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Strategies of Interpersonal Emotion Regulation: Other-Directed Suppression, Reappraisal, and Acceptance

By

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A dissertation submitted in partial satisfaction of the

requirements for the degree of

Doctor of Philosophy

in

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in the

Graduate Division

of the

University of California, Berkeley

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Abstract

Interpersonal Emotion Regulation

by

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Doctor of Philosophy in Psychology

University of California, Berkeley

Professor Oliver P. John

My dissertation will examine individual differences in interpersonal emotion regulation strategies (Chapter 1), everyday examples of interpersonal emotion regulation strategies (Chapter 2), and experimental evidence for how interpersonal emotion regulation strategies affect recipients (Chapter 3). The beginning of my dissertation was a finding: people reported that more than 90% of the episodes in which they regulated their emotions occurred in social situations (Gross, Richards, & John, 2006). Still, nearly all studies of emotion regulation have focused on intrapersonal (self-directed) processes, and interpersonal emotion regulation processes remain understudied. Interpersonal emotion regulation can take many forms (Zaki & Williams, 2013); in my research, I focus on the efforts *one person makes to influence the emotions of another person* (other-directed regulation), such as a father who hugs his distressed child to calm her down, a therapist who suggests ways to think more positively about a stressful event to a ruminating patient, a friend who reframes a discriminatory act to counteract its ensuing frustration, and a romantic partner who stonewalls to keep the other from expressing anxiety about their relationship. In other words, I study the specific strategies people may use to influence the emotions of others. I began with the two strategies most studied in the self-directed regulation literature, *reappraisal* and *suppression*. I also found an additional process important in the interpersonal domain, namely *acceptance* (accepting another's emotions with no attempt to change their emotions). For my dissertation, I use a multi-method approach to examine how these strategies influence social and emotional life.

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Chapter 1: Individual Differences in Three Interpersonal Emotion Regulation Strategies: Other-Directed Suppression, Acceptance, and Reappraisal

Most emotion regulation research to date has investigated self-directed, *intra*personal regulation. This research has also focused primarily on investigating strategies people use to manage their emotions, yet few have considered the impact of social context. This is surprising because some estimates suggests as many as 90% of emotion regulatory episodes are *inter*personal in nature (Gross, Richards, & John, 2006). The focus of this paper will be on the importance of interpersonal emotion regulation. It will begin by comparing intra- to interpersonal processes, then move into the emotion regulatory processes the literature has tended to focus on up to this point, along with key findings from that literature in the domains of psychological health, well-being, and more importantly, social outcomes. The discussion will then focus on findings we might expect in these domains as a result of interpersonal processes when considering their better-researched intrapersonal analogues.

Intra- vs. Interpersonal Emotion Regulation

Emotion regulation research has typically focused on how individuals regulate their own emotions, often without considering the effects of social context or regulation efforts directed at others. There are notable examples of research that has examined the effects of intrapersonal emotion regulation in social contexts (Srivastava, Tamir, McGonigal, John, & Gross, 2009; English, John, Srivastava, & Gross, 2012; Schall, Martiny, Goetz, & Hall, 2016; Velotti, Balzarotti, Tagliabue, English, Zavattini, & Gross, 2016), but some would argue this falls within the realm of interpersonal emotion regulation as well. Indeed interpersonal emotion regulation is broad and it is important to first outline distinctions we make between inter- and intrapersonal research.

Interpersonal emotion regulation is a term under which many processes are subsumed. Zaki and Williams (2013) described that some examples of these interpersonal processes include attempts to change the affective states of others, actively seeking others to help manage one's own emotion states (Williams, Morelli, Ong, & Zaki, 2018), or simply sharing one's feelings with others without expectations they will respond in a specific way (Rime, 2007). The broad scope of interpersonal emotion regulation is one reason it remains understudied, because until recently no efforts had been made to examine these processes under an emotion regulatory framework. However, this broad scope presents an exciting pivot in emotion regulation research, one that points to myriad phenomena yet to be studied under an emotion regulation framework.

Zaki and Williams (2013) outline four categories for current theorizing about interpersonal emotion regulation: *intrinsic response-dependent, intrinsic response-independent, extrinsic response-dependent, and extrinsic response-independent*. These four categories capture different types of interpersonal emotion regulation, and much of the existing literatures on social sharing, social support, prosocial behavior, and even some existing intrapersonal research fall within at least one of these categories. Intrinsic regulation refers to episodes in which a person seeks out others to regulate their own emotions, while extrinsic regulation has to do with events where a person attempts to regulate someone else's emotions. Zaki and Williams (2013) also suggest that episodes must occur in social contexts, but that response-dependent regulation depends on someone else's response during these regulation attempts, whereas response-independent regulation does not. While their theorizing of interpersonal emotion regulation is relatively new, much of their theory draws heavily from the existing emotion regulation literature.

To effectively study interpersonal emotion regulation, one must specify which type of regulation. Though Zaki and Williams (2013) provided unifying terminology, their terms pose some challenges to clarity. For example, extrinsic emotion regulation can either refer to processes people use to influence others' emotions, or someone seeking emotion regulatory help from another person. Further, their distinction between response-dependent and response-independent regulation can limit investigations to dyadic interactions. Instead, I propose a target-focused terminology, such that *self-directed emotion regulation* (abbreviated to *self-ER* for brevity) refers to emotion regulatory efforts aimed at changing one's own emotions regardless of the strategy or resource used (e.g., distraction, other people, respectively).

The focus of this paper will be on what I call *other-directed emotion regulation* (abbreviated to *other-ER* for brevity), which is comprised of motivated efforts to change the emotions of others. A benefit of taking this approach is that in interpersonal emotion regulation research it is often difficult and costly to assess the responses of both participants in a dyadic interaction, whereas other-ER focuses primarily on the person enacting the strategy and the consequences to that person. Using a target-focused approach limits the need for terminology and helps to organize approaches to studying emotion regulation into two broad but differentiated categories. It also adds clarity about where the emotion regulatory efforts are directed. Another benefit of this approach is that it can build off of the existing emotion regulatory research and differentiate where other-directed processes might differ from well-studied self-directed processes.

Focus of Intrapersonal Emotion Regulation Research to Date

Some reasons intrapersonal emotion regulation has been a focus of emotion regulation research are that people have more access to their own affective states (Jordan, Monin, Dweck, Lovett, John & Gross, 2011) compared to their knowledge of others' affective states, and that methodologically, self-directed processes are easier to capture, lending themselves more easily to self-reports and straightforward experimental designs. The findings from this self-directed approach to studying emotion regulation have supported it as a fruitful starting point. One benefit has been a focus on two prominent strategies that engage different channels of emotion regulation for the self, and that have varying degrees of success (Gross & John, 2003). *Cognitive reappraisal* is a strategy focused on altering one's *perspective* to change the emotion-eliciting impact of an event, and this strategy has typically been associated with increased psychological well-being. Emotion regulation research has also focused on a strategy people use to restrict their emotive *behavior*—referred to as *expressive suppression*.

Research on these two strategies has been well-served by self-report measures. Creation of the Emotion Regulation Questionnaire (ERQ; Gross and John, 2003) led to a proliferation of research on emotion regulation. In addition, before the ERQ, emotion regulation research was limited to studying relatively immediate effects associated with lab paradigms (Gross, 1998). With the ERQ, researchers became better equipped to examine the long-term effects associated with habitual use of these strategies. Emotion regulation was no longer limited to studying how people managed their emotions in isolation during lab paradigms. Instead, researchers could now take more externally valid approaches by studying the associations of these strategies with long-term and day-to-day fluctuations of various outcomes. As a result, researchers were able to find a consistent theme in associations with these strategies, namely that increased suppression is associated with less healthy patterns of affective, social, and psychological well-being than increased reappraisal (John & Gross, 2004; John & Eng, 2014). The ERQ provided researchers

an invaluable tool for easily and effectively studying two intrapersonal emotion regulation strategies.

Similar attempts have been made to study individual differences in interpersonal emotion regulation. Niven, Totterdell, and Holman (2009) created a measure to examine individual differences in interpersonal regulation (the *Emotion Regulation of Others and Self* scales; *EROS*), which served as a necessary first step for advancing our understanding of interpersonal emotion regulation. However, unlike the ERQ, the EROS contains a high bandwidth, low fidelity issue of measurement. The measure captures broad behaviors that intend to change another person's emotions, but the items lack the specificity necessary to examine long-term associations with a particular behavior. For example, one item simply states "I spent time with someone." The EROS faces the unique challenge of being one of the first measures to attempt to capture interpersonal emotion regulation processes, which are broad and present a challenge to individual difference measurement attempts. An alternative starting point might have been to build from the current emotion regulation literature. Indeed, a useful bridge could be achieved by translating existing self-directed emotion regulation concepts into other-directed regulation concepts and then studying the implications of these self-ER strategies for psychological health, well-being, and more importantly, social outcomes.

Acceptance: To Regulate or Not

Acceptance refers to nonjudgmentally accepting emotions without attempts to change or influence them. People simply let their emotions take their natural course. Although a large body of research suggests that self-ER strategies such as reappraisal are associated with a number of well-being outcomes, research has often linked self-directed acceptance to psychological health outcomes (Ford, Lam, John, & Mauss, 2017; Aldao, Nolen-Hoeksema, & Schweizer, 2010). In addition, research suggests that beneficial strategies like self-directed reappraisal are used much less often than simply letting one's emotions go unregulated because of the contextual variables and effort required by reappraisal (Suri, Whittaker, & Gross, 2015). This suggests that people may prefer to forgo regulation attempts and still benefit psychologically.

Interpersonal correlates can be found in social sharing and social support literatures. Rime (2007) described a number of reasons people might share their emotions with others, and many included reasons related to simply sharing their emotions without others attempting to change these emotions on their behalf. Similarly, research by Bolger, Zuckerman, and Kessler (2000) suggests that people prefer social support that is less clear and visible, such that people feel they are not being influenced. This evidence suggests that other-directed acceptance in an important strategy to study as a no-regulation strategy.

Key Findings in the Literature for Psychological Health, Well-being, and Social Outcomes

Much of the emotion regulation literature to date has provided strong evidence that increased use of self-directed reappraisal tends to be associated with increased well-being, while increased use of suppression tends to be associated with decreased well-being. Gross and John (2003) were the first to show these associations between the habitual use of these strategies and well-being. In addition, John and Gross (2004) had similar findings, illustrating that unhealthy emotion regulation can be characterized by increased use of suppression and decreased use of reappraisal. Since then, researchers have found across a number of domains ways in which these associations are sustained. Researchers theorize that part of the reason for this is because reappraisal is enacted before an emotion has fully taken form, leading to a more preventative strategy for regulating emotion. On the other hand, suppression is theorized as occurring late in the emotion generation process. This leads people to suppress expressivity while still emoting,

which can lead to feelings of inauthenticity (English & John, 2013). Still, these findings are qualified slightly by their functions in social domains.

Researchers have found that for social well-being, there also tends to be a positive association with reappraisal and a negative association with suppression. English and John (2013) found that the inauthentic experience associated with suppression can inhibit social functioning. And consistent evidence from Mauss and colleagues (2011) suggests that this decreased social functioning associated with suppression can lead to poorer well-being outcomes. However, it is important to consider other research because these effects are sometimes qualified when considering how people take social contexts into consideration when managing their emotions. For example, Catterson, Eldesouky, and John (2017) found that the negative association between suppression and well-being is attenuated when participants are in a low power context, suggesting that suppression may play an adaptive role in specific social contexts.

Potential Interpersonal Analogues of Intrapersonal Emotion Regulation Strategies

The focus of the existing literature on intrapersonal processes of emotion regulation provide distinct insight into what we might find when studying these processes from an interpersonal perspective, especially for as relevant a domain as social outcomes. Some work has helped to illustrate that suppression can inhibit social functioning by inhibiting the social-communicative functions of emotion (Srivastava et al., 2009). For instance, they studied the use of habitual suppression during a precarious life stage, the transition to college. Because of the high level of uncertainty, one would expect this is a time when people are most likely to seek others out for support, and do less to impede receiving it. However, they found that participants who habitually used suppression more often reported lower social support, less closeness to others, and lower social satisfaction. English and colleagues (2012) showed that these effects could endure, leading to poor social functioning over as much as four years. Tackman and Srivastava (2016) found that suppression inhibited behavioral cues crucial for making personality judgments. These findings illustrate that suppression can greatly diminish the social-communicative functions of emotions, and as a result suppression can inhibit social functioning.

When considering how findings in the intrapersonal domain might generalize to analogous interpersonal research, it is important to consider the type of interpersonal regulation being investigated and how these prominent strategies of emotion regulation might translate to specific types interpersonal emotion regulation. It is likely that findings for *suppression* will be comparable for other-directed emotion regulation because suppression directed at others will also serve to sever the social-communicative function of expressivity. Further, more overt attempts to change the expressions of others will likely be seen as invasive and disempowering. For this reason, it is likely that other-directed suppression will result in reduced social harmony, and as a result, diminished psychological well-being. It is less clear how others might seek someone to help suppress their own emotions, but the studies I have thus far presented in this overview do suggest that the effects of self-directed suppression are context-dependent. Therefore, when it is advantageous to hide one's expressions, it is likely that the association between suppression and reduced well-being will be attenuated.

Less is clear about how *reappraisal* might function interpersonally. Extrinsic use of reappraisal will likely depend on how effectively the regulator employs it. Bolger, Zuckerman, and Kessler (2000) have found that overt attempts to provide social support and alleviate the stress of others are met with feelings of invalidation. Therefore, the effects of other-directed reappraisal on psychological and social well-being will depend in large part on the effectiveness

with which it is employed. Other-directed reappraisal is likely to show similar effects as research on self-directed reappraisal. Some lab paradigms in a way mimic this process because people are often not employing these strategies spontaneously, but are directed on how to use these strategies. Thus, whether or not the current literature linking reappraisal to psychological and social well-being generalizes to other-ER will likely depend on who the person seeks out for help reappraising. Going back to Gross, Richards, and John, (2006), the vast majority of emotion regulatory episodes are interpersonal in nature. This makes it likely that many of the findings already in the literature are related somehow to interpersonal causes.

Current Investigation

Here I began to address this gap in the literature by tapping into existing emotion regulation work and developing an adapted version of a proven successful tool for capturing these processes, the *Emotion Regulation Questionnaire* (ERQ, Gross & John, 2003). Past research has demonstrated that some experimental studies, while good at showing the immediate consequences of emotion regulation, are not optimal for capturing the long-term associations of specific regulatory strategies the way habitual emotion regulation is captured by the ERQ (Wolgast, Lundh, & Viborg, 2011).

Throughout this article I examined individual differences in three interpersonal, other-directed emotion regulation processes and explored the long-term effects of using these strategies for regulators. Figure 1 presents an overview of this chapter. In Study 1, my aim was to develop reliable scales to measure individual differences in other-directed suppression, reappraisal, and acceptance. I did this by adapting existing self-directed measures. In Study 2 I tested the differences between self-directed and other-directed forms of emotion regulation processes to examine whether other-ER is distinct from how people regulate their own emotions. Study 3 addressed how group differences in the use of other-ER reflect socialization history, and I examined this by looking at gender, ethnicity, and age. In Study 4 I investigated the how these strategies were associated with personality processes that were likely to give rise to use these strategies. In Study 5 I examined the links between the habitual use of these strategies and various aspects of relationship functioning and interpersonal well-being. Finally, Study 6 investigated the social impact of these strategies from the perspective of someone who was likely to have been on the receiving end of these strategies, a peer nominated by the regulator.

Some empirical evidence lends support to my predictions about other-ER. For example, research suggests there are deleterious effects associated with suppressing another's emotional expressions. Gottman & Levenson (1992) found that the extent to which couples feel as though they can be emotionally expressive with one another predicts dissolution of marriages. Further, much of the attachment literature suggests that a pattern of undermining the emotional expressivity of attachment partners (i.e., attachment avoidance) is associated with deleterious relationship outcomes (Mikulincer & Shaver, 2007). Following from this research, my general prediction about someone who suppresses the emotional expressions of others is that suppression will be associated with deleterious interpersonal outcomes. My broad hypothesis about the impact of other-directed suppression for relationships is relatively uncomplicated, because it is not difficult to imagine that impeding the emotions of another person will likely be met with indignation. Less is clear, however, about how other strategies may function.

Research on self-directed reappraisal suggests it is associated with greater psychological well-being (John & Gross, 2004), but less is clear about the impact of other-directed reappraisal because little research exists examining reappraisal in interpersonal relationships. This type of reappraisal is analogous to techniques used in Cognitive-Behavioral Therapy (CBT) because

both other-directed reappraisal and CBT involve attempts to change the affective states of others through re-framing. One review suggests that CBT is particularly effective at treating affect-laden psychological disorders (Butler, Chapman, Forman, & Beck, 2006). It is difficult to generalize the effects of CBT, where clinicians undergo years of specialized training, to someone with no clinical training attempting to reappraise emotional events for another person. Still, I predicted lay people would tend to reappraise the emotions of others in good faith, using other-directed reappraisal in an attempt to help others, just as they would use reappraisal to help themselves.

Self-directed acceptance has been associated with a number of psychological health outcomes, and similar to reappraisal, directing acceptance at others has analogous clinical applications. Acceptance has been used as a practice in different types of mindfulness-based therapy with evidence suggesting it is effective at promoting psychological well-being (Ruiz, 2010). Further adding to the potential effectiveness of other-directed acceptance is that self-directed acceptance is itself considered a dimension of psychological well-being (Ryff & Keyes, 1995). Past research has suggested that self-acceptance and acceptance of others are related to one another (Berger, 1952), so it is likely that other-directed acceptance may have especially beneficial effects on interpersonal relationships if effects for the self generalize to others.

Part A: Our Core Constructs

Study 1: Developing Reliable Scales to Measure Individual Differences in Other-Directed Emotion Regulation

In my first study I introduced a tool for measuring individual differences in three other-directed emotion regulation strategies: suppression, reappraisal, and acceptance. Some studies have examined experimental effects of interpersonal emotion regulation (Butler & Randall, 2013), and although these studies have been useful for examining the relatively short-term outcomes of interpersonal regulatory behavior, short-term outcomes may fail to capture the long-term effects associated with the habitual use of a particular strategy. Measuring individual differences help to capture the habitual use of these strategies over time, and accounting for individual differences in the use of these strategies will provide a complementary approach to experimental studies.

In Study 1 I sought to examine whether or not these strategies could be differentiated from one another. I examined this by testing whether or not the hypothesized items for each strategy shared variance with other items for that strategy. Although I predicted each of these strategies would have unique variance, another potential outcome was that the items would cluster into a single factor, representing a general tendency to influence others' emotions. That is, although the process of each of these hypothesized strategies might differ from one another, the use of all three strategies could reflect a general propensity toward using any behaviors to influence the emotions of others. However, this is unlikely given that each strategy targets a different emotion system (behaviors, thinking), or no emotion channel at all, and both suppression and reappraisal showed high discriminant validity in the original ERQ. Therefore, in my first study I tested whether items would differentiate into my three hypothesized factors, and I also tested that each measure was internally consistent.

Another goal of Study 1 was to establish convergent validity by examining how the ERQ-O was related to two existing other-directed affect regulation scales. One of these scales measured the extent to which someone improves another person's affect, and the other scale examined how much someone worsens another person's affect. I predicted that suppression would be negatively associated with the affect improvement scale, and that reappraisal and

acceptance would be positively associated with this scale. I predicted the opposite pattern for the affect worsening scale.

Method.

Research ethics committee. The Committee for the Protection of Human Subjects at the University of California, Berkeley, approved all study procedures. This study was approved under the "Personality and Emotion Survey" protocol (#2015–01-7025).

Participants. Data were collected from a total of 7 samples (see Table 1 for demographics). Samples A, B, D, E, F, and G were collected from undergraduate psychology students in exchange for course credit. I also collected data from Amazon's Mechanical Turk (sample C). MTurk participant data was collected as part of a larger study, and participants were compensated with a nominal fee. Participants were excluded because of failed attention checks or overly consistent responding.

The original emotion regulation questionnaire. The ten items of the Emotion Regulation Questionnaire (ERQ; Gross & John, 2003) were used to examine the habitual use of two self-directed emotion regulation strategies. One of these strategies is reappraisal, which is the tendency to reframe emotion-eliciting content for oneself in a way that changes its emotion-eliciting impact. Reappraisal is measured with items such as "I control my emotions by changing the way I think about the situation I'm in." The second strategy is suppression, which measures a person's tendency to inhibit their own emotionally expressive behaviors. This process is captured with items such as "I control my emotions by not expressing them." Both scales also included at least one item about regulating negative emotions, and one item about regulating positive emotion. Participants rate these items on a scale from 1 (strongly disagree) to 7 (strongly agree)."

Developing the other-directed ERQ. I created the ERQ-O by adapting all items of the original ERQ, as well as items on the John & English (2009) acceptance scale. For example, the ERQ Suppression item "I control my emotions by not expressing them." Was modified to "I act in ways that make the other person keep their emotions to themselves." For the other-directed version of the ERQ. Similarly, the ERQ Reappraisal item "I control my emotions by changing the way I think about the situation I'm in." was modified to "I influence other people's emotions by suggesting alternative ways to think about the situation they're in." for the other-directed version of the ERQ. All original self-directed items and their corresponding other-directed versions are shown in Table 13. The acceptance scale items were similarly modified. For example, the self-directed acceptance item "I simply accept my emotions as a natural response to the particular circumstances I am in." was modified to "I simply accept the emotions of others as a natural response to the particular circumstances they are in." for the other-directed version of the acceptance scale. The self-directed acceptance scale included some negatively valenced items, but it did not include positive valenced items. To keep the scale affectively neutral, I excluded the acceptance items that referred to acceptance of negatively valenced emotions. This way, all other-directed acceptance items represented acceptance of emotions more broadly. The acceptance scale also contained two reverse-keyed items. The final suppression scale contained 4 items, the reappraisal scale 6 items, and the acceptance scale contained 8 items. In some samples all data was collected at one time point, but in other samples data from different measures (such as the ERQ and the ERQ-O) were collected over the course of a semester.

Emotion regulation of others scale (EROS; Niven, Totterdell, Stride, & Holman, 2011). The EROS was created to measure four types of affect regulation. The four types of regulation included Intrinsic Affect-Worsening, Intrinsic Affect-Improving, Extrinsic Affect-Worsening, and Extrinsic Affect-Improving emotion regulation. Intrinsic refers to emotion regulation

directed at oneself, while extrinsic emotion regulation refers to emotion regulation directed at others. For my studies I only used the two extrinsic scales. The extrinsic affect-improving scale contained 6 items (sample item: "I spent time with someone."), and the extrinsic affect-worsening scale contains 3 items total (sample item: "I explained to someone how they had hurt myself or others"). The instructions for the EROS asked participants to report the extent to which they have used each of these strategies over the past four weeks to try to change someone else's feelings, and participants indicated their responses on a 5-point Likert scale (1=Not at all, 2=Just a little, 3=Moderate amount, 4=Quite a lot, 5=A great deal).

Results.

Factor analysis and alpha. Analyses revealed that the three scales were moderately correlated with one another in my overall student population ($r_{\text{suppr \& reap}} = -.26$, $p < .01$; $r_{\text{suppr. \& accept}} = -.45$, $p < .01$; $r_{\text{accept \& reap}} = .29$, $p < .01$), but not so high as to suggest redundancy. Exploratory factor analyses revealed my predicted three-factor structure across all data sets. I performed a factor analysis with a Varimax rotation across all samples and these analyses revealed that the items loaded onto their expected factor for each emotion regulatory process. In each sample the factors accounted for more than 50% of the total variance. Results of the total sample factor analysis are included in Table 2. For each scree test there were three clear factors represented by the data. In addition, the factor analysis did not reveal a single, general factor. The first factor was defined by the six reappraisal items. The key item for this factor was "When I want others to feel more positive emotion, I try to change the way they're thinking about the situation." The four suppression items defined the next factor, and the item "I influence the emotions of others by finding ways to keep them from expressing their emotions (e.g., by stonewalling)." was the key item for that factor. For acceptance, I excluded the two reverse-keyed items because past research suggests reverse-keyed items will often form their own factor and distort the results of a factor analysis (Wang, MacCann, Zhuang, Liu, & Roberts, 2009). The remaining six acceptance items formed their own unique factor, with the item "I embrace other people's emotions, whatever they may be." as the key item in the set. The intended loading for each item was the highest for its predicted strategy relative to other cross-loadings.

I assessed reliability across all samples and found high internal consistency for each scale. Cronbach's alpha across all seven samples ranged from $\alpha = .74$ to $\alpha = .83$ for suppression, $\alpha = .72$ to .86 for reappraisal, and $\alpha = .76$ to .85 for acceptance. The alpha for each sample can be found in Table 3.

EROS correlations. As predicted, other-directed suppression was marginally negatively associated with the EROS extrinsic affect-improving scale, and reappraisal and acceptance were significantly positively correlated (see Table 4). The EROS extrinsic affect-worsening scale was significantly positively associated with other-directed suppression, and significantly positively associated with other-directed acceptance, but there was no significant association with other-directed reappraisal (see Table 4).

Discussion. I found high discriminant validity across the three scales by analyzing the items in a factor analysis and finding that all hypothesized items clustered together with minimal cross loadings. The scales were also only moderately correlated. My three new other-directed scales also showed high internal consistency, as evidenced by the strong alpha reliabilities. I also tested for convergent validity using two of the EROS scale and generally found support for my hypotheses. Next, I decided to examine just how the ERQ-O differs from the original, self-directed ERQ in frequency of use.

Study 2: Self vs. Other

The majority of studies on emotion regulation have focused on self-directed regulation. Although investigating self-directed emotion regulation has proven fruitful, it leaves open for interpretation the role of other-directed regulation. Insights from the self-regulation literature provide insight about how these strategies might also work on others. It is likely the strategies a person uses for themselves are socially learned. Social learning can have profound impacts on the behaviors one uses for themselves, and self-regulation may result from past interpersonal regulation episodes, and vice versa. However, regulating emotions might be a context in which very similar processes differ based on their use for oneself or others because being immersed in one's own emotions might prove difficult to change them.

Therefore in my current investigation I sought to test whether or not the same strategies employed for oneself differ from strategies directed at others. Examining the discrepancy between self- and other-regulation can provide further clarity about how these strategies will function differently when directed at others compared to when they are directed at oneself. I predicted that self-directed and other-directed strategy counterparts would be only moderately associated, especially when measured across different time points. I also expected that social norms would constrain people to enact a healthier overall emotion regulation profile (John & Gross, 2004) for others than for oneself. That is, I expected that for other-directed strategies, compared to the same self-directed strategy, participants would show lower mean levels of suppression, and higher mean levels of both reappraisal and acceptance.

Method.

Participants. Data used from samples A and E were measured at different times points, while data from samples B and F were measured within the same study session.

Results.

Self vs. Other. I assessed the extent to which my adapted other-regulation scales exhibited discriminant validity from the existing self-regulation scales. The results were largely determined by the time of analyses. When the scales were presented in separate surveys spaced apart in time, the correlations between self- and other-regulation scales were lower overall than correlations where both sets of scales were presented within the same survey. The ranges of correlations differed depending on when the two scales were presented (see Table 5).

As predicted, mean levels of emotion regulation showed a healthier overall pattern for other-directed, compared with self-directed, emotion regulation. Participants reported lower other-directed than self-directed suppression, and higher other-directed than self-directed reappraisal and acceptance (see Table 6).

Discussion. The intercorrelations of self- and other-directed strategies suggested that they were related, but still distinct. That is, the correlations between self and other scales were moderate, suggesting that people who used a specific self-regulation strategy were also more likely to use its analogous other-regulation strategy (see Table 5). However, the healthier overall pattern for other-directed regulation strategies suggested that people enact these strategies differently depending on the target. The frequency with which participants used other-directed strategies was different from the frequency with which participants used self-directed strategies. Similar to findings in the self-compassion literature (Neff, 2003), respondents reported consistently being kinder to others than to themselves (see Table 6). They reported suppressing their own emotions more regularly than suppressing others' emotions, and reported less self-directed reappraisal and acceptance than other-directed forms of these strategies.

Part B: Antecedents: What Has Shaped the Acquisition of These Strategies?

Study 3: Personality and Social Antecedents—Differences in Socialization Due to Gender, Ethnicity, and Age

I theorized that these three strategies would be influenced by a number of "earlier" or antecedent variables that should shape how we try to regulate the emotions of others, such as whether someone is raised and socialized as a man or as a woman. Research suggests that men are raised and socialized from an early age to avoid emotions (Gross & John, 2003). Some evidence suggests that this is in part due to women learning what is often referred to as a more "relational" mode of interacting with others that necessitates being attuned to the emotions of others (Gilligan, 1982). Because these gender differences are likely instilled at such an early age, it is plausible that gender differences should be present in the ways people influence the emotions of others. Since research suggests that women are better attuned to the emotions of others, I hypothesized that women would also be more tactful on average in how they influence others' emotions. This means I expected women to engage in less other-directed suppression and more other-directed acceptance than men. Because reappraisal is likely to function differently when directed at others than when directed at oneself, such that implementing it with others is more explicit and thus has greater potential to be received poorly (Bolger, Zuckerman, and Kessler (2000), it was unclear whether or not I would see a significant difference in the use of other-directed reappraisal between men and women.

Cultural norms should also influence how we attempt to regulate others' emotions. We learn socio-emotional norms largely from the cultural norms we are taught by our families and communities. Research on self-directed emotion regulation has shown evidence of cultural group differences, particularly between East Asians, who are higher in interdependent self-construals, and western populations who are higher in independent self-construals. Cultural differences in emotion regulation are also socialized from an early age, and examining how more interdependent cultures differ in the use of other-directed regulation strategies is important for advancing our understanding of cross-cultural interactions. Studies of self-directed emotion regulation have shown differences between American and East Asian participants in the use of suppression (English & John, 2013; Gross & John, 2003). These cultures have clear differences in the types of cultural display norms they value, and often engage in behaviors to maintain emotional norms. These findings suggest that cultural display norms may play a part in governing interpersonal emotion regulation. Therefore, I expected to find differences in other-directed suppression, because it involves influencing the behavioral expressions of others. Alternatively, reappraisal and acceptance are directed at influencing the internal states of others. As such, I did not expect to find significant cultural differences between Asian and Caucasian participants. Similarly, research on Latinx populations has suggested that *simpatía* is a cultural script that exerts a strong influence on many of their social interactions (Ramírez-Esparza, Gosling, Pennebaker, 2008; Triandis, Marin, Lisansky, & Betancourt, 1984). Simpatía is characterized by promoting social harmony through nonjudgmental acceptance of others. Therefore, for acceptance I expected to find a difference between white participants, who come from a more independent culture, and Latinx participants, who come from a more interdependent culture that emphasizes simpatía.

Finally, with age comes more experience and greater wisdom. Therefore, I decided to test the association between strategy use and age. Research suggests that people become more effective at managing emotions and social relationships as they age (Carstensen, Fung, & Charles, 2003), such that they tend to experience less negative emotions and more positive emotions later in life. Because there was a large age range in my MTurk sample, I restricted age

analyses to this sample alone. I predicted that suppression would be negatively associated with age, but that reappraisal and acceptance would show no effect because high mean levels are already present at an early age.

Method.

Participants. Data were used from all samples. See Table 1 for demographic background.

Results.

Gender differences. Here I tested my hypothesis that group differences in other-directed regulation reflect socialization history—that men learn from an early age to be less expressive. I expected that, compared to women, men would report a pattern of other regulation less receptive to the emotions of others (greater mean suppression and less mean acceptance). Indeed, what I found was that men reported significantly more suppression use than women. Men also reported significantly less use of acceptance than women, however this was only true for my student sample and was true for my older MTurk sample (see Table 7).

Ethnicity. Prior work suggests differences in emotion regulatory use between East Asian and white participants (John & Gross, 2003). Therefore, I expected and found a significant difference in between these two cultural groups, such that Asian participants engaged in more suppression than white participants (see Table 8). I also expected Latinx participants would report great acceptance than white participants, for which I also found support (see Table 8).

Age findings older adult sample: Healthier other-emotion regulation with age. In Sample C, participants ranged in age from 18 well into the 70s and I was able to study age differences. Most participants were middle-aged; 11% were 18-24; 35% 25-34; 32% 35-50; and 22% were 51-75. Overall, the correlation of age with ERQ-O suppression was -.15 (p = .001). This effect held for both men (r=-.13) and women (r=-.12), as shown by a moderated multiple regression: both gender (β = -.17, p < .001) and age (β = -.13, p < .007) independently predicted suppression scores but their interaction did not (β = .01, p = .851). Indeed, when I divided the sample into 4 age groups, the gender difference held in each age group, with men always scoring higher than women. These data provide important generalizability evidence for the gender difference, and although the age effect needs to be replicated in other samples, the finding that the effect replicated in both men and women provides some reassurance as well.

I found no systematic age differences in the use of either reappraisal (r = -.004) or acceptance (r = .03). So, the evidence for healthier other regulation of emotion is mixed: use of an unhealthy strategy (suppression) was somewhat less common in older individuals, but reappraisal or acceptance were not used more frequently. However, it is important to remember that this cross-sectional comparison combines individual aging or maturation effects with generational (or birth cohort) differences and longitudinal research is ultimately needed to resolve these issues.

Study 4: Personality Antecedents—Big Five Traits, Attachment, and Empathy

Early Personality (or temperament) should also influence which strategies we learn more or less easily and use more or less frequently. My first goal was to examine the association of each strategy with the Big Five personality traits. I had predictions for three of the Big Five traits. Agreeableness is characterized by strong concern for others, so I expected agreeableness to be negatively associated with suppression, and positively associated with both reappraisal and acceptance. I also thought it was likely these strategies were closely tied to adherence to social norms, so I expected a similar pattern for conscientiousness. Finally, neuroticism is characterized by negative emotionality and emotional instability, therefore I expected that neuroticism would

be associated with an unhealthy pattern of other-focused emotion regulation. That is, I expected neuroticism would be positively associated with suppression, and negatively associated with reappraisal and acceptance.

Attachment captures the history of the individual's close relationship experiences and should also influence regulatory strategies the individual has learned and practiced in past relationships (good or bad). Attachment avoidance is typically characterized by discomfort with emotional closeness and social bonding. Therefore, I expected that avoidance would be positively associated suppression because it involves inhibiting the emotions of others, emotions that are important for maintaining social bonds. I also expected avoidance to be negatively associated with reappraisal and acceptance because these two strategies would facilitate too much social and emotional closeness. For attachment anxiety, my only prediction was that it would be positively associated with suppression because attachment anxiety is typically characterized by an intense desire to bond with others that results in pushing them away.

The domain of Empathy is of particular theoretical interest because it may point to specific strengths and deficits in the individual: people who use suppression may simply be unable to appreciate and accurately predict the inner worlds and emotional reactions of others (perspective-taking skills) or they may be callous and uncaring (lack motivation = lower empathic concern) or be simply overwhelmed with their own negative emotions in interpersonal situations (personal distress), as Batson would argue, and just want to escape (Batson, Early, & Salvarini, 1997; Lamm, Batson, Decety, 2007). I examined how each strategy was related to three facets of empathy (perspective-taking, empathic concern, and personal distress in response to emotions). I expected the people experiencing more perspective-taking and empathic concern would be more motivated to help others. Therefore, I predicted that people more attuned to the nuances of others' experiences would be better equipped to regulate others' emotions by using less suppression, and more reappraisal and acceptance. I expected that people experiencing more personal distress in response to others' emotions would be less equipped to regulate others' emotions effectively. Therefore, I expected a positive association between personal distress and suppression, and a negative association between personal distress and reappraisal and acceptance.

Method.

Participants. Data were used from samples A, C, D, E, and F.

Measures.

Personality. The Big Five Inventory-2 (BFI-2; Soto & John, 2017) was adapted from the original Big Five Inventory, which contains short descriptive items meant to capture representative features of each Big Five domain. The BFI-2 contains a total of 60 items, which are rated on a 5-point scale (1=Disagree strongly to 7=Agree strongly). The original BFI was created with three goals in mind: 1) encapsulating the prototypical components of each Big Five domain, 2) enhanced clarity by using trait-descriptive adjectives that are easily understood, and 3) efficiency such that the items are clear and concise. An added benefit of the BFI-2 is that the items contain a balance of bandwidth and fidelity; they effectively capture a large breadth of information about behaviors encapsulated by a trait, while at the same time having enough specificity to capture information about facet-specific behaviors, respectively.

Adult attachment. Attachment avoidance and anxiety were measured with the short version of the Experiences in Close Relationships Scales (ECR-S; Wei, Russell, Mallinckrodt, & Vogel, 2007). The ECR-S is a shortened version of the Brennan, Clark, and Shaver (1998) measure. The ECR-S consists of two 6-item scales that capture two dimensions of attachment.

One measures attachment avoidance ("I try to avoid getting too close to my partner.") and the other measures attachment anxiety ("I need a lot of reassurance that I am loved by my partner."). Participants respond to each item using a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). High scores on each of these scales reflect higher attachment anxiety and higher attachment avoidance.

Empathy. Empathy was measured with the Interpersonal Reactivity Index (IRI; Davis, 1983). The IRI was originally conceptualized out of the growing recognition that empathy was a multidimensional construct. For my studies I measured empathy using three of the four scales on the IRI—empathic concern, perspective-taking, and personal distress. Each scale contains 7 items, so in total I used 21 items to measure different facets of empathy. The fourth scale measured "fantasy" and I did not have any predictions about how it would relate to the ERQ-O, so I did not use the scale in any of my studies. Several items on the personal distress scale referred to emergency situations; because I was more interested in how individuals respond to the emotions of others, rather than the broader negative contexts of emergencies, I adapted the personal distress items by replacing the word *emergency* in the items with the word *emotional*. For example, the original item "In emergency situations, I feel apprehensive and ill-at-ease." was changed to "In emotional situations, I feel apprehensive and ill-at-ease." Participants in my studies responded to the IRI by indicating on a 7-point scale (from 1=strongly disagree to 7=strongly agree) the degree to which they agreed with items on the empathic concern scale ("I often have tender, concerned feelings for people less fortunate than me."), the perspective-taking scale ("I sometimes try to understand my friends better by imagining how things look from their perspective."), and the personal distress scale.

Results.

Personality. The Big Five personality traits I focused on were agreeableness and neuroticism because of their affective components, and conscientiousness because of its association with adherence to social norms. I examined the relationship of agreeableness and neuroticism to each of the three other-regulation strategies and I found that agreeableness correlated negatively with suppression, and positively with reappraisal and acceptance (see Table 9). As predicted, conscientiousness was negatively associated with suppression, and reappraisal and acceptance were positively associated with conscientiousness. Unexpectedly, neuroticism was not significantly correlated with suppression, reappraisal, or acceptance, except for a negative correlation with acceptance in one sample. I also found across two samples an association between openness and two of the strategies. Openness was negatively correlated with suppression, and acceptance was positively correlated with openness.

Attachment. Attachment processes are largely comprised of the emotional bonds people form with one another. One way that people form these emotional bonds is by influencing the emotions of attachment figures. I expected that the strategies people use to manage the emotions of others would share strong links with the two dimensions of attachment. I found that suppression was significantly positively associated with attachment avoidance and attachment anxiety (see Table 9). Because acceptance is often seen as a more open and embracing way to engage the emotions of others, I expected it to be associated with a healthier attachment pattern. My findings indicated that participants who reported higher attachment avoidance also reported significantly lower acceptance use, suggesting acceptance is related to a healthier attachment pattern. Acceptance use was not significantly associated with attachment anxiety. Reappraisal was significantly negative correlated with attachment avoidance in both samples. However, reappraisal was negatively, but not significantly, associated with attachment anxiety in one

sample, and showed a small significant positive association in another sample. Therefore, I interpreted these findings with caution and suggest further research before drawing any conclusions.

Empathy. I believed that experiencing empathy would give rise to a desire to help others manage their emotions. Therefore, I expected suppression, reappraisal, and acceptance to be associated with different facets of empathy, as measured by the IRI. I found support for my predictions. Suppression was significantly negatively associated with the empathic concern and perspective-taking facets of empathy, and significantly positively correlated with personal distress in response to the emotions of others (see Table 9). For reappraisal and acceptance, I found a pattern of association with the empathy facets that suggested a more interpersonally healthy way of responding to the emotions of others. I found that both strategies were positively correlated with perspective-taking and empathic concern. For one sample, the association between reappraisal and empathic concern was in the expected direction but was not significant. Acceptance, but not reappraisal, was significantly negatively linked to personal distress in response to the emotions of others.

Part C: Social Outcomes

Study 5: Self-Reported Interpersonal Outcomes

There should be consequences to the way we try to regulate others' emotions. I expected the three strategies to differ in their effectiveness—will they improve our relationships with others or make them worse? The purpose of this study was to examine the association of these strategies with domains of interpersonal consequence. I expected each of these strategies to relate to interpersonal outcomes, and so I examined different domains of interpersonal outcomes, including self-reported social support, interpersonal well-being, and social network responses. Because emotion regulation research has suggested that interpersonal domains are where most emotion regulatory episodes occur, it is important to assess these regulatory processes in relation to social contexts in which they occur.

For social support, I again hypothesized that suppression would push others away, while reappraisal and acceptance would facilitate stronger social bonds. I examined participants' perceptions that they have available people with which to take part in recreation (belonging support). Therefore, I predicted that suppression would be negatively associated with the belonging scale of the ISEL, and reappraisal and acceptance would be positively associated. I predicted the same pattern for another facet of social support, the appraisal scale, which is characterized by whether someone feels they can talk to others about their problems.

My next goal for this portion was to assess the degree to which these strategies affected an interpersonal domain of well-being, Ryff's concept of *positive relationships with others* (1989). Positive relations with other refers to a person's perception that they have warm and affectionate relations with others and that others perceive this as well. I expected that suppression would result in inhibiting the emotional expressions of others and would discourage social bonds, which would be associated with reduced self-reported interpersonal well-being. Similarly, I predicted that reappraisal and acceptance would be received as good faith efforts to help others, which would be associated with greater self-reported interpersonal well-being.

Finally, because these strategies are measured at the habitual level, they capture the aggregate effect of these strategies across all relationships. Therefore, I sought to examine the degree to which they were predictive of social outcomes across multiple relationships. More specifically, I wanted to examine whether these strategies predicted social outcomes (satisfaction, liking, and tension) across ten relationships in a person's social network. By

collecting ratings about ten people within their social network, I could more closely examine the predictive utility of these strategies for relationships that were consequential to a person's day-to-day functioning. I predicted that suppression use would predict decrements across a person's social network, and that it would be associated with reduced relationship satisfaction and liking, and increased relationship tension. Contrarily, I hypothesized that reappraisal and acceptance would predict greater relationship satisfaction and liking, and decreased relationship tension.

Method.

Participants. Data were used from samples D, E, and F.

Measures.

Social support. Social support was measured with the Interpersonal Support Evaluation List (ISEL; Cohen & Hoberman, 1983), which consists of four scales assessing different facets of perceived availability of potential social resources. Of these four scales, I used two I thought to be most closely relevant to the focus of my studies. The two scales I used were the *belonging* scale and the *appraisal* scale, each containing ten items. The belonging scale captures the degree to which someone perceives an availability of people with which one can do things ("There are several different people I enjoy spending time with."). The appraisal scale consists of items that assess whether someone feels they can talk to others about their problems ("There are several people that I trust to help solve my problems."). Participants responded to each item using a 1 (strongly disagree) to 7 (strongly agree) scale.

Positive relations with others. Interpersonal well-being was assessed using the Ryff Positive Relations with Others scale (Ryff, 1995). Ryff (1995) proposed six distinct components of positive psychological functioning. Of these six components, I had strong predictions for her positive relations with others scale ("Most people see me as loving and affectionate."), which I measured using a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Social Network. In Sample E, I collected relationship outcome measures across ten relationships. My goal was to examine the degree to which strategy use generalized across many relationships. I asked participants to rate a number of variables for each of the ten relationships. For this analysis, I focused on three indicators of relationship functioning: relationship satisfaction ("I am satisfied with this relationship."), liking ("I like this person."), and friction ("There is some tension (friction, conflict) in my relationship with this person."). All variables were measured on a 15-point scale ranging from 1 (strongly disagree) to 15 (strongly agree).

Results.

Social support. First, I examined associations between different facets of social support using two scales from the ISEL. Across two samples I found that a both reappraisal and acceptance were significantly positively associated with a sense of belonging (See Table 10). Interestingly, suppression was significantly negatively associated with a sense of belonging (see Table 10), perhaps because restricting emotive behavior in others inhibits social cohesion. This suggests that using these strategies influenced a person's sense of belong. The causal direction needs unpacking, but two interpretations may be that this association was the result of individuals feeling overall comfort in their social interactions, such that they feel both comfortable employing these strategies and a sense of belonging.

Positive relations with others. I found a significant positive association between the positive relations scale and reappraisal and acceptance (see Table 10). As with other social outcomes, participants who tended to use these two strategies also tended to show favorable positive relationships with others. As predicted, the positive relations with others scale was

significantly negatively associated with suppression (see Table 10). Participants who tended to shut down the emotional expressions of others also tended to report less interpersonal well-being.

Social Network. Across ten relationships, participants reported their relationship satisfaction (*M*=10.72, *SD*=4.15), liking (*M*=11.90, *SD*=3.80), and relationship tension (*M*=4.22, *SD*=3.97). The total number of observations was 3,580. For relationship satisfaction (*ICC*=.29, p<.001), liking (*ICC*=.36, p<.001), and relationship tension (*ICC*=.25, p<.001), measurements taken for each person showed significant within-person associations and thus violated the assumption of nonindependence, so I conducted a two-level multilevel model. I conducted a model for each strategy, and entered each strategy as a level 2 variable that was grand-mean centered to allow for greater interpretability since my scales did not contain a zero (Nezlek, 2012). I also grand-mean centered each level 1 variable so that I could focus on the effects of the absolute measured values of strategy on each of my dependent variables. As predicted, participants who engaged in greater use of suppression reported marginally less relationship satisfaction across their different relationships, and significantly less liking of the other person and greater relationship tension (see Table 11). I found an opposite pattern for reappraisal and acceptance, such that participants reported significantly greater relationship satisfaction and liking, and significantly reduced relationship tension.

Study 6: Peer Ratings

I have found that each of the ERQ-O strategies was associated with self-reported interpersonal outcomes (social support, social well-being, social network outcomes). My next goal was to test whether these strategies were associated with interpersonal outcomes reported by peers. This allowed me to examine a social outcome measure that is from a different perspective than the participant. That I am using a measure different from self-report allows me to assess an outcome that has less methodological overlap, which reduces the likelihood that my findings are driven by potential artifacts. To allow for insight into an overall positive relationship index, I examined peer ratings for items of closeness, social connectedness, likeability, and affection. Similar to what I observed in self-reported interpersonal outcomes, I expected that reappraisal and acceptance would show a positive association with my peer-rated positive relationship index. I also predicted that suppression would produce negative associations with my positive social functioning index.

Method.

Participants. To directly assess the social impact of these strategies, I collected peer ratings for a subsample of participants in two samples (N_E=211; N_A= 105). I used a data collection method similar to Soto & John (2017). Most peers were friends (60%) or romantic partners (30%). Peers rated the participant on a number of characteristics using a 1 (disagree strongly) to 5 (agree strongly) scale.

Peer-rated positive relationship index. Peers were provided with the stem "I think of [participant's name] as someone who…" and were instructed to rate their friend on a number of items. Most applicable to my hypotheses were characteristics related to social functioning: closeness ("…has close relationships with others"), social connectedness ("…feels cares about, loved, connected to others"), likability ("…is the kind of person almost everyone likes"), and affection ("…is loving, affectionate, caring towards others"). Peer ratings were from only one person, so to increase reliability I averaged the four items to create a positive relationship index. Reliability was high across both samples (α_A = .82, α_E = .78). Overall, peers were close friends who were likely to know the participant well and were comfortable with the participant. A

benefit of this is that it reduces variance that could normally be attributed to differences in relationship contexts.

Results.

Factor analysis. Exploratory factor analyses revealed my predicted single-factor structure across both data sets. All four items loaded onto the same factor. In each sample the factor accounted for more than 50% of the total variance. For each scree test there was a clear factor represented by the data.

Correlations with strategies. I expected that the use of a close peer would produce ratings that were generally favorable to the participant. Consistent with this, I found that mean ratings on my positive relationship index were high for sample A ($M = 4.06$, $SD = .78$) and sample E ($M = 4.04$, $SD = .73$). Next I examined how each of my other-regulation strategies was associated with my peer-rated positive relationship index.

For reappraisal, I found that greater self-reported use of reappraisal was associated with significantly greater positive relationship index in sample E and marginally greater positive relationship index in sample A (see Table 12. It is noteworthy that although the correlation was marginal in sample E, the effect size was replicated in this sample, which suggests replication is likely when sampling from a larger portion of the social network. Similarly, greater acceptance predicted greater scores on my positive relationship index for participants sample E and in sample A. As predicted, I found that suppression was consistently negatively associated with my peer-rated positive relationship index (see Table 12). That is, greater use of suppression was significantly negatively associated with the positive relationship index in sample E and negatively, but not significantly, associated with positive relationship index in sample A.

Consistent with self-reported social well-being variables, I found that suppression had the most negative associations with my peer-rated social outcome. Also consistent was the positive associations of my peer-rated social well-being index with reappraisal and acceptance. These findings help to illustrate that the habitual use of these strategies produces social well-being effects that are not limited to a participant's subjective perceptions, and more concretely illustrate that these strategies have implications for social relationships, as experienced by the partners of individuals using these strategies.

General Discussion

My research suggests that people can use a variety of strategies to enact interpersonal, other-directed emotion regulation, and that I can measure individual differences in these strategies reliably. Study 1 showed that I could differentiate between suppression, reappraisal, and acceptance, and that the scales I utilized to capture strategy use were highly internally consistent. That I was able to measure each of these strategies suggests that they are used with some frequency in interpersonal interactions. Some, like reappraisal, are reportedly used more frequently than others, like suppression. As I noted in the introduction, conceptually, acceptance is not a regulation strategy in the same sense as suppression and reappraisal. Acceptance is not an attempt to change emotions and, in many ways, might function as one would expect a no-regulation control condition to function in experimental studies.

In Study 2, I found that despite self and other strategies being moderately associated, the strategies function differently for others than they do for the self. For some strategies this makes clear conceptual sense. Suppressing one's own emotions carries much different implications than suppressing the emotions of someone else. Suppressing one's own emotions might be done to conform to social norms, whereas suppressing someone else's emotions can violate social norms by being unnecessarily harsh towards another person. Reappraisal and acceptance mostly likely

have greater conceptual self-other overlap, but again, my findings suggests any overlap is moderate for all strategies. One notable finding was that contrary to the self domain, reappraisal was less consistently the most effective strategy. I consistently found that acceptance functioned better in interpersonal emotion regulation contexts.

In line with other studies examining group differences, Study 3 found important age, gender, and cultural differences. As socioemotional selectivity might predict (Carstensen, Fung, & Charles, 2003), people because more tactful with age and suppressed others' emotions less. I expected and found that men would report acting in a way that was consistent with gender norms. They reported more suppression and less acceptance of other's emotions than women. When I examined the effect of culture on these strategies, I found suppression findings similar to what has been found in the self literature. Namely, Asian participants reported using more suppression than white participants. To my knowledge, I am the first to show that Latinx participants use greater acceptance of other's emotions. As I hypothesized, this was likely due to a Simpatía cultural script in Latinx populations.

Study 4 examined which personality traits might give rise to the use of these strategies. This was also the first time I am aware that the BFI-2 has been used to examine how the Big Five are associated with emotion regulation strategies. The most reliable associations were seen for agreeableness, conscientiousness, and surprisingly, openness. Agreeableness is characterized by a strong predisposition to be other-focused, and as one might expect, more agreeableness was associated with less suppression and greater reappraisal and acceptance. I observed a similar association between conscientiousness and my three strategies, and I believe this is the result of a strong adherence to social norms for more highly conscientious individuals. Participants who reported greater openness showed less suppression and greater acceptance, which likely reflects an openness to different emotions that is characteristic of highly open people.

Individual differences in attachment and empathy were also important contributors to strategy use. Attachment avoidance was positively associated with suppression and negatively associated with reappraisal and acceptance. Attachment anxiety was most consistently associated with greater suppression use. Individual differences in empathy also showed associations with these strategies. Perspective-taking and empathic concern were negatively associated with suppression, and positively associated with reappraisal and suppression. People who experienced greater personal distress in response to other's emotions tended to use more suppression and less acceptance.

In Study 5 I examined the implications of these strategies where they should be most applicable, social domains. I found that suppression was negatively associated with two facets of perceived social support, belonging and appraisal. Greater suppression use was also associated with lower interpersonal well-being. I found the opposite pattern for reappraisal and acceptance, which suggests they are helpful for social functioning. However, to examine social outcome that were not based on subjective reports, Study 6 looked at a subsample of peers to examine a more objective marker of how these strategies impacted relationships. As expected, suppression negatively predicted peer-reported positive relationship functioning, and reappraisal and acceptance predicted greater peer-reported positive relationship functioning.

Limitations

Most of my samples were undergraduate students, and it is possible that strategy use might reflect what is commonplace in a younger sample. However, I also collected an MTurk sample and found similar results for many of my effects. Still, I was not able to test whether all

of my effects replicate in an older sample and recommend further investigation into possible age differences.

I examined the self-reported habitual use of these strategies, but less is clear about how these strategies function at the episodic level. For example, I only looked at three strategies and their aggregate effects, but social interactions are complex and people can equip more context-specific approaches. Further, because I ask people to report their subjective experiences, I am capturing only a snapshot of what they can recall. People may differ in the extent to which they can successfully implement one of these strategies for any particular situation. Future studies should examine situation-specific effects of these regulation strategies rather than just examining global self-reports.

Global self-reports are useful for capturing long-term habitual use of these strategies, but likely do not address the nuances associated with real-time employment of theses strategies. Still, it is notable that I was able to find associations with other well-validated measures. Also, my peer data suggests these strategies had implications above and beyond subjective judgments about social relationships. This evidence suggests that global self-reports of these strategies are predictive of actual relationship outcomes.

Implications and Future Directions

This work has implications for how people use emotions interpersonally. For example, these studies add more empirical evidence to the growing idea that emotions are experienced, expressed, and modulated in social contexts (Keltner & Haidt, 1999). My findings help to consolidate the emotion regulation literature within this broader discussion about the social functions of emotions. As I noted, Gross, Richards, and John (2006) have found that as many as 90% of emotion regulatory contexts were social. I have shown that these strategies are used in everyday life and that they have different consequences for life and social relationships. One thing that remains unclear is the causal nature of these strategies for social outcomes. Is it the case that someone damages their relationships by using suppression? Or is it more likely that someone uses suppression when interacting with an interaction partner they dislike? Future studies should examine the causal nature of these strategies, particularly in a lab setting.

What makes this difficult is that, in doing so, researchers will need to keep in mind the myriad ways social interactions can unfold. Social context exerts a strong role in determining emotional reactions, just as when a power asymmetry in a relationship can lead people to change their emotions to be more similar to someone of higher power (Anderson, Keltner, & John, 2003). Future studies should also test whether the emotion of the target affects which strategy is most important. I examined how these strategies function on average, but it is likely that the emotions a target or regulator are experiencing will play a role in determining the effectiveness of these strategies.

The use and effectiveness of these strategies are likely to shift with the complexity of everyday interactions, but what is clear is that regulating other's emotions is a significant part of these interactions.

Transition 1

The basic findings from my individual differences approach provided a useful starting point. Namely, they helped to illustrate that suppression, reappraisal, and acceptance are used for interpersonal emotion regulation. The also helped to establish that these regulation strategies have implications for social and emotional life. A limit of my individual differences approach is that it looks at overall averages of strategy use, and thus measures all episodes in aggregate, making it difficult to deduce how these strategies function for any particular episode. The next chapter of my dissertation examined how these strategies took place in everyday life.

Chapter 2: Everyday Episodes of Interpersonal Emotion Regulation: Other-Directed Reappraisal, Suppression, and Acceptance

In everyday life people are often thrust into roles akin to amateur therapists. Emotions are pervasive in social interactions, and how someone addresses those emotions can determine the trajectory of a relationship. Sometimes, people are well equipped to help their friends through distress. They will know exactly what to say—or not say—and this will lead to a stronger relationship as a result. Other times, someone may falter and fall short of helping their friend, or altogether give up and signal their annoyance that a friend has once again succumbed to these emotions. These moments illustrate just some of the myriad routes emotional social interactions can take, and over the last two decades much research has shed light on the strategies people use to regulate their own emotions (Gross, 1998). As new evidence comes to light, much of this work suggests emotions play a crucial role in social interactions (Keltner & Haidt, 1999) and emotion regulation largely takes part in social contexts (Gross, Richards, & John, 2006). Further, there has recently been an increased interest in how emotion regulation functions interpersonally (Zaki & Williams, 2013).

Work examining interpersonal, other-directed emotion regulation (see Chapter 1) has emanated from work on self-directed emotion regulation, where research has focused on strategies like suppression (inhibiting one's own emotive behaviors), reappraisal (reframing an emotion-eliciting event so as to change its emotional meaning), and acceptance (simply letting one's emotion occur without attempts to change these emotions; Gross & John, 2003; Shallcross, Ford, Floerke, & Mauss, 2013). What remains unclear is how these interpersonal, other-directed emotion regulation strategies function in everyday life, at the episodic level. Here I present evidence examining specific episodes of emotion regulation where these strategies were used real-life contexts. I examined who was involved, how these strategies were carried out, and the implications for social relationships in everyday life. I conclude by taking stock of the implications of these findings for the burgeoning literature on interpersonal emotion regulation, and consider what these findings might tell use about interpersonal emotion regulation processes in everyday life.

Current Work on Interpersonal Emotion Regulation

Some investigations into interpersonal emotion regulation have examined other-directed analogues of self-directed strategies that have been a focus in the literature. Chapter 1 examined other-directed suppression (inhibiting the emotive behaviors *of others*), reappraisal (reframing an emotion-eliciting event *for someone else* so as to change its emotional meaning), and acceptance (simply letting *someone else's* emotions occur without attempts to change these emotions) from an individual differences perspective by adapting an existing emotion regulation measure. I created the *Emotion Regulation Questionnaire-Other* (ERQ-O) and found that greater other-directed suppression was associated with negative interpersonal consequences, whereas greater use of other-directed reappraisal and acceptance tended to be associated with positive interpersonal outcomes. The ERQ-O has been a fruitful starting point for this research, but a limitation of using the ERQ-O is that it focuses on individual differences in the habitual use of these strategies. The unit of analysis is the individual averaged across all the episodes of interpersonal emotion regulation use for a particular strategy. A crucial next step is to study the frequency of other-directed strategy use for suppression, reappraisal, and acceptance, and how these strategies happen and unfold in everyday life. An alternative approach to studying individual differences is experimental work, because this would allow me to study the causal effects of these strategies. However, one disadvantage is that the emotion regulation episode may

never happen in exactly this same way in everyday life. This illustrates another advantage of studying emotion regulatory episodes that have occurred in everyday life, because studying how these strategies are implemented in everyday life will provide a reference for how we can better apply the strategies experimentally. This more fine-grained idiographic approach that takes seriously the report of an individual's unique experience can answer questions that the individual differences and experimental approaches cannot address.

The Present Research

My approach of examining these strategies in everyday life led me to test one finding from the ERQ-O; the three major strategies will likely differ in their frequency of use. Findings from the ERQ-O suggest that reappraisal and acceptance are quite common, whereas suppression is used less frequently. In the present design, I required all participants to recall a specific episode where they had used one of these emotion regulation strategies in an interaction with a close friend. To make sure that these were fairly recent episodes that could be recalled easily, I limited the timeframe to the last 6 months. Thus, it seems likely that not all participants would have used each particular strategy in that timeframe. This limitation should be most apparent for suppression, which should be the least commonly used strategy of the three studied here. I expected that suppression would be less common than the other three strategies. Consistent with this, I expected participants to provide fewer prototypical examples of suppression.

In addition, I sought to examine more precisely how these strategies were enacted. To do this, I investigated both the goals a regulator had in mind, and the subsequent type of influence they carried out. I examined whether regulators had a particular emotion channel in mind (behaviors, thoughts, feelings) when considering their influence goals for a strategy, as well as whether regulators indeed implemented actions aimed at those specific emotion channels. I predicted that participants using suppression would have the goal to influence a target's behaviors, and that they would report greater behavioral influence as well. We expected that regulators using reappraisal would focus their goals and actual regulation attempts on influencing how a target was thinking about an emotion-eliciting event. For acceptance, I expected a division between goals and actual influencing behavior. Because regulators are interacting with a friend in distress, it is likely they will experience some desire to help their friend overcome negative thoughts and emotions. However, acceptance is defined by not attempting to change another person's emotions. Therefore, I expected that acceptance would predict goals directed at influencing a friend's thoughts and feelings, but that it would not predict actual behavior carrying out these goals.

I also sought to replicate basic findings from the previous approaches I have used to study interpersonal emotion regulation. My individual differences measure, the ERQ-O, has shown that agreeableness, compassion, and empathy were predictors of less suppression use. Here I can test the reasons why participants used suppression as a regulation strategy. The prediction is that participants would indicate reasons that implied a failure of empathy (e.g., a very stressful moment for the regulator or running out of patience with the regulatee), and that participants describing a suppression episode would describe experiencing greater negative emotions during and after the episode. In addition, I predicted that participants using acceptance would report the fewest negative emotions. I also sought to replicate basic findings from the previous approaches that I have used to study interpersonal emotion regulation. One example is my finding in the experimental studies that the use of acceptance led to reduced feelings of invalidation in the recipient of emotion regulatory messages from a friend (see Chapter 3). Here I can study whether

subjects that recalled and described using more acceptance indicated providing greater validation for their friend, the regulatee.

Method.

Research ethics committee. The Committee for the Protection of Human Subjects at the University of California, Berkeley, approved all study procedures. This study was approved under the "Personality and Emotion Survey" protocol (#2015–01-7025).

Participants. The participants were 353 undergraduate students in introductory psychology courses who participated in exchange for extra course credit. The participants included 69% women; mean age was 21.9 (SD=4.1). The major ethnic groups were 24.8% European-American, 45.5% Asian-American, 13.5% Latinx, 2.9% African-American, and 13.3% other/not reported. My sample size was determined by recommendations by Cohen (1992), which suggests 322 participants to achieve 80% power for a small effect size at an alpha of .01.

Observer-coded variables based on open-ended responses. Three coders, who were blind both to the study design and my hypotheses, read and rated all of the open-ended responses. That is, they did not know what emotion regulation instruction the particular participant had received to recall for their emotional episode. In fact, the coders did not even know that subjects had received specific instructions to recall a particular emotion regulation strategy episode. They were provided with a version of the prompt that did not indicate anything about a particular strategy, and were only able to read a specific written response from one participant at a time, completed their ratings, and then moved on to the next participant.

The coders were all college students majoring in psychology and went through extensive training, using open-ended responses to a separate set of interpersonal emotion regulation episodes. In particular, they learned how to distinguish between suppression, reappraisal, and acceptance as interpersonal regulation strategies, as well as practiced coding for affective and interpersonal consequences of various regulation efforts. After they achieved substantial interjudge agreement in these practice judgments, they were introduced to this dataset. The three coders met bi-weekly with the research team to review any problems or complexities in the coding that they had completed in the previous two weeks. However, coders were not allowed to change or update their ratings from these previous weeks. These bi-weekly meetings were intended to keep the coders engaged with the task and also make sure that there would not be conceptual drift, in other words, to keep them consistent in their definition of the concepts and the use of the rating scales.

Here I focused on the key variables, all of which were rated by all three coders. Interjudge reliability coefficients are presented in the Methods section along with each variable of interest.

Immediate open-ended responses. I instructed participants to describe a situation in which they were with a friend who was having a negative emotional experience and they tried to influence their friend's emotions. Participants were randomly assigned to one of three strategy conditions: suppression, reappraisal, and acceptance[1]. Participants received the following prompt:

> This portion of the exercise is about one specific situation when another person was having strong emotions and you **[acceptance prompt 1; the rest of this sentence and the following sentence were omitted in this condition]** wanted to influence the emotions of that person. Specifically, think of a time when you were **[suppression or reappraisal prompt 1].**

> In the next section, please remember and then describe a real situation in which you were interacting **face-to-face with a friend.** Specifically, think of an event when your friend was experiencing a **negative** emotion (such as **anger, anxiety, sadness, guilt, jealousy**, etc.) and **you [acceptance prompt 2; the latter half of this sentence was omitted for this condition] tried to influence your friend's emotions** by **[suppression or reappraisal prompt 2]**.
>
> This could be an event related to friendships, schoolwork, family, or anything else that evoked an emotional reaction in your friend. Try to think of an event that happened recently (i.e., occurred within the last 6 months).
>
> Take a few moments to think of an event in the last 6 months. When you're ready, please describe the event in your own words, including how and why your friend was feeling this way and how and why **[strategy prompt 3].** Please describe the situation so that somebody who was not there could tell what the situation was like for you and the other person.

The instructions were the same across conditions, except where specific strategy prompts are indicated above. Participants in the suppression condition were told to consider an episode where they achieved this influence by "trying to keep another person from expressing their feelings." [prompt 1], they tried to influence their friend's emotions by "finding ways to keep him or her from expressing these emotions." [prompt 2], and to describe how and why "you were trying to keep them from expressing their emotions." [prompt 3]. Those in the reappraisal condition were told to consider an episode where they were "trying to have the other person think differently about whatever was making them emotional" [prompt 1], they tried to influence their friend's emotions by "suggesting alternative ways to think about the situation and getting them to reinterpret or reconsider what the experience means to them." [prompt 2], and to describe how and why "you were trying to have your friend think differently about whatever was making him or her emotional." [prompt 3]. Participants in the acceptance condition received nearly identical instructions. However, participants in this condition did not receive any instructions about influencing the emotions of their friend. They were told to describe an episode where they "simply let their feelings happen, whatever these feelings may have been." [prompt 1], where "you tried to simply let their feelings happen so that these feelings could run their course." [prompt 2], and to describe how and why "you simply accepted your friend's emotions without trying to change them." [prompt 3]. After this initial open-ended prompt, participants responded to a series of open-ended questions meant to allow participants to go into further detail about the episode.

Prototypicality ratings. My three coders were provided with the definition for each strategy: suppression ("trying to keep another person from expressing their feelings, finding ways to keep him or her from expressing these emotions, shutting others down"), reappraisal ("trying to have the other person think differently about whatever was making them emotional, suggesting alternative ways to think about the situation and getting them to reinterpret or reconsider what the experience means to them"), and acceptance ("simply let their feelings happen, whatever these feelings may have been, you tried to simply let their feelings happen so that these feelings could run their course"). The three coders then used these definitions to provide prototypicality ratings of all three strategies across every episode. They were instructed to assess "How good or prototypical this story is as an example of…[strategy]?" on a 7-point scale (0=not at all to 6=extremely). The three coders showed strong reliability for suppression (α = .82), reappraisal (α = .87), and acceptance (α = .88). Overall, I thought only a small percent of

participants would not read or follow the instructions; for suppression, I suspected a greater number of participants simply would not recall a relevant episode, probably because they had simply not used the suppression strategy recently in their relationships with their close friends. The coders rated each episode on whether it was a prototypical example of each of the three strategies. Using these data, I therefore restricted my analyses to those episodes that met a minimal cutoff for standard.

Person of cause. Participants received two prompts about the cause of the negative emotion episode for the target. One instructed participants to "Explain why you think your friend felt this way (e.g., the circumstances or event that lead to that negative emotion." and the other instructed participants to "Describe whether or not your friend's feelings were related to you in any way (e.g., something you had done or said)." My coders were instructed to indicate yes or no for who was responsible using the following categories: target/self/friend him/herself; regulator (participant); stranger; another friend; family member; romantic partner/dating/ex lovers; co-workers; members of an organized group (e.g., sports, clubs, classmates, church); other category/misc. The categories were not mutually exclusive.

Time since episode. Participants were asked, "Where and when did the event happen?" My coders rated time since the episode occurred by providing ratings to the question "How long ago did the event occur?" on a 4-point scale (1=hours ago, 2=days ago, 3=months ago, 4=1 year+). The three judges showed high reliability (α = .96).

Goals and realized influence. For goals, participants were asked to indicate, "What sorts of goals, motives, or reasons, if any, did you have during the interaction?" I also sought to examine the extent to which participants realized those goals through actual influence. I therefore asked them, "How did you go about trying to influence or change your friend's emotions? Did you use any specific behaviors or techniques?"

My coders were instructed to rate three channels of emotional influence (feelings, thoughts, and behaviors). For goals, my coders were instructed to rate "What goals did the participant have throughout the interaction?" by rating the extent to which participants were focused on "changing how their friend felt," "changing how their friend was thinking," and "changing how their friend was acting/behaving." Coders rated the degree to which these goals were present using a 3-point scale (0=not at all present, 1=somewhat, 2=definitely present, clearly, shown strongly). My coders showed acceptable reliability for feelings (α = .77), thoughts (α = .67), and actions (α = .68).

For realized influence, participants were asked, "How did you go about trying to influence or change your friend's emotions? Did you use any specific behaviors or techniques?" For these responses, the coders were told to provide ratings for the questions "How much did the participant try to change how their friend felt?" "How much did the participant try to change how their friend was thinking about things?," and "How much did the participant try to change their friend's behaviors/actions?" They rated these using a 7-point scale (0=not at all to 6= a significant amount). My coders showed acceptable reliability for feelings (α = .68), thoughts (α = .81), and actions (α = .64).

Emotions. Participants were instructed to describe the emotions of their friend and their own emotions both during and after the episode took place. They were told to "Describe how **your friend** [**you**] felt (name and describe **their** [**your**] feelings and emotions) during [after] the event." The three coders received a list of "emotion triplets" and were instructed to choose up to three of the emotion triplets that were clearly present in the episode.

Validation. Participants received the same instructions as the realized influence prompt. They were instructed to describe how they influenced their friend's emotions and any techniques they might have used. They were asked, "How did you go about trying to influence or change your friend's emotions? Did you use any specific behaviors or techniques?." The three coders were instructed to report, "How much did the participant provide validation?" using a 7-point scale (0 = not at all to 6 = a significant amount). The coders had acceptable reliability (α = .62).

Social Consequences. Participants concluded their description of the emotion regulation episode by describing the degree to which the episode had an effect on their relationship with the target. Participants responded to the question, "How did this event influence your relationship with this person afterward (e.g., made it worse; made it better; made you closer; didn't change anything)?" To assess relationship outcomes, My three coders rated participant responses by rating on a 0 (not at all) to 6 (strongly agree) scale the degree to which the event "made it worse" and the degree to which the event "brought the friends closer together." I then created a positive social relationship index by reverse scoring the "made it worse" item for all three coders and averaging all of these scores with the closeness scores. The coders had high alpha reliability (α = .86).

Results.

Manipulation check. My coders indicated 0 for responses that were not prototypical of a strategy. I then averaged the ratings of all three coders for each strategy. Using these prototypicality ratings, I was able to control for participants who followed instructions. Therefore, for my analyses I included only those episodes that showed at least some indication of the instructed emotion regulation strategy. That is, I omitted all those episodes that received an average rating of less than 1 for prototypicality. The findings are shown in Table 1. For the episodes generated in both the Reappraisal and the Acceptance conditions, only 5% of the episodes were rated less than 1 for prototypicality. Given that these two strategies are quite common, the results suggests about 5% of participants who did not follow instructions either did so because they were negligent or because they did not understand the instructions. In contrast, in the suppression condition, where 36% of episodes received an average rating of less than 1 for prototypicality, I suspected that some of the participants simply could not recall a relevant episode, probably because they had simply not used the suppression strategy in their relationships with their close friends in the last six months. For my analyses I included only participants who received at least an average score of 1 on the prototypicality rating for the strategy matching their condition (e.g., I included participants in the suppression condition who received an average suppression prototypicality rating higher than or equal to 1).

Consistent with my expectations, suppression use was most common in the suppression condition, reappraisal was most common in the reappraisal condition, and acceptance was highest for those in the acceptance condition (see Table 2).

Person of cause. Judges coded for who was the cause of the emotional episode (see Table 3). Across all three strategies the target of regulation caused the majority of the episodes. In comparison to reappraisal (35.5%) and acceptance (36.6%), suppression (22.1%) was used less frequently when the person who caused the episode was a romantic partner. Compared to suppression (20.8%) and acceptance (8.9%), reappraisal (29.9%) was used more frequently when the person of cause was the regulator himself or herself. Coders were not necessarily restricted to looking only for a "person" of cause. Rather, the coders were trying to assess if a person was the cause, and if so, who was that person. When there was an episode where the cause was some external stressor that was not the fault of the target (or any other person), then coders would

simply check "other/misc." and then the coders provided a very brief description about the cause (e.g., "exam"). Therefore, the cases in which the target was the person of cause reflected when the target was referenced in the narrative as having actively done something to cause their distress (e.g., "target is stressed because they didn't study for the exam").

Time since episode. Overall, participants did not need to search far for an event. The omnibus ANOVA for how long ago the event occurred was not significant, F (2, 253) = .234, p = .792, partial η^2 = .002. Participants in the acceptance condition reported the longest time since the episode (M = 2.63, SD = .66), followed by reappraisal (M = 2.57, SD = .65) and suppression (M = 2.57, SD = .66). The difference between acceptance and suppression was also not significant, F (1, 162) = .33, p = .57, partial η^2 = .002. This means they were able to find a relevant episode within about the same period of time. This is important because my study is based on recall and this finding means that temporal distance of the recall is not confounded with the three experimental conditions.

Goals and realized influence. I examined the associations between a strategy's prototypicality score within its respective condition, and the channels of influence (feelings, thoughts, and behaviors) of the target. Overall, I found that a predominant goal of suppression was to influence the behaviors of a target of regulation (see Table 4). There was a significant positive relationship between suppression and a regulator's goal to influence a target's behaviors. There was also a marginal negative relationship between suppression and influencing a target's thinking. Participants using greater suppression also reported actually engaging with the target in a way that influenced the target's behaviors, which is consistent with my theorizing about suppression as a strategy used to inhibit a target's expressivity. There was a significant positive association between suppression and aiming regulation efforts at the target's behaviors. There was also a significant negative association between suppression and influencing the thoughts of a target.

The primary goal for participants who used reappraisal was to influence a target's thoughts. I found that higher reappraisal use was associated with a goal to influence how a target was thinking about the event that was making them emotional. In addition, participants who used greater reappraisal achieved this by reporting more behaviors aimed at changing the thoughts of the target. Not only did they have a goal to influence a target's thoughts, they reported greater use of behaviors to carry this out. For participants who used greater acceptance, their primary goal was to influence how the target was thinking. There was a significant positive relationship between acceptance and a goal to influence thinking. There was also a significant association between acceptance and a goal to influence how a target was feeling about the event. Interestingly, although participants using acceptance reported wanting to influence a target's thoughts and emotions, they reported not engaging in behaviors to enact these goals. The association between acceptance and actual influence of thoughts in fact showed a negative, but not significant, relationship. The association between acceptance and actually influencing emotions was positive but not significant.

Emotion. Participants reported the emotions they thought the target was experiencing during and after the event occurred (frequencies listed in Tables 6-9). Participants also reported the emotions they themselves experienced during and after the event. My coders chose up to three emotions that were present during and after the episode for targets and for regulators. Of the 23 emotion triplets, I then coded 14 as negatively valenced and the remaining 9 as positively valenced. This provided overall percentages of negative and positive emotions in each condition.

Overall, I found that participants did not differ in the extent to which they thought the target of their emotion regulatory efforts was experiencing negative emotions *during* the episode (see Table 5). When examining the difference between negative emotions during the event and negative emotions after, it is clear that all three strategies reduced negative emotion. However, the number of negative emotions that remained for a target *after* the episode was highest in the suppression condition. Targets receiving suppression were seen as experiencing greater negative emotions after the event had occurred than those receiving reappraisal and acceptance. There were no differences in negative emotions after the episode between targets who received reappraisal and targets who received acceptance. The size of the reduction (even from the biased perspective of the regulator) was much less for suppression (52.8%) than for reappraisal (69.6%) and acceptance (69.8%). Suppression was clearly a less effective strategy for changing emotions in the target than the other two strategies.

The regulator experienced negative emotions differently than the target. Overall, during the episode the regulators felt 50% or more negative (vs. positive) emotions in this situation (see Table 5). In part, they suffered along with their distressed friend, but at only about half the rate of the distressed friend. However, those regulators who were using suppression experienced the interpersonal situation with a lot more negative emotion (66.7%) than in the two other two conditions (about 50%). At the specific-emotion level, I found a pattern that indicated a failure of empathy—more anger and contempt and less compassion/love.

Afterwards, the regulators felt much less negative emotion. In fact, in the acceptance condition, the regulators reported more than 80% positive emotions—so overall they were quite pleased or happy with the way they resolved this complex interpersonal situation. That was less true for the suppression and reappraisal users. Looking at the percent of reduction, suppression reduced only about 40% of their earlier negative emotion, followed by reappraisal (about a 50% reduction) and acceptance (about 60%).

Validation. I first wanted to examine whether strategies differed in the degree to which they led to validation in the recipient of the emotion regulation strategy. Overall there was a significant difference in how much each strategy was used to validate the recipient, $F(2, 292) = 30.53$, $p<.001$, partial $\eta^2=.17$. In particular, coders rated the greatest validation to occur in the acceptance episodes, compared to regulators using reappraisal (see Table 10). Consistent with my hypotheses, suppression produced the lowest validation. Participants who used reappraisal provided more validation than participants who used suppression.

Furthermore, examining the correlations between prototypicality scores and validation illustrated that the use of any acceptance during an episode was associated with greater validation (see Table 11). This was true across all conditions, suggesting that acceptance was the strategy that predominantly led to validation of a target's emotions.

I entered the strategy prototypicality scores simultaneously into a regression predicting validation and found that acceptance was again the strongest predictor of validation (ß = .65, $p <$ .001).

Relationship Consequences. Ratings on my positive relationship index indicated that participants in the suppression condition had the worst relationship outcomes (see Table 12). Participants in the suppression condition had significantly worse relationship outcomes than participants in the reappraisal and acceptance conditions. Reappraisal and acceptance were not significantly different from each other at influencing relationship outcomes.

When I examined the associations between strategy prototypicality scores and my positive relationship index (see Table 13), I found that it was consistently negatively associated

with suppression. This association was negative, but not always significant, in every condition, and the overall prototypicality score for suppression was significantly negatively associated with my positive relationship index. Reappraisal and acceptance showed positive associations across all three strategy conditions. The overall prototypicality scores for these two strategies were also significantly positively associated with my positive relationship index.

Validation Mediation. I next wanted to examine whether the effect of acceptance on positive social relations was mediated by the degree to which participants provided validation. As I noted, acceptance use significantly predicted greater validation ($r = .51$, $p < .01$), as well as significantly higher scores on my positive relationships index ($r = .16$, $p < .01$). In addition, I found that validation was significantly associated with higher scores on my positive relationships index ($r = .24$, $p < .01$). I therefore sought to test whether the effect of acceptance my positive relationships index was mediated by validation. As predicted, validation significantly mediated this effect (95% CI [.03, 14]; see Figure 1).

General Discussion

Summary

People use interpersonal emotion regulation strategies in everyday life to influence friends in distress. How and when they implement these strategies can depend on the needs of a target of emotion regulation, but what is clear is that a regulator's experiences play a crucial role in the successful resolution of an emotive episode. Some strategies, like reappraisal and acceptance, were not difficult to recall. Consistent with my hypotheses, participants had little trouble recalling episodes where they either reappraised or accepted the emotion-eliciting event of a friend. Participants struggled to recall an episode when asked to recall a time they suppressed the emotive behaviors of a friend. These findings are consistent with my findings from the ERQ-O, and they likely speak to a number of characteristics about suppression use. Suppression is clearly a more abrasive approach to influencing someone else's emotions, so it is likely people seldom use it or prefer not to recount these episodes. However, in times when regulators do use suppression, my emotion findings suggest it is borne from the regulator experiencing heightened negative emotions as well. Consistent with this, the social consequences of suppression use, compared to reappraisal and acceptance, carried more negative outcomes.

The person who caused the episode was also different across strategies, but most episodes were perceived to have been caused by the target themselves. Interestingly, participants reported that a romantic partner more commonly gave rise to emotive episodes that elicited the use of reappraisal and acceptance than suppression. This suggests that participants opt for more constructive approaches when dealing with relationship-related issues. In contrast with this, episodes where a family member caused the episode most typically gave rise to the use of suppression and acceptance. When the regulator was the cause of an episode, they more often turned to reappraisal, perhaps to shift focus away from themselves.

Participants also had different goals in mind when performing these strategies, and how they acted on these goals depended on the strategy they were using. Consistent with using suppression as a strategy to inhibit a target's behaviors, suppressors were more likely to report a goal of influencing their friend's behaviors. People using suppression also reported achieving this goal. They reported doing more to influence how their friend was behaving. Reappraisal was strongly associated with a goal to influence the thoughts of a target, and as expected, they reported realizing this goal by actively trying to influence how a target was thinking about the emotion-eliciting episode. Interestingly, although regulators who used acceptance reported goals that were focused on changing how a target was thinking and feeling, they did not report

enacting these goals. This suggests that although acceptors wanted to help, they did so by simply letting their friend's emotions occur naturally.

Overall, acceptance was seen as the more productive strategy. Although regulators reported equally few negative emotions in the target after an episode when using reappraisal and acceptance, the regulators themselves experienced the greatest reduction in their own negative emotions when they simply accepted their friend's emotions. Participants who accepted their friend's emotions were also better able to validate their friend's concerns. Consistent with my prior experimental work (see Chapter 3), I found that validation significantly mediated the relationship between acceptance and my positive relationship index. By validating the emotions of their friends, participants felt that their relationships benefitted from simply accepting their friend's emotions and not trying to change them.

Limitations

These everyday episodes were reported from the perspective of the regulator. Although this provides an important look at how these strategies function, the interactive nature of interpersonal emotion regulatory episodes suggests a target of emotion regulation is of equal importance for understanding the implications of these strategies. For my study, any effects for the target were filtered through the perspective of the regulator, who likely described the episodes with an egocentric bias. It is possible that this led regulators to overestimate the effectiveness of their strategies, or to misjudge the trajectory of their strategies completely. For example, research suggests that people often overestimate their degree of control over events they cannot influence (Thompson, 1999). Similarly, effectiveness from the perspective of the regulator may not equate to effectiveness from the perspective of the target. Work from the social support literature suggests that explicit attempts to provide social support are often invalidating for recipients of this support (Bolger, Zuckerman, & Kessler, 2000; Bolger & Amarel, 2007). The descriptions of the episodes were colored through the perspective of the regulator, and it is possible the events were experienced differently for those who were experiencing the negative emotion event—and who were targets of regulation.

In addition, these episodes were retrospectively described and my design allowed for a relatively large window for the episodes to have occurred. The average window described by participants (between a few days to a few months) was consistent with what other researchers have used (Gross, Richards, & John, 2006). I expected that examples of suppression might be difficult to recall, and so I thought it necessary to allow for more time in which the event might have occurred. Although I ruled out the possibility that there were differences in time since event for each strategy, it is still possible the time since an episode occurred may have had different ameliorative effects for an episode and further studies should examine responses to episodes sooner after an emotion regulatory event has occurred.

Implications and Future Directions

My findings suggest that people try to regulate negative emotions using suppression much less frequently than reappraisal or acceptance. In addition, using suppression had clear negative affective consequences for the regulator as well as the target. It is possible that participants chose to use suppression because they had exhausted their emotional resources. As seen in my emotion frequencies for the regulator, regulators using suppression experienced greater levels of negative emotion during an emotion regulatory episode, even though I did not see negative emotion differences in the target across conditions during the episode. It is likely that participants who used suppression were experiencing a lack of empathy during these episodes, and acted in a way that was more self-focused. They were experiencing distress in

response to their friend's emotions and felt the need to stop their friend from causing further distress. As I saw, this led to worse relationship outcomes.

In line with my ERQ-O findings (see Chapter 1), acceptance was used frequently and it successfully helped to placate a friend. Rather than trying to change a friend's emotions, participants who used acceptance were able to provide reassurance and validation, and for that acceptors experienced better relationship outcomes. This was certainly true when acceptance was compared with suppression, but surprisingly, acceptance had ameliorative benefits greater than reappraisal at times. Self-directed reappraisal has been associated with a number of well-being outcomes (Gross & John, 2003), but in the other-directed form acceptance seems to be just as good and often better than reappraisal as a way to placate others. Paradoxically, one of the most effective strategies to change someone's emotions is by not attempting to change them.

Of course, these episodes were all described from the perspective of the regulator, so it is difficult to deduce the actual effect to the target of this regulation. A useful approach for future studies will be to consider how these strategies are perceived from the perspective of regulator and target. In addition, future studies would do well to examine how these strategies function in real time. Only then will we know if the complexities of interpersonal emotion regulation are akin to amateur therapy sessions.

Transition 2

Chapter 2 examined the how these strategies function in everyday life. By examining specific examples where these strategies were implemented, I was able to look closer at the features that gave rise to these strategies. However, one limitation is that both chapters up to this point have focused on the role and experience of the regulator. Chapter 3 examined how a recipient of these strategies would react. In Chapter 3, I determined whether the social consequences of these strategies were true for recipients as well, or if these consequences were only in the mind of the regulator. I considered that who the regulator was might play a role in the effectiveness of strategies, and as a result I sought to determine whether varying a specific characteristic about the regulator would influence how recipients reacted to these strategies. Therefore, I examined the role social status plays when determining the impact on a recipient.

Chapter 3: Don't Tell Me How to Feel: Strategy-Specific Effects of Receiving Other-Directed Interpersonal Emotion Regulation

People often turn to others in times of emotional distress. In fact, providing interpersonal emotion regulation carries psychological health benefits for the regulator (Doré, Morris, Burr, Picard, and Ochsner, 2017). For those tasked with responding to this distress, choosing a response that best suits the emotional needs of their interaction partner can present a unique challenge. For example, a person may take such counterintuitive steps as worsening a friend's emotions if it achieves a longer-term well-being goal (Lopez-Perez, Howells, & Gummerum, 2017). This is just one approach a regulator might take. Among other approaches, someone might acknowledge their friend's emotions and comfort them in a time of need (Brown, Nesse, Vinokur, & Smith, 2003), a supervisor may tell employees to rethink how they are interpreting a problem that is causing distress, or a person may shut down what they perceive are their relationship partner's unhealthy emotional expressions (Gottman & Levenson, 1992). How these behaviors are received depends in large part on who is enacting them and how these relationships typically function, but the behaviors themselves can change the dynamic of a relationship, especially in fledging relationships where expectations for support are less well established. Receiving an adequate response to one's emotional needs can serve the crucial function of creating lasting social bonds, because people may feel responsiveness and validation from their interaction partner (Canevello & Crocker, 2010).

Research suggests that the perceived availability of social support is associated with more positive life outcomes (Cohen & Hoberman, 1983), but some research suggests that if someone perceives they need social support it can be undermining and lead to negative outcomes for a target of support (Bolger, Zuckerman, & Kessler, 2000; Bolger & Amarel, 2007). This evidence suggests a unique challenge when someone is tasked with regulating the emotions of someone else. Whereas one prominent social function of emotions is to signal a need for support, it is unclear whether in these times of need is it useful to attempt to change the emotions someone is experiencing, or to simply help someone to let these emotions run their course. Research from the social support literature calls into question whether or not people want their emotions changed at all, suggesting some attempts can have the opposite effect of supporting others. In this article I examined whether considering specific emotion regulatory feedback employed by others may be more or less invalidating, which in turn may influence relationship outcomes.

Strategy-Specific Approach to Interpersonal Emotion Regulation

Until recently, only modest attempts have been made to link social support and strategy-specific outcomes in the emotion regulation literature with interpersonal regulation. In a theoretical paper, Zaki and Williams (2013) argued that social support can function as a type of interpersonal emotion regulation, but until recently no papers had examined the impact of specific emotion regulatory strategies deployed in service of someone else. The emotion regulation literature suggests that, at least in the self, certain emotion regulation processes like *cognitive reappraisal* (reframing an emotion-eliciting event to change its emotion-eliciting impact) can influence both psychological and social well-being (Gross & John, 2003). In addition to reappraisal, the emotion regulation literature has typically focused on another prominent strategy people use to manage their emotions—*expressive suppression* (inhibiting ongoing emotion-expressive behavior; Gross & John, 2003). Much of this research suggests reappraisal generally promotes psychological health, while suppression can have detrimental effects (John & Gross, 2004). Still, some research suggests attempting to change emotions is unnecessary for promoting psychological health, because people can simply engage in

acceptance of their emotions without attempts to change them (Ford, Lam, John, & Mauss, 2018).

Research has suggested that acceptance is often a default strategy for people experiencing negative affect. Suri, Whittaker, and Gross (2015) found that people more often favor simply letting their own emotions take their course—rather than employing reappraisal—which suggests people may be more receptive towards to others providing emotional support not intended to change emotions, much like acceptance. A number of findings in the self-acceptance literature suggest acceptance has significant potential as an interpersonal emotion regulatory strategy. Self-acceptance has been associated with a number of psychological health outcomes. Acceptance has been used as a practice in different types of mindfulness-based therapy with evidence suggesting it is effective at promoting psychological well-being (Ruiz, 2010). Further adding to the potential significance of acceptance when directed at others is that acceptance of oneself is considered a dimension of psychological well-being (Ryff & Keyes, 1995), and past research has suggested that self-acceptance and acceptance of others are strongly related to one another (Berger, 1952).

What We Have Learned About Interpersonal Emotion Regulation

Interest in how these strategies function interpersonally has led to evidence that providing specific types of interpersonal emotion regulation to others can have implications for relationship functioning. Other-directed suppression refers to inhibiting the emotive behaviors of others. Current evidence suggests that the social outcomes for other-directed suppression use are uniformly negative (see Chapters 1 and 2). Other-directed suppression use has been linked to substantially lower levels of perceived social support and positive relationships with others. Suppression use was also related to more attachment avoidance and greater attachment anxiety, as well as less perspective-taking and empathic concern for others. Other-directed reappraisal, which involves reframing an emotion-eliciting event for another person, was associated with mostly positive outcomes. This is consistent with findings from the self-directed reappraisal literature suggesting that self-directed reappraisal was associated with benefits for psychological well-being (John & Gross, 2004).

Growing interest in another strategy, other-directed acceptance, which involves accepting another's emotions without attempts to change them, has led to questions about whether or not someone should actively attempt to regulate the emotions of another person. Suppression and reappraisal are considered emotion regulatory strategies, whereas acceptance is a strategy in which the regulator lets another's emotions take their course without direct attempts to change these emotions. Of the three strategies I examined, other-directed acceptance, not other-directed reappraisal, showed the strongest and most consistent associations with beneficial outcomes (see Chapters 1 and 2). Interestingly, for social outcomes, individuals using reappraisal did not fare better than individuals using acceptance. Although reappraisal use was related to positive social outcomes, the effects were consistently stronger for acceptance than for reappraisal. For example, using acceptance was related more strongly positively to perceived social support than using reappraisal, as well as to positive relations with others (see Chapter 1). Therefore, it is likely that other-directed acceptance may have especially beneficial effects on interpersonal relationships.

One reason other-directed acceptance might be associated with better social outcomes is that acceptance is associated with more validation of others' emotions than other-directed suppression and reappraisal (see Chapter 2). In addition, acceptance was negatively associated with affect worsening strategies for others, and reappraisal shows no correlation. This suggests that acceptance typically functions in support others, and reappraisal may function to worsen or

improve others' emotions. Another reason reappraisal may function less effectively than acceptance when directed at others is that reappraisal has greater potential to be seen as obtrusive. Evidence for this can be seen in the social support literature, which suggests the use of more overt attempts to influence others' emotions can be undermining compared to more subtle attempts (Bolger, Zuckerman, & Kessler, 2000; Bolger & Amarel, 2007). However, it is likely reappraisal can create a mismatch between the external feedback provided by a regulator, and the emotional needs of a recipient. Such emotional mismatches, such as when a person suppresses their external emotive behavior while continuing to feel the emotion internally, can create feelings of inauthenticity (English & John, 2013). For these reasons, I expected acceptance to be less invalidating, and overall more effective in creating social bonds than other regulation strategies like reappraisal or suppression.

Mismatches like these can be seen in the self-verification literature, where people have a strong desire to be seen by others in the same way they see themselves (Swann, Griffin, Predmore, & Gaines, 1987). A lack of self-consistent feedback from others can produce negative feelings, but so can a lack of feedback that is tailored to the needs of the recipient. Research has found that a person's affective reactions are influenced by the degree to which social feedback is self-enhancing and affectively uplifting (Swann et al., 1987). This suggests that more cognitive approaches to changing a person's mood, like reappraisal, may undermine how a person would like to feel. In essence, people prefer to be perceived in the same way they would like to view themselves, and in affective contexts reappraisal may create a mismatch between how one feels and how they think others perceive them.

In emotion regulatory contexts, a recipient's reactions may be undermined by a regulator's attempts to change how the recipient is thinking about an emotion-eliciting event. Strategies such as reappraisal could have the unintended consequence of undermining and invalidating the feelings of a recipient because the recipient may feel their emotions are out of step with how the regulator perceives them (Swann et al., 1987). This account of social motives has emphasized the importance of self-verification—individuals want to be seen and accepted as the person they really are, that is, how they actually see themselves. This desire to be validated by others may even be stronger than the desire for positive evaluations from others (feeling good about the self or self-enhancement), so that a depressed individual does not want to be told by their friends what a wonderful life they have and how many reasons for happiness they really have; instead, they want to be validated (or self-verified, in Swann's terminology) as sad and lonely.

One reason to expect people may not be receptive to overt attempts to change emotions comes from social support research, which suggests more explicit visible social support attempts to change the emotions of others can be met with feelings of invalidation and undermined social support. Bolger, Zuckerman, and Kessler (2000) found that recipients responded best to support that went undetected. In romantic couples, invisible support transactions—transactions where a partner reported providing support and a recipient did not report receiving this support—tended to promote adjustment to major life stressors. To more directly test the hypothesis that visible support can be invalidating, Bolger and Amarel (2007) compared visible to invisible support across three studies and found that invisible support was more effective at reducing emotional reactivity. Together these studies suggest that support strategies more explicitly trying to change someone's emotions are likely to produce more emotional reactivity and invalidation.

This suggests that attempts to hinder other's emotive behaviors via suppression involves an even more visible attempt to change another's emotions because this processes may bring a

stronger focus to behaviors of a regulator, and is likely to seem restrictive and hostile. Similarly, reappraisal as a means of providing support may backfire because of the active attempts to change cognition involved in reappraisal. That is, enacting reappraisal in service of others tends to involve reminding others to change how they are thinking (see Chapter 2), which implies their current thinking about a situation may be incorrect. This suggests it is reasonable to assume that support not explicitly focused on changing someone else's emotions may be more effective than either of the aforementioned emotion regulatory processes.

Acceptance of another's emotions functions as support provision that does not explicitly involve attempts to change emotions, and therefore it is likely to be received more favorably in times of emotional need than more explicit regulation strategies. Other-directed acceptance involves simply acknowledging another's emotions and letting these emotions take their natural course, without explicit attempts to change these emotions (i.e., simply letting them be). Receiving emotional acceptance from others provides an opportunity for recipients to feel validated and supported because acceptance does not involve active attempts to change the trajectory of emotions, but allows providers the ability to offer emotional help. This type of feedback is especially useful in affective feedback contexts, where the most effective feedback involves providing the recipient with self-enhancing feedback (Swann et al., 1987).

Overview of Studies

I now report four studies to test how people react to being the recipient of different emotion regulatory strategies (see Figure 1). In Study 1 I compared three strategies in the emotion regulation literature: other-directed suppression, reappraisal, and acceptance. I first wanted to test whether differences existed in the extent to which recipients felt positive feelings in response to these strategies, and whether this was the result of how much invalidation recipients experienced. I expected that suppression would produce the least positive feelings and most invalidation. More importantly, because suppression is far and away considered to produce the most negative affective outcomes (John & Gross, 2004; Chapter 2), I thought a more stringent test would be to focus on the comparison between reappraisal and acceptance. This allowed me to more precisely compare the impacts of a strategy that typically has positive affective outcomes and involves emotion change—*reappraisal*—with another strategy that has positive affective outcomes but does not involve direct attempts at emotion change (*acceptance*). In addition, consistent with gender findings suggesting men used other-focused suppression more than women, I examined whether men should be feeling less negatively when suppression is used on them.

In Study 2, I replicated the core findings of Study 1 using a within-subjects design comparing reappraisal and acceptance. In everyday life it is likely people do not receive the same type of feedback from all people. Therefore, I sought to test whether varying the order of presentation for reappraisal and acceptance would change the effectiveness of the strategies. If so I expected an interaction with the order in which the strategy was used. However, it is likely that a regulator providing reappraisal would create feelings of invalidation regardless of whether they preceded or followed a regulator providing acceptance. This would be borne out in a main effect of strategy. In addition, I tested whether recipients developed a more negative social impression of the regulator, and again whether this was mediated by invalidation. In Study 3, I again counterbalanced the presentation of strategies, but instead of varying the order of the regulator providing each strategy, I looked at the overall reactions to one regulator providing both strategies. Although I had preregistered that I would see a difference in perception of the regulator depending on which strategy was presented first, I did not observe a significant

difference between these two conditions, which supported my Study 2 findings that strategy does not interact with order.

In Study 4, I tested the boundary effects of social context. More specifically, I examined whether social status would moderate these effects of strategy on my social outcome and invalidation. People lower in social hierarchy are more likely to make affective changes in the direction of a higher status other, which suggests they may be more receptive to the various emotion regulatory strategies of a higher status regulator (Anderson, Keltner, & John, 2003). I tested whether I would observe the same invalidation and social effects only for people receiving feedback from regulators of the same status, compared to those receiving feedback from regulators at a higher status.[1]

Study 1

The present research examines which emotion regulatory strategy people would be least receptive to by examining which strategy would be perceived as more invalidating. I wanted to examine how people would feel in response to suppression, reappraisal, and acceptance feedback from an unfamiliar friend. Research on self-focused emotion regulation suggests that suppression is the least effective strategy for effective emotion regulation, and that suppressing one's emotions can undermine social relationships (Gross & John, 2003; Srivastava, Tamir, McGonigal, John, & Gross, 2009). There is less research examining the social consequences of attempting to inhibit someone else's emotional expressions, but work by Gottman and Levenson (1992) suggests that undermining someone else's emotive behavior can have deleterious effects on relationships. Similarly, evidence from the attachment literature suggests people higher in attachment avoidance are more likely to endorse that they are uncomfortable with emotional intimacy, and unsurprisingly attachment avoidance is associated with reduced relational well-being (Brennan & Shaver, 1995; Meyers & Landsberger, 2002).

Similarly, self-directed reappraisal tends to be associated with better greater personal and social well-being (John & Gross, 2004), but less is known about how effectively reappraisal is employed in service of others. Bolger and colleagues (2000, 2007) discovered that people respond less favorably to more overt interpersonal support, and this suggests that people are likely more receptive to a support strategy like acceptance—which entails simply acknowledging someone's emotions without explicit attempts to change theses emotions. When directed at others, suppression has negative consequences for interpersonal relationships, and reappraisal has more positive associations for relationships (see Chapters 1 and 2). Still, this works suggests that the most positive benefits for social relationships tend to result from greater acceptance of others' emotions.

Therefore, I predicted that suppression would be received as an ineffective emotion regulation strategy, and also that it would be the most undermining and serve to elicit strong feelings of invalidation. I expected that reappraisal would be perceived as more effective than suppression for emotion regulation, but that the overt attempt to change emotions associated with reappraisal would be similarly invalidating as suppression. I expected acceptance would be received most favorably as feedback because it would not involve overt attempts to change emotions. Therefore, I expected it to produce the least amount of negative affect and invalidation. More specifically I hypothesized that of these three strategies—suppression, reappraisal, acceptance—suppression would produce the strongest negative feelings and invalidation. Reappraisal was expected to produce less negative feelings and invalidation than suppression, but acceptance was expected to produce the least negative feelings and invalidation.

Method.

Research ethics committee. The Committee for the Protection of Human Subjects at the University of California, Berkeley, approved all study procedures. All studies were approved under the "Personality and Emotion Survey" protocol (#2015–01-7025).

Participants. I recruited a total of 411 participants from Amazon's Mechanical Turk. Of these participants, I excluded 53 for failing any of my two attention checks. The final sample of 358 participants included 53% women; mean age was 36 (*SD* = 12.78). The major ethnic groups were 76% European-American, 10% Asian-American, 6% Latinx, 5% African-American, and 3% other/not reported. My sample size was determined by recommendations by Cohen (1992), which suggests 464 participants to achieve 80% power for a small effect size at an alpha of .01.

Experimental manipulation: Scenarios for three interpersonal emotion regulation strategies. I used a single-factor between-subjects design. Participants were randomly assigned to one of the three strategies: suppression, reappraisal, or acceptance. Participants were told to imagine they were having coffee with a new friend. I focused on a new friend in order to avoid people imagining what a specific close friend might say to them. Participants were asked to imagine a common situation student: they were having a difficult day and were feeling quite bad. They then imagined sitting with their friend while opening up and sharing their experiences and how bad they were feeling. After sharing their experience, participants were given one of three responses from this new friend.

My goal was to compare my findings directly to those obtained previously for other-directed suppression, reappraisal, and acceptance with the ERQ-O, that is, with the way these three constructs had previously been defined in empirical research. Thus, direct comparability to the ERQ-O measure was of greater importance here than the risk that the resulting text might appear a bit artificial or stilted. Thus, to create clear emotion-regulation messages that reflected only one strategy, I adapted 2 or 3 items from each of the three ERQ-O scales (Chapter 1), paraphrasing and combining them into a single coherent paragraph. The wording of each paragraph thus reflects closely the empirical definitions of one of the three constructs, and they are reprinted verbatim below:

> ***Suppression:*** *"You might want to keep these emotions to yourself. In general, it's not a good idea to show other people what you are feeling on the inside. I want to get you to find ways to keep yourself from expressing your feelings."*
>
> ***Reappraisal:*** *"You might want to change the way you're thinking about this situation that's making you emotional. In general, it helps people to think about situations in a way that calms them down. I want to get you to come up with alternative ways to think about whatever is making you emotional."*
>
> ***Acceptance (Control): "****You might want to know that I accept your feelings as they are; they are a natural response to your circumstances. People are going to have certain emotions at certain times. I am comfortable with your emotions, whatever they may be."*

Immediate open-ended responses. To further immerse participants in this situation, they were first asked to describe their immediate personal reactions to the feedback in their own words. Specifically, they wrote short open-ended responses to three questions: (a) How do you feel about yourself? (b) What do think were your friend's feelings and intentions in this situation? And (c) What do think about your relationship and its future potential?

Self-reported variables.

Ratings of commonness in the real word. Is this a natural kind of thing to say, or extremely unusual or unfamiliar? How common are these kinds of interpersonal messages in the

daily life of adults? To address these concerns about external validity, I also asked each participant:

“Hearing your friend's comments...”

"seemed like a common thing friends would say to each other."

Participants rated the item on a 7-point scale, with 1=Strongly disagree and 7=Strongly agree.

Mediator variable: Invalidation. Participants were asked to rate three items designed to assess feelings of invalidation in response to the feedback:

“Hearing my friend’s comments... “

(a) “…made me feel there was something wrong with my feelings”;

(b) “…made me feel like I cannot manage my feelings on my own;” and

(c) “…made me feel as if I needed help.”

Participants rated each item on a 7-point scale, with 1=”Disagree strongly” and 7=”Agree strongly.” The coefficient alpha reliability for this 3-item composite was .79.

Dependent variable: Feeling better. My main dependent variable was measured with two items that captured how positively or negatively participants felt after hearing their friend’s comments:

“... made me feel good about myself” (true-keyed), and

“...made me feel worse” (reversed-keyed).

Participants used a 7-point rating scale, with 1=”Disagree strongly” and 7=”Agree strongly.” The coefficient alpha reliability for this 2-item composite was .82.

Observer-coded variables based on open-ended responses. Two coders, who were blind both to the study design and my hypotheses, rated all the open-ended responses. The coders rated these responses for both of my key variables, Positive (vs. negative) affect and Invalidation.

The coders rated the extent to which participants described feeling invalidated, and validated, on two rating scales, with 1=Not at all invalidated (validated)/no evidence of invalidation (validation), 2=Somewhat invalidated (validated), 3=Quite invalidated (validated)). These two ratings were negatively and substantially correlated; thus, the *validation* item was reverse-scored and then averaged with the *invalidation* item to create an observer-coded *Invalidation* composite (α = .87).

Coders also rated the extent to which participants described positive and negative emotions, again using two items with 3-point rating scales: 1=Not at all positive (negative) or no evidence of positive (negative) affect; 2=Some; 3=Quite positive (negative) or clear evidence of positive (negative) affect). Again, I created a single composite positive affect score by averaging the positive affect item and the reverse-scored negative affect item; this index had an alpha reliability of .88, indicating substantial generalizability across the coders.

Results.

Self-reported variables.

Ratings of commonness in the real world. Suppression feedback was rated as the least common thing to say to a friend (M = 1.88, SD = 1.50), followed by acceptance (M = 3.31, SD = 1.96), and finally reappraisal (M = 3.88, SD = 1.84). All means were significantly different; just as in the self-report findings with the ERQ-O, suppression was considered relatively rare by the recipient, and considerably less common than either acceptance (Cohen's d = .83) or reappraisal (Cohen's d = 1.2). Interestingly, adults reported that reappraisal feedback was more common than acceptance, $t(237) = 2.31$, p = .022, Cohen's d = .30, but the difference was small.

In other words, these adult participants did not consider the wording of the reappraisal feedback unusual, inappropriate, or extreme. Thus, any differences between reappraisal and

acceptance that disfavors reappraisal cannot be explained by the rarity or unusualness of the reappraisal feedback used here.

Invalidation. As predicted, the three types of emotion regulatory feedback differed in how much invalidation they induced in the participants, $F(2, 355) = 17.68$, $p < .001$, partial $\eta^2 = .09$. Figure 2A shows that participants who had received suppression feedback (on the left) felt the most invalidation ($M = 4.0$, $SD = 1.90$, 95% CI [3.64, 4.31]). In contrast, those who had received acceptance feedback (on the right) experienced the least invalidation ($M = 2.72$, $SD = 1.61$, 95% CI [2.45, 3.02]). Those who had received reappraisal feedback fell in between ($M = 3.66$, $SD = 1.56$, 95% CI [3.38, 3.94]).

I had expected that suppression feedback would be experienced as much more invalidating than acceptance feedback, and the effect was indeed large (almost 3/4 of a standard deviation, with $d = .73$) and significant, $F(1, 238) = 30.37$, $p < .001$. Most important for the current theoretical concerns, however, I found that the reappraisal condition also elicited significantly more invalidation than the acceptance condition, with $d = .59$ indicating an effect size of more than half a standard deviation, $F(1, 237) = 20.74$, $p < .001$, partial $\eta^2 = .08$. In other words, when used as a strategy for interpersonal emotion regulation, reappraisal was significantly more costly than was acceptance: it made the recipient of the regulatory feedback feel invalidated.

Positive feelings. The three strategies of emotion-regulatory feedback also differed from each other in terms of their emotional consequences, as shown by an overall ANOAVA, $F(2, 355) = 78.53$, $p < .001$, partial $\eta^2 = .31$. Participants who received the suppression feedback clearly felt the worst ($M = 2.21$, $SD = 1.40$, 95% CI [1.92, 2.50]); those who received reappraisal feedback felt just a bit more positive than negative (i.e., just above the scale mid-point of 4, with $M = 4.25$, $SD = 1.78$, 95% CI [3.92, 4.59]), $F(1, 235) = 95.83$, $p < .001$, partial $\eta^2 = .29$); and those who received acceptance feedback felt the best ($M = 4.80$, $SD = 1.84$, 95% CI [4.48, 5.13]). Again, the critical difference between acceptance and reappraisal was significant, $F(1, 237) = 5.63$, $p = .02$, partial $\eta^2 = .02$; see Figure 2B).

Observer-coded variables. The findings with the structured rating scales were clear. Would the same patterns emerge in the spontaneous open-ended responses of the participants that I collected unobtrusively prior to the structured rating tasks? I now report findings for the variables coded independently from the open-ended materials.

Invalidation. Figure 3A shows that I replicated the pattern of findings from the structured variables: even though they were not explicitly prompted, participants in the three emotion-regulatory feedback conditions spontaneously mentioned differing levels of invalidation in their open-ended reactions, $F(2, 354) = 86.61$, $p < .001$, partial $\eta^2 = .33$. On the 1-3 rating scale used by the coders, participants who received suppression feedback felt the most invalidation ($M = 2.69$, $SD = .30$, 95% CI [2.60, 2.77]), followed by reappraisal feedback ($M = 2.09$, $SD = .59$, 95% CI [2.01, 2.18], and then acceptance feedback with the least invalidation ($M = 1.77$, $SD = .68$, 95% CI [1.67, 1.86]). All three groups differed from each other significantly; again, acceptance was less invalidating than either suppression, $F(1, 238) = 182.85$, $p < .001$, partial $\eta^2 = .43$, or reappraisal, $F(1, 236) = 15.43$, $p < .001$, partial $\eta^2 = .06$).

Positive feelings. As predicted, there was a significant difference between the three types of emotion regulatory feedback in terms of their emotional consequences, as shown by an overall ANOAVA, $F(2, 354) = 53.35$, $p < .001$, partial $\eta^2 = .23$ (see Figure 3B). Participants reported feeling the worst when receiving suppression feedback ($M = 1.33$, $SD = .38$, 95% CI [1.24, 1.42]) than reappraisal feedback ($M = 1.78$, $SD = .60$, 95% CI [1.69, 1.87]), $F(1, 234) = 47.91$, p

< .001, partial η^2 = .17. Participants felt the best when receiving acceptance feedback (*M* = 2.08, *SD* = .69, 95% CI [1.99, 2.18]), which was significantly better than participants who received suppression feedback, $F(1, 238) = 111.35$, $p < .001$, partial $\eta^2 = .32$, and reappraisal feedback, $F(1, 236) = 13.21$, $p < .001$, partial $\eta^2 = .05$.

Mediation analyses: Invalidation as a potential mediator. I created a dummy-coded *strategy* variable for the acceptance and reappraisal conditions (acceptance=0, reappraisal=1) and tested the association between this variable and positive affect and invalidation. Reappraisal was associated with less self-reported positive affect ($r = –.15$, $p<.05$) and had a greater association with self-reported invalidation ($r = .28$, $p<.001$; see Table 2). Note that these correlations were significantly greater than zero. Further meeting the basic requirements for mediation for participants within these two conditions, self-reported positive affect and invalidation were negatively associated ($r = –.48$, $p< .001$). Next, I used the procedure developed by Preacher and Hayes (2008) to bootstrap the indirect effect of strategy on positive affect through invalidation as a mediator. As expected, invalidation did mediate the link between my dummy-coded strategy variable and positive affect. The indirect effect of invalidation suggests that it fully mediated the effect of strategy on invalidation (95% CI = -.79 to -.27; see Figure 4).[2]

Discussion. In summary, participants reacted most negatively to suppression comments and most positively to acceptance comments. Reappraisal, typically seen as beneficial for well-being in the self-regulation domain, was somewhere between suppression and acceptance.

Still, in day-to-day life I expect that people would not necessarily adhere rigidly to just one strategy to influence another person. It is likely that a person would attempt multiple strategies based on which might seem more effective. In addition, my sample in Study 1 consistent of participants who were on average from middle adulthood (*M* = 36, *SD*=12.78) and who may be accustomed to different emotional interactions than their younger counterparts (Carstensen, Fung, Charles, 2003). Study 2 sought to replicate the differences between reappraisal and acceptance in a younger sample. I also sought to examine how the use of two strategies may further affect how participants react.

Study 2

My goal in study two was to replicate Study 1. For this study, because suppression was strongly negative relative to both reappraisal and acceptance, I chose to focus my analyses on a comparison between reappraisal and acceptance. I also wanted to examine whether these strategies would affect social perceptions of the person conducting the regulation. I predicted that reappraisal would have social consequences such that a person providing reappraisal would be seen as less likeable and as having less close relationships. Further, I hypothesized that this link would be mediated by how invalidated a person felt in response to reappraisal.

Method.

Participants. My final sample was 247 undergraduate participants, after excluding 114 participants who failed any of my three attention checks. This sample included 71% women; mean age was 21.64 (*SD* = 4.13). The major ethnic groups were 22% European-American, 51% Asian-American, 8% Latinx, 1% African-American, and 18% other/not reported.

Procedure. The study was a 2 (Strategy: reappraisal, acceptance) X 2 (Order) fully within-subjects factors design. The procedure was nearly identical to Study 1 with a few exceptions. First, because I was primarily concerned with the comparison between reappraisal and acceptance, suppression was not included as a comparison strategy. Second, I wanted to more closely examine whether a direct comparison of these strategies would produce the same effects. That is, I used a within-subjects design in which participants were exposed to both

strategies. Participants were told to imagine they were receiving each type of emotion regulatory advice from two separate friends. The presentation of the strategies was counterbalanced.

Just as in Study 1, participants were asked to rate how they would react upon hearing their friend's comments. To measure commonness of experience, I used the same item as I did in Study 1. I assessed emotional and relational outcomes. Feeling better was measured with the same two items as in Study 1 (α = .78). The new relational outcome variable, Closeness, was measured with two items ("…made me like them more." And "…made us feel closer to each other."); alpha for the composite was .89. As in Study 1, the proposed mediator was again invalidation, measured with the same 3 items as in Study 1 (α = .84). Participants completed all ratings on a scale ranging from 1=strongly disagree to 7=strongly agree; items were randomized for each subject within a set of filler items to avoid suspicion about hypotheses.

Results.

I submitted my dependent variables to a series of 2(strategy: reappraisal vs. acceptance) X 2(Timing: first vs. second) mixed models, with a random effect of participant.

Ratings of commonness in the real world. Once again, I found that reappraisal (M = 4.04 SD = 1.66) feedback was not considered less common than acceptance feedback (M = 4.24 SD = 1.64), $F(1, 490) = 1.79$, $p = .19$. Similar to Study 1, this suggests that student participants did not consider the wording of the reappraisal feedback unusual, inappropriate, or extreme.

Positive feelings. Replicating Study 1, there was a significant difference between the two types of emotion regulatory feedback, $F(1, 490) = 105.45$, $p < .001$, partial $\eta^2 = .18$, such that participants predicted they would feel worse when receiving reappraisal advice (M = 3.72, SD = 1.51, 95% CI [3.54, 3.90]) than acceptance (see Figure 5B). There was also a significant effect of time, where participants reported feeling more positive at time 2 (M = 4.57, SD = 1.62, 95% CI [4.39, 4.75]) than at time 1 (M = 4.18, SD = 1.51, 95% CI [4.01, 4.36]), $F(1, 490) = 9.21$, $p <$ .001, partial $\eta^2 = .02$. However, there was no significant interaction between strategy and time, $F(1, 490) = 2.09$, $p = .15$, partial $\eta^2 = .004$.

Closeness. As predicted, I observed a main effect of strategy such that participants receiving reappraisal advice (M = 3.81, SD = 1.63, 95% CI [3.62, 4.02]) felt significantly less close to their advice-bearer than participants receiving acceptance advice (M = 4.70, SD = 1.53, 95% CI [4.51, 4.89]), $F(1, 489) = 38.49$, $p < .001$, partial $\eta^2 = .07$ (see Figure 5C). There was a main effect of time, $F(1, 489) = 4.95$, $p = .027$, partial $\eta^2 = .01$, but there was no significant an interaction between strategy and time ($F(1, 489) = 3.20$, $p = .07$, partial $\eta^2 = .01$).

Invalidation. Replicating the effect in Study 1, I found that strategy significantly predicted the extent to which participants felt invalidated. Overall, participants receiving reappraisal advice predicted they would feel more invalidated (M = 4.23, SD = 1.52, 95% CI [4.04, 4.41]) than participants receiving acceptance advice (M = 2.72, SD = 1.27, 95% CI [2.56, 2.89]), $F(1, 489) = 141.82$, $p < .001$ (see Figure 5A). There was a main effect of time, $F(1, 489) = 6.93$, $p = .009$, but again there was no significant strategy by time interaction ($F(1, 489) = 1.35$, $p = .25$).

Invalidation as a mediator. I next wanted to test whether the link between reappraisal and reduced closeness to the advice-bearer would be mediated by feelings of invalidation. Feeling invalidated as a result of a friend's advice is likely to lead to diminished social bonds because emotional support and understanding are strong components of building relationships. I created a dummy-coded strategy variable of the acceptance and reappraisal conditions (acceptance=0, reappraisal=1) and tested the association between this variable and invalidation and closeness. Reappraisal had a stronger association with invalidation (r =.48, $p < .01$) and

acceptance had a stronger association with closeness (r = -.27, p < .01; see Table 3). Note that these correlations were significantly greater than zero. Further meeting the basic requirements for mediation for participants within these two conditions, self-reported invalidation and closeness were negatively associated (r = –.50, p < .01). I conducted bootstrapping analyses (Preacher & Hayes, 2008) to test the degree to which the effect of reappraisal on closeness was mediated by feelings of invalidation. As predicted, the 95% bias-corrected confidence interval supported that invalidation mediated the relationship between reappraisal advice and diminished closeness (-.97, -.58; see Figure 6).

Discussion. In summary, I was able to replicate the invalidation effect from Study 1. I also showed that feelings of invalidation mediated the relationship between reappraisal advice and closeness to the advice-bearer. Once again people felt more invalidated when receiving reappraisal advice, as opposed to acceptance advice, further supporting that attempts to influence the emotions of another person may instead undermine this cause. Participants felt less invalidated in response to acceptance advice; they were also more likely to perceive greater closeness to the advice-bearer.

Study 3

In the present study the regulatory feedback was provided by the same regulator, but the order in which the regulator gave reappraisal and acceptance was counterbalanced. I examined the overall reactions to the regulator's comments, and not the reactions to each particular strategy. I preregistered that I would see a difference in reactions to the regulator depending on which strategy was presented first, such that I expected participants to report less negative affect, less invalidation, and better social closeness when receiving acceptance advice before reappraisal than vice versa.

Method.

Participants. My final sample was 216 undergraduate participants, after excluding 76 participants who failed any of my three attention checks. This sample included 71% women; mean age was 20.52 (SD = 1.90). The major ethnic groups were 28% European-American, 55% Asian-American, 9% Latinx, 1% African-American, and 7% other/not reported.

Procedure. Participants were randomly assigned to one of two regulator conditions (Acceptance 1st/Reappraisal 2nd vs. Reappraisal 1st /Acceptance 2nd). The procedure was nearly identical to Study 2 with a few exceptions. To ensure participants were used to the procedure before making their emotion regulatory ratings, I first had them imagine interacting with a different friend about a neutral topic. Participants were asked to imagine a scenario in which their friend complimented their choice in movies and TV show. All participants first provided responses to the following instructions, "You have lunch with a friend and you discover you both like the same shows on Netflix. Your friend then compliments your taste in TV shows and suggests another you might like." After rating their responses to this initial scenario, they then proceed to the emotion regulatory feedback. Participants were told to imagine they were receiving each type of emotion regulatory advice from the same friend. The presentation of the strategies was counterbalanced across condition.

Participants were asked once after hearing both strategies to provide their reactions. Once again, I assessed emotional and social outcomes separately. The positive emotional outcome was measured with the same two items as in Study 2 (α = .77). The social outcome variable, closeness, was measured with the same two items from Study 2; alpha of the composite was .92. As in Study 2, the proposed mediator was again invalidation, measured with the same 3 items as in Study 2 (α = .82). Participants completed all ratings on a scale from 1 (strongly disagree) to 7

(strongly agree); items were randomized for each subject within a set of filler items to avoid suspicion about hypotheses.

Results. As preregistered, I controlled for individual differences in scale responding by creating a difference score with the relevant dependent variable from the Netflix control portion. I did this for all of my dependent variables. The results did not change whether or not I included the covariate.[3] Correlations are presented in Table 4.

Positive feelings. Participants did not differ in their overall affective responses depending on which strategy came first. There was no significant difference between the two types of emotion regulatory feedback conditions, $F(1, 214) = .006$, $p = .94$, partial $\eta^2 = .000$. Participants did not differ in their level of positive feelings in response to receiving acceptance first ($M = -1.88$, $SD = 1.67$, 95% CI [-2.21, -1.56]) compared to receiving reappraisal first ($M = 1.87$, $SD = 1.71$, 95% CI [-2.18, -1.55]).

Invalidation. Participants did not experience greater validation when either strategy came first. Once again there was no significant difference between the two types of emotion regulatory feedback conditions, $F(1, 214) = .098$, $p = .76$, partial $\eta^2 = .000$. Participants did not differ in their level of invalidation in response to receiving acceptance first ($M = 2.32$, $SD = 1.58$, 95% CI [2.01, 2.63]) compared to receiving reappraisal first ($M = 2.25$, $SD = 1.59$, 95% CI [1.96, 2.55]).

Closeness. Whether participants experienced more closeness to the regulator did not differ as a function of which strategy came first. There was no significant difference between the two types of emotion regulatory feedback conditions, $F(1, 214) = 3.16$, $p = .08$, partial $\eta^2 = .015$. Participants did not differ in their closeness in response to receiving acceptance first ($M = -1.25$, $SD = 2.02$, 95% CI [-1.62, -.89]) compared to receiving reappraisal first ($M = -.80$, $SD = 1.71$, 95% CI [-1.15, -.46]).

Discussion. Although my original hypothesis was that the order in which the same regulator presented both strategies would affect a recipient's response, the null results for each of my three dependent variables suggests that this was not the case. Taken together with findings from Study 2, this suggests that participants are more sensitive to the specific strategy being used rather than the progression of strategies. That is, people responded to the strategy independent of the order in which it was presented.

This suggests that some combination of reappraisal and acceptance, in an interpersonal emotion regulation context, may prove less effective than simply using acceptance outright. The results suggest that in the context of a relatively new friendship, the type of advice people receive may change how they feel not only about themselves, but also about their friend. One reason this might occur is because attempts to change someone's emotions can be seen as invasive for someone lacking relational capital. That is, people may react more strongly to a new friend because it is perceived that this friend lacks either the insights of an established friend or someone in a position of authority. I hoped to address this in my next study by examining how these strategies might function in a different relational context. The goal of my next study was to examine these strategies in a relatively formal social context, but that would allow me to vary social capital by hierarchy. Social hierarchy is often established in long-term relationships and can influence emotional change (Anderson, Keltner, & John, 2003), so it is likely to play a role in interpersonal emotion regulation.

Study 4 (Hierarchy; Moderation by social context)

My goal in this study was to extend findings into a different relationship domain, work relationships. This experiment allowed me to extend findings to a relationship domain that has analogous factors as my previous experiments (precarious, slightly more formal, not strongly

established close relationships), but work relationships are still qualitatively different from new friendships. Work relationships have the distinction of being somewhat formal because of clear display rules and interaction norms. This new context also allows me the opportunity to examine another important social factor, power. Research suggests people make more of an effort to change their emotions to reflect those of someone who is higher in status (Anderson, Keltner, & John, 2003). Therefore, I predicted that people would feel more invalidated when receiving reappraisal feedback than when receiving acceptance feedback, regardless of the status of the advice-bearer. I also predicted an interaction between strategy and status on closeness, such that reappraisal would be associated with less closeness when coming from someone of the same status than when coming from someone of higher status. Because I expected that only advice coming from the same-status advice-bearer would influence closeness, I expected invalidation would mediate the relationship between reappraisal and closeness only when regulators were the same status as the participant.

Method.

Participants. My final sample size was 221 after eliminating 32 participants that failed any of my two attention checks. I recruited participants from Amazon's Mechanical Turk. The final sample included 45.7% women; mean age was 36 (*SD* = 11.46). The major ethnic groups were 61 % European-American, 26% Asian-American, 4% Latinx, 5% African-American, and 4% other/not reported.

Procedure.

My full study design was 2 (Status: Supervisor vs. Coworker) X 4 (Strategy: Suppression, Reappraisal, Acceptance, Meta-Acceptance), but I only focused on two cells. Thus, my analyses focused on a 2 (Status: Supervisor vs. Coworker) X 2 (Strategy: Reappraisal, Acceptance) between-subjects design. The study procedures were almost identical to Study 1, which some exceptions. First, instead of being told to imagine having lunch with a friend, participant were either told to imagine have lunch with a coworker or supervisor. Coworkers were meant to simulate someone of the same status background, while supervisors were meant to simulate someone from a higher status. For closeness ratings, I used the same items from the previous two studies.

Results.

Closeness. As predicted, I observed a significant strategy by power interaction ($F(1, 217) = 4.65$, $p = .03$, partial $\eta^2 = .02$. There was a significant difference in closeness to the advice-bearer when participants were receiving reappraisal advice from a coworker ($M = 3.77$, $SD = 2.09$, 95% CI [3.26, 4.28]) compared to when they were receiving reappraisal advice from a supervisor ($M = 4.65$, $SD = 1.76$, 95% CI [4.16, 5.12]), $F(110) = 5.77$, $p = .02$, partial $\eta^2 = .05$ (see Figure 7). There was no significant difference in closeness to the advice-bearer when participants were receiving acceptance advice from a coworker ($M = 4.64$, $SD = 1.97$, 95% CI [4.07, 5.16]) compared to when they were receiving acceptance advice from a supervisor ($M = 4.40$, $SD = 1.88$, 95% CI [3.97, 4.87], $F(109) = .43$, $p = .52$, partial $\eta^2 = .004$). There was no significant main effect of strategy; overall participants receiving reappraisal advice ($M = 4.19$, $SD = 1.98$, 95% CI [3.82, 4.55]) felt equally close to their advice-bearer as participants receiving acceptance advice ($M = 4.50$, $SD = 1.91$, 95% CI [4.15, 4.85], $F(1, 217) = 1.40$, $p = .24$, partial $\eta^2 = .01$). There was also no main effect of status, such that overall participants receiving advice from a coworker ($M = 4.16$, $SD = 2.07$, 95% CI [3.79, 4.55]) felt equally close to their advice-bearer as participants receiving advice from a supervisor ($M = 4.51$, $SD = 1.82$, 95% CI [4.17, 4.85], $F(1, 217) = 1.52$, $p = .22$, partial $\eta^2 = .01$).

Invalidation. Overall, participants receiving reappraisal advice predicted they would feel more invalidated (M = 3.80, SD = 1.60, 95% CI 95% [3.49, 4.11]) than participants receiving acceptance advice (M = 3.02, SD=1.57, 95% CI [2.73, 3.30], $F(1, 217) = 13.74$, $p < .001$, partial $\eta^2 = .06$). There was no significant difference for invalidation between advice coming from a coworker (M = 3.38, SD = 1.65, 95% CI [3.07, 3.67]) and advice coming from a supervisor (M = 3.44, SD = 1.61, 95% CI [3.15, 3.74]), $F(1, 217) = .44$, $p = .51$, partial $\eta^2 = .002$ (see Figure 7). There was also no significant strategy by status interaction ($F(1, 217) = .03$, $p = .86$, partial $\eta^2 = .00$). Participants who received acceptance advice from a coworker (M = 2.96, SD = 1.51, 95% CI [2.53, 3.38]) predicted they would experience no significantly different invalidation than participants who received acceptance advice from their supervisor, M = 3.06, SD = 1.63, 95 % CI [2.63, 3.49], $F(108) = .12$, $p = .73$, partial $\eta^2 = .001$. Similarly, there was no significant difference for invalidation between reappraisal from a coworker (M = 3.72, SD = 1.70, 95% CI[3.30, 4.15]) and reappraisal from a supervisor (M = 3.90, SD = 1.49, 95% CI [3.53, 4.27]), $F(109) = .35$, $p = .55$.

Mediation. I was interested in replicating the mediation effect from Study 2. I wanted to test whether the same meditational link was present for people at equal status level (those participants in coworker condition). I wanted to test whether the link between reappraisal and reduced closeness to a coworker would be mediated by feelings of invalidation. Feeling invalidated as a result of a coworker's advice is likely to lead to the same diminished social closeness as in study 2 because coworker relationships are often precarious and more formal, and coworkers are at the same status level. I created a dummy-coded strategy variable of the acceptance and reappraisal conditions (acceptance=0, reappraisal=1) and tested the association between this variable and invalidation and closeness. Reappraisal had a stronger association with invalidation (r = .23, $p < .05$) and acceptance had a stronger association with closeness (r = -.21, $p < .01$). Note that these correlations were significantly greater than zero. Further meeting the basic requirements for mediation for participants within these two conditions, self-reported invalidation and liking were negatively associated ($r = –.22$, $p < .01$). As predicted, the feelings of invalidation generated from reappraisal advice significantly mediated reappraisal's relationship with diminished closeness (95% confidence interval -.60, -.01; see Figure 8B).

General Discussion

In trying times, how someone is made to feel by another person can strain or bolster a relationship. A person tasked with helping someone through emotional distress is likely to experience difficulty choosing the optimal response. Someone lacking the psychological resources to listen patiently to their friend might instead act hastily to suppress their friend's emotions, but doing so carries negative consequences for their relationship. A person in a better state may decide instead to reappraise a stressor. As shown in Study 1, doing so no doubt carries greater benefits than stifling a friend's emotions, but reappraisal, when compared to acceptance, can have the unintended consequence of dampening positive emotions of a recipient.

I show that diminished positive emotions (Study 1) and relationship closeness (Studies 2 and 4) occur when strategies are perceived as more invalidating. Of the strategies I examined, suppression tended to produce the strongest feelings of invalidation, followed by reappraisal and then acceptance. I found that a person that is the recipient of suppression experienced negative effects similar to those experienced by someone using suppression on themselves. For example, when someone suppresses their own emotional expressions, they tend to experience more feelings of inauthenticity (English & John, 2013). While my effects for suppression are in line with findings in the self domain, what is most surprising is the finding that reappraisal tended to

produce greater feelings of invalidation than acceptance. The tendency to use reappraisal to regulate one's own emotions has typically been associated with overall greater well-being (Gross & John, 2003).

The impact of a strategy can differ according to the preexisting nature of the relationship. In Study 4 the perceived power of a regulator affected how detrimentally invalidation impacted a relationship. Invalidation mediated the effect of reappraisal on closeness to a same-status regulator (coworker), but not for a high status regulator (supervisor), because supervisors did not receive the same decrement to their closeness with the participant. This was consistent with other research suggesting that people are more likely to change their emotions in the direction of someone higher in power (Anderson, Keltner, & John, 2003).

Limitations. In my studies I found that a person's reaction to a specific regulation strategy can impact their feelings and fledging relationships. By using hypothetical scenarios I was able to standardize the type of information recipients received, and I was able to use language similar to what has been used in the existing emotion regulation literature. I was concerned with whether people would find these scenarios meaningful and whether they would actively engage with them. Therefore, as an added step to engage my participants, I included an open-ended response format where I asked participants for quantitative ratings. Word counts were similar across strategy conditions, and examining these responses made it clear that the strategy prompts were not obscure messages with which participants were unfamiliar (see Table 1). As shown in Study 1 I saw a replication of my findings in open-ended responses.

While these strategies in isolation may in fact produce feelings of invalidation, people in real time interactions often try to help others more flexibly. The wording of my scenarios was derived to mimic as closely as possible the wording from the ERQ-O to adhere to the language used in most emotion regulation research. This allowed me a stronger comparison to the existing literature in exchange for a reduction in ecological validity. In everyday interactions helpers are likely to adapt their approach through trial and error until they recognize a successful approach.

One concern is that my findings were driven by the norms of a specific age group or people from a particular cultural background. That I examined these strategies in a younger, more diverse student sample, as well as an older MTurk sample, and still replicated my findings addresses some of those concerns. Although my undergraduate sample was more diverse than the MTurk sample, the majority of my participants either came from white or Asian backgrounds. It is possible that other cultural norms—like the receptiveness associated with simpatía for Latinos—could affect the impact of these strategies.

Another limitation of my design was that I focused on fledging relationships with a hypothetical other. I focused on fledging relationships intentionally to avoid the possibility that reactions to these strategies would be overridden by longstanding patterns of interactions with a well-known other. A parallel design could explore these same strategies in a real time, naturalistic interaction, or an interaction where a confederate uses these strategies. The benefit of a naturalistic interaction is that I could examine more accurately how people use these strategies, but such a design would sacrifice the rigor of a tightly controlled experiment. A useful compromise between the scenario approach and a naturalistic design is to examine the use of these strategies with a confederate. Doing so would help to illustrate how people react to these strategies in real time, but an important limitation to consider is that these reactions would not influence a fledging relationship.

In addition to examining different relationship contexts, future studies can bolster the ecological validity of this work by examining the frequency of these strategies in a real time

dyadic interaction. By using a dyadic paradigm researchers can gain insight about the degree to which people cycle through different strategies naturally. Researchers might also consider examining other strategies people use naturally during a face-to-face interaction and the frequency with which certain strategies are used. These are all goals that may be better explored by using a more naturalistic dyadic interaction.

A notable pattern in the data was the variation of the closeness variable that might be explained by individual differences of the recipient. The pattern indicated that for each strategy people were either likely to really enjoy the regulation feedback or be deterred. For example, even for acceptance some participants really enjoyed the feedback while others were less enthusiastic. In the case of suppression, participants were likely to either interpret the feedback as honest and direct or harsh and uncaring. A possible explanation is that individual differences, such as neuroticism, might play a role in how recipients interpret regulatory feedback. Future research should explore the effect of individual differences in the recipient and the effect of these individual differences on the reception of regulatory feedback.

Implications and future directions. Expectations are in part what drive the invalidation observed by Bolger and Amarel (2007). People hold expectations about how others will view them, and when these are undermined people react negatively. A skilled regulator recognizes this need for validation, and discovers how to best lead someone to discover in themselves the feedback a target needs. Therapists are highly trained to do this, but in friendships contexts few people have the tact necessary to communicate reappraisal without undermining their friend. Friends also have the freedom to use on occasion strategies that are not helpful, like suppression. However, over time successful friendships grow to be equitable about emotional support. Friends can develop a sense of reciprocity, where they feel impelled to provide some kind of clear directive in response to a friend's problem. But as my studies illustrate, it is sometimes better to simply allow friends to emote. There is an inherent conflict between wanting to just accept, and at the same time feeling as if there is a need for critical feedback.

A reason to expect reappraisal and acceptance might be implemented as successful regulation strategies is that they are analogous to successful practices in some clinical approaches, such as Cognitive Behavioral Therapy (CBT) and Humanism, respectively. Reappraisal and CBT both involve reframing an event to change its emotion-eliciting impact. Similarly, humanistic therapy emphasizes an accepting, nonjudgmental climate. Many of these clinical practices are widely known and so it is likely people may use them in day-to-day interactions. Therefore, better understanding how people engage with these strategies in day-to-day life can inform clinical practice by creating an understanding of how these strategies can foster better interpersonal relationships and social support. In addition, it is likely people learning these techniques in clinical settings might implement them in their own lives, so understanding how others react to these strategies can help to inform both clinical and interpersonal relationships. Ultimately a future goal should include conducting a longitudinal study to assess whether other regulation strategies are connected with long-term relationships success. For example, it might be helpful to examine roommates at the beginning of the year and predict to outcome of whether they stay roommates.

The complexity of interpersonal interactions creates a need for flexibility in helping behavior, so it would be implausible to examine every approach a person might use during a regulatory episode. My studies are limited by their focus on only a few strategies, but it is just as likely another strategy might be used during a regulatory episode (e.g., distraction, touch). In addition, recipients of helping behavior often approach others with expectations about how they

would like to be helped. Rime (2007) discussed several reasons people may share their emotions with another person, including venting and seeking clarification and meaning. The former likely lends itself better to acceptance and the latter to reappraisal. Expectations are likely to play a significant role in the effectiveness of these strategies, and if a regulator can tailor their efforts to these expectations the result may be a more constructive interaction. Though my studies here do not address expectations explicitly, I believe future research can address the role of expectations by using my scenario paradigm to give participants specific goals during a regulatory episode. This approach would allow me to examine the effectiveness of a strategy according to how well calibrated it is to a recipient's expectations.

Future research should also examine the impact of these strategies across different relationship contexts. Evidence from Study 4 makes it easy to imagine that other relationship contexts are likely to affect the impact of these strategies. People receiving help from a partner may feel that their partner understands what is most helpful, and therefore may not be as negatively impacted by feeling momentarily invalidated. Alternatively, it is less likely someone may feel stronger invalidation when a strategy comes from a romantic partner since romantic partners are often prominent support figures.

Although people can take a number of approaches to helping others, choosing a fruitful approach can have a lasting impact on relationships. For now, acceptance seems to be most useful for avoiding feelings of invalidation.

Conclusion

I examined the role of three interpersonal emotion regulation strategies. Across multiple methodologies, I found that evidence that suppression was consistently bad for relationships, and acceptance was consistently beneficial for relationships. Reappraisal had mixed results. Although regulators tended to think reappraisal carried benefits for their relationships, my experimental work suggested it may carry unintended consequences for the recipient. What is clear is that these strategies play an important role in managing social life.

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Footnotes

Chapter 2

1. I included a fourth condition involving meta-acceptance (*N*=122), but I found it was rarely used by the participants (49.2% failed to meet my prototypicality for threshold). Because of the emphasis on the three major strategies in previous research, I omitted meta-acceptance from the present analyses.

Chapter 3

1. I conducted power analyses to assure sufficiently large sample sizes across Studies 1-4. I conservatively assumed a small (*d* = .20) to medium effect size (d = .50) for all of my dependent variables when comparing between reappraisal and acceptance. To detect this effect size with a power of .80 requires a sample size of 393 and 64 (Cohen, 1992). All samples surpass this guideline.

2. I also ran the reverse mediation, testing whether positive affect mediated the link between strategy and invalidation. The mediation analysis showed a partial mediation, but one that was not complete.

3. I preregistered a secondary analysis using scores from the Netflix control a covariates, rather than creating difference scores. The results were the same with the exception of the social variable, which showed a significant difference between the conditions. Participants in the acceptance first condition reported less liking (*M*=4.21, *SD*=1.66, 95% CI [3.89, 4.53]) than participants in the reappraisal first condition (*M*=4.70, *SD*=1.65, 95% CI [4.39, 5.01]), F (1, 213) = 4.72, *p*=03, partial η^2=02. Still, since my primary analysis did not work and I interpret this significant finding with caution.

Figures

Chapter 1

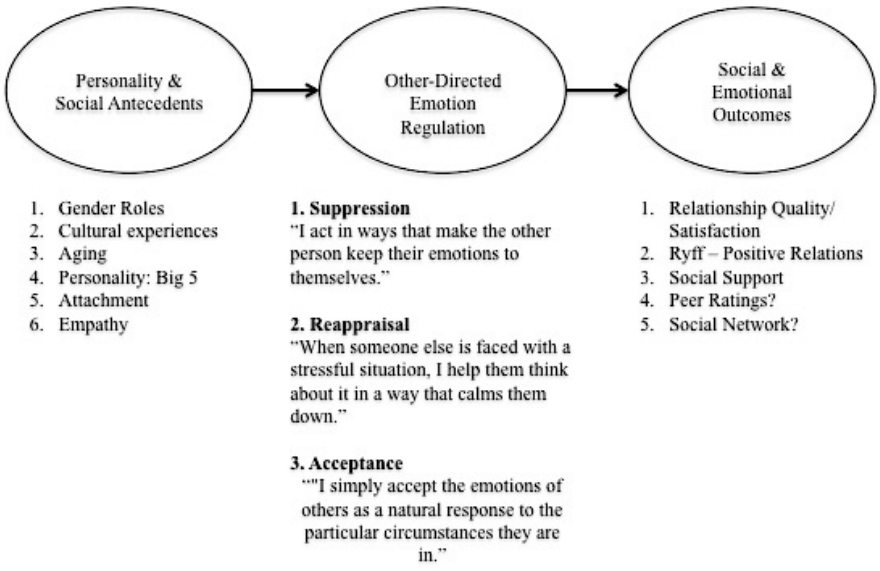


Figure 1. Overview.

Figure 1. Overview of the study procedures.

Chapter 2

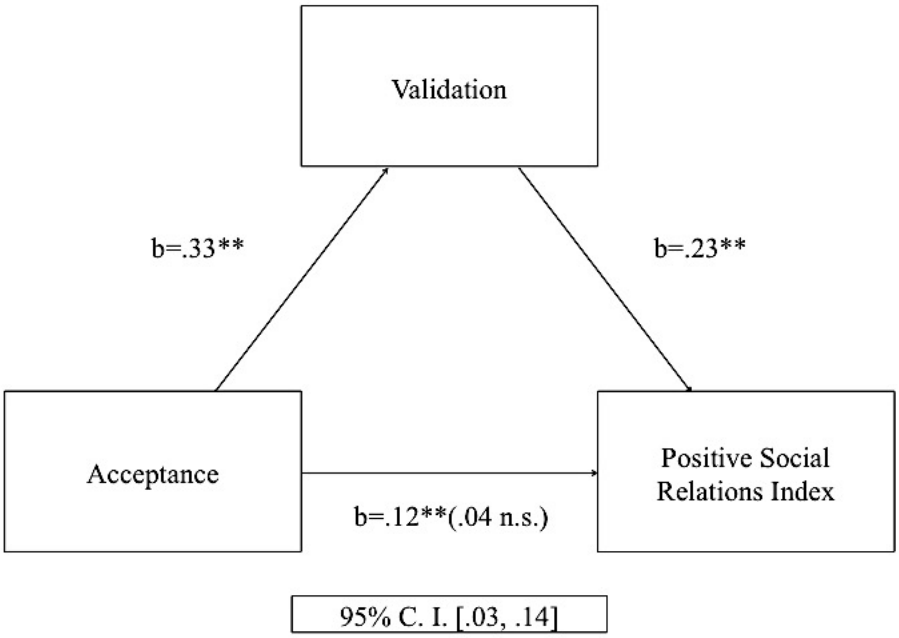


Figure XX. Mediation analysis of acceptance predicting positive social relations.

Chapter 3

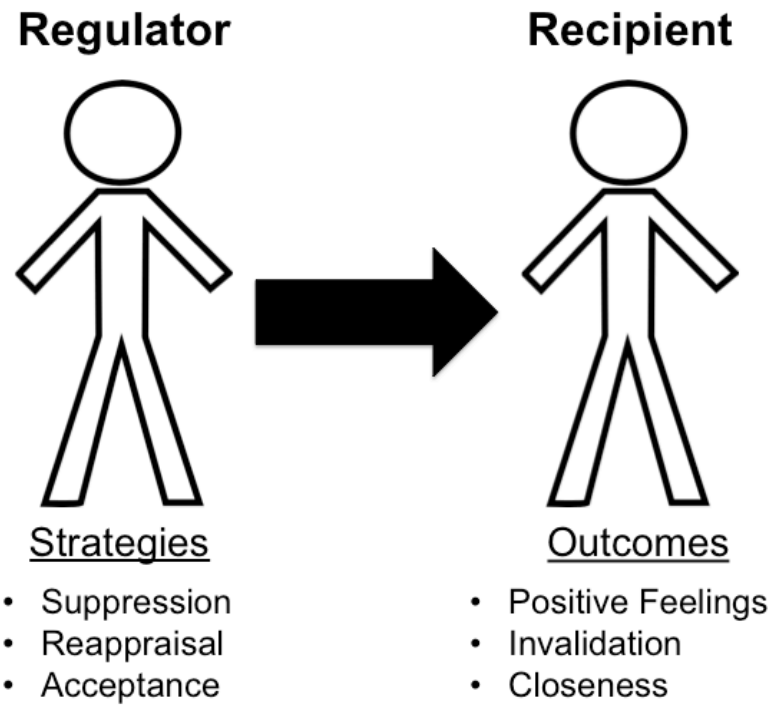


Figure 1. Regulators have at their disposal various strategies with an aim towards changing the emotions of a recipient. These strategies can change emotions, but can influence the degree to which recipients feel invalidated and close to the regulator.

(A) (B)

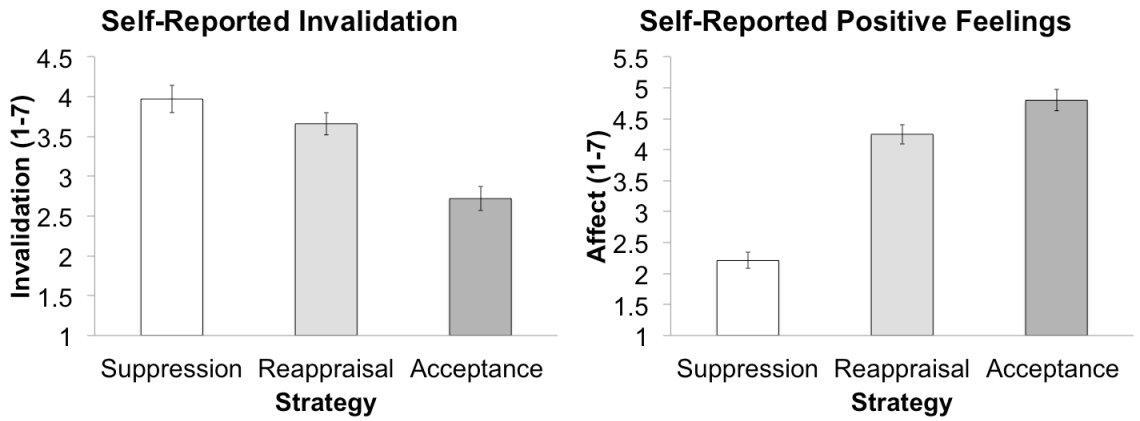


Figure 2. Means (and error bars) for self-reported positive affect and for invalidation in Study 1: Between-subject design where either Suppression, Reappraisal, or Acceptance feedback was administered (total *N*=411). All error bars reflect ±1 standard error from the mean.

(A) (B)

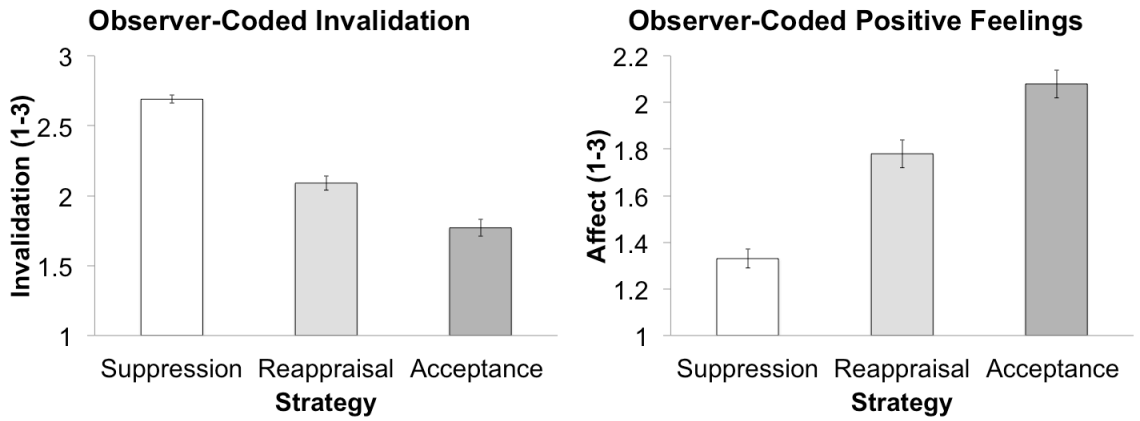


Figure 3. Study 1 means for observer coded affect and invalidation. All error bars reflect ±1 standard error from the mean.

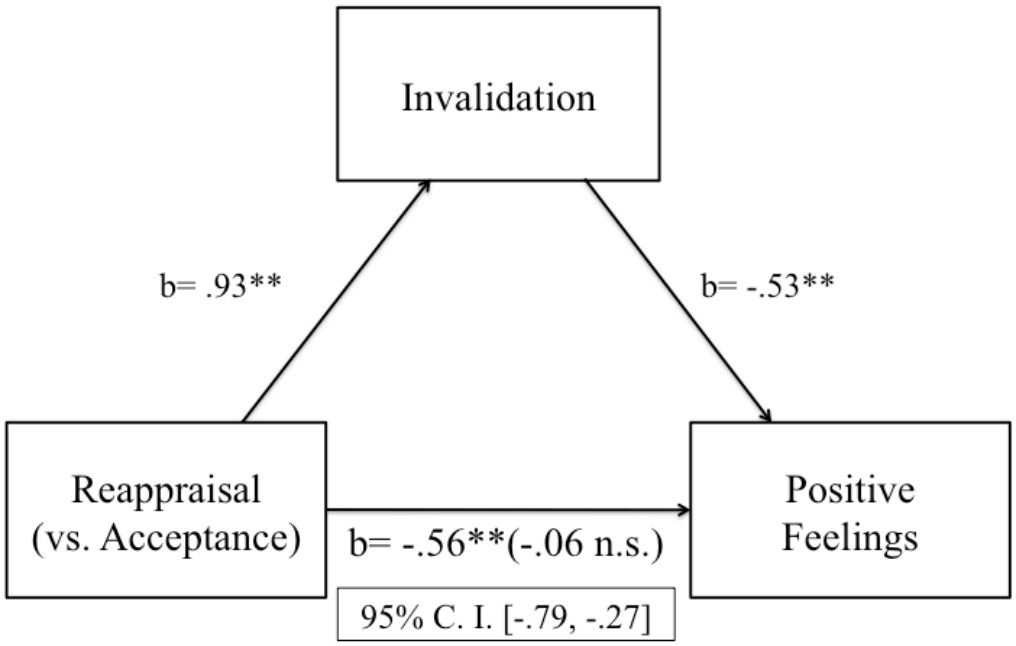


Figure 4. Study 1 mediation for self-reported variables. Reappraisal vs. acceptance was manipulated and positive emotional outcome was significantly associated invalidation. The relationship between reappraisal and decreased positive emotional outcome was mediated by increased invalidation.

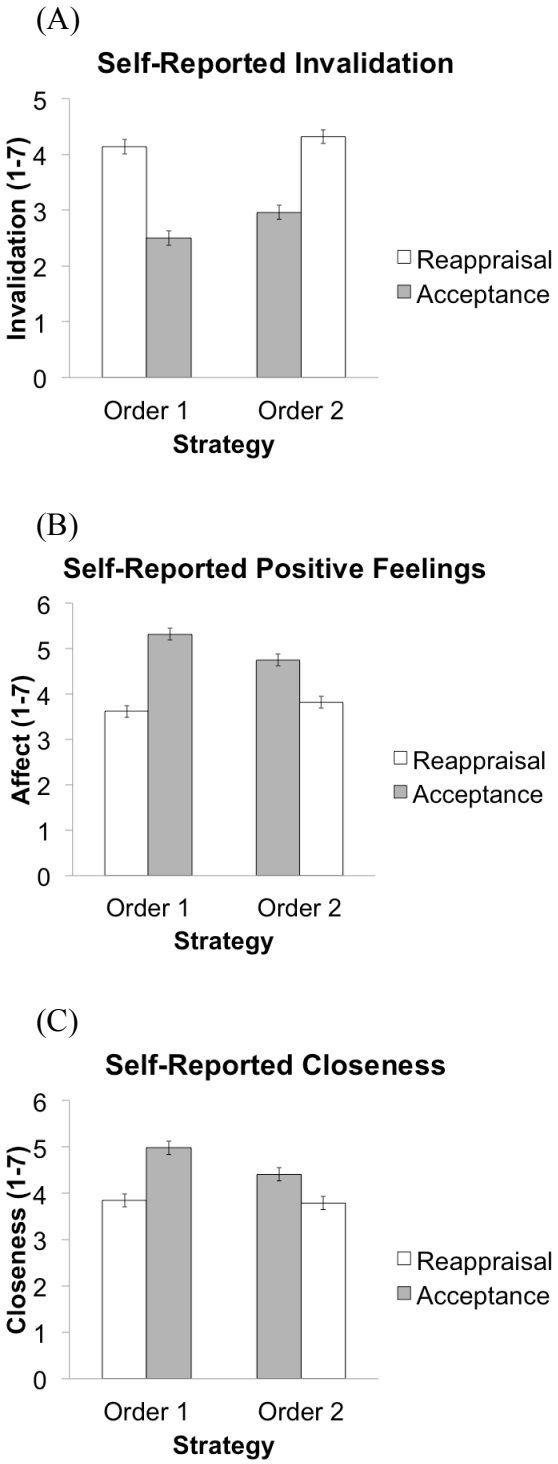


Figure 5. Study 2 means for invalidation (A), positive feelings (B), and relationship quality (C). Order one indicates the condition in which reappraisal was the first strategy and acceptance was the second strategy. Order 2 indicates the condition in which acceptance was the first strategy. All error bars reflect ±1 standard error from the mean.

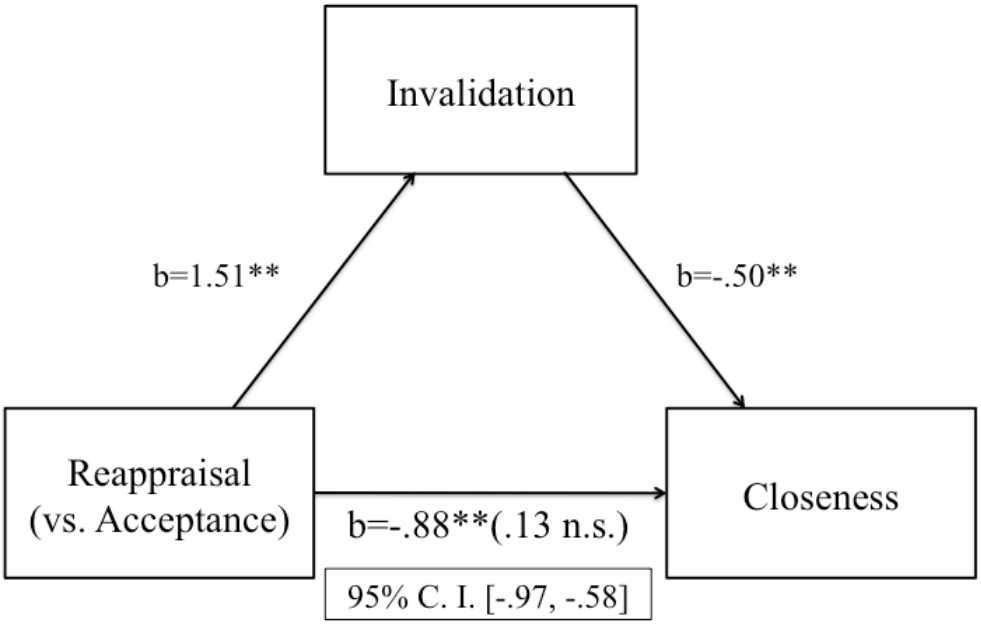
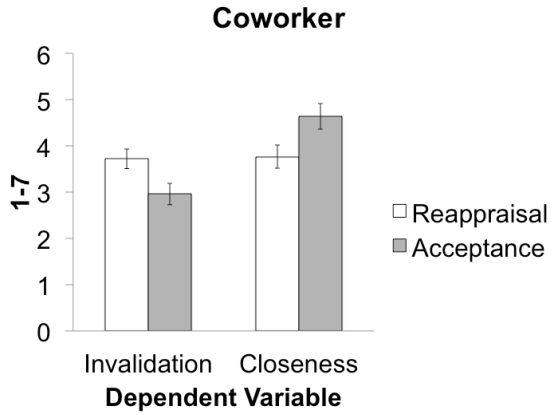


Figure 6. Study 2 mediation. Reappraisal vs. acceptance was manipulated and invalidation was significantly associated liking. The relationship between reappraisal and reduced liking was mediated by greater invalidation.

(A)



(B)

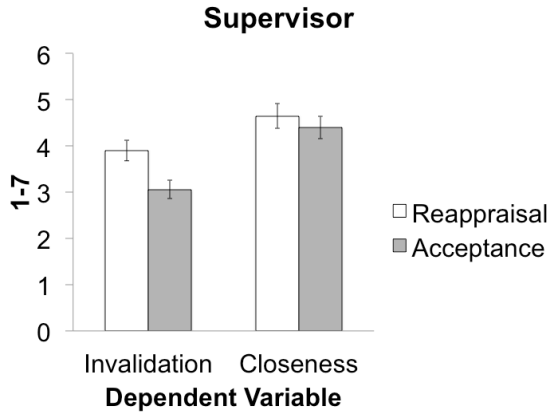
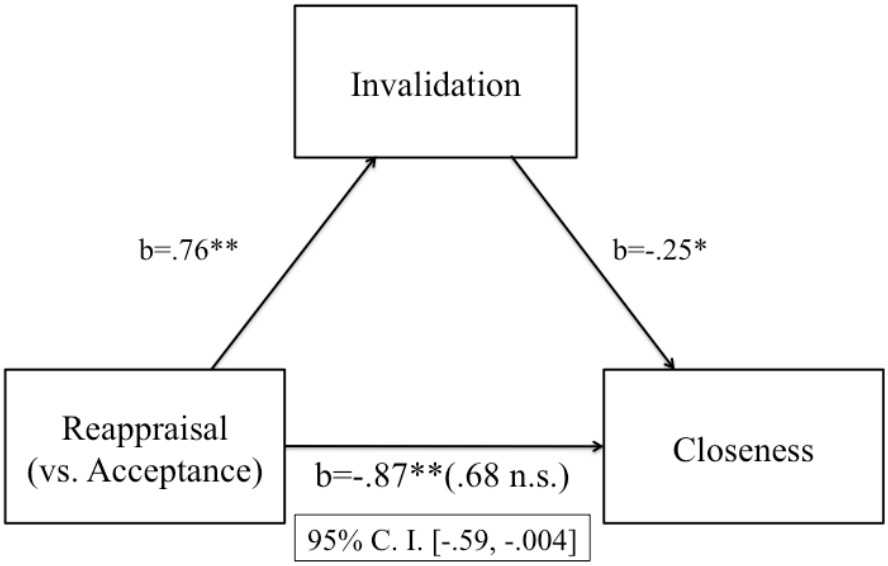


Figure 7. Study 4 means for closeness and invalidation. All error bars reflect ±1 standard error from the mean.

(A)



(B)

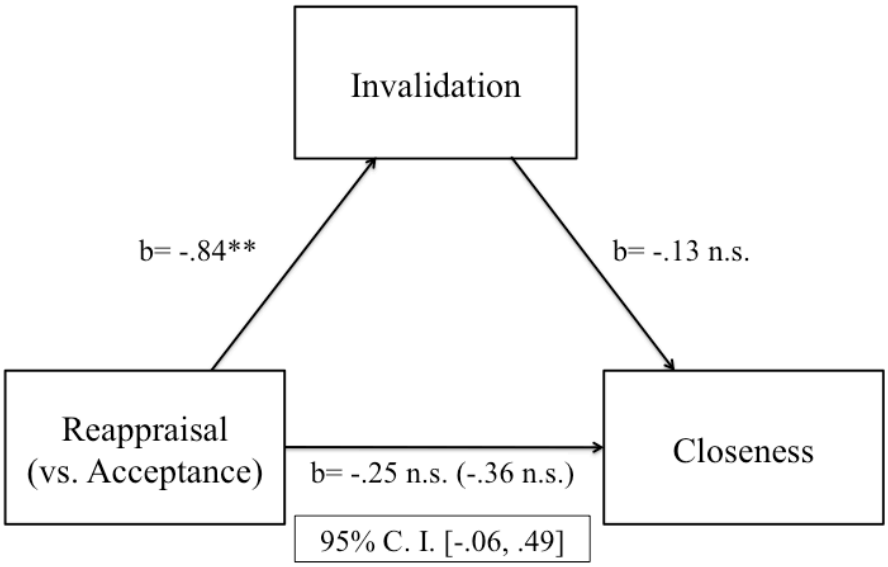


Figure 8. Study 4 mediation for participants in the Coworker (A) and Supervisor (B) conditions. Participants in the coworker condition who received reappraisal feedback experienced greater invalidation and felt less close to the person providing feedback. This closeness effect was mediated by the

Tables

Chapter 1

Table 1

Sample Characteristics

Sample	Age	Female	Asian	White	Latinx	African American	Other	N
A	22	69%	51%	26%	11%	1%	11%	239
B	21	55%	46%	12%	5%	.3%	37%	241
C (Mturk)	39	55%	7%	78%	5%	8%	2%	454
E	22	71%	42%	26%	16%	1%	15%	367
D	22	76%	41%	27%	11%	2%	32%	410
F	21	67%	47%	26%	8.1%	.2%	18%	318
G	21	64%	49%	17%	7%	.6%	26%	244

Note. The first two columns are the mean age and percentage of participant who identified as female in each sample. "Other" category signifies participants who either did not fall into one of the four categories above or did not indicate their race/ethnicity.

Table 2

Factor Loadings of the ERQ-O Items

	Suppression		Reappraisal		Acceptance	
Suppression	Students	Mturk	Students	Mturk	Students	Mturk
I influence others' emotions by finding ways to keep them from expressing their emotions (e.g., by stonewalling).	**0.81**	**0.86**	-0.09	0.02	-0.07	0.04
I act in ways that make the other person keep their emotions to themselves.	**0.81**	**0.84**	-0.12	-0.02	-0.12	-0.09
When another person is feeling positive emotions, I find ways to discourage them from expressing these emotions.	**0.76**	**0.81**	-0.22	-0.14	-0.04	0.05
When others are feeling negative emotions, I try to do things that keep them from expressing their emotions.	**0.76**	**0.72**	0.11	0.18	-0.15	0.01
Mean	0.78	0.81	-0.08	0.01	-0.10	0.00
Reappraisal						
When I would like another person to feel less negative emotion (such as sadness or anger), I try to help them change what they're thinking about.	0.12	0.24	**0.76**	**0.73**	0.01	0.01
When I want others to feel more positive emotion, I try to change the way they're thinking about the situation.	-0.20	-0.08	**0.77**	**0.71**	0.10	0.06
When I want another person to feel less negative emotion, I try to influence the way they're thinking about the situation.	-0.13	0.10	**0.74**	**0.72**	0.06	-0.01
When I would like someone to feel more positive emotion (such as joy or amusement), I try to change what they're thinking about.	0.09	0.14	**0.69**	**0.72**	0.06	0.04
I influence other people's emotions by suggesting alternative ways to think about the situation they're in.	-0.25	-0.19	**0.68**	**0.65**	0.17	0.06
When someone else is faced with a stressful situation, I help them think about it in a way that calms them down.	**-0.40**	-0.22	**0.58**	**0.67**	**0.30**	**0.30**
Mean	-0.13	0.00	0.70	0.70	0.11	0.08
Acceptance						
I embrace other people's emotions, whatever they may be.	-0.12	-0.01	0.06	0.12	**0.74**	**0.72**
I am comfortable with other people's emotions; most of the time, they simply come and go.	-0.22	-0.06	0.16	0.03	**0.65**	**0.78**
As far as influencing other people's emotions goes, I pretty much accept other people's emotions as they are.	0.09	0.02	-0.10	-0.07	**0.73**	**0.65**
I understand other people are going to have certain emotions at certain times and that is just fine.	-0.25	-0.23	0.26	0.15	**0.67**	**0.68**
I manage other people's emotions by allowing them to feel and then release these emotions.	-0.12	0.12	0.20	0.02	**0.58**	**0.75**

I simply accept the emotions of others as a natural response to the particular circumstances they are in.	0.01	0.10	0.01	0.12	**0.63**	**0.62**
Mean	-0.10	-0.01	0.10	0.06	0.67	0.70
% of variance	18	18	20	19	18	19
Factor Congruence Coeffients (across undergrad and Mturk Samples)	0.96		0.98		0.98	
Alpha reliability	0.82	0.83	0.82	0.80	0.79	0.76
Scale means						
Overall	2.65	2.72	5.3	5.41	4.93	5.2
Men	3.1	2.97	5.22	5.34	4.69	5.15
Women	2.5	2.51	5.35	5.46	5.04	5.24
Scale Std. Dev.						
Overall	1.24	1.37	0.89	0.93	0.82	0.91
Men	1.37	1.39	0.89	1	0.79	0.91
Women	1.2	1.31	0.87	0.86	0.79	0.91

Table 3

ERQ-O Scale Alphas

Sample	Reappraisal	Suppression	Acceptance
A	.84	.81	.82
B	.86	.83	.81
C	.80	.83	.76
E	.84	.80	.85
D	.78	.79	.81
F	.84	.78	.78
G	.72	.74	.76
Average	.81	.80	.80

Table 4

ERQ-O Strategy Correlations With Extrinsic EROS Scales

		Strategy				Strategy		
Variables	N	Suppression	Reappraisal	Acceptance	N	Suppression	Reappraisal	Acceptance
EROS								
Affect improving	219[A]	-.12	.33**	.35**	357[E]	-.23**	.46**	.38**
Affect worsening	219[A]	29**	-.09	-.20**	357[E]	.42**	.004	-.15**

Note. *p<.05; **p<.01

Table 5

ERQ-Self and ERQ-Other Correlations

	Sample					
	A	E	Mean	B	F	Mean
	Measured apart			Measured together		
ERQ-O Suppression						
Self						
Suppression	**.20****	**.19****	**.19**	**.33****	**.44****	**.39**
Reappraisal	-.02	-.08		-.01	-.18**	
Acceptance	.01	-.04		-.19**	-.26**	
N	228	347		228	313	
ERQ-O Reappraisal						
Suppression	.04	.07		.04	-.17**	
Reappraisal	**.34****	**.38****	**.36**	**.46****	**.56****	**.51**
Acceptance	-.002	.18**		.14*	.21**	
N	219	347		228	313	
ERQ-O Acceptance						
Suppression	-.21**	-.17**		-.09	-.26**	
Reappraisal	.23**	.21**		.29**	.28**	
Acceptance	**.38****	**.36****	**.37**	**.36****	**.61****	**.50**
N	226	347		229	313	

Note. *$p<.05$; **$p<.01$

Table 6

Difference Between Other and Self Regulation: Means (SDs) and t Tests

	Other	Self	*d*	*t*	*p*
			Measured apart		
Sample A					
Suppression	2.56 (1.26)	3.76 (1.24)	-.96	-11.43	<.001
Reappraisal	5.28 (.89)	5.00 (.96)	.30	3.91	<.001
Acceptance	4.99 (.86)	4.56 (.82)	.52	6.95	<.001
Sample E					
Suppression	2.88 (1.30)	3.80 (1.10)	-.76	-11.16	<.001
Reappraisal	4.99 (.96)	4.81 (.97)	.19	3.29	.001
Acceptance	4.88 (.87)	4.33 (.88)	.63	10.32	<.001
			Measured together		
Sample B					
Suppression	3.35 (1.35)	4.06 (1.25)	-.55	-7.14	<.001
Reappraisal	5.19 (.92)	5.13 (1.10)	.06	.76	.45
Acceptance	4.95 (.81)	4.58 (.94)	.42	5.70	<.001
Sample F					
Suppression	2.45 (1.15)	3.47 (1.26)	-.85	-14.13	<.001
Reappraisal	5.35 (.93)	4.98 (1.00)	.38	7.32	<.001
Acceptance	4.92 (.85)	4.59 (1.00)	.36	7.13	<.001

Table 7

Gender Differences In Students and Middle-Aged Adults

	Men	Women	*d*	*t*	*p*
Students					
Suppression	3.03 (1.30)	2.56 (1.22)	.37	4.68	<.001
Reappraisal	5.13 (.96)	5.27 (.87)	-.15	-1.83	.068
Acceptance	4.84 (.78)	5.11 (.85)	-.33	-4.09	<.001
MTurkers					
Suppression	2.97 (1.39)	2.49 (1.29)	.36	3.75	<.001
Reappraisal	5.34 (1.00)	5.46(.86)	-.13	-1.29	.198
Acceptance	5.15 (.90)	5.10 (.82)	.06	.66	.509

Note. Means and standard deviations are presented for men and women, as well as Cohen's d, and t test results.

Table 8

Ethnic Differences

							Asian v. White			Latino v. White		
	N	Asian	N	White	N	Latino	*d*	*t*	*p*	*d*	*t*	*p*
Students	760		390		165							
Suppression		2.95 (1.22)		2.28 (1.04)		2.33 (1.10)	.59	9.27	<.001	.05	.55	.59
Reappraisal		5.21 (.86)		5.34 (.90)		5.36 (.88)	-.15	-2.52	.012	.02	.18	.86
Acceptance		4.92 (.77)		4.89 (.86)		5.19 (.88)	.04	.49	.622	.34	3.74	<.001
Age		21 (2.98)		22 (4.34)		22 (3.67)						
MTurkers	31		347		24							
Suppression		3.36 (1.42)		2.6 (1.29)		3.08 (1.43)	.56	-3.07	.002	.35	1.71	.089
Reappraisal		5.16 (1.00)		5.40 (.90)		5.44 (1.00)	-.25	-1.41	.16	.04	.22	.83
Acceptance		4.93 (.73)		5.09 (.87)		5.64 (.58)	-.20	-1.01	.31	.74	3.03	.003
Age		30.74 (7.73)		39.71 (13.17)		34.29 (9.71)						

Note. Standard deviations are in parentheses. Student means are presented for a subset of participants.

Table 9

ERQ-O Strategy and Antecedent Correlations

		Strategy				Strategy		
Variables	N	Suppression	Reappraisal	Acceptance	N	Suppression	Reappraisal	Acceptance
Personality (BFI-2)								
Extraversion	228[A]	-.02	.01	.09	341[E]	-.11	.16**	.18**
Agreeableness	228[A]	-.25**	.18**	.50**	341[E]	-.21**	.20**	.26**
Conscientiousness	228[A]	-.20**	.18**	.29**	341[E]	-.25**	.14**	.20**
Neuroticism	228[A]	.09	-.02	-.19**	341[E]	.02	-.09	-.03
Openness	228[A]	-.29**	.13	.29**	341[E]	-.23**	.05	.17**
Attachment (ECR-S)								
Avoidance	315[F]	.23**	-.25**	-.16**	357[E]	.38**	-.29**	-.25**
Anxiety	316[F]	.19**	-.07	-.09	357[E]	.22**	.12*	-.03
Empathy (IRI)								
Perspective-taking	216[C]	-.28**	.23**	.63**	407[D]	-.43**	.30**	.56**
Empathic concern	216[C]	-.45**	.10	.36**	407[D]	-.50**	.37**	.49**
Personal distress	216[C]	.29**	-.08	-.34**	407[D]	.26**	-.09	-.21**

Note. *p<.05; **p<.01. Superscripts denote sample in which analyses were conducted.

Table 10

ERQ-O Strategy and Self-Reported Interpersonal Outcome Correlations

		Strategy				Strategy		
Variables	N	Suppression	Reappraisal	Acceptance	N	Suppression	Reappraisal	Acceptance
Social Support (ISEL)								
Belonging	406[D]	-.36**	.18**	.33**	345[E]	-.38**	.27**	.32**
Appraisal	406[D]	-.44**	.26**	.33**		-.47**	.33**	.34*
Social well-being								
Ryff Positive Relations	406[D]	-.42**	.26**	.42**	345[E]	-.51**	.36**	.41**

Note. *p<.05; **p<.01

Table 11

Multilevel Analysis of Social Network Data

Parameter	Satisfaction model estimate	*t*	*p*	Liking model estimate	*t*	*p*	Tension model estimate	*t*	*p*
Fixed effects									
Suppression	-.20 (.10)	-1.93	.06	-.19 (.10)	-1.86	.06	.33 (.09)	3.74	<.001
Reappraisal	.59 (.14)	4.27	<.001	.71 (.14)	5.27	<.001	-.33 (.12)	-2.68	.01
Acceptance	.39 (.15)	2.55	.01	.44 (.15)	2.86	.01	-.47 (.13)	-3.49	.001
Random-effect variances									
Suppression	4.97(.48)		<.001	5.10 (.46)	<.001		3.41 (.35)		<.001
Reappraisal	4.72 (.46)		<.001	4.70 (.43)	<.001		3.50 (.36)		<.001
Acceptance	4.92 (.47)		<.001	5.02 (.46)	<.001		3.44 (.36)		<.001

Note. Each model was run separately by strategy. All Level 1 variables are grand mean centered for each participant before they are entered in the analyses. Accordingly the intercepts in these models would be 0 and are not included.

Table 12

Strategy and Peer Correlations

	Suppression	Reappraisal	Acceptance
Positive Relationship Index			
Sample E	-.20**	.18**	.22**
Sample A	-.12	.18†	.24*
Average	-.17	.18	.23

Table 13

Self/Other Item Comparison

Strategy	Self	Other
Suppression	I control my emotions by not expressing them.	I act in ways that make the other person keep their emotions to themselves.
	When I am feeling positive emotions, I am careful not to express them.	When another person is feeling positive emotions, I find ways to discourage them from expressing these emotions.
	I control my emotions by not expressing them.	I influence the emotions of others by finding ways to keep them from expressing their emotions (e.g., by stonewalling).
	When I am feeling negative emotions, I make sure not to express them.	When others are feeling negative emotions, I try to do things that keep them from expressing their emotions.
Reappraisal	When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about.	When I would like someone to feel more positive emotion (such as joy or amusement), I try to change what they're thinking about.
	When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.	When I would like another person to feel less negative emotion (such as sadness or anger), I try to help them change what they're thinking about.
	When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.	When someone else is faced with a stressful situation, I help them think about it in a way that calms them down.
	When I want to feel more positive emotion, I change the way I'm thinking about the situation.	When I want others to feel more positive emotion, I try to change the way they're thinking about the situation.
	I control my emotions by changing the way I think about the situation I'm in.	I influence other people's emotions by suggesting alternative ways to think about the situation they're in.
	When I want to feel less negative emotion, I change the way I'm thinking about the situation.	When I want another person to feel less negative emotion, I try to influence the way they're thinking about the situation.
Acceptance	I simply accept my emotions as a natural response to the particular circumstances I am in.	I simply accept the emotions of others as a natural response to the particular circumstances they are in.
	I find it hard to come to terms with my emotions. (R)	I find it hard to come to terms with other people's emotions. (R)
	I embrace my emotions, whatever they may be.	I embrace other people's emotions, whatever they may be.
	Accepting my emotions is not easy for me. (R)	Accepting other people's emotions is not easy for me. (R)
	I understand I am going to have certain emotions at certain times and that is just fine.	I understand other people are going to have certain emotions at certain times and that is just fine.
	As far as regulating emotions goes, I pretty much accept my emotions as they are.	As far as influencing other people's emotions goes, I pretty much accept other people's emotions as they are.
	I manage my emotions by allowing myself to feel and then release them.	I manage other people's emotions by allowing them to feel and then release these emotions.
	I am comfortable with my emotions—most of the time, they simply come and go.	I am comfortable with other people's emotions—most of the time, they simply come and go.

Chapter 2

Table 1

Prototypicality Exclusions Within Conditions

Condition	W/O exclusions	W/ exclusions	% decrease
Suppression	122	77	36%
Reappraisal	113	107	5%
Acceptance	118	112	5%

Note.

Table 2

Prototypicality Ratings

Experimental Condition	Coded Suppression	Coded Reappraisal	Coded Acceptance
Suppression (N=77)	**3.04 (1.30)**	1.90 (1.55)	.55 (.91)
Reappraisal (N=107)	.65 (.75)	**3.86 (1.09)**	1.21(1.25)
Acceptance (N=112)	.07 (.23)	.53 (.90)	**4.58 (1.06)**

Note. Cell frequencies are uneven because more episodes generated in the Suppression condition were coded as not involving suppression at all and thus excluded.

Table 3

Person of Cause

	Suppression	Reappraisal	Acceptance
Target	71.4%	69.2%	71.4%
Romantic	22.1%	35.5%	36.6%
Regulator	20.8%	29.9%	8.9%
Family	16.9%	6.5%	17.0%
Friend	11.7%	9.3%	8.0%
Organization	5.2%	5.6%	6.3%
Coworker	5.2%	0.9%	5.4%
Other/misc.	3.9%	2.8%	3.6
Stranger	1.3%	3.7%	1.8%

Note. Categories not mutually exclusive.

Table 4

Goals and Realized Influence

	Suppression	Reappraisal	Acceptance
Goals			
Change Acts	.32**	.06	.13
Change Thoughts	-.22†	.44**	.43**
Change Feels	-.14	.11	.19*
Actual			
Change Acts	.54**	-.08	-.05
Change Thoughts	-.29*	.48**	-.15
Change Feels	-.01	.14	.12

Note. Strategy prototypicality scores are within respective strategy condition.

Table 5

Negative Emotions Percentages During and After Events and Chi-Squares Examining Differences Between Conditions

	Strategy			X^2		
	Suppression	Reappraisal	Acceptance	Suppression vs. Reappraisal	Suppression vs. Acceptance	Reappraisal vs. Acceptance
Target						
During	96.10%	95.00%	96.40%	0.73	0.09	1.74
After	45.4%	29.0%	29.1%	25.03**	23.83**	.003
Difference	50.7%	66.0%	67.3%			
Reduction %	52.8%	69.5%	69.8%			
Regulator						
During	66.70%	52.80%	48.30%	18.36**	31.94**	2.36
After	39.50%	26.90%	19.60%	15.17**	40.76**	14.14**
Difference	27.2%	25.9%	28.7%			
Reduction %	40.8%	49.1%	59.4%			

Note. **< .01

Table 6

Target's Negative Emotions During and After Episode: Percent of time checked (out of 3 max)

	Suppression	Reappraisal	Acceptance	Average
Sad, depressed, down.				
During	16.0%	18.6%	18.7%	17.8%
After	2.7%	2.4%	3.5%	2.9%
Difference	-13.3%	-16.2%	-15.2%	-14.9%
Angry, irritated, pissed off.				
During	15.9%	11.9%	13.9%	13.9%
After	4.8%	2.5%	2.4%	3.2%
Difference	-11.1%	-9.4%	-11.5%	-10.7%
Put down, hurt, rejected by others.				
During	5.3%	8.2%	8.0%	7.2%
After	3.6%	2.6%	1.7%	2.6%
Difference	-1.7%	-5.6%	-6.3%	-4.5%
Anxious, nervous.				
During	6.2%	8.2%	6.6%	7.0%
After	1.3%	0.5%	0.9%	0.9%
Difference	-4.9%	-7.7%	-5.7%	-6.1%
Anxious about tests and exams.				
During	3.6%	3.8%	4.5%	4.0%
After	0.0%	0.1%	0.7%	0.3%
Difference	-3.6%	-3.7%	-3.8%	-3.7%
Lonely, isolated.				
During	2.6%	3.6%	3.1%	3.1%
After	2.3%	1.3%	0.8%	1.5%
Difference	-0.3%	-2.3%	-2.3%	-1.6%
Embarrassed, guilty, ashamed.				
During	2.5%	3.1%	3.2%	2.9%
After	1.9%	1.0%	1.1%	1.3%
Difference	-0.6%	-2.1%	-2.1%	-1.6%
Afraid, scared, fearful.				
During	1.9%	2.7%	3.2%	2.6%
After	0.1%	0.5%	0.2%	0.3%
Difference	-1.8%	-2.2%	-3.0%	-2.3%
Disgusted with another person or their behavior.				
During	3.8%	1.9%	1.4%	2.4%
After	1.2%	1.0%	0.5%	0.9%
Difference	-2.6%	-0.9%	-0.9%	-1.5%
Socially anxious, self-conscious, shy.				
During	1.2%	3.0%	1.5%	1.9%
After	1.9%	1.8%	1.1%	1.6%
Difference	+0.7%	-1.2%	-0.4%	-0.3%
Regretful, wishing I had done things differently				
During	0.4%	1.3%	3.1%	1.6%
After	0.7%	0.8%	0.9%	0.8%
Difference	+0.3%	-0.5%	-2.2%	-0.8%
Contemptuous (full of contempt or disdain for another person).				
During	1.7%	0.8%	1.1%	1.2%
After	0.6%	0.7%	0.5%	0.6%
Difference	-1.1%	-0.1%	-0.6%	-0.6%
Jealous, envious.				

During	1.4%	0.7%	0.7%	0.9%
After	0.0%	0.1%	0.4%	0.2%
Difference	-1.4%	-0.6%	-0.3%	-0.8%
Distrustful, distant, cold towards others.				
During	1.0%	0.9%	0.4%	0.8%
After	2.6%	1.5%	0.9%	1.7%
Difference	+1.6%	+0.6%	+0.5%	+0.9%

Note. – signifies decreases in emotion, + signified increases in emotion

Table 7

Regulator's Negative Emotions During and After Episode: Percent of time checked (out of 3 max)

	Suppression	Reappraisal	Acceptance	Average
Sad, depressed, down.				
During	8.2%	10.0%	10.6%	9.6%
After	3.5%	2.8%	2.6%	3.0%
Difference	-4.7%	-7.2%	-8.0%	-6.6%
Angry, irritated, pissed off.				
During	11.3%	6.9%	5.0%	7.7%
After	3.6%	2.2%	1.0%	2.3%
Difference	-7.7%	-4.7%	-4.0%	-5.5%
Put down, hurt, rejected by others.				
During	1.0%	0.6%	1.3%	1.0%
After	0.3%	0.7%	0.6%	0.5%
Difference	-0.7%	+0.1%	-0.7%	-0.4%
Anxious, nervous.				
During	3.8%	3.3%	2.8%	3.3%
After	1.2%	1.7%	0.6%	1.2%
Difference	-2.6%	-1.6%	-2.2%	-2.1%
Anxious about tests and exams.				
During	0.3%	0.1%	0.3%	0.2%
After	0.0%	0.0%	0.0%	0.0%
Difference	-0.3%	-0.1%	-0.3%	-0.2%
Lonely, isolated.				
During	0.6%	1.0%	0.6%	0.7%
After	0.9%	0.3%	0.4%	0.5%
Difference	+0.3%	-0.7%	-0.2%	-0.2%
Embarrassed, guilty, ashamed.				
During	1.9%	2.6%	0.9%	1.8%
After	2.7%	1.8%	1.0%	1.8%
Difference	+0.8%	-0.8%	+0.1%	0.0%
Afraid, scared, fearful.				
During	1.6%	0.7%	1.0%	1.1%
After	0.0%	0.1%	0.1%	0.1%
Difference	-1.6%	-0.6%	-0.9%	-1.0%
Disgusted with another person or their behavior.				
During	4.0%	3.3%	2.0%	3.1%
After	1.6%	0.6%	0.6%	0.9%
Difference	-2.4%	-2.7%	-1.4%	-2.2%
Socially anxious, self-conscious, shy.				
During	1.6%	0.5%	1.4%	1.2%
After	0.6%	0.8%	1.1%	0.8%
Difference	-1.0%	+0.3%	-0.3%	-0.3%
Regretful, wishing I had done things differently				
During	1.0%	0.4%	0.3%	0.6%
After	2.2%	1.2%	0.7%	1.4%
Difference	+1.2%	+0.8%	+0.4%	+0.8%
Contemptuous (full of contempt or disdain for another person).				
During	0.6%	0.6%	0.6%	0.6%
After	0.6%	0.5%	0.2%	0.4%
Difference	0.0%	-0.1%	-0.4%	-0.2%
Jealous, envious.				

During	0.3%	0.0%	0.1%	0.1%
After	0.0%	0.0%	0.3%	0.1%
Difference	-0.3%	0.0%	+0.2%	0.0%
Distrustful, distant, cold towards others.				
During	1.4%	1.2%	0.9%	1.2%
After	2.6%	1.5%	0.9%	1.7%
Difference	+1.2%	+0.3%	0.0%	+0.5%

Note. – signifies decreases in emotion, + signified increases in emotion

Table 8

Target's Positive Emotions During and After Episode: Percent of time checked (out of 3 max)

	Suppression	Reappraisal	Acceptance	Average
Cared about, loved, connected to others.				
During	0.7%	0.8%	0.3%	0.6%
After	13.3%	19.4%	20.4%	17.7%
Difference	+12.6%	+18.6%	+20.1%	+17.1%
Joyful, happy, pleased.				
During	0.6%	0.8%	0.5%	0.6%
After	5.9%	7.3%	4.6%	5.9%
Difference	+5.3%	+6.5%	+4.1%	+5.3%
Hopeful, optimistic.				
During	0.3%	0.5%	0.1%	0.3%
After	2.6%	3.7%	3.2%	3.2%
Difference	+2.3%	+3.2%	+3.1%	+2.9%
Self-confident, capable, worthwhile.				
During	0.0%	0.7%	0.4%	0.4%
After	3.2%	5.4%	3.4%	4.0%
Difference	+3.2%	+4.7%	+3.0%	+3.6%
Loving, affectionate, caring/warm.				
During	0.1%	0.1%	0.3%	0.2%
After	1.9%	3.0%	2.6%	2.5%
Difference	+1.8%	+2.9%	+2.3%	+2.3%
Proud of myself and my accomplishments.				
During	0.0%	0.0%	0.0%	0.0%
After	0.1%	0.7%	1.3%	0.7%
Difference	+0.1%	+0.7%	+1.3%	+0.7%
Interested, intellectually stimulated.				
During	0.9%	0.5%	0.7%	0.7%
After	0.1%	0.4%	0.5%	0.3%
Difference	-0.8%	-0.1%	-0.2%	-0.4%
Amused, having fun.				
During	0.0%	0.1%	0.0%	0.0%
After	0.1%	0.3%	0.1%	0.2%
Difference	+0.1%	+0.2%	+0.1%	+0.1%
Proud of my family				
During	0.0%	0.0%	0.3%	0.1%
After	0.0%	0.2%	0.0%	0.1%
Difference	0.0%	+0.2%	-0.3%	0.0%

Note. – signifies decreases in emotion, + signified increases in emotion

Table 9

Regulator's Positive Emotions During and After Episode: Percent of time checked (out of 3 max)

	Suppression	Reappraisal	Acceptance	Average
Cared about, loved, connected to others.				
During	1.4%	1.1%	1.9%	1.5%
After	3.6%	7.9%	9.8%	7.1%
Difference	+2.2%	+6.8%	+7.9%	+5.6%
Joyful, happy, pleased.				
During	1.6%	2.4%	1.9%	2.0%
After	6.6%	8.0%	6.7%	7.1%
Difference	+5.0%	+5.6%	+4.8%	+5.1%
Hopeful, optimistic.				
During	0.9%	2.3%	1.0%	1.4%
After	0.7%	1.0%	0.4%	0.7%
Difference	-0.2%	-1.3%	-0.6%	-0.7%
Self-confident, capable, worthwhile.				
During	0.9%	1.5%	0.7%	1.0%
After	2.6%	3.2%	3.7%	3.2%
Difference	+1.7%	+1.7%	+3.0%	+2.1%
Loving, affectionate, caring/warm.				
During	11.5%	16.6%	20.7%	16.3%
After	8.8%	9.8%	12.0%	10.2%
Difference	-2.7%	+6.8%	+8.7%	+6.1%
Proud of myself and my accomplishments.				
During	0.6%	1.7%	0.2%	0.8%
After	5.9%	7.8%	6.1%	6.6%
Difference	+5.3%	+6.1%	+5.9%	+5.8%
Interested, intellectually stimulated.				
During	1.4%	2.4%	3.0%	2.3%
After	1.6%	0.4%	1.9%	1.3%
Difference	+0.2%	-2.0%	-1.1%	-1.0%
Amused, having fun.				
During	0.4%	0.1%	0.3%	0.3%
After	0.0%	0.1%	0.1%	0.1%
Difference	-0.4%	0.0%	-0.2%	-0.2%
Proud of my family				
During	0.0%	0.0%	0.0%	0.0%
After	0.1%	0.5%	0.3%	0.3%
Difference	+0.1%	+0.5%	+0.3%	+0.3%

Note. – signifies decreases in emotion, + signified increases in emotion

Table 10

Validation Comparisons

Condition	Validation	*F* (vs. suppression)	*p*	*d*	*F* (vs. Reappraisal)	*p*	*d*
Suppression	.79 (1.07)	-	-				
Reappraisal	1.40 (1.22)	12.31	.001	.53	-	-	
Acceptance	2.18 (1.31)	59.03	<.001	1.16	20.71	<.001	.62

Note. Mean (SD)

Table 11

Validation Correlations Across Conditions

	Prototypicality Score		
	Suppression	Reappraisal	Acceptance
Validation			
Within Condition			
Suppression	-.14	.21	.40**
Reappraisal	-.27**	-.03	.44**
Acceptance	.00	-.06	.27**
Overall	-.39**	-.15**	.51**

Note.

Table 12

Positive Relationship Index Comparisons

Condition	Positive Relationship Index Means	*F* (vs. suppression)	*p*	*d*	*F* (vs. Reappraisal)	*p*	*d*
Suppression	3.54 (1.66)	-	-				
Reappraisal	4.31 (1.55)	10.33	.002	.48	-	-	
Acceptance	4.23 (1.24)	10.74	.001	.47	.16	.693	.06

Note. Positive Relationship Index means are reported with standard deviations in parentheses.

Table 13

Social Index Correlations Across Conditions

	Prototypicality Score		
Social Index	Suppression	Reappraisal	Acceptance
Within Condition			
Suppression	-.15	.36**	.24*
Reappraisal	-.21*	.06	.12
Acceptance	-.11	.11	.07
Overall	-.25**	.15**	.16**

Note.

Chapter 3

Table 1

Study 1 Examples

	Strategy		
	Suppression	Reappraisal	Acceptance
1. How do you feel about yourself?	*I would feel inadequate and would probably have feelings of guilt. I would not be pleased with myself for showing a side I should have kept to myself.*	*I would feel fine about myself but would consider the advice provided. I think there is nothing wrong with trying to look at a situation in a different light. However, although I believe my friend was trying to help, I think the advice is also suggesting that my present feelings aren't valid and that I should TRY to feel differently by changing my perspective on the situation that caused me to feel this way.*	*I feel validated about my feelings, and comfortable sharing them with this friend.*
2. What do you think were your friend's feelings and intentions in this situation?	*I'm sure my friend's intentions are good. They are looking after my best interests even if they come off sounding a little rude.*	*I would feel that my friend is asking me NOT to be myself, not to feel what I am feeling as if I could simply change my emotions easily which is not possible or a realistic expectation in every situation.*	*I think my friend was just trying to tell me that he/she is a safe person to vent to and share problems with.*
3. What do you think about your relationship and its future potential?	*I'm unsure about the future of our relationship, but if this person continues to call me out on my behavior eventually I'll probably get upset and end the relationship.*	*I think this friend may have meant well and I would continue to be friends with this person but I don't think I would trust this person with my feelings too often as I believe I would simply be made to feel that my feelings are not valid.*	*I think that this is somebody that I could potentially develop a close friendship with.*

Table 2

Study 1 Correlations

	Emotion Regulation			Self-report			Observer-Coded	
	Acceptance=0 Reappraisal=1	Acceptance=0 Suppression=1	Reappraisal=0 Suppression=1	Positive Feelings	Invalidation	Liking	Positive Affect	Invalidation
Self-report								
Positive Feelings	-.15*	-.62**	-.54**	-	-.47**	.84**		
Invalidation	.28**	. 34**	0.09		-	-.26**		
Liking	-0.02	-.58**	-0.58			-		
Observer-coded								
Positive Feelings	-.23**	-.57**	-.41**	.67**	-.41**	.56**	-	-.78**
Invalidation	.25**	.66**	.54**	-.79**	.40**	-.75**	-	-
Demographics								
Age	.004	.002	-.002	-.03	.00	-.02	-.06	.02
Gender	.01	-.05	-.06	.15**	-.07	.12*	.11*	-.09

Note. *=p<.05, **=p<.01. Because the majority of the sample was white, we did not test associations with ethnicity.

Table 3

Study 2 Correlations

	Emotion Regulation	Self-report		Demographics		
	Acceptance=0 Reappraisal=1	Invalidation	Closeness	Ethnicity Asian=0 White=1	Age	Gender: Female=0 Male=1
Self-report						
Positive Feelings	-.42**	-.70**	.83**	-.003	.02	.05
Invalidation	.48**	-	-.50**	.004	.04	.01
Closeness	-.27**		-	-.02	.03	.02

*=p<.05, **=p<.01

Table 4

Study 3 Correlations

	Emotion Regulation	Self-report		Demographics		
	Acceptance 1st=0 Reappraisal 1st=1	Invalidation	Closeness	Ethnicity Asian=0 White=1	Age	Gender: Female=0 Male=1
Self-report						
Positive Feelings	.05	-.62**	.79**	.11	.06	.11
Invalidation	-.02	-	-.41**	-.11	-.03	-.11
Closeness	.15*		-	.15	.01	.07

Note. *=p<.05, **=p<.01