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What Do We Do to Help Others Feel Better? The Eight Strategies of the Regulating Others' Emotions Scale (ROES)

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Theoretical models of interpersonal extrinsic emotion regulation (the regulation of others' emotions) recognize many different regulation strategies, yet existing assessments do not assess a wide number of strategies at a granular level. In the present research, we develop the Regulation of Others' Emotions Scale to capture eight extrinsic emotion regulation strategies (expressive suppression, downward social comparison, humor, distraction, direct action, cognitive reframing, valuing, and receptive listening). Studies 1 (N = 321) and 2 (N = 121) identified eight strategies that differ in how much they require engagement with the target person. Studies 3 (N = 310) and 4 (N = 150 dyads) found evidence for test–retest reliability, structural validity, and correlations with other constructs (i.e., discriminant, convergent, and criterion-related validity). Results suggest that three high-engagement strategies have the strongest links to regulator and target outcomes (such as well-being and relationship quality), with the strongest effects for valuing, then cognitive reframing, and then receptive listening. The discussion focuses on the two broad contributions of the current research: a new instrument assessing multiple strategies and the integration of two different theoretical frameworks for the regulation of others' emotions.

Keywords: emotion regulation, relationship quality, extrinsic emotion regulation, positive and negative affect

People often try to manage the emotions of others in their lives. Calming an irate toddler who cannot locate their preferred cup, brainstorming ways to help your spouse manage a stressful situation at work, or soothing a friend's anxiety before a big performance are prototypical social interactions of everyday life. Attempting to influence others' emotions has been termed "extrinsic emotion regulation". While researchers have traditionally focused their attention on intrinsic emotion regulation (regulating your own emotions), over the past decade there has been increasing recognition that regulating others' emotions is a highly salient process for people's everyday lives (e.g., Sahi et al., 2023; Zaki, 2020).

However, compared to intrinsic emotion regulation research, there are as yet no validated questionnaires that assess extrinsic emotion regulation strategies at a fine-grained level. Several widely used psychometric instruments measure intrinsic emotion regulation strategies (e.g., De France & Hollenstein, 2017; Gratz & Roemer, 2004; Gross & John, 2003; Olderbak et al., 2023). For example, two prototypical intrinsic regulation strategies are cognitive reappraisal

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Project Open Science Framework link with study data, code, materials, and supplementary files (view only link for anonymous review: https://osf.io/km63v), Study 2 preregistration (anonymous page for peer review: https://aspredicted.org/2QT_BL2, note that this has also been uploaded to the project Open Science Framework link).

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and distraction. You could use cognitive reappraisal to reinterpret the meaning of events to reduce their emotional impact or use distraction to divert your attention away from the source of distress to reduce your negative feelings. In contrast, there are no instruments to measure discrete strategies for extrinsic emotion regulation. Instead, existing extrinsic emotion regulation instruments examine broad classes or families of emotion regulation, rather than specific strategies such as reappraisal or distraction (e.g., Little et al., 2012; López-Pérez et al., 2019; Niven et al., 2011).

The primary aim of the present research is to address this gap by developing an instrument that includes a comprehensive set of strategies for regulating others' emotions, which we call the Regulation of Others' Emotions Scale (ROES). We draw on two theoretical frameworks in determining which strategies to include: (a) the process model (Gross, 1998), and (b) the taxonomy of controlled extrinsic regulation strategies (Niven et al., 2009). These two different frameworks focus on two ways that strategies can be categorized: The process model considers the *stage* at which the regulation attempt occurs (e.g., whether strategies aim to regulate the emotion before or after it is fully formed and expressed) and the taxonomy of controlled extrinsic regulation strategies considers *engagement* with the target person (i.e., strategies differ in how much they require a high level of attention or effortful processing of the target person's emotions). Our final organizing framework for the different extrinsic regulation strategies crosses process model stage with engagement when characterizing regulation strategies, similar to a recent instrument assessing intrinsic emotion regulation strategies (Olderbak et al., 2023). In the paragraphs below, we describe how research on these two models justifies the need for a more detailed multistrategy scale and outline our planned sequence of scale development studies.

Extrinsic Emotion Regulation

We distinguish between *interpersonal extrinsic emotion regulation* (regulating others' emotions), *intrinsic emotion regulation* (regulating your own emotions), and *interpersonal intrinsic emotion regulation* (regulating your own or others' emotions through social interaction). Our focus is only on interpersonal extrinsic regulation strategies—the strategies a person uses to influence the emotions of other people. We also focus only on strategies where the goal is to make others feel better (i.e., hedonic regulation; upregulating another person's positive affect or downregulating their negative affect). While there is evidence that people engage in both hedonic and contra-hedonic regulation of others' emotions, hedonic regulation is much more common (e.g., Geiger et al., 2024; López-Pérez et al., 2017). For example, Tran et al. (2023) found across two studies that 97% and 98% of instances where people regulated others' emotions were aimed at improving the other person's emotions.

Relevant Theories Outlining Extrinsic Emotion Regulation Strategies

The Process Model of Emotion Regulation

The process model outlines a situation-attention-appraisal-response temporal sequence by which emotions unfold. Emotion regulation can occur at five stages in this sequence: *situation selection* (prior to the situation), *situation modification* (situation stage), *attention deployment* (attention stage), *cognitive change* (appraisal stage), and *response modulation* (response stage), producing five families of regulation strategies. Theory and evidence from intrinsic emotion regulation suggest that strategies that aim to regulate emotions at earlier stages are often more effective than those that target the later stages (in particular, response modulation processes tend to be less effective than processes at the other stages; e.g., Webb et al., 2012).

The only extrinsic regulation instrument based on the process model is the *Interpersonal Emotion Management Scale* (Little et al., 2012), which includes subscales for four process model stages (situation modification, attention deployment, cognitive change, and response modulation) but does not distinguish different strategies within each stage. Studies using this scale generally support the idea that antecedent-focused strategies are superior to response-focused strategies (Little et al., 2012, 2013, 2016). Response modulation is related to negative outcomes (higher negative affect for the target, and lower positive affect, job satisfaction, and trust in one's supervisor for the regulator), whereas earlier stages relate to positive outcomes (lower negative and higher positive affect for the target person as well as lower conflict, higher positive affect, higher job satisfaction, and higher trust in one's supervisor for the regulator). However, response modulation content is represented entirely by one strategy (expressive suppression) in this scale.

More recent research applying the process model to extrinsic emotion regulation strategies has considered multiple strategies within each stage. For example, Nozaki and Mikolajczak (2023) considered three response modulation strategies (suppression, relaxation, and empathic responding). Participants' written responses to others (bogus pen pals or online forum discussions) were coded for the use of these strategies. For both pen pals and online discussions, empathic responding (but not suppression) was effective in regulating the other person's emotions. There have been parallel findings for *socioaffective support* (a strategy similar to empathic responding, where the regulator provides comfort and validation; Pauw et al., 2018). Despite being a response modulation strategy, socioaffective support relates to greater closeness between the target and regulator, lower loneliness in the target, and a greater growth in regulator popularity (Nils & Rimé, 2012; Niven et al., 2015; Pauw et al., 2018). Similarly, Ruan et al.'s (2024) daily diary studies of couples found that *expression* (encouraging your partner to talk about their feelings) but not *suppression* (encouraging your partner to avoid expressing their feelings) was rated as effective for regulating the partner's emotions. These studies suggest that it is important to consider multiple strategies within each stage of the process model, pointing to the need for an extrinsic emotion regulation scale that includes a wide variety of strategies.

The Taxonomy of Controlled Extrinsic Regulation Strategies

The taxonomy of controlled extrinsic regulation strategies (Niven et al., 2009) was developed specifically to consider the strategies used to regulate *other people's emotions*. This framework was developed via card sort analysis of a corpus of real-life instances of extrinsic regulation. At the broadest level, this model distinguishes between attempts to make others feel better (extrinsic affect improving) versus worse (extrinsic affect worsening). Affect-improving strategies can be further distinguished as *engagement* strategies (that actively engage with the target person's emotions or thoughts) versus

diversion strategies (that divert the target's attention away from the emotion-eliciting stimuli or toward other things). Two measures have been developed based on this framework. First, Niven et al.'s (2011) *Emotion Regulation of Others and Self* assesses extrinsic affect improving versus worsening (but not the different strategies that may improve or worsen someone's emotions). Second, López-Pérez et al.'s (2019) *Interpersonal Affect Improvement Strategies Questionnaire* distinguishes between engagement and diversion-based attempts to improve others' emotions but does not consider multiple strategies within each of these two types. We therefore believe that there is a need to develop a scale that looks at the covers a wide variety of strategies at different levels of engagement and different stages of the process model.

The Current Research

We plan to develop a new scale that assesses multiple strategies to regulate other people's emotions, with content drawn from both Gross's (1998) process model and Niven et al.'s (2009) taxonomy of controlled extrinsic regulation strategies. Because these two frameworks focus on two different organizing principles (*stage* and *engagement*), our resulting framework has two dimensions that regulation strategies can be categorized by: (a) process model stage (representing the point in the emotion-generation process where regulation occurs) and (b) level of engagement with the target person.

Recent research on intrinsic emotion regulation (Olderbak et al., 2023) has shown that both stage and engagement can be important for determining whether a strategy is generally adaptive. High-engagement strategies (approaching or directly dealing with your emotions or their causes) were associated with higher well-being and lower ill-being, whereas disengagement strategies (that involve distancing oneself from the emotion or its causes) were associated with lower well-being and higher ill-being. In addition, earlier stage strategies tended to be linked with higher well-being and lower ill-being more so than later stage strategies, with one important exception: Response modulation strategies with a social component tended to be linked with positive outcomes (even though they occurred later in the process). While we note that "engagement" when regulating your own emotions represents approaching your own emotions or their causes (rather than approaching or engaging with the target person), it is feasible that findings may also apply to regulating others' emotions. Olderbak et al.'s (2023) research illustrates the importance of considering multiple strategies (not just multiple process model stages) and may explain the findings that extrinsic strategies which involve encouraging communication and social sharing about emotions are effective even though they occur late in the emotion-generation process (Nils & Rimé, 2012; Niven et al., 2015; Nozaki & Mikolajczak, 2023; Pauw et al., 2018; Ruan et al., 2024).

We have planned four studies to develop and validate both this scale and our proposed framework.

Study 1: Identify Factor Structure and Items for the ROES

We will combine item content from process model strategies (Gross, 1998) and from the strategies suggested in Niven et al.'s (2009) taxonomy. Using exploratory factor analysis, we will determine how many factors best represent the item content and select the items that best measure each strategy.

Study 2: Determine the Engagement Level of Each Strategy

While mapping each strategy to a process model stage of regulation strategies is relatively clear (based on existing research), deciding whether a strategy represents "high" or "low" engagement with the target person is less clear. We will therefore use data (participant ratings) to characterize strategies as to how much engagement with the target person they require. For each item identified in Study 1, participants will rate how much that action requires engagement with the target person.

Study 3: Collect Validity Evidence for the ROES

We want to test whether the ROES shows evidence of test–retest reliability, structural validity, discriminant validity (with respect to broad personality traits and intrinsic regulation strategies), and convergent validity (with respect to existing extrinsic emotion regulation scales). We also want to explore associations of the ROES strategies with socioemotional traits, ill-being, and well-being (as evidence of criterion validity).

Study 4: Collect Target Outcomes as Further Validity Evidence for the ROES

Regulating other people's emotions might reasonably be assumed to have the greatest impact on *other people* (and not just the regulator themself). As Study 3 considers only regulator outcomes (the regulator's well-being and ill-being), an additional study was needed to test whether the ROES relates to *target outcomes*, including the target's emotional states and the quality of the target/regulator relationship.

Study 1: Identify Factor Structure and Items for the ROES

Study 1 has two aims. First, this study will develop and test a factor structure for extrinsic emotion regulation strategies, with content drawn from both the process model of emotion regulation (Gross, 1998) and the taxonomy of controlled extrinsic regulation strategies (Niven et al., 2009). Second, this study will select items to include in each subscale of the ROES based on exploratory and confirmatory factor analysis.

Development of the ROES: Content Selection

To develop an initial item pool, we included item content to represent strategies from the process model (direct situation modification, distraction, rumination, cognitive reappraisal, downward social comparison, accountability appraisals, acceptance, expressive suppression, and receptive listening) and the taxonomy of controlled extrinsic regulation strategies (problem-focused engagement, target-focused engagement, cognitive engagement, humor, and valuing). Most of the process model strategies were drawn from a conventional core of prototypical strategies frequently included in intrinsic emotion regulation research (Aldao et al., 2010; De France & Hollenstein, 2017;

Gross & John, 2003; Peña-Sarrionandia et al., 2015). However, we included several different kinds of reappraisals (i.e., downward social comparisons, accountability appraisals, and acceptance as well as the broader and more prototypical cognitive reappraisal) in line with recent research differentiating the reappraisal space (e.g., Uusberg et al., 2019). In a review process, eight researchers independently allocated each item to a list of strategies researchers. Items were excluded or rewritten, if there was low agreement on which strategy the item represented. The content areas of "cognitive engagement" and "problem-focused engagement" were combined, as experts could not reliably distinguish between items of these two concepts. This gave us a final item pool of 96 items.

Study 1: Method

Participants and Procedure

Participants ($N = 321$) were recruited from the online panel website Prolific and completed the 35-min test battery online. Participants were prescreened to be residing in an English-speaking country and fluent in English. Participants were purposefully sampled for gender parity (half men, half women) and variation in age.

Participants were 95% White ethnicity, and 66% currently employed. The average age was 41.08 years ($SD = 14.61$ years). Participants' highest educational attainment was reported as a graduate degree (15.3%), bachelor's degree (33.6%), vocational/trade qualification (19.3%), high school (30.5%), or less than high school (1.2%), with 14% of participants currently studying full time (8.7%) or part time (5.3%). Participants' marital status was reported as never married (39.6%), divorced and single (6.2%), divorced and remarried/cohabitating (6.9%), married/cohabitating (46.1%), or widowed (1.2%). Participants reported their perceived family financial status as not at all well-off (9%), not particularly well-off (38.3%), fairly well-off (43.6%), rather well-off (6.9%), or very well-off (2.2%). Most participants (65.1%) were currently employed either full time (40.8%) or part time (24.3%).

An additional 79 participants were excluded from further analyses based on failing one or more screening checks: (a) straight-lining across two or more screens ($n = 0$); (b) failing > one of three data check items ($n = 56$); (c) did not select "very well" for the question "How well do you speak English?" ($n = 28$), (d) time stamp indicated < one third of the median response time ($n = 23$), and/or (e) self-reported using one or more response styles (i.e., random responding, faking good, faking bad, using a response pattern such as 1-2-3-4-5-4-3-2-1; $n = 56$).

Sample Size Estimation/Justification

Estimates for the minimum sample size for exploratory factor analysis and confirmatory factor analysis (CFA) models vary (depending on the magnitude of factor loadings, number of items, and normality of variables), but there is broad consensus that a minimum sample size of 200 (Kline, 2023) to 300 (Pearson & Mundform, 2010; Tabachnick & Fidell, 2014) is necessary, and that Monte Carlo analysis is preferable, if there is a relatively clear idea of the factor structure and expected effect sizes of the parameters (Brown, 2015). As we had a large number of items and possible factors and did not know if all variables would be normally distributed, we were conservative in collecting data from 400 participants. Our final sample of $N = 321$ after exclusions is in line with recommendations for minimum sample size.

Materials

The test battery consisted of demographic questions, the 96 items comprising the initial item pool for the ROES, as well as other protocol not relevant to this study (for more detail, see https://osf.io/km63v/). We also included items asking participants if they had engaged in random responding, faking good, faking bad, and using a response pattern (participants were informed that they would receive their payment even if they admitted to using one of these response styles).

ROES. Instructions stated:

> This test is about the different things you do to make other people FEEL BETTER.
>
> Each statement describes things you might do to make a person feel LESS negative emotions (like irritation, shame, or anxiety), or to make them feel MORE positive emotions (like joy, pride, or hope).
>
> I do the following things TO MAKE SOMEONE FEEL BETTER

Participants then rated the 96 items on a 6-point scale: 1 = *strongly disagree*, 2 = *disagree*, 3 = *somewhat disagree*, 4 = *somewhat agree*, 5 = *agree*, 6 = *strongly agree*. Example items can be seen in Table 1. A data check item "To show you are paying attention, select Option 2 'disagree' for this item" was included here (two other similar items were included in other measures).

Study 1: Results and Discussion

Determination of the Number of Factors

Parallel analysis with 1,000 bootstrap suggested an eight-factor solution. However, the scree plot flattened out after 6 eigenvalues, suggesting a six-factor solution. There are theory-driven reasons to suspect a 13-factor solution (as there were 13 content areas). We therefore ran 6-, 7-, 8-, 9-, 10-, 11-, 12-, and 13-factor solutions.

Exploratory Factor Analyses

Analyses were conducted in SPSS using principal axis factoring and oblimin rotation. The 11-, 12-, and 13-factor solutions produced only weakly defined additional factors (with low loadings on relatively few items and substantial cross-loadings). We therefore selected a 10-factor solution. However, the 9th and 10th factors were highly correlated with each other and with other factors ($\rho > .70$) suggesting that these two factors had little variance that could not be explained by the other eight factors. We therefore only considered the first eight factors for inclusion in a CFA model. Items were selected for inclusion if they had salient loadings ($\geq .30$) on the target factors and no salient cross-loadings on other factors. Factors represented: downward social comparison, expressive suppression, distraction, humor, direct action; cognitive reframing, valuing, and receptive listening (see Table 1).

Confirmatory Factor Analysis

Analyses were conducted in MPlus with an MLM estimator. The four best items for each factor were selected based on CFA output to increase the parsimony of the final scale. There were 12 items

Table 1

Factor Loadings From Exploratory and Confirmatory Factor Analysis From Studies 1 and 3, With Factors Ordered From Lowest Engagement to Highest Engagement With the Target

Item loading on each factor	EFA (Study 1)								CFA (Studies 1, 3)	
	I	II	III	IV	V	VI	VII	VIII	S1	S3
Expressive suppression										
I ask them to put a brave face on	.21	**.56**	−.06	−.08	−.02	−.03	−.16	.08	**.75**	**.76**
I tell them to "turn that frown upside down"	.16	**.53**	−.17	−.06	−.03	−.15	−.05	−.12	**.63**	**.68**
I ask them not to look so irritated	.24	**.49**	−.03	−.08	−.12	.06	−.16	−.04	**.67**	**.74**
I tell them not to frown or cry	.26	**.46**	.06	−.05	.03	−.14	−.03	.02	**.69**	**.74**
Downward social comparison										
I compare their situation to other people who are worse off	**.90**	−.03	−.02	−.03	.04	.05	−.01	−.03	**.91**	**.86**
I help them to see how lucky they are compared to others	**.81**	.00	.03	−.08	−.03	−.03	.04	−.15	**.82**	**.81**
I tell them that things could be a lot worse	**.80**	.01	−.09	.05	−.01	−.03	.02	.10	**.78**	**.78**
I talk about people who have even bigger problems	**.74**	.15	−.06	.08	.00	.00	−.05	.07	**.77**	**.82**
Humor										
I make jokes to make them smile	−.01	.01	**−.90**	−.06	.02	−.02	.03	.06	**.90**	**.80**
I say comical, light-hearted things	−.03	−.04	**−.87**	−.06	.01	−.05	−.09	.12	**.83**	**.78**
I act silly to entertain them	.01	.05	**−.84**	−.04	.13	−.10	−.10	−.06	**.89**	**.76**
I do something amusing	.11	−.05	**−.76**	−.06	.04	.11	−.10	−.11	**.81**	**.88**
Distraction										
I divert their attention to something else	.05	.01	−.28	**−.66**	.12	−.10	.05	.04	**.83**	**.67**
I help them to focus on other things	−.02	.06	−.20	**−.63**	.06	.09	.09	−.04	**.80**	**.71**
I start talking about something more pleasant	.10	.08	.01	**−.63**	.10	.03	.03	.09	**.63**	**.68**
I suggest something else for them to do	.11	.04	−.09	**−.51**	.10	.22	.03	.02	**.68**	**.67**
Direct action										
I try to fix things for them	.06	−.02	−.12	−.06	**.83**	−.15	.04	−.02	**.83**	**.74**
I do what I can to find an answer for them	−.01	−.05	−.13	−.01	**.76**	.04	.03	.00	**.82**	**.61**
I take action to change their situation	.03	.06	.02	−.12	**.71**	.10	−.12	−.20	**.78**	**.73**
I try to modify their situation	.08	.07	.06	−.27	**.48**	.11	−.01	−.12	**.67**	**.79**
Cognitive reframing										
I discuss different ways of interpreting the situation	.06	−.07	.01	−.06	−.03	**.68**	.02	.03	**.78**	**.71**
I help them to change the way they think about their problems	.00	.01	−.07	−.15	.11	**.59**	−.05	−.05	**.82**	**.69**
I discuss other ways that they could interpret events	.01	.00	.10	−.14	.07	**.57**	−.06	.05	**.79**	**.74**
I help them see events in a new way	.03	.01	−.04	−.20	.04	**.56**	−.10	−.07	**.80**	**.69**
Valuing										
I tell them they are very important to me	.00	.05	.01	.02	.12	−.04	−.01	**−.85**	**.93**	**.91**
I let them know how much they mean to me	.00	−.01	.02	−.06	−.01	.04	.03	**−.84**	**.89**	**.89**
I tell them how much I value them	.00	.04	−.03	.01	.12	−.03	.02	**−.83**	**.92**	**.86**
I make them feel special or cared about	−.07	−.03	−.03	−.07	.06	.01	.06	**−.71**	**.82**	**.69**
Receptive listening										
I let them talk to me about their troubles	−.04	−.02	−.08	.01	.02	−.02	**.78**	−.02	**.86**	**.79**
I allow them to vent their emotions	−.11	.00	−.02	−.06	.10	−.05	**.77**	.03	**.85**	**.72**
I listen to them talk about their emotions	−.11	−.04	−.06	.02	−.04	−.01	**.76**	−.06	**.89**	**.80**
I help them to let off steam by talking to me	.00	−.11	.04	−.14	−.02	.08	**.71**	−.11	**.76**	**.77**

Note. Salient factors (>.30) are shown in bold text. EFA loadings are from the analysis of the full item set, shown only for the items that were retained in the final CFA (confirmatory factor analysis) solution. S1 = Study 1 (N = 321), S3 = Study 3 (N = 310). EFA = exploratory factor analysis.

removed due to poor fit (i.e., modification indices indicated cross-loadings or correlated error between pairs of items). The remaining items were selected to maximize both factor loadings and the breadth of content coverage. The fit for this eight-factor, 32-item model was good (see Table 2). All fit indices are within an acceptable or good range, indicating that the data fit the model. Table 1 shows factor loadings, and Table 2 shows the range of factor intercorrelations.

Table 2

Fit Indices for the ROES Across Studies 1 (N = 321) and 3 (N = 310)

Study	χ^2	*df*	CFI	RMSEA (95% CI)	SRMR	Factor loading	Factor correlation
Study 1	807	436	.936	.052 (.046, .057)	.059	.63–.93	−.27 to .65
Study 3	647	436	.951	.039 (.033, .046)	.055	.61–.91	−.25 to .68

Note. Analyses were undertaken in MPlus with an MLM estimator. ROES = Regulation of Others' Emotions Scale; CFI = comparative fit index; RMSEA = root-mean-square error of approximation; CI = confidence interval; SRMR = standardized root-mean-square residual.

Reliability and Descriptive Statistics

Table 3 shows the descriptive statistics and reliability for each of the eight scales. Table 3 also shows gender differences (as Cohen's *d*) and age trends (correlation with years of age) for each scale. All scales were internally consistent, with Cronbach's α estimates ranging from .77 (expressive suppression) to .94 (valuing).

Factor Interpretation

Expressive Suppression. Items in this factor all represent an attempt to hide the expression of negative emotions. Expressive suppression had the lowest mean rating of all eight strategies (see Table 1). Typical examples of regulatory tactics would be statements like: "stop crying," "pull yourself together," or "lower your voice." We classify expressive suppression as a response-focused (response modulation) strategy, as it targets the emotional response for regulation.

Downward Social Comparison. Items in this factor all represent an attempt to reappraise the situation as less negative by shifting the target's frame of reference to an even more negative situation (via comparison to another person experiencing a worse situation). A quintessential instantiation of this strategy would be a parent telling a child that "starving children would be grateful to eat those vegetables," as this aims to change an emotion in the target person (disgust at the vegetables) via a comparison to someone else experiencing a worse situation (a child with no food at all). We classify downward social comparison as an antecedent-focused strategy from the cognitive change family, as it is a particular way of reappraising a situation to reduce its emotional impact.

Humor. Items of this factor represent an attempt to gain the target's attention using humor or light-hearted entertainment. Humor is an attention deployment strategy, as it aims to focus the target's attention on something funny instead of the situation detail that was triggering the emotion. Humor was consistently used significantly more by younger than older participants (see Table 2). In Niven et al.'s (2009) taxonomy, humor is a diversion-based strategy. As such, we classify humor as an antecedent-focused strategy, because like distraction, it involves diverting the target's attention away from the situation cue that is triggering an emotion.

Distraction. Items of this factor represent diverting the target's attention away from the element of the situation giving rise to their emotions, changing the focus of the target's attention. A typical distraction tactic would be to change the topic of conversation rather than talk about an event that the target person found distressing. We classify distraction as an antecedent-focused strategy from the attention deployment family, as it involves diverting the target's attention away from the situational cue triggering the emotion.

Direct Action. Items loading on this factor represent taking action to modify the target's situation. Situation modification strategies are conceptually similar to "problem-focused coping," a coping strategy used when a person has greater appraised control over the environment or stressor (i.e., if you can make change, you do make change; Lazarus & Folkman, 1987). Examples of direct action might be providing a deadline extension to reduce a direct report's anxiety and stress about getting the work done in time or turning off the TV as the sound was irritating to your partner. We classify direct action as an antecedent-focused strategy from the situation modification family, as it involves modifying the situation.

Table 3
Descriptive Statistics, Reliability, Gender Differences, and Age Differences for ROES Subscales in Studies 1, 3, and 4

ROES subscale	Study 1 (N = 321)				Study 3, Wave 1 (N = 310)				Study 3, Wave 2 (N = 156)			Study 4 (N = 150)			
	M (SD)	α	r age	Gender d	M (SD)	α	r age	Gender d	M (SD)	α	Retest	M (SD)	α	r age	Gender d
Expressive suppression	2.29 (0.94)	.77	.06	0.19	2.37 (1.02)	.82	.03	0.26*	2.22 (0.97)	.82	.80**	2.75 (1.22)	.85	.02	0.52**
Downward comparison	2.83 (1.12)	.89	.17**	0.14	3.07 (1.18)	.89	.20**	0.24*	2.95 (1.21)	.91	.73**	3.29 (1.27)	.87	.08	0.33*
Humor	3.89 (1.19)	.92	−.31**	0.11	3.77 (1.08)	.88	−.21**	0.09	3.53 (1.22)	.92	.75**	4.10 (1.16)	.88	−.24**	0.18
Distraction	4.06 (0.84)	.82	−.19**	−0.17	3.99 (0.82)	.78	.00	0.01	3.85 (0.84)	.78	.66**	4.21 (0.85)	.69	−.13	−0.14
Direct action	4.10 (0.91)	.85	−.09	−0.09	4.13 (0.83)	.81	−.01	0.23*	4.07 (0.82)	.83	.65**	4.22 (0.85)	.85	−.04	0.31
Cognitive reframing	4.47 (0.79)	.88	−.05	−0.22*	4.52 (0.71)	.80	.03	−0.13	4.55 (0.63)	.75	.59**	4.61 (0.72)	.78	−.02	−0.18
Valuing	4.45 (1.07)	.94	−.07	−0.67**	4.60 (0.92)	.90	.15**	−0.54**	4.44 (1.00)	.92	.79**	4.72 (0.96)	.87	−.09	−0.15
Receptive listening	5.18 (0.72)	.90	−.12*	−0.45**	5.13 (0.67)	.85	−.09	−0.54**	5.08 (0.68)	.83	.59**	5.19 (0.71)	.82	−.11	−0.23

Note. Gender d = Cohen's d for binary gender differences (negative values = women > men), significance evaluated via independent samples t tests. ROES = Regulation of Others' Emotions Scale.
* $p < .05$. ** $p < .01$.

Valuing. Items in this factor represent communication to the target person that they are important, valuable, special, or meaningful to the regulator. Of the eight strategies, valuing is the most obviously unique to extrinsic regulation, as it focuses on the relationship between two people. An example of valuing might be a supervisor telling a subordinate how much they appreciate the hard work and how important and valued the subordinate is to the team and company. Valuing was used significantly more by women than men, with a moderate to large effect size. Valuing could be considered either an attention deployment strategy (as it involves focusing the target's attention toward their own positive qualities or the target/regulator relationship) or a cognitive change strategy (as it involves changing the target's cognitions about their value or worth to the regulator). As such, it is antecedent-focused.

Cognitive Reframing. Item content for cognitive engagement and cognitive reappraisal combined into this single factor, which we labeled cognitive reframing. Definitions of cognitive engagement and cognitive reappraisal are similar, so this was not a surprising amalgamation. For example, Niven et al. (2009) defined cognitive engagement as "changing the target's thoughts about his or her situation or affect, e.g., reframing or reappraisal" (p. 501). Like downward social comparison, we classify cognitive reframing as an antecedent-focused strategy from the cognitive change family.

Receptive Listening. Items on this factor represent an openness to receiving another person's communication about their emotions, listening responsively and receptively to the other person vent their emotions. Receptive listening was the most strongly endorsed of all eight strategies. An example of receptive listening would be having coffee with a friend who wanted to complain about a frustrating incident with a coworker. We classify receptive listening as a response-focused strategy (response modulation family), as it focuses on the target person's emotional response to the emotion-eliciting situation.

Study 2: Determining the Engagement Level of Different Strategies

Study 1 identified eight different strategies people use to regulate others' emotions. The main aim of Study 2 is to explore how much each of the eight strategies require engagement in the target person's thoughts and feelings, to characterize the strategies as high or low in engagement. To do this, we collected participant ratings of how much items from each strategy involve affective and cognitive engagement with the target person.

While the main aim is descriptive (i.e., to characterize the strategies as high or low in engagement), we also have some expectations about which strategies should involve greater engagement. Of the two cognitive change strategies, downward social comparison may involve lower engagement with the target, as it focuses attention *away* from the target's situation and toward a contrasting (more negative) situation. In comparison, cognitive reframing involves cognitively processing the target's situation in order to find an alternative interpretation, and so represents high cognitive engagement with the target.

While both attention deployment strategies are diversion-based rather than engagement-based (Niven et al., 2009), humor may involve higher engagement than distraction. This is because humor can involve cognitive processing to satirize the situation, pun or riff on a conversation's themes, or allow the jokes to land successfully (i.e., humor requires enough processing of the situation cues to ensure jokes cheer the target up, rather than seem insensitive or offensive under the circumstances).

Of the two response modulation strategies, receptive listening involves attention and processing of the target's thoughts and feelings (literally receiving the verbal communication of their emotions) whereas expressive suppression involves attempts to silence or stifle the appearance of the target's emotions (literally refusing to receive the nonverbal communication of their emotions). As such, the two response modulation strategies represent a strong contrast in engagement levels—high engagement for receptive listening and low engagement for expressive suppression. Such a designation is in line with research findings that expressive suppression is linked with negative outcomes, whereas receptive listening is linked with positive outcomes (e.g., Little et al., 2012; Nils & Rimé, 2012).

Niven et al. (2009) classified valuing as a diversion strategy, as it represents diversion from the perspective of the target (i.e., diverts the target's attention toward the regulator, and the target/regulator relationship). However, valuing involves an investment of attention and affect from the regulator. From the regulator's perspective, we therefore consider valuing to represent a high level of engagement.

We distinguish between affective engagement (attending to the target's feelings or emotional expressions) and cognitive engagement (attending to the target's thoughts, including engaging in cognitive transformation of the target's cognitions). This distinction may be important for the highly cognitive strategies (such as cognitive reframing), where we might expect high cognitive engagement but not necessarily high affective engagement with the target.

Hypotheses

The following hypotheses have been preregistered at https://aspredicted.org/2QT_BL2.

Hypothesis 1: Three Strategies Will Represent High Affective Engagement

Humor, receptive listening, and valuing will have significantly higher affective engagement ratings than the other five strategies.

Hypothesis 2: Four Strategies Will Represent High Cognitive Engagement

Cognitive reframing, humor, receptive listening, and valuing will have significantly higher cognitive engagement than the other four strategies.

Hypothesis 3: Two Strategies Will Represent Low Levels of Engagement Generally

Compared to the other six strategies, downward social comparison and expressive suppression will have significantly lower: (a) cognitive engagement and (b) affective engagement.

Study 2: Method

Participants

There were 121 participants who completed this study (60 women and 61 men, aged 19–76 years, M_{age} = 40.69 years). Most participants reported their ethnicity as "White" (78.2%), and their

country of birth as the United Kingdom (81.1%). One additional participant was excluded based on preregistered exclusion criteria (completion time < one third the median time). Participants were recruited from Prolific and paid 70 pence for their participation.

Sample Size Estimation/Justification

Our main hypotheses were tested with three within-person *t* tests and a critical α of .0125 (i.e., dividing .05 by 4).[1] G-power software indicated that a sample of 111 participants was needed to detect a small to moderate effect (Cohen's $d = 0.4$) in a two-tail test at 95% power. We preregistered to collect $N = 120$ participants (Point 7), to allow for exclusions of nonserious responding but went over (by $n = 2$) due to time-outs that did not register as completed data in Prolific.

Procedure

Participants read an online information form and provided written consent to participate. They then completed a survey, where they were presented with the 32 ROES items twice, under different instruction sets: (a) *affective engagement*, where participants rated "how much the action requires you to be involved with the EMOTIONS of the other person" from 1 (*not at all involved in their emotions*) to 6 (*extremely involved in their emotions*) and (b) *cognitive engagement*, where participants rated "how much the action requires you to be involved with the THOUGHTS of the other person" from 1 (*not at all involved in their thoughts*) to 6 (*extremely involved in their thoughts*). The order of instruction sets was randomly counterbalanced.

Study 2: Results

Figure 1 compares the engagement level of the eight strategies. Participants' engagement ratings were highest for receptive listening and lowest for expressive suppression. Rated engagement was fairly high (more than 4 of 6) for direct action, valuing, and cognitive reframing and was lower for downward social comparison, humor, and distraction. Cognitive versus affective engagement was different for three strategies (distraction, valuing, and cognitive reframing) according to our preregistered criteria for a meaningful difference (nonoverlapping confidence intervals). For valuing, affective engagement was significantly higher than cognitive engagement. For cognitive reframing and distraction, cognitive engagement was significantly higher than affective engagement.

Hypothesis 1: Three Strategies Will Represent High Affective Engagement

As hypothesized, the mean affective engagement rating for the three "high affective engagement" strategies (humor, receptive listening, and valuing; $M = 4.09$, $SD = 0.84$) was significantly higher than the mean affective engagement rating on the remaining five strategies ($M = 3.35$, $SD = 0.76$; $t = 9.372$, $df = 120$, $p < .001$). This was a large effect size (Cohen's $d = 0.87$). Hypothesis 1 was therefore supported.

Hypothesis 2: Four Strategies Will Represent High Cognitive Engagement

As hypothesized, the cognitive engagement rating for the four "high cognitive engagement" strategies (humor, receptive listening, valuing, and cognitive reframing; $M = 4.05$, $SD = 0.78$) was significantly larger than the mean cognitive engagement rating on the remaining five strategies ($M = 3.12$, $SD = 0.82$; $t = 12.96$, $df = 120$, $p < .001$). This was a large effect size (Cohen's $d = 0.79$). Hypothesis 2 was therefore supported.

Hypothesis 3: Two Strategies Will Represent Low Levels of Engagement

As hypothesized, the affective engagement rating on the two "low-engagement" strategies (downward social comparison and expressive suppression; $M = 2.51$, $SD = 1.20$) was significantly lower than the mean affective engagement rating on the remaining six strategies ($M = 3.99$, $SD = 0.64$; $t = 14.399$, $df = 120$, $p < .001$). This was a large effect size (Cohen's $d = 1.13$). Also as hypothesized, the cognitive engagement rating on the two "low-engagement" strategies (downward social comparison and expressive suppression; $M = 2.46$, $SD = 1.06$) was significantly lower than the mean affective engagement rating on the remaining six strategies ($M = 3.96$, $SD = 0.72$; $t = 46.56$, $df = 120$, $p < .001$). This was a large effect size (Cohen's $d = 1.00$). Hypothesis 3 was therefore supported.

Although all preregistered hypotheses were supported, the rationale for our hypotheses was not entirely supported by the descriptive statistics. We expected that humor would be a high-engaged strategy, but in fact, it was rated as third lowest for both cognitive and affective engagement. Conversely, we did not expect direct action to be a high-engagement strategy, but ratings were similar for direct action, valuing, and cognitive reframing.

Table 4 summarizes the name and definition of each strategy, along with each strategy's engagement level and process model stage. Figure 2 illustrates how each strategy can be represented as both engagement level (based on participant ratings obtained in this study) and process model stage. When the strategies are graphed in two-dimensional space like this, it is easier to see how different theoretical groupings can be applied to the same set of strategies—a process model classification versus engagement-level classification.

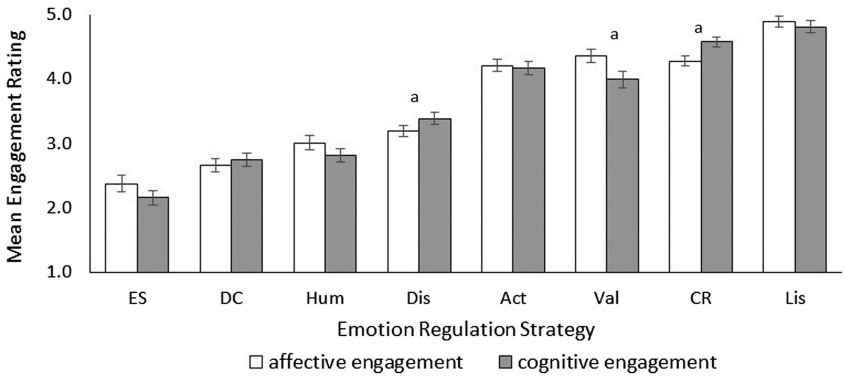
Study 3: Validity Evidence for the ROES

In line with professional standards for psychometric assessment (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 2012), we aim to test whether the ROES showed evidence of *test–retest reliability*, *structural validity* with respect to the eight-factor model, *discriminant validity* with respect to personality domains and intrinsic emotion regulation strategies (i.e., correlations are small to moderate rather than large), and *convergent validity* with respect to existing extrinsic emotion regulation scales. We also consider which strategies relate to the regulator's *socioemotional traits* and to *regulator ill-being and*

[1] Note that we mistakenly preregistered a critical alpha of .017 (.05 divided by 3) based on accounting for three *t* tests. We actually conducted four *t* tests, so used a critical alpha of .0125, which is more appropriate and more conservative.

Figure 1

Mean Ratings (1–6 Scale) of "Affective Engagement" Versus "Cognitive Engagement" With the Target for the 8 ROES Strategies (N = 121), Study 2



Note. Error bars = plus or minus 1 *SE* (standard error); ES = expressive suppression; DC = downward social comparison; Hum = humor; Dis = distraction; Act = direct action; Val = valuing; CR = cognitive reframing; Lis = receptive listening; ROES = Regulation of Others' Emotions Scale. [a] Nonoverlapping standard errors (the preregistered criteria for meaningful differences between cognitive vs. affective engagement levels).

well-being, as criterion-related validity evidence. When referring to the effect size of correlations, we use the conventional heuristics of $r = .10$ as small, $r = .30$ as moderate, and $r = .50$ as large (e.g., Cohen, 1992).

Evidence of reliability will be considered both in terms of internal consistency (assessed by Cronbach's α) and stability over a 3-week period. The strategies people use are likely to change depending on many factors (e.g., the type and intensity of the target's emotion; the regulator/target relationship type, duration, and quality; the nature of the target's problem; and the emotional, cognitive, and time constraints on the regulator). However, in developing the ROES, we have assumed that the extrinsic regulation strategies people use are due to *person factors* as well as these situation factors. That is, we assumed that there are consistent and measurable differences between people in the extent to which they habitually use certain strategies to regulate others' emotions. If this assumption is correct, then these differences between people should be consistent across time, with test–retest coefficients of greater than .70, similar to intrinsic emotion regulation scales (e.g., Gratz & Roemer, 2004).

Hypothesis 4: Test–retest correlations will be $r = .70$ or greater across a 3-week period.

Structural Validity Evidence

We will test whether the eight-factor model identified in Study 1 shows good fit in a second independent data set. In interpreting model fit, we consider "acceptable fit" heuristics as comparative fit index > .90, root-mean-square error of approximation < .08, and standardized root-mean-square residual < .09 and "good fit" as comparative fit

Table 4

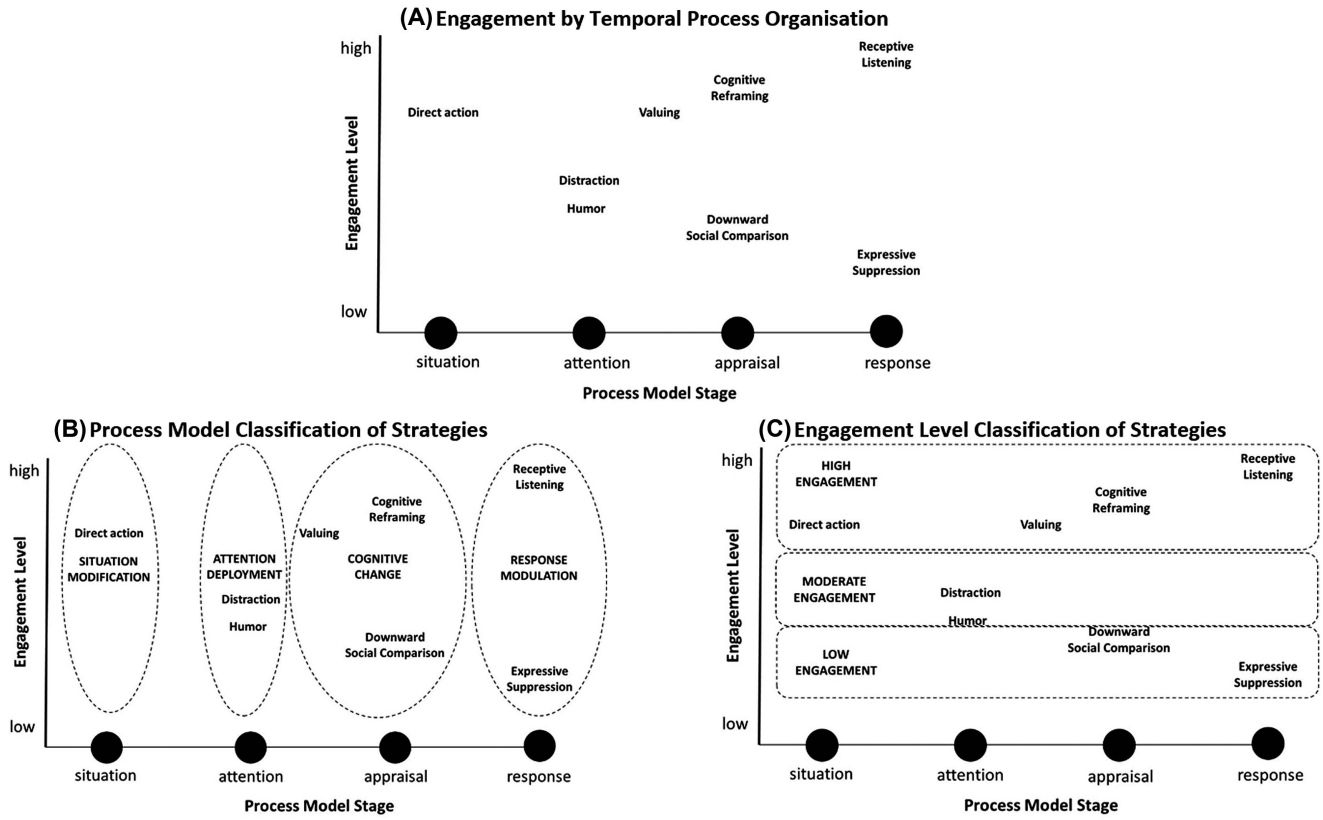
Definition and Categorization of the ROES Subscales Into Process Model Stage, Ordered From Least to Most Engagement With the Target Person's Emotions

Strategy and definition	Stage	Engagement level
Expressive suppression: Encourage the target person to avoid expressing their feelings in their face, voice, or body language.	Response modulation	Low
Downward social comparison: Shift the target person's frame of reference by comparing their situation to someone who is worse off.	Cognitive change	Low
Humor: Use humor to make the target person feel better—joke or make them laugh.	Attention deployment	Moderate
Distraction: Focus the target's attention away from the situation details triggering their emotions.	Attention deployment	Moderate
Direct action: Change the target person's situation to alter its emotional impact.	Situation modification	High
Valuing: Give the target attention to make them feel valued or special.	Mixed[a]	High
Cognitive reframing: Encourage the target person to change the way they think about their situation in order to change its emotional impact.	Cognitive change	High
Receptive listening: Listen to the target express their emotions in socially shared language.	Response modulation	High

Note. ROES = Regulation of Others' Emotions Scale.
[a] Valuing may involve both *attention deployment* (drawing attention toward the regulator and regulator/target relationship) and *cognitive change* (changing the target's perspective or interpretation about their value and worth).

Figure 2

Classification of the ROES Regulation Strategies as Process Model Stage (X-Axis) by Level of Engagement With the Target (Y-Axis) in Panel A, Overlaid With the Process Model (Panel B), or Engagement Level (Panel C)



Note. ROES = Regulation of Others' Emotions Scale.

index > .96, root-mean-square error of approximation < .05, and standardized root-mean-square residual < .08 in line with various recommendations (e.g., Beauducel & Wittmann, 2005; Browne & Cudeck, 1992; Hu & Bentler, 1999; Marsh et al., 2004).

Hypothesis 5: An eight-factor model will fit the data well.

Discriminant validity evidence will be assessed against personality and intrinsic emotion regulation. We will test whether extrinsic emotion regulation strategies are clearly distinct from standard personality domains from the honesty/humility, emotionality, extraversion, agreeableness, conscientiousness, and openness model of personality (HEXACO; Lee & Ashton, 2018) and Dark Triad (narcissism, Machiavellianism, and psychopathy) and from intrinsic regulation strategies.

Hypothesis 6: We expect correlations of the ROES subscales to be small to moderate, rather than large (i.e., less than $r = .50$), with (a) personality domains and (b) intrinsic emotion regulation strategies.

Convergent validity evidence will be assessed with respect to existing assessments of extrinsic emotion regulation. While existing assessments do not examine specific strategies, there are several clear conceptual correspondences between our granular strategies and the wider stages or types of existing scales, and we expect these conceptual correspondences to be reflected in observed associations.

Hypothesis 7: We expect large correlations for: (a) ROES expressive suppression with response modulation, (b) ROES diversion-based strategies (humor and distraction) with diversion scales, (c) ROES direct action with situation modification scales, (d) ROES cognitive change strategies (downward comparison and cognitive reframing) with cognitive change scales, and (e) the high-engagement ROES strategies (direct action, valuing, cognitive reframing, and receptive listening) with engagement scales.

The association of regulation strategies with socioemotional traits such as empathy, communal orientation, self-rated emotional intelligence, and perceived social support will be examined. As these socioemotional traits represent strong interpersonal connections to others, people with high levels of these traits should invest more attention, time, and energy in the emotions of others, and therefore, use high-engagement strategies.

Hypothesis 8: High-engagement strategies (direct action, valuing, cognitive reframing, and receptive listening) will be positively associated with socioemotional traits.

The association of regulation strategies with regulator well-being and ill-being will be examined. We include positive and negative affect, psychological well-being, loneliness, depression, anxiety, emotional engagement at work, and emotional exhaustion at work (the main symptom of workplace burnout). Studies on the Interpersonal Emotion Management Scale found that high-engagement strategies (strategies conceptually similar to direct action and cognitive reframing) were related to better well-being outcomes but that low and moderate-engagement strategies (strategies conceptually similar to expressive suppression and distraction) were not (Little et al., 2012, 2013, 2016). Specifically, both high-engagement strategies related to well-being outcomes such as significantly higher positive affect, trust, and job satisfaction (but were not related to ill-being outcomes such as negative affect). In contrast, the moderate-engagement strategy (distraction) was not significantly related to well-being outcomes and the low-engagement strategy (expressive suppression) showed significant negative relationships to well-being outcomes. Austin et al. (2018) found that the "enhance" subscale of the MEOS (representing active efforts to enhance others' emotions) was related to higher positive affect (but not to lower negative affect), supporting the link of high-engagement strategies to well-being but not ill-being. Tran et al. (2024) found that greater effort to regulate others' emotions (which might be needed for the use of high-engagement strategies) was linked with higher positive affect and higher social interaction quality but also higher levels of negative affect. Taken together, these results suggest that high-engagement strategies may predict higher well-being outcomes but not lower ill-being outcomes.

Hypothesis 9: High-engagement strategies will be significantly associated with higher regulator well-being.

Study 3: Method

Participants and Procedure

Study 3 consisted of two waves of data collected through the crowd-source platform Prolific, 3 weeks apart (in January 2020).

Wave 1. In Wave 1, all participants first completed the ROES and personality measures ($N = 310$; $n = 150$ women, $n = 159$ men, $n = 1$ nonbinary; aged 18–76 years; $M = 43.5$ years, $SD = 14.6$ years). Participants' highest educational level was graduate degree (18.1%), bachelor's degree (36.8%), vocational/trade qualification (17.7%), high school (26.8%), or less than high school (0.6%). Participants' employment status as not currently working (33.5%), part-time work (23.5%), or full-time work (42.9%). Participants described their ethnicity in a text box, with most (58%) explicitly stating a White ethnicity (e.g., White, Caucasian, Anglo) and a further large minority (27%) describing their ethnicity in terms of majority White countries or continents (e.g., British, New Zealander, European, Welsh).

Next, participants were randomized to complete one of two sets of additional measures: (a) extrinsic emotion regulation measures plus empathy ($n = 156$) or (b) well-being measures, emotional intelligence, and communal orientation ($n = 154$). This design allowed us to collect a larger number of criterion measures without fatiguing participants and to maintain a minimum of $n = 300$ for CFA. Of the 310 participants, 14 participants had unusable data for positive and negative affect (due to a programming error). In addition to the 310 participants, two participants were excluded for (a) taking less than one third of the median response time ($n = 1$) or (b) reporting that they spoke English "not well" ($n = 1$).

Wave 2. At Time 2 (3 weeks later), a subset of participants from Wave 1 ($N = 157$; 72 women, aged 18–72 years, $M = 43.6$ years, $SD = 12.91$ years) completed the Wave 2 measures (described below). We invited 179 participants to the Wave 2 survey (we invited all participants who reported that they worked full time or part time in Wave 1) and 160 (89%) responded within a week. Three responses were screened out for being too fast (less than one third of the median response time, $n = 1$), failing a data check item ($n = 1$), or invariant responding on a long survey (the Regulation of Emotion Systems Survey; $n = 1$).

Sample Size Estimation/Justification

We wanted to ensure $N > 300$ for the CFA modeling, in line with minimum sample size heuristics (Pearson & Mundform, 2010; Tabachnick & Fidell, 2014). We also conducted a Monte Carlo simulation in MPlus, as recommended by Brown (2015), based on the Study 1 model (eight factors, each with four items) and Study 1 parameters (factor loadings, correlations, item error variances). We considered statistical power to detect significant factor loadings, as well as evaluation criteria from Muthén and Muthén (2002). For $N = 300$: (a) Power was 100% to detect the factor loadings obtained in Study 1, (b) bias for the parameter estimates and their standard errors was less than 10% for all parameters, and (c) coverage was > .90 for all parameters (ranging from 0.93 to 1.00). We collected 312 participants to allow for exclusions if needed and retain a minimum sample size of 100. Hypotheses 6–9 are tested with correlation coefficients. An a priori G-power analysis shows that a sample size of 134 is needed to detect a moderate effect ($\rho = 0.30$) at 95% power (two-tailed). Our smallest sample size ($n = 148$) meets this criterion.

Wave 1: Measures

ROES. Participants completed the ROES items described in Study 1. A subset of 54 items was used—the 32 items of the ROES, plus 22 additional (see OSF materials https://osf.io/km63v). The additional 22 items included eight items that originally represented the 9th and 10th factor in Study 1, and 14 items showing salient loadings on ROES factors (these 14 items were collected in case factor structure and reliability were inadequate so that replacement/additional items could be tested for inclusion, if needed).

Personality. Personality was assessed with (a) the 100-item HEXACO-PI-R (Lee & Ashton, 2018) which assesses 25 facets and six broad domains of personality (honesty/humility, emotionality, extraversion, agreeableness, conscientiousness, openness) and (b) the 12-item Dirty Dozen (Jonason & Webster, 2010), which assesses the three dark triad domains of personality (narcissism, psychoticism, and Machiavellianism).

Comparison Extrinsic Emotion Regulation Scales. We used four existing scales: (a) the Interpersonal Emotion Regulation Scale (Little et al., 2012) assesses four five-item Process Model

scales: situation modification, attention deployment, cognitive change, and response modulation; (b) the 10-item Interpersonal Affect Improvement Questionnaire (López-Pérez et al., 2019) assesses engagement (six items) and acceptance (four items); (c) we used the Managing the Emotions of Others Scale–Short Form (MEOS-SF; Austin et al., 2018) divert (four items) and enhance (four items) scales; and (d) we use the six-item affect improving scale of the Emotion Regulation of Others and Self (Niven et al., 2011).

Socioemotional Traits. The Basic Empathy Scale (Jolliffe & Farrington, 2006) was used to assess both cognitive empathy (nine items) and affective empathy (11 items). The Communal Orientation Scale (Clark et al., 1987) involved 14 items tapping into participants' tendencies to behave in a communal manner (e.g., taking others' needs into account) and expectations that others will behave communally toward them. Self-rated emotional intelligence was assessed with the Wong-Law Emotional Intelligence Scale (Law et al., 2004), which includes 16 items. Social support was assessed with the 12-item Multidimensional Scale of Perceived Social Support (Zimet et al., 1988).

Well-Being and Ill-Being. The Positive and Negative Affect Schedule-Short Form (Thompson, 2007) assessed affect over the last week for positive affect (e.g., "Attentive") and negative affect (e.g., "Nervous"). Loneliness was assessed with Roberts et al.'s (1993) four-item assessment. The four-item Patient Health Questionnaire (Kroenke et al., 2009) assessed depression (two items) and anxiety (two items) over the last 2 weeks. Psychological well-being was assessed using the 18-item version of the psychological well-being scale (Ryff & Keyes, 1995).

Wave 2: Measures

ROES. Participants completed the 32-item ROES again (alongside eight additional items that originally represented the 9th and 10th factor in Study 1 but were not retained).

Workplace Well-Being and Ill-Being. Burnout was assessed with Wharton's (1993) six-item exhaustion scale. Emotional engagement (Rich et al., 2010) was assessed with six items.

Intrinsic Emotion Regulation. The 24-item Regulation of Emotion Systems Survey (De France & Hollenstein, 2017) includes six 4-item intrinsic emotion regulation strategy scales (suppression, distraction, reappraisal, engagement, relaxation, rumination).

Study 3: Results and Discussion

Reliability and Descriptive Statistics

Internal consistency reliability and descriptive statistics for the ROES subscales are given in Table 2. Internal consistency was good, ranging from α = .78 to α = .90 for Wave 1 and α = .75 to .92 for Wave 2. Reliability and descriptive statistics for the comparison scales are shown in Tables 5–7. The reliability of personality domains

Table 5

Correlations of ROES Subscales With Regulator Personality, Socioemotional Traits, Ill-Being, and Well-Being (N = 310 for Personality, N = 148–155 for Other Variables), Study 3

Variable	*M*	*SD*	α	ES	DC	Hum	Dis	DA	Val	CR	Lis
Personality											
Honesty/humility	3.56	0.61	.83	−.14*	−.14*	−.16**	−.08	−.06	.24**	.06	.17**
Emotionality	3.29	0.64	.86	−.08	−.07	.10	.04	.02	.39**	.02	.34**
Extraversion	3.08	0.62	.86	.21**	.13*	.13*	.16**	.11	.32**	.25**	.14*
Agreeableness	2.94	0.59	.86	.17**	.00	.02	.07	.10	.23**	.20**	.15**
Conscientiousness	3.56	0.54	.83	.02	−.03	−.05	−.04	.09	.15**	.22**	.11*
Openness	3.46	0.64	.85	−.13*	−.16**	.04	−.10	.04	.17**	.21**	.20**
Machiavellianism	2.91	1.62	.83	.00	.05	.09	−.06	−.04	−.22**	−.03	−.16**
Psychopathy	3.23	1.52	.74	−.02	.02	.02	−.06	−.08	−.36**	−.04	−.23**
Narcissism	3.45	1.69	.82	.07	.06	.05	−.02	.00	−.14*	−.02	−.12*
Socioemotional traits											
Affective empathy	3.47	0.87	.84	−.03	−.02	.31**	.11	.16*	.55**	.14	.35**
Cognitive empathy	3.93	0.88	.85	−.08	−.03	.16	.13	.20*	.37**	.39**	.53**
Self-rated EI (WLEIS)	5.18	0.86	.90	.14	−.01	.10	.13	.07	.29**	.40**	.29**
Communal orientation	4.98	0.82	.82	−.08	−.32**	.01	.01	.05	.48**	.23**	.52**
MSPSS	5.33	1.10	.91	.13	.15	.19*	.15	.14	.39**	.31**	.26**
Ill-being											
Loneliness	2.06	0.86	.86	−.16	−.01	−.08	−.06	−.04	−.10	−.09	.04
Depression	1.82	0.83	.84	−.17*	−.06	.01	−.17*	−.03	−.08	−.16	.12
Anxiety	1.95	0.92	.90	−.22**	−.14	.03	−.04	−.06	−.02	−.14	.13
Negative affect	1.91	0.76	.76	−.18*	−.09	−.05	−.15	−.18*	−.05	−.11	.10
Burnout	2.70	1.64	.94	−.04	−.11	.27**	.07	.17*	.00	-.02	.09
Well-being											
Positive affect	3.38	0.80	.86	.19*	−.01	.15	.04	.09	.30**	.28**	.10
Psych. well-being	4.31	0.69	.85	.05	−.02	.03	.08	.02	.27**	.26**	.15
Emotional engagement	3.53	0.99	.94	.09	−.02	−.01	.04	.11	.28**	.27**	.17*

Note. DC = downward comparison; ES = expressive suppression; Dis = distraction; Hum = humor; DA = direct action; Val = valuing; CR = cognitive reframing; Lis = receptive listening; Psych. = psychological; EI = emotional intelligence; WLEIS = Wong-Law Emotional Intelligence Scale; MSPSS = Multidimensional Scale of Perceived Social Support; ROES = Regulation of Others' Emotions Scale.
* $p < .05$. ** $p < .01$.

Table 6
Correlations of the ROES Subscales With Extrinsic and Intrinsic Emotion Regulation, N = 154 to 156, Study 3

Comparison measure	*M*	*SD*	α	ES	DC	Hum	Dis	DA	Val	CR	Lis
Extrinsic regulation—suppression											
IEM response modulation	2.27	1.00	.78	**.60****	.41**	.09	.26**	.09	.03	−.01	−.23**
Extrinsic regulation—diversion											
IAISQ acceptance	3.73	0.95	.65	.30**	.17*	**.67****	**.53****	.39**	.36**	.29**	.27**
IEM attention deployment	4.37	1.13	.84	.31**	.37**	**.25****	**.60****	.21**	.24**	.21*	.10
Extrinsic regulation: MEOS divert	3.44	0.76	.77	.29**	.25**	**.68****	**.48****	.28**	.29**	.30**	.18*
Extrinsic regulation—direct action											
IEM situation modification	4.46	1.10	.82	.18*	.16*	.22**	.38**	**.60****	.33**	.41**	.25**
Extrinsic regulation—reappraisal											
IEM cognitive change	4.56	1.06	.85	.31**	**.42****	.21**	.39**	.27**	.24**	**.53****	.18*
Extrinsic regulation—engagement											
IAISQ engagement	4.46	0.74	.75	.07	.07	.21**	.28**	**.36****	**.53****	**.52****	**.55****
MEOS enhance	4.08	0.55	.80	.00	.05	.19*	.19*	**.29****	**.57****	**.50****	**.57****
Extrinsic regulation—general											
EROS Improve	3.53	0.91	.86	.08	.04	.34**	.10	.38**	.41**	.36**	.39**
Intrinsic regulation (RESS)											
Suppression	2.81	0.92	.86	.02	.01	.07	.10	−.09	−.04	.12	.00
Distraction	2.91	0.85	.88	.14	.05	.22**	.38**	.22**	.14	.18*	.10
Reappraisal	2.97	0.90	.88	.05	.01	−.06	.02	.06	.14	.42**	.25**
Engagement	2.41	0.86	.86	.01	.03	.13	.05	.01	.24**	−.02	.00
Relaxation	2.28	1.00	.90	.14	.13	−.08	.18*	.04	.22**	.17*	.04
Rumination	3.35	1.04	.92	−.23**	−.16*	.09	−.13	.10	.10	.07	.20

Note. Bold text = equivalent/similar concepts from comparison extrinsic regulation scales. Extrinsic regulation: IAISQ = Interpersonal Affect Improvement Strategies Questionnaire; IEM = Interpersonal Emotion Management; EROS = Emotion Regulation of Others and Self; MEOS = Managing the Emotions of Others; Intrinsic Regulation: RESS = Regulation of Emotion Systems Survey; DC = downward comparison; ES = expressive suppression; Dis = distraction; Hum = humor; DA = direct action; CR = cognitive reframing; Val = valuing; Lis = receptive listening; ROES = Regulation of Others' Emotions Scale.
* $p < .05$. ** $p < .01$.

was acceptable. Reliability was acceptable for the comparison extrinsic regulation scales and good for all other comparison scales.

Hypothesis Testing (H4–H9)

Table 8 summarizes which hypotheses were supported. There was mixed evidence of test–retest reliability (Hypothesis 4, detail in Table 2), perhaps reflecting that people use different strategies for different targets (such that change over time might be greater for extrinsic than intrinsic strategies). The ROES showed evidence of structural validity (Hypothesis 5, detail in Table 1), as well as discriminant and convergent validity (Hypotheses 6 and 7, detail in Tables 5 and 6). There was mixed evidence that high-engagement ROES scales were related to socioemotional traits (Hypothesis 8) and well-being (Hypothesis 9), which is different by scale: Evidence was strongest for valuing and cognitive reframing and weakest for direct action. Receptive listening was strongly linked to socioemotional traits but only weakly linked to well-being. In general, these results support the use of the ROES subscales as a valid way to assess different strategies people might use to regulate others' emotions.

We make two further observations about the observed correlations in this study. First, almost all correlations among extrinsic regulation strategies were positive. The only two exceptions were for expressive suppression (ROES suppression/MEOS enhancement, and Interpersonal Emotion Management suppression/ROES listening). López-Pérez et al. (2019) found similar results—except for suppression, all five strategies examined showed significant positive associations. It may be that the overarching tendency to regulate others' emotions (rather than leave them alone) means that people who tend to use one strategy tend to use others well, because once they decide to regulate, they are more likely to use any and all of the strategies.

Table 7
Correlations of Regulator-Rated ROES Scales With Target-Rated Relationship Quality (N = 150) and Target Affect (N = 148), With, Study 4

Outcome variable	ES	DC	Hum	Dis	DA	Val	CR	Lis
Positive affect	.19*	.03	.02	.14	.08	.21**	.16*	.15
Negative affect	.07	.04	−.01	−.03	.07	−.20*	−.15	−.19*
Relationship quality	−.04	−.09	.09	.17*	−.03	.40**	.21**	.31**

Note. ES = expressive suppression; DC = downward social comparison; Hum = humor; Dis = distraction; DA = direct action; Val = valuing; CR = cognitive reframing; Lis = receptive listening; ROES = Regulation of Others' Emotions Scale.
* $p < .05$. ** $p < .01$.

Table 8
Summary of Hypotheses and Level of Support, Study 3

Hypothesis	Empirical support from hypothesis testing
Hypothesis 4: Reliability: Test–retest reliability >.70	Mixed: 50% of strategies had test–retest reliability >.70; range = .59–.80.
Hypothesis 5: Structural validity: Eight-factor model fits data well	Supported: Good fit indices (comparative fit index = .951, root-mean-square error of approximation = .039, standardized root-mean-square residual = .055)
Hypothesis 6: Discriminant validity: ROES correlates <.50 with: a. Personality domains b. Intrinsic regulation strategies	Supported: 1. Supported: Personality correlation range: −.36 to .39, 2. Supported: Intrinsic regulation correlation range: −.23 to .42
Hypothesis 7: Convergent validity: Large correlations for conceptually similar scales: a. ROES suppression with response modulation, b. ROES diversion (humor, distraction) with diversion, c. ROES action with situation modification, d. ROES cognitive change (downward comparison, reframing) with cognitive change, e. ROES high engagement (action, valuing, reframing, listening) with engagement scales.	Supported: a. Supported: Suppression with response modulation (r = .60) b. Supported: Distraction with 3/3 diversion scales (r = .48–.60), humor with 2/3 (r = .67–.68), but not IEM attention deployment (r = .25); c. Supported: Direct action with situation modification (r = .60), d. Supported: Reframing with cognitive change (r = .53), downward comparison with cognitive change (r = .42, slightly smaller than hypothesized); and e. Supported: 3/4 scales (valuing, reframing, listening) highly correlated with engagement scales (r = .50–.57), 4th scale (action) moderately correlated (r = .29–.36).
Hypothesis 8: Links to socioemotional traits: ROES high-engagement scales (action, valuing, reframing, listening) shows significant with socioemotional traits (empathy, EI communal orientation)	Mixed (less support for action) • Weak support: Action: sig. correlations for affective + cognitive empathy (r = .16, .20), but not EI or communal orientation • Supported: Valuing: 4/4 correlations sig. (r = .29–.55) • Mixed support: Reframing: sig. correlations for cognitive (but not affective) empathy, EI, communal orientation (r = .23–.39) • Supported: Listening: 4/4 correlations sig. (r = .29–.52)
Hypothesis 9: Links to well-being: ROES high-engagement scales (action, valuing, reframing, listening) associated with higher regulator well-being (positive affect, psychological well-being, emotional engagement).	Mixed (no support for action) • Not supported: Action. 0/3 sig. correlations • Supported: Valuing. 3/3 sig. correlations (r = .17–.30) • Supported: Reframing. 3/3 sig. correlations (r = .26–.28) • Mixed support: Listening. 1/3 sig. correlations (engagement r = .17)

Note. See Tables 1 and 3 for CFA (confirmatory factor analysis) results, Table 2 for test–retest, Tables 5 and 6 for correlations. ROES = Regulation of Others' Emotions Scale; IEM = Interpersonal Emotion Management; EI = emotional intelligence; sig. = significant at $p < .05$.

Second, while we made no hypotheses about associations of ROES scales with ill-being, we found that expressive suppression was associated with *lower* levels of depression, anxiety, and negative affect and with higher levels of positive affect. As a low-engagement, response-focused strategy, these associations are surprising, as one would predict this strategy to show poorer regulator well-being from both an engagement-level and process model theoretical perspective. One possible reason for the positive effects of expressive suppression is that it is less depleting for the regulator to employ, as compared to the high-engagement strategies. Tran et al. (2023) found that "when people tried harder to make others feel better, they also felt more negative themselves" (p. 354), suggesting that effortful regulation of others' emotions has an emotional cost to the regulator. Our results are consistent with this idea. The lowest engagement strategy (expressive suppression) showed consistent negative associations with all ill-being outcomes (significant for three of five outcomes) whereas the highest engagement strategy (receptive listening) showed consistent positive correlations with all ill-being outcomes (though not significantly so).

Study 4: Regulation Strategies With Target Outcomes

Studies 1 and 3 used data from a single person (the regulator). In fact, strategies for regulating *other people's* emotions should logically affect *other people's* outcomes. Study 4 was designed to address this by collecting data on target outcomes. In this study, the regulator completed the ROES, but a nominated informant (the *target*), rated their own positive affect, negative affect, and relationship quality with the regulator.

Prediction of Target Affect

The most obvious consequence of trying to regulate someone else's emotions is that the other person's emotions will change. We therefore focus on the target's emotional states to find more direct evidence of the criterion-related validity of the ROES scales. We used "being with the regulator" as a frame of reference (i.e., "How often do you feel this way, *when you are with this person*?") to focus on the effect of the regulator's actions on the target's emotions. As the ROES assesses affect improving (hedonic) regulation, we expect that the ROES strategies should relate to higher positive and lower negative affect.

> *Hypothesis 10:* Extrinsic regulation strategies will (a) predict higher positive affect and (b) predict lower negative affect.

Prediction of Relationship Quality

There is evidence that targets who seek others' help to regulate their emotions are more socially connected and develop more supportive relationships (Williams et al., 2018). There is also evidence that people who attempt to make others feel better are better able to develop relationships with others (Niven et al., 2015) and that targets report stronger friendship and trust with regulators who engage in extrinsic regulation of their feelings (Niven et al., 2012). We therefore

propose that greater use of emotion regulation strategies should relate to better relationship quality (more relationship satisfaction, a greater sense of emotional support, and less interpersonal conflict). Because relationship quality is based on engagement with the other person (their thoughts, feelings, and the relationship itself), we expect the strongest positive effects to occur for the regulation strategies representing high levels of engagement—direct action, cognitive reframing, receptive listening, and valuing.

Hypothesis 11: High-engagement extrinsic regulation strategies will predict higher relationship quality.

Study 4: Method

Participants

There were 150 dyads who participated in this study. Each dyad consisted of a "regulator" (who provided self-ratings on the ROES) and a "target" (nominated by the regulator). There were 150 regulators (75 women, 75 men; mean age of 34.82 years, $SD = 10.16$ years) and 150 targets (80 women, 69 men, one nonbinary; mean age of 34.39 years, $SD = 9.95$ years). For most dyads (85%), the target stated that the regulator was their romantic partner. For the remainder, the regulator was a friend (10%) or relative (5%). Regulators reported their highest education level as graduate degree (37.3%), bachelor's degree (36.0%), vocational/trade qualification (11.3%), or high school (15.3%). Targets reported their highest education level as graduate degree (31.3%), bachelor's degree (36.0%), vocational/trade qualification (10.7%), or high school (22.0%). Regulators described their ethnicity in a text box, with the majority (51.3%) explicitly stating a White ethnicity (e.g., White, Caucasian, Anglo) and a further large minority (23.3%) describing their ethnicity in terms of majority White countries or continents (e.g., English, British, Western European).

Procedure

Dyads were recruited from Prolific. Initially, the regulator provided self-ratings on the ROES ($N = 203$) and provided a Prolific identity code for an informant target person and consent to contact the informant (15 regulators nominated two targets). There were therefore 218 targets invited to participate, with 169 (77.5%) consenting to take part. After exclusions, there were 150 dyads available for analysis. Cases were excluded as follows. For the regulators, (a) two participants completed in < one third of the median response time, and (b) two participants failed the data check question. For the targets, (a) one participant had zero variance ("straight-lined" their responses) on the ROES, (b) two participants failed the data check question, and (c) one participant answered "not well" to the question "How well do you speak English?". There were 11 cases where two targets rated the same regulator, and we removed the second target from the data set for these cases.

Sample Size Estimation/Justification

Hypotheses 10 and 11 are tested with correlation coefficients, and our sample size for this analysis is similar to Study 3 (such that results are comparable). A priori G-power analysis shows that a sample size of 134 is needed to detect a moderate effect ($\rho = 0.30$) at 95% power (two-tailed). Our smallest sample size ($n = 148$) is above this level.

Survey 1: Regulator Self-Report of the ROES

Regulators completed the ROES in self-report format, as described in previous studies.

Survey 2: Target Ratings of the Outcomes

The nominated targets completed the scales below, as well as another scale (informant-rated ROES) which we do not report on in the present study.

Positive and Negative Affect When With Regulator. Targets self-rated 14 affect terms on a 5-point scale from 1 (*very slightly or not at all*) to 5 (*extremely*). There were five negative affect and five high-arousal positive affect terms drawn from the Positive and Negative Affect Schedule–Short Form and four additional adjectives from McManus et al. (2019) used to represent low-arousal positive affect (calm, content, peaceful, and relaxed). Instructions stated, "Please indicate the extent to which you feel this way *when you are with this person*."

Relationship Quality. Targets completed nine items from the Network of Relationships Inventory (Buhrmester & Furman, 2008). Items represented relationship satisfaction (three items, e.g., "How satisfied are you with your relationship with this person?"), relationship conflict (three items, e.g., "How often do you and this person argue with each other?"), and emotional support (three items, e.g., "How often do you depend on this person for help, advice, or sympathy?"). Targets rated their agreement on a 5-point scale, where the scale point labels were either frequency-based (*never*, *seldom*, *sometimes*, *often, always*) or extent-based (*hardly at all*, *not too much*, *somewhat*, *very much*, *extremely much*). Relationship quality was calculated as the average of item ratings (reverse-coded for conflict items).

Study 4: Results

Reliability and Descriptive Statistics

Reliability was acceptable for all ROES scales (which were regulator-rated, see Table 2), with subscale means reflecting the degree of engagement with the target person (i.e., the higher the engagement, the more people reported using the strategy). Reliability was acceptable for all criterion variables (which were target-rated): relationship quality ($M = 4.29$, $SD = 0.55$, $\alpha = .80$), positive affect ($M = 3.91$, $SD = 0.60$, $\alpha = .82$), and for negative affect ($M = 1.30$, $SD = 0.48$, $\alpha = .80$).

Hypothesis 10: Prediction of Target's Positive and Negative Affect

All eight strategies showed a positive association with positive affect (see Table 7), though this was only significant for three strategies (cognitive reframing, valuing, and expressive suppression). These were the same three strategies that significantly predicted regulator positive affect in Study 3. Two strategies predicted significantly lower negative affect (receptive listening and valuing). Therefore, there was partial support for Hypothesis 10—only some of the strategies were significantly related to the target's emotional states.

Hypothesis 11: Prediction of Relationship Quality

Three of the four high-engagement strategies significantly predicted greater relationship quality (receptive listening, cognitive reframing, and valuing, but not direct action). Distraction also predicted higher relationship quality, although with a smaller effect size. Hypothesis 11 therefore received partial support.

Results from Study 4 are mostly (but not entirely) in line with the idea that *level of engagement* with the target person is an important factor for determining which strategies are most beneficial, given that the three highest engagement strategies showed the strongest and most consistent relationships with outcomes. Valuing was the only one of the eight strategies to show a significant relationship with all three target outcomes (positive affect, negative affect, and relationship quality). This finding is consistent with Walker et al. (2024), who found that valuing had the strongest relationship to relationship satisfaction out of any extrinsic emotion regulation strategy examined. Both cognitive reframing and receptive listening also related to two of the three outcomes in the expected direction. However, expressive suppression (the lowest engagement strategy) showed a significant positive association with target positive affect (and with regulator positive affect in Study 3).

Transparency and Openness

Data, materials, and code for all studies are available at https://osf.io/km63v/. This link also includes the anonymized preregistration for Study 2. For all studies, we report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study. Data were collected from 2018 to 2021. Specifically, the year of data collection was 2018 (Study 1), 2022 (Study 2), and 2020–2021 (Studies 3 and 4). All studies were approved by university ethics procedures of either Ulm University (Study 1) or The University of Sydney (Studies 2, 3, and 4).

General Discussion

Our studies combined two theoretical perspectives—the process model with the taxonomy of controlled extrinsic regulation strategies—to produce eight extrinsic emotion regulation strategies that can be distinguished in terms of (a) the degree of engagement with the target person and (b) the process model stage. The resulting scale showed good psychometric properties and promises to be a useful research tool for the growing research area of how people regulate others' emotions. The current research therefore makes two broad contributions: (a) providing a research tool that can be used to address new questions about extrinsic emotion regulation and (b) the theoretical contribution of integrating two existing frameworks.

First Contribution to the Literature: A New Research Tool

The current research has provided an assessment tool that reliably assesses multiple strategies people use to regulate others' emotions. The amount of research addressing the regulation of others' emotions has been growing rapidly (as shown by this special issue in *Emotion*). Providing a tool that looks at specific strategies enables researchers to ask new questions about the causes and consequences of different types of regulation.

The ROES Shows Good Evidence of Validity

Taken together, our studies provide good evidence for the structural, discriminant, convergent, and criterion-related validity of the ROES. First, the CFAs showed strong support for the eight-factor model, indicating strong evidence of structural validity. Second, the scales showed reasonable evidence of discriminant validity with respect to broad personality traits (HEXACO and dark triad traits), indicating that the scales are not assessing social or emotional personality traits, but rather something else. Third, the scales showed convergent validity with respect to existing scales of extrinsic emotion regulation, supporting the process model dimension of the framework. Fourth, the scales predicted important social and emotional outcomes (regulator well-being, target emotions, relationship quality). These links to social and emotional outcomes were mainly (but not solely) for the three highest engagement strategies (valuing, cognitive reframing, and responsive listening), with the strongest and most consistent associations for valuing.

The ROES Can Be Used to Ask New Questions

One key question for future research may be which regulation goals or motives activate different strategies. You might regulate others' emotions so that they feel better (other-focused hedonic goals) or so that you feel better (self-focused hedonic goals; Petrova & Gross, 2023). You might also regulate others' emotions to build or maintain social relationships (prosocial goals) or make a positive impression on others (Eldesouky & English, 2019; Niven, 2016). To the extent that people select strategies that are functional in meeting their goals, strategies linked to relationship quality (such as valuing, Study 4) might be activated by prosocial or social bonding goals for regulating others' emotions, whereas strategies linked to decreasing your own ill-being (such as expressive suppression, Study 3) might be activated by self-focused hedonic goals. Having a way to reliably assess different strategies enables these research questions to be examined. Another question for future research might be the extent to which different strategies are depleting versus invigorating to implement, given that effortful regulation can come at a cost to the regulator (Tran et al., 2023).

The ROES Includes Unique Strategies Not Previously Examined

One of the strategies unique to the ROES is valuing. While valuing was included in Niven et al.'s (2009) theoretical framework, subsequent research addressing multiple strategies has not considered valuing (Little et al., 2012; Nozaki & Mikolajczak, 2023; Ruan et al., 2024), probably because it has not been (and perhaps cannot be) studied as an intrinsic emotion regulation strategy. Of the eight ROES strategies, only valuing showed consistent positive associations with all six measures of regulator and target well-being, with the largest effect size of all strategies in all cases. The positive effects of valuing for the regulator may reflect the similarity of valuing to gratitude interventions, which are known to increase well-being (Davis et al., 2016; Dickens, 2017). That is, valuing behaviors involve expressing gratitude to the target for their presence in your life, the things that they do, and your relationship with them. Gratitude interventions tend to relate to well-being but not ill-being outcomes (Dickens, 2017), echoing our associations of valuing to

regulator well-being but not regulator ill-being. While we measured valuing as a stable trait (i.e., the extent to which people tend to engage in valuing), future research might examine whether experimentally inducing valuing strategies similarly results in increased regulator well-being and other outcomes.

Second Contribution to the Literature: Integrating Two Frameworks

The theoretical contribution of the current research is that it integrates two existing theories to show how strategies for regulating others' emotions can be characterized both by *process model stage* and by *engagement*.

Evidence for the Theoretical Framework

Evidence supports the two major dimensions of our proposed framework—engagement and process model stage. Engagement with the target person involves processing the target's emotional state, which requires devotion of time and energy to immerse oneself in the target's experience. Evidence for the ordering of strategies in terms of engagement was shown by: (a) participant ratings of engagement (Study 2); and (b) the descending associations with the Interpersonal Affect Improvement Strategies Questionnaire "engagement" scale, workplace emotional engagement, empathy, and communal orientation for high-engagement, moderate-engagement, and low-engagement strategies (Study 3). Evidence for the alignment of the strategies with the process model stages was shown by the associations of the ROES scales with the IEM scales representing each of four stages of the process model (Study 3).

Direct Action Might Not Be a "High-Engagement" Strategy. While there were four strategies that participants rated as high in engagement in Study 2, one of these (direct action) can only tentatively be labeled "high engagement" based on correlations with socioemotional traits, well-being, and target outcomes. The other three strategies rated as "high engagement" (valuing, cognitive reframing, and receptive listening) showed relatively consistent and high associations with socioemotional traits assessing tendencies to engage with emotions and with other people (empathy, emotional intelligence, communal orientation). These same three strategies were related to target outcomes (particularly relationship quality) and emotional engagement at work. Direct action was not significantly related to any of these things. That is, although participants rated direct action items as requiring attention to the target person's thoughts and feelings, the pattern of associations does not support the inclusion of direct action as a high-engagement strategy. Perhaps there is a key distinction between engaging with the target person's *situation* (noting that direct action items represent the process model stage "direct situation modification") and engaging with the target person's *thoughts* (as for high-engagement cognitive change strategies) or *feelings* (as for high-engagement response modulation strategies).

Comparison of High- Versus Low-Engagement Strategies

Comparison of High- Versus Low-Engagement Cognitive Change Strategies. Intrinsic regulation research often distinguishes two types of reappraisal: *reframing* versus *reality challenge* (Sheppes et al., 2014), *benefit-finding* versus *minimizing* (Zhao et al., 2022), *reconstrual* versus *repurposing* (Uusberg et al., 2019), or *consider benefits* versus *reduce importance* (Olderbak et al., 2023). These distinctions represent either: (a) *changing one's thoughts* about the situation by "shaping the information about the external world" (Uusberg et al., 2019, p. 273; reframing, benefit-finding/considering, or reconstrual), or (b) *changing one's goals* regarding the situation by altering "the motivational core of the self" (Uusberg et al., 2019, p. 273; minimizing, repurposing, reality challenge, and reduce importance). There is evidence that thought change is beneficial for conflict resolution whereas goal change is detrimental (Zhao et al., 2022), and that thought change relates more strongly to higher well-being and lower ill-being as compared to goal change (Olderbak et al., 2023). We propose that our distinction between cognitive reframing versus downward social comparison corresponds to the distinction between thought change versus goal change. Downward social comparison, applied extrinsically, implies that the target *should* feel differently—that the target's goal should change to a comparative ranking (i.e., being better off than others). Attempting to alter the "motivational core" of another person involves disengaging with or ignoring their actual goals and may therefore have socially aversive consequences. This distinction between the "good" high-engagement reappraisal (cognitive reframing) and the "bad" low-engagement reappraisal (downward social comparison) may explain why our results are at odds with a prior study (Niven et al., 2015) which found negative effects of reappraisal on relational outcomes. It may be that differing types of reappraisal have different effects on the target person.

Comparison of High- Versus Low-Engagement Response Modulation Strategies. The biggest contrast in engagement level occurred for the response modulation strategies. Ratings of engagement were highest for receptive listening and lowest for expressive suppression. While no prior research has identified a strategy labeled "receptive listening," many highly conceptually similar strategies exist under other names, including *high-quality listening, empathic responding*, *expression*, *problem-focused engagement*, *reflective listening*, *empathic communication*, *responsiveness*, *socioaffective sharing*, and (from the target's perspective, as an interpersonal intrinsic strategy) *socioaffect support*, *soothing*, *emotion sharing*, or *social sharing* (see Double et al., 2024; Itzchakov et al., 2024). The conceptual core that is common across these labels is that the target shares or expresses their emotions verbally while the receiver (the regulator) responds with supportive attention (sympathy, empathy, interest, or care). While both receptive listening and expressive suppression are response modulation strategies, prior research has found generally negative outcomes for expressive suppression of others' emotions at work (Little et al., 2012, 2013, 2016) but generally positive outcomes or high-rated effectiveness for receptive listening (Itzchakov et al., 2024; Nils & Rimé, 2012; Niven et al., 2015; Nozaki & Mikolajczak, 2023; Pauw et al., 2018; Ruan et al., 2024). The large difference in engagement may explain these results, pointing to engagement as the critical distinction between the two strategies.

However, our results paint a more complex picture, where expressive suppression is not necessarily problematic. Expressive suppression was significantly related to lower ill-being for the regulator (for three of the five ill-being measures), whereas receptive listening showed no significant associations with regulator ill-being.

Expressive suppression (but not receptive listening) was also related to significantly greater positive affect for both the regulator (Study 3) and the target (Study 4). Although receptive listening showed the strongest correlations with socioemotional traits of any of the strategies, indicating that receptive listening is used by people who engage with other people and their emotions, the evidence linking receptive listening to outcomes was weaker (receptive listening was unrelated to ill-being and related to half of the target and regulator well-being outcomes). We tentatively suggest that these equivocal results (which seem to differ from prior findings) might point to the draining or depleting nature of high-engagement strategies.

Constraints on Generality

All four studies used samples obtained from an online crowdsource platform (Prolific). Although participants represented a wide range of age groups and genders, they were highly educated and mainly White (rather than culturally diverse), and the scales were administered in English. Given known cultural differences in emotion regulation, particularly suppression and expression of emotions (e.g., Tsai & Lu, 2018), it is not clear if the factor structure or the correlations of the strategies with personality and well-being outcomes will generalize to other languages and cultural groups.

Limitations and Future Directions

While we proposed eight distinguishable strategies, this was not intended as an exhaustive or definitive list, but as a starting point. Future research could expand this catalog of extrinsic regulation strategies in several ways. First, our research could be extended to the "dark side" of extrinsic emotion regulation, as per the contra-hedonic strategies in Niven et al.'s (2009) taxonomy. People engage in contra-hedonic regulation of others' emotions both for antagonistic motives (just to be jerks) and for instrumental motives (e.g., inducing shame or anxiety in another person to help them change their behavior or reach a goal; Zaki, 2020). Identifying the strategies people use to make others feel worse has clear utility for many areas of applied research (coercive control, school bullying, and workplace incivility, to name a few). Second, our research could examine a greater number of hedonic strategies, filling up the empty spaces in Figure 2. We did not include any "situation selection" strategies. However, it is plausible that people use these (e.g., encouraging avoidance or confrontation, or giving the target person space). We also did not include strategies relying on physical touch, but in certain contexts such as parent/infant dyads, such strategies are ubiquitous (e.g., Kiel et al., 2020). Third, future research could consider an even greater level of granularity in some of the proposed strategies. For example, there is evidence of multiple distinguishable types of humor that have differing relationships to well-being (e.g., Martin et al., 2003).

An agenda for future research on extrinsic emotion regulation strategies would include several possible characteristics of the regulation context. First, different *target characteristics* would clearly affect which strategies are used and which are most effective. For example, high-engagement strategies may be used more often toward others in closer relationships (close friendships or romantic relationships) than distant ones (Tanna & MacCann, 2023). Second, different *characteristics of the emotion* may affect strategy use and effectiveness. Matthews et al. (2022) showed that higher emotional intensity elicited greater extrinsic distraction and less reappraisal. Shu et al. (2021) showed that the emotion being regulated (anxiety vs. sadness) may affect the helpfulness of different strategies. Third, both the regulator's goals and the target's (inferred) goals may be a proximal cause of strategy choice, as discussed above. Fourth, disentangling the *differences in perspectives* (from one or many targets and regulators) as to the need for regulation, goals of regulation, and which strategies the regulator used is important, given that extrinsic regulation inherently involves qualities and appraisals of multiple people, either in dyads or groups.

Conclusion

The ROES provides eight different strategies for regulating others' emotions, which differ in terms of their process model stage and engagement with the regulator. These scales show good validity evidence, and the distinction between high and low levels of engagement is an important consideration for future research examining the strategies people use to regulate others' emotions.

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