the current study.

Please note that not all participants in this study may be contacted to receive and rate responses provided by other participants.

Options:

- Yes, I would like to be contacted in the future to receive responses written by others regarding my dilemmas and to rate these responses.

- No, I would not like to be contacted in the future to receive responses written by others regarding my dilemmas.

9. **State emotion measures:** measures are presented in random order across participants.
 - a. PANAS
 - b. STAI-S
10. **Brief COPE Scale**
11. **Trait and demographics measures:** measures are presented in random order across participants.
 - a. STAI-T
 - b. BDI
 - c. BEQ
12. **Demographics measures**
 - a. MacArthur SES Scale
 - b. Demographics (age, gender, race/ethnicity)
13. **Attention check:** this consisted of a simple math problem.
14. **Participants were provided a debriefing statement and code word to submit the HIT.**

Study1 (Phase 2)

The following four conditions were administered to separate groups of participants (each condition was administered through a separate HIT):

- 1) Anxiety dilemma presented before the sad dilemma, with ratings of target's emotions (Step 6) collected before written response to target (Step 7a).
- 2) Sad dilemma presented before the anxiety dilemma, with ratings of target's emotions (Step 6) collected before written response to target (Step 7a).
- 3) Anxiety dilemma presented before the sad dilemma, with written response to target (Step 7a) collected before ratings of target's emotions (Step 6).

- 4) Sad dilemma presented before the anxiety dilemma, with written response to target (Step 7a) collected before ratings of target's emotions (Step 6).

The protocol consisted of the following steps listed in order of administration:

1. **Informed consent**
2. **Captcha verification**
3. **State emotion measures:** measures are presented in random order across participants.
 - a. PANAS
 - b. STAI-S
4. **Instructions:**

You will now read brief statements written by individuals describing dilemmas they are currently experiencing in their lives. After reading each statement, you will write a response to the person experiencing the dilemma.
5. **Read first dilemma from target:** the first dilemma is from either the anxiety or sadness condition of Phase 1, with the order of dilemmas determined by the group the participant is in.
6. **Rate and write response to first dilemma:** steps a and b are completed in different orders depending on the participant's group. Items within each set of ratings are presented in random order across participants.
 - a. Using the scale below, please indicate the greatest amount of EACH emotion you think the PERSON WHO WROTE THIS STATEMENT feels about the dilemma (1 = Not at all, 5 = Somewhat, 9 = Extremely)
 - Anxiety
 - Sadness
 - Interest
 - Surprise
 - b. What would you say to the person experiencing this dilemma?

Please write a response that expresses what you would say in person. Your response must be between 600-1200 characters including spaces (roughly 100-200 words).

Your response may be shown to the person who is experiencing this dilemma.

7. Additional ratings for the first dilemma:

Please answer the following questions about this dilemma: (1= Not at all, 5 = Somewhat, 9 = Extremely)

- How important do you think this dilemma is for the person?
- How complicated do you think this dilemma is for the person?

8. Steps 5-7 are repeated for the second dilemma: the second dilemma is from either the anxiety or sadness condition of Phase 1, whichever was not presented in steps 5-7.

9. Read first dilemma again: the order that anxiety and sad dilemmas are presented is the same as that of steps 5 and 8.

10. Rate first dilemma: items within each set of ratings are presented in random order across participants.

- a. Please indicate how helpful you think each type of support would be for the person experiencing this dilemma. (1 = Not helpful at all, 5 = Somewhat helpful, 9 = Extremely helpful)
 - To provide emotional support
 - To provide advice on what to do
- b. Please answer the following questions about this dilemma: (1= Not at all clearly, 5 = Somewhat clearly, 9 = Extremely clearly)
 - How clearly did the person experiencing this dilemma EXPRESS WANTING SUPPORT from someone?
 - How clearly did the person experiencing this dilemma EXPRESS THE EMOTIONS they were experiencing?
- c. Please answer the following questions about this dilemma: (1= Not at all clearly, 5 = Somewhat, 9 = Extremely)
 - How similar do you think you are to the person experiencing this dilemma?
 - Have you experienced a similar dilemma in your life before?
- d. Please answer the following questions about this dilemma: (1= Not at all clearly, 5 = Somewhat, 9 = Extremely)
 - How helpful were you TRYING TO BE when writing your response to the person experiencing this dilemma?
 - How helpful do you think your written response WILL ACTUALLY BE to the person experiencing this dilemma?

11. Steps 9-10 are repeated for the second dilemma.

12. **State emotion and trait measures:** measures are presented in random order across participants.
 - a. STAI-S
 - b. STAI-T
 - c. IRI
 - d. AQ
 - e. 3D Wisdom Scale
 - f. BWSS
13. **Demographics measures (age, gender, ethnicity)**
14. **Verification question:** this consisted of a simple math problem.
15. **Debriefing statement**
16. **Received code word to submit HIT**

Study 2 (Phase 1)

Two conditions were set up through separate HITs to recruit participants primarily experiencing either anxiety or sadness. The protocols for these two conditions consisted of the following steps listed in order of administration. Information that differed between conditions has been listed separately for each condition.

1. **Consent**
2. **Captcha verification**
3. **Write about dilemma:**
Anxiety condition

Please describe a current dilemma you would like to receive support from others for that is causing you to experience anxiety due to financial problems. This dilemma can involve issues related to your job or other difficulties that stem from financial issues.

Try to provide enough information so that someone reading about your dilemma can understand your situation and try to help you with it. Your

response must be between 600-1200 characters including spaces (roughly 100-200 words).

Sadness condition

Please describe a current dilemma you would like to receive support from others for that is causing you to experience sadness due to a loss of an important relationship. This dilemma can involve the loss of a friendship, significant other, or family member whom you were close to.

Try to provide enough information so that someone reading about your dilemma can understand your situation and try to help you with it. Your response must be between 600-1200 characters including spaces (roughly 100-200 words).

4. **Rate dilemma:** items within each set of ratings are presented in random order across participants)
 - a. Using the scale below, please indicate the greatest amount of EACH emotion you experienced while thinking about the dilemma. (1 = Not at all, 4 = Somewhat, 7 = Extremely)
 - Anxiety
 - Sadness
 - Calm
 - Surprise
 - Happiness
 - b. How much would you like someone to help you do the following things for your dilemma? (1 = Not at all, 4 = Somewhat, 7 = Extremely)
 - Think about your current situation in a different way
 - Leave or change the current situation you are in
 - c. How much would you like someone to provide the following regarding your dilemma? (1 = Not at all, 4 = Somewhat, 7 = Extremely)
 - Emotional support
 - Advice on what to do
 - d. Using the scale below, please answer the following questions about the dilemma you are experiencing: (1= Not at all, 4 = Somewhat, 7 = Extremely)
 - How much are you able to change the dilemma?
 - How much are you able to think about the dilemma in a different way?

- e. Using the scale below, please answer the following questions about the dilemma you are experiencing: (1= Not at all, 4 = Somewhat, 7 = Extremely)
- How important is this dilemma?
 - How complicated is this dilemma?

5. Consent for Re-contact:

Thank you for writing about your dilemma. We may share your dilemma anonymously to others and ask them to respond to your dilemma. If you are interested in reading the responses that other people may have to your dilemma, please indicate that we may contact you in the future to provide you with the responses of others and to have you read and rate these responses. Participation for this will be compensated at a rate equal to or higher than the rate for the current study.

Please note that not all participants in this study may be contacted to receive and rate responses provided by other participants.

Options:

- Yes, I would like to be contacted in the future.
- No, I would not like to be contacted in the future.

6. State emotion measure: PANAS

7. State emotion and trait measures: (presented in random order across participants)

- a. STAI-S
- b. STAI-T
- c. ERQ
- d. CES-D
- e. IRI
- f. BEQ

8. Demographics (age, gender, ethnicity)

9. Debriefing statement

10. Received code word to submit HIT

Study 2 (Phase 2)

The following four conditions were administered to separate groups of participants (each condition was administered through a separate HIT):

- 1) Participant was trained to implement *situation modification* as a social emotion regulation strategy for the targets, with the anxiety dilemma presented before the sad dilemma.
- 2) Participant was trained to implement *situation modification* as a social emotion regulation strategy for the targets, with the sad dilemma presented before the anxiety dilemma.
- 3) Participant was trained to implement *reappraisal* as a social emotion regulation strategy for the targets, with the anxiety dilemma presented before the sad dilemma.
- 4) Participant was trained to implement *reappraisal* as a social emotion regulation strategy for the targets, with the sad dilemma presented before the anxiety dilemma.

The protocol consisted of the following steps listed in order of administration.

Information that differed between conditions is listed separately for each condition.

1. **Consent**
2. **Captcha verification**
3. **Instructions for providing support:**

Situation modification groups

In this study you will first be asked to read brief statements written by other people about dilemmas in their lives. After reading each statement, we will ask you to write a response to the person experiencing the dilemma

When writing your response, we would like you to *help the person change or modify the situation* so that their dilemma causes them less distress. For example, you could help the person by suggesting things that

they could do to separate themselves from whatever is distressing, if only temporarily, such as seeking out experiences that might make them feel better. Alternatively, you could suggest actions the person can take to directly change the situation that is distressing. Or you could suggest the person seek out others whose presence might be soothing or who may be able to help them directly. In other words, please try to help this *person by telling them what they could do to change their dilemma.*

Also note that in your response, please avoid telling the person how to think about their situation and what it means to them. The reason for this is that prior studies suggest that sometimes it is better to tell others what they could do to change their situation and their engagement with it as opposed to telling others how they should think.

With these instructions in mind, we now will ask you to do the following:

- 1) You will be shown an example dilemma and example response to give you an idea of what you will be asked to do. Please read these examples.
- 2) You will practice writing a response on a sample trial.
- 3) Following this, you will begin the study and respond to two dilemmas that other people have shared.

Reappraisal groups

In this study you will first be asked to read brief statements written by other people about dilemmas in their lives. After reading each statement, we will ask you to write a response to the person experiencing the dilemma.

When writing your response, we would like you to *help the person change the way they think about their situation, or reframe what it means to them*, so that their dilemma causes them less distress. For example, you could help the person look on the bright side by pointing out positive aspects of their situation, especially if they don't see them or don't appreciate them as much as they could. Alternatively, you could help the person understand that their dilemma, or some aspects of it, may not be as bad as they seem to think. Or you could help the person step back from their dilemma to see their situation from a more distanced, objective and neutral perspective. In other words, please try to help this person *think about or look at their dilemma in a new way.*

Also note that in your response, please avoid directly telling the person what they should do about their dilemma (for example, what actions they should/could take to resolve it). The reason for this is that prior studies

suggest that sometimes it is better to tell others how to think about their dilemmas as opposed to telling others what they should do.

With these instructions in mind, we now will ask you to do the following:

- 1) You will be shown an example dilemma and example response to give you an idea of what you will be asked to do. Please read these examples.
- 2) You will practice writing a response on a sample trial.
- 3) Following this, you will begin the study and respond to two dilemmas that other people have shared.

4. Example Trial:

Situation modification groups

EXAMPLE

Instructions: The following are examples of a dilemma that someone has written about and a response to the dilemma. Please read the dilemma first and then read the response to the dilemma. The response provides an example for how you might respond to a dilemma.

Press the button when you are done reading the examples. You will practice providing your own response next.

Dilemma

"I currently am living apart from my significant other because he's working out of state. We own a home together and his out of state restaurant business currently supports both of us since I was laid off from my job. I have always been independent and a bit of a loner, and so this arrangement works for me. He is less happy about it and has asked me numerous times to work with him. I love him, but absolutely hate where he's currently living (a congested city environment) and really cannot imagine living there. He says he hates it too and wants to retire to his home with me though he doesn't think it will be for another year or two. The issue is now he is looking for another business in his current location because he says that is where the money is and when he opens his second business, I will have to move up there to help him. I am really looking for any excuse not to move, even to go so far as to return to school or seek employment locally. I am starting to feel terribly guilty about it and really don't know what to do."

Response to Dilemma

It is unfortunate that you are going through such a complicated situation. Perhaps you can try to change your situation. Maybe try to find a compromise with your significant other. Talk to him about it and see if it might work for both of you to split your time between your home and the city. Perhaps you could contribute to the household financially by obtaining a job locally as you mentioned. If the two of you can't find a compromise, this relationship may not be sustainable for the long-term and you may want to consider whether or not staying in this relationship would be best for you.

Reappraisal groups

EXAMPLE

Instructions: The following are examples of a dilemma that someone has written about and a response to the dilemma. Please read the dilemma first and then read the response to the dilemma. The response provides an example for how you might respond to a dilemma.

Press the button when you are done reading the examples. You will practice providing your own response next.

Dilemma

“I currently am living apart from my significant other because he's working out of state. We own a home together and his out of state restaurant business currently supports both of us since I was laid off from my job. I have always been independent and a bit of a loner, and so this arrangement works for me. He is less happy about it and has asked me numerous times to work with him. I love him, but absolutely hate where he's currently living (a congested city environment) and really cannot imagine living there. He says he hates it too and wants to retire to his home with me though he doesn't think it will be for another year or two. The issue is now he is looking for another business in his current location because he says that is where the money is and when he opens his second business, I will have to move up there to help him. I am really looking for any excuse not to move, even to go so far as to return to school or seek employment locally. I am starting to feel terribly guilty about it and really don't know what to do.”

Response to Dilemma

It is unfortunate that you are going through such a complicated situation. Perhaps you could evaluate your situation differently. Living in the city may not be as stressful as you think it will be. Try to think about the positive things that the city may be able to offer you and the fact that you will be closer to your significant other. You mention that you are starting to feel guilty about finding an excuse to avoid moving. Perhaps you can focus instead on the positive contributions you'd be able to make to your household if you stayed where you were and obtained employment locally.

5. Practice trial:

Situation modification groups

PRACTICE

Instructions: You will now practice writing a response. Please read the dilemma first and then write a response to the person experiencing the dilemma.

Dilemma

“Recently an old friend of mine moved back to town after living in another state for several years. While we have grown apart in many ways since we were younger we've remained friends. He came back here basically in the throes of a mid-life crisis, trying to pursue career dreams we had when we were younger, goals that didn't work out then and are even more unlikely to work out now. So he came back with practically no money, no job lined up--no job to make money while he pursues his other goal--and very few people he knew from back when he was still living here. I told him before he returned that I thought the whole thing was a bad idea and there wasn't much I could do to help him but he came anyway, and now I'm feeling increasing pressure to help him out or put him up because he's totally without a support system here and knows very few people. I don't want to get involved with his whole deal, the last time we had been trying this years ago it ended badly and I want nothing more to do with it, but I worry what will become of him and our friendship if I put him off.”

What would you say to the person experiencing this dilemma? Try to help this person modify/change their situation by suggesting what they can do.

Please write a response expressing what you would say *in person* (in other words, don't just describe this person's situation, but *write directly to the person*). Your response must be between 600-1200 characters including spaces (roughly 100-200 words).

Reappraisal groups

PRACTICE

Instructions: You will now practice writing a response. Please read the dilemma first and then write a response to the person experiencing the dilemma.

Dilemma

“Recently an old friend of mine moved back to town after living in another state for several years. While we have grown apart in many ways since we were younger we've remained friends. He came back here basically in the throes of a mid-life crisis, trying to pursue career dreams we had when we were younger, goals that didn't work out then and are even more unlikely to work out now. So he came back with practically no money, no job lined up--no job to make money while he pursues his other goal--and very few people he knew from back when he was still living here. I told him before he returned that I thought the whole thing was a bad idea and there wasn't much I could do to help him but he came anyway, and now I'm feeling increasing pressure to help him out or put him up because he's totally without a support system here and knows very few people. I don't want to get involved with his whole deal, the last time we had been trying this years ago it ended badly and I want nothing more to do with it, but I worry what will become of him and our friendship if I put him off.”

What would you say to the person experiencing this dilemma? Try to help this person reframe the way they think about their situation.

Please write a response expressing what you would say *in person* (in other words, don't just describe this person's situation, but *write directly to the person*). Your response must be between 600-1200 characters including spaces (roughly 100-200 words).

6. **Read and respond to first dilemma:** order of anxiety and sad dilemmas is determined by the condition that the participant is in.

Situation modification groups

Please read the statement below describing a dilemma that someone is currently experiencing.

(EXAMPLE DILEMMA) *"I'm having financial problems due to the student loan debt that I have. I recently graduated; however, I have yet to*

find a stable job, and all my debt and expenses are adding up. I've had to terminate my apartment lease and move back in with my parents until I can find a job in order to save money. I've applied at a number of different companies, but it seems other candidates have more experience than I do, giving them better chances at getting jobs. I've received financial help from my family for the time being so I don't cripple myself financially, but I'd like to be more independent and have the chance to pay them back as soon as possible."

What would you say to the person experiencing this dilemma? Try to help this person modify/change their situation by suggesting what they can do.

Please write a response expressing what you would say *in person* (in other words, don't just describe this person's situation, but *write directly to the person*). Your response may be shown to the person who is experiencing this dilemma.

Your response must be between 600-1200 characters including spaces (roughly 100-200 words).

Reappraisal groups

Please read the statement below describing a dilemma that someone is currently experiencing.

(EXAMPLE DILEMMA) *"My sister and my relationship has recently been strained. We've been getting along a lot less lately. One of the reasons is because she doesn't really carry on a conversation when we talk. I know the major reason is because she's thinking about the things she's worried about but it makes me sad because I feel like she doesn't care enough to try to keep the conversation going. I also do not like the fact that she basically refuses to pay for food when we go out together. I always have to pay and when I ask her to pay for even just a drink, she says no. I don't really know what to do anymore. We have always been close and now I feel like since we're 9 years apart and my life is just getting started, we don't really have anything in common anymore now that I'm 21 and she's 30. I don't really think it should make that much of a difference but it does because she is consumed with things that I feel she shouldn't be. It's really complicated. I wish that I could have a better relationship with her because I have always considered her a "best friend" and she is my sister. I hope that we can get over this but I think it has to come from her now as I have tried to get along with her."*

What would you say to the person experiencing this dilemma? Try to help this person reframe the way they think about their situation.

Please write a response expressing what you would say *in person* (in other words, don't just describe this person's situation, but *write directly to the person*). Your response may be shown to the person who is experiencing this dilemma.

Your response must be between 600-1200 characters including spaces (roughly 100-200 words).

7. Read first dilemma again

8. Rate first dilemma

- a. Using the scale below, please indicate the extent to which you think the PERSON WHO WROTE THIS STATEMENT feels the following emotions in response to their dilemma. (1 = Not at all, 4 = Somewhat, 7 = Extremely)
- Anxiety
 - Sadness
 - Calm
 - Surprise
 - Happiness
- b. How helpful do you think it would be to provide the following things to the person experiencing this dilemma? (1 = Not helpful at all, 4 = Somewhat helpful, 7 = Extremely helpful)
- To help this person change or leave the current situation.
 - To help this person think about the current situation in a different way.
 - To provide emotional support
 - To provide advice on what to do
- c. Please answer the following questions: (1 = Not at all, 4 = Somewhat, 7 = Extremely)
- How clearly did this person experiencing this dilemma *express wanting support* from someone?
 - How clearly did this person experiencing this dilemma *express the emotions* they were experiencing?
 - How important do you think this dilemma is for this person?
 - How complicated do you think this dilemma is for this person?

- How helpful were you *trying to be* when writing your response to this person?
- How helpful do you think your written response *will actually be* to this person?

- How similar do you think you are to this person?
- Have you experienced a similar dilemma in your life before?

9. Steps 6-8 repeated for second dilemma

10. State emotion measure: PANAS

11. State emotion and trait measures: (presented in random order across participants)

- a. STAI-S
- b. STAI-T
- c. ERQ
- d. CES-D
- e. 3D Wisdom Scale
- f. BWSS

12. Demographics (age, gender, ethnicity)

13. Debriefing statement and consent for re-contact

14. Participants were provided a code word to submit the HIT

Study 2 (Phase 3)

1. Informed consent

2. Read written description of dilemma from Phase 1

Please read the description of the dilemma that you wrote about in the last study. After reading this, please answer the questions below. (If you did not write this dilemma or if you don't remember this dilemma, please stop the study immediately and let the Requester know.)

(EXAMPLE DILEMMA) *“I recently ended a long term relationship that I really did not want to see end. While things could have been better, I did not think that they were at a critical point that necessitated a break up. I try to think back on some key points to determine if there was a different decision that could have led to a different outcome. Part of me though,*

after reflection, thinks that no matter what fork in the road I took, the outcome would still be the same. People sometimes grow apart and in these cases, it's not always a mutual decision that leads to these results. It's difficult to adjust to my daily routine when a large part of it has been removed unexpectedly."

3. Rate dilemma: items within each set of ratings are presented in random order across participants.

a. Using the scale below, please indicate the greatest amount of EACH emotion you are currently experiencing at the moment, after having thought about the dilemma. (1 = Not at all, 4 = Somewhat, 7 = Extremely)

- Anxiety
- Sadness
- Calm
- Surprise
- Happiness

b. Please answer the following questions: (1 = Not at all, 4 = Somewhat, 7 = Extremely)

- How clearly do you remember this dilemma?
- How much does this dilemma currently affect you?

4. Read response from provider implementing social emotion regulation strategy.

We have asked another participant in this study to provide written support to you about your dilemma and you will now read the response that someone has written to you.

While this response is intended to be helpful, please keep in mind that it is written by another participant in this study who may not have professional expertise with respect to the kind of dilemma you are experiencing. If you believe it may be useful, we encourage you to seek professional help for any ongoing dilemmas that you are experiencing.

Please press the arrow to read this response.

(EXAMPLE RESPONSE) *"I'm terribly sorry to hear about your break-up. I know regret is something that is hard to shake when these things happen, but keep in mind that you made a bold, thoughtful decision - on the part of both parties. It sounds like that you and your significant other were growing apart from each other. You realized this, and maybe he/she realized it as well but was just as afraid to make the first move. It's always a tough decision to be made when romantic relationships grow stagnant. If the endearing qualities are enough to weather the doldrums, then you would have known it. By sticking with someone that you see no (or an*

uncertain) future with is not only prolonging the inevitable, but also wasting the time of both of you. So I applaud your courage in following your instincts and making your move!”

5. Rate response

- a. Please indicate the greatest amount of EACH emotion you are currently experiencing at the moment, after having read the response. (1 = Not at all, 4 = Somewhat, 7 = Extremely)
- Anxiety
 - Sadness
 - Calm
 - Surprise
 - Happiness

6. Read provider’s response again and make additional ratings

- a. Please answer the following question: (1 = Not at all, 4 = Somewhat, 7 = Extremely)
- How helpful do you think this response was?
- b. How much does this response help you do the following for your dilemma? (1 = Not at all, 4 = Somewhat, 7 = Extremely)
- Think about the situation in a different way
 - Leave or change the current situation
- c. How much does this response provide the following? (1 = Not at all, 4 = Somewhat, 7 = Extremely)
- Emotional support
 - Advice on what to do
- d. What is your impression of the person who wrote the response to you? Please rate how you think the person is on the following traits (these ratings will not be shown to the person who wrote the response). (1 = Not at all, 4 = Somewhat, 7 = Extremely)
- Wise
 - Foolish
 - Open-minded
 - Close-minded
 - Warm/Friendly
 - Cold/Hostile
 - Competent
 - Incompetent
 - Intelligent
 - Unintelligent

- e. Is there anything you would like to say to the person who wrote this response to you? If so, please write it below.

7. State emotion measure: PANAS

8. Participants were provided a debriefing statement and code word to send to the experimenter to indicate completion of the study.

Study 2 (Phase 4)

1. Informed consent

2. Read written description of dilemma from Phase 1

Please read the description of the dilemma that you wrote about in the initial study. After reading this, please answer the questions below. (If you did not write this dilemma or if you don't remember this dilemma, please stop the study immediately and let the Requester know.)

(EXAMPLE DILEMMA) *“The biggest dilemma I am facing currently surrounding financial issues is dealing with my student loans. I am self-employed and due to an unexpected turn of events, my business has suffered significantly. As such, I have found myself in a position where I am unable to make my monthly student loan payments. I am already behind on a couple of payments. Fortunately, my business is beginning to turn around. However, it is enormously difficult to get out of the financial hole I now find myself in. I have exhausted most sources of help provided by my student loan issuers. I have found myself in the position where I have to find multiple alternative sources of income and put in considerably more hours of work in order to overcome this hurdle.”*

3. Rate dilemma: items within each set of ratings are presented in random order across participants.

- a. Using the scale below, please indicate the greatest amount of EACH emotion you are currently experiencing at the moment, after having thought about the dilemma. (1 = Not at all, 4 = Somewhat, 7 = Extremely)

- Anxiety
- Sadness
- Calm
- Surprise
- Happiness

- b. Please answer the following questions: (1 = Not at all, 4 = Somewhat, 7 = Extremely)
- How clearly do you remember this dilemma?
 - How much does this dilemma currently affect you?
- c. Over the last month, how much have you been able to do the following regarding your dilemma? (1 = Not at all, 4 = Somewhat, 7 = Extremely)
- Leave or change the situation
 - Think about the situation in a different way
- d. Over the last month, to what degree have people in your life provided you with the following in regards to your dilemma? (1 = Not at all, 4 = Somewhat, 7 = Extremely)
- Emotional support
 - Advice on what to do

4. Read provider's response

In the last study, you read a response that another participant in this study had written to you regarding your dilemma. We will now ask you to read this response again and to make some ratings on it.

Please press the arrow to continue.

(EXAMPLE RESPONSE) *"Sadly this is becoming more and more common for today's college graduates. If owning a business is your dream and it is not allowing you to take care of your financial obligations, you may have to decide if now is the time to pursue business ownership. Depending on how much you owe, you could take a year or two and secure a steady job to get these balances paid off. If you want to keep at the business plan you currently have, try to work with the lenders on getting a financial deferral for a period of time while you get back on your feet. Another possibility is to get a part time job where you work enough hours to cover your payments. You could allocate that entire paycheck to your student loans. I know that will be tough while running your own business, but sometimes you got to sacrifice and go through difficulty to achieve your end result. The military is also an option as they paid off a huge part of my student loans. Just some options, hope I helped."*

5. Rate response

- a. Please indicate the greatest amount of EACH emotion you are currently experiencing at the moment, after having read the response. (1 = Not at all, 4 = Somewhat, 7 = Extremely)
- Anxiety

- Sadness
- Calm
- Surprise
- Happiness

6. Read response again and make additional ratings

a. Please answer the following question: (1 = Not at all, 4 = Somewhat, 7 = Extremely)

- How helpful has this response been to you since you received it?

b. How much has this response helped you do the following for your dilemma? (1 = Not at all, 4 = Somewhat, 7 = Extremely)

- Leave or change the situation
- Think about the situation in a different way

7. State emotion measure: PANAS