Published in final edited form as:

Cogn Behav Ther. 2012 June ; 41(2): 152–162. doi:10.1080/16506073.2012.666561.

Social anxiety and emotion regulation in daily life: Spillover effects on positive and negative social events

Antonina Savostyanova Farmer and Todd B. Kashdan

George Mason University

Abstract

To minimize the possibility of scrutiny, people with social anxiety difficulties exert great effort to manage their emotions, particularly during social interactions. We examined how the use of two emotion regulation strategies, emotion suppression and cognitive reappraisal, predict the generation of emotions and social events in daily life. Over 14 consecutive days, 89 participants completed daily diary entries on emotions, positive and negative social events, and their regulation of emotions. Using multilevel modeling, we found that when people high in social anxiety relied more on positive emotion suppression, they reported fewer positive social events and less positive emotion on the subsequent day. In contrast, people low in social anxiety reported fewer negative social events on days subsequent to using cognitive reappraisal to reduce distress; the use of cognitive reappraisal did not influence the daily lives of people high in social anxiety. Our findings support theories of emotion regulation difficulties associated with social anxiety. In particular, for people high in social anxiety, maladaptive strategy use contributes to diminished reward responsiveness.

Keywords

social anxiety; suppression; cognitive reappraisal; positive emotion; experience sampling

Emotion regulation is a necessary component of successful social and emotional functioning. It refers to processes that help monitor and evaluate emotional reactions, as well as strategies to modify emotions by altering their intensity, duration, and/or valence (Gross & John, 2003). The strategies people use, however, vary in their effectiveness and impact on daily functioning. People with deficits in the ability to regulate emotions tend to experience more intense and enduring maladaptive emotions, and they are more likely to suffer from a variety of psychological disorders, including depression (Gross & Munoz, 1995; Campbell-Sills & Barlow, 2007), anxiety (Mennin, Heimberg, Turk, & Fresco, 2005), and even personality disorders (Putnam & Silk, 2005). However, scientists are only beginning to understand the mechanisms of how emotion regulation difficulties contribute to impairment.

Social anxiety is the experience of intense discomfort during social situations, coupled with avoidance of such situations due to fear of being scrutinized by other people. Experiences lie along a continuum from transient distress to functional impairment (Kollman, Brown, Liverant, & Hoffman, 2006; but see also Weeks, Carleton, Asmundson, McCabe, & Antony, 2010). Dominant theoretical models of social anxiety emphasize how cognitive distortions and avoidance behaviors contribute to the development and maintenance of social anxiety symptoms (Clark & Wells, 1995; Rapee & Heimberg, 1997). However, recent evidence

suggests a contributing role of exaggerated negative emotional reactions, attenuated positive emotional reactions, and emotion regulation difficulties in producing functional impairment (Goldin, Manber, Hakimi, Canli, & Gross, 2009).

Maladaptive Use of Emotion Regulation Strategies in Social Anxiety

While there are numerous ways of affecting one's emotional experiences, two specific strategies have received substantial scientific attention: cognitive reappraisal and emotion suppression. *Cognitive reappraisal* involves reframing one's perspective to downplay or enhance a situation's emotional impact, altering the interpretation of emotionally arousing information (Gross, 2002). *Emotion suppression* involves inhibiting one's emotional response to a situation by down-regulating the outward expression of the emotion.

People with social anxiety difficulties report frequently suppressing both positive (Turk, Heimberg, Luterek, Mennin, & Fresco, 2005; Werner & Gross, 2010) and negative emotions (Erwin, Heimberg, Schneier, & Liebowitz, 2003; Spokas, Luterek, & Heimberg, 2009). Experimental data suggest that suppression is ineffective in reducing negative emotional experiences (Gross & John, 2002) and may increase physiological arousal (Gross, 1998) while diminishing responsiveness to positive events (Gross & Levenson, 1997). Consistent with this, Kashdan and Steger (2006) showed that people high in trait social anxiety reported the fewest positive events on days when they used suppression to manage their anxiety. Excessive use of suppression may also have a global negative impact on the positive experiences of people high in social anxiety. A meta-analysis of 19 studies found a stable, moderate relationship between social anxiety and less frequent and intense positive emotions (Kashdan, 2007); this deficit was present even in the context of sexual situations (Kashdan, Adams, et al., 2011) and during random prompts (Kashdan & Collins, 2010). Maladaptive emotion regulation efforts may contribute to the adverse impact of trait and daily social anxiety on positive events in daily life.

While down-regulating negative emotions is advantageous in *most* social settings (Parrot, 1993), down-regulating positive emotions is counter-intuitive and paradoxical. Nevertheless, people high in social anxiety report using more positive emotion suppression compared to non-anxious individuals and to people with generalized anxiety (Turk et al., 2005). One explanation is that people high in social anxiety find experiencing and expressing intense positive emotions to be uncomfortable, particularly in social-evaluative situations. Consistent with this, people high in social anxiety demonstrate a fear of being evaluated positively (Kashdan, Weeks, & Savostyanova, 2011; Weeks, Heimberg, & Rodebaugh, 2008). Suppressing positive emotions may serve to minimize the direction of social attention toward them, while hindering efforts to build intimate relationships through shared positive emotion expressions.

General Deficits in Emotion Regulation Ability in Social Anxiety

In addition to maladaptive application of emotion regulation strategies, there is evidence that people high in social anxiety may have an emotion regulation skill deficit. For nonanxious individuals, cognitive reappraisal is a relatively effective way of attenuating negative emotions elicited in a laboratory (Gross, 2002). However, people high in social anxiety believe themselves to be less effective in their ability to implement cognitive reappraisal (Werner, Goldin, Ball, Heimberg, & Gross, 2011). Furthermore, when instructed to use cognitive reappraisal to manage social threat, they demonstrate reduced neural activation of brain regions related to emotion regulation (Goldin, Manber-Ball, Werner, Heimberg, & Gross, 2009). While this finding was restricted to reevaluation of social threat, most emotion regulation efforts occur in a social context (Gross, Richards, & John, 2006); thus, even a context-dependent deficit may represent a pervasive hurdle for daily functioning.

Deficits in emotion regulation ability may have both direct and indirect impacts on social functioning (Lindahl & Markman, 1990). Being less capable of regulating emotions before, during, or after a social interaction may contribute to sustained anxiety in and avoidance of interactions, particularly of difficult ones necessary to strengthen relationships. Further, people require adequate self-regulatory resources to effectively monitor their emotional responses and simultaneously attend to situational cues during a successful social interaction (Gross & Munoz, 1995); thus, ineffective efforts to down-regulate anxiety may deplete the self-regulatory resources that people with social anxiety need to function effectively and to capitalize on positive social cues (Clark & Wells, 1995). In this way, emotion regulation deficits may contribute to interpersonal costs for people high in social anxiety (Werner & Gross, 2010).

Regulating Emotions on a Daily Basis

Most of our knowledge of emotion regulation is based on single occasion research. As a self-reported habitual regulatory strategy, cognitive reappraisal is associated with positive outcomes—psychological well-being, better relationships, and physical health (Gross & John, 2003), as well as more positive and less negative emotions (John & Gross, 2004). In comparison, chronic use of emotion suppression is inversely related to the same constructs. However, reporting on how one *generally* feels or manages emotions is affected by recall bias and current mood (Mitte, 2008). Moreover, emotion regulation strategy use is not stable but rather changes with context and age (Gross et al., 1997). Experience sampling methodology allows us to study the use of strategies in their naturalistic environments on a daily basis.

There is considerable within-person variability in the strategies people use to change their emotion experiences, and the frequency and distribution of these strategies may be important to pervasive emotional difficulties. For example, across numerous random prompts per person, adolescents who reported using more suppression, avoidance, and rumination to manage recent negative emotions had the highest trait depression scores (Silk, Steinberg, & Morris, 2003). Using a daily diary design, Nezlek and Kuppens (2008) found that on days that participants used cognitive reappraisal, they experienced higher levels of positive emotions and self-esteem; however, suppression of positive emotions related to experiencing less positive emotion and self-esteem in daily life. Kashdan and Steger (2006) found the pattern of diminished positive emotions and events on days when people suppress emotions to be more pronounced in people high in social anxiety. These preliminary findings suggest benefits of reappraising and costs of suppressing positive emotions on a daily basis.

Day-to-Day Spillover Effects of Emotion Regulation

Despite evidence that self-reported and elicited emotion suppression contributes to impaired functioning, there is a dearth of research on the naturalistic spillover effects of emotion regulation strategies on subsequent emotional and social events. Moreover, emotion regulation research with people high in social anxiety is particularly lacking (Kashdan, Weeks, & Savostyanova, 2011). In this study, we investigated the impact of daily emotion regulation strategy use on the following day's experiences. Specifically, we were interested in whether and how people high in social anxiety differ from their less anxious peers in the emotional and social consequences of cognitive reappraisal and emotion suppression in daily life. A unique dimension of this study was the separation of acts to conceal, hide, or suppress the expression of both negative and positive emotions on a given day. In addition, cognitive reappraisal was broken down into efforts to up-regulate positive mood (positive reappraisal) and to down-regulate negative mood (negative reappraisal).

Based on prior findings (e.g., Turk et al., 2005), we expected that people high in social anxiety would be (H1) more likely to suppress emotions, particularly positive emotions. We hypothesized that greater use of positive emotion suppression would have particularly deleterious effects on the next day's emotions (H2a) and social events (H2b) for people high in social anxiety. Furthermore, we expected that people high in social anxiety would not experience as much next-day emotional (H3a) and social (H3b) benefit to using cognitive reappraisal than people low in social anxiety would. Given the wealth of research suggesting emotion regulation difficulties and positive experience deficits in depression, we examined depressive symptoms as a covariate in construct specificity tests.

Method

Participants

The participants in this study were 95 undergraduate students at a mid-Atlantic public university. After exclusion of participants for providing insufficient daily entries, the final sample included 89 adult participants (75 women, 14 men, $M_{\text{age}} = 21.7$ years). Of those who provided this demographic data, 50 participants (54%) self-identified as White/European, 11 participants as Asian/Asian American, 9 as Black/African American, 9 as Hispanic, 9 as Middle Eastern, 1 as Native American, and 7 wrote in another ethnicity. Students received research credit for coursework in exchange for participation.

Procedure

Participants were recruited to take part in a two-week daily diary study. On the first day, participants completed an online informed consent and responded to self-report measures of personality traits and demographic information. Next, participants received a secure website link for completing nightly web-based surveys with a unique identifier code to preserve confidentiality. Participants were instructed to complete the surveys between 6:00 p.m. and 10:00 a.m. of the following morning. Date and time stamps were inspected to assure proper submission and deletion of data provided outside the requested period. Six participants were excluded from analyses for providing less than six days of data. After data quality control, 1,261 days of data, nested within 89 participants, were included in multilevel analyses. Participants provided an average of 13.5 entries per person ($SD = 2.7$).

Trait measures

Social anxiety—To assess tendencies to fear and avoid social interactions, participants completed the 20-item version of the Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998; $\alpha = .89$). They responded to a series of statements relating to social anxiety on a 5-point Likert scale (0 = *not at all*, 4 = *extremely*). This scale has excellent psychometric properties (Brown et al., 1997).

Depressive symptoms—Given the frequent co-occurrence of social anxiety and depressive symptoms, participants completed the Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996) to assess cognitive, somatic, and behavioral indices of depression. They selected a statement in each of 21 symptom categories that best fit with their experiences. This scale has been widely used in clinical and research settings to assess for depression, showing good internal consistency ($\alpha = .93$) and construct validity (Sprinkle et al., 2002).

Daily measures

Emotion regulation—Participants provided a daily measure of their emotion regulation strategies (Nezlek & Kuppens, 2008). Positive and negative reappraisal were measured with

the following item: “When I wanted to feel a more positive (or less negative) emotion, I changed what I was thinking about.” Positive and negative suppression were measured with the item: “When I was feeling positive (or negative) emotions, I was careful not to express them.” All questions were answered using a 7-point Likert scale (1 = *not at all characteristic of me*, 7 = *very characteristic of me*), prefaced with instructions to respond in terms of how participants felt on that specific day. While each strategy was assessed with only one item each, prior experience-sampling research suggests that one-item scales can provide valid data when asked over numerous occasions (e.g., Ong, Bergeman, Bisconti, & Wallace, 2006). Longer scales can burden participants, decreasing validity due to random or undifferentiated responding (Csikszentmihalyi & Larson, 1987).

Emotions—We assessed positive and negative emotion experiences in daily life with a series of adjectives divided on the dimension of valence (positive-negative). Positive emotions were measured with the items *excited*, *enthusiastic*, *happy*, *satisfied*, *calm*, and *relaxed*. Negative emotion items included *nervous*, *embarrassed*, *upset*, *sad*, *disappointed*, and *bored*. Affect ratings were made on a 7-point scale (1 = *did not feel this way at all*, 7 = *felt this way very strongly*). All items reflected brief adjective sets used in prior daily diary studies (e.g., Nezlek & Kuppens, 2008).

Social events—Participants’ daily social experiences were measured with a modified version of the Daily Events Survey (Butler, Hokanson, & Flynn, 1994). Six positive social events (e.g., “Went out socializing with friends/date”) and six negative social events (e.g., “Was excluded or left out by my group of friends”) were used for this measure. Each day, participants reported the occurrence and importance of their experiences on a 5-point scale (0 = *did not happen*, 1 = *occurred and not important/meaningful*, 4 = *occurred and very important/meaningful*). Two additional optional items asked about the occurrence and importance of up to one positive and one negative event that were not listed in the survey. The resulting seven positive and negative items were summed to represent the day’s social experiences.

Results

Reliability of Daily Measures

The reliabilities for each of the daily measures that consisted of more than one item were estimated using unconditional models with scale items nested within days within people (Nezlek, 2007). As shown in Table 1, the resulting estimates suggested that measures had acceptable reliability. There was considerable within-person variability in our daily variables, but a substantial proportion of variability is attributable to stable individual differences.

Descriptive Statistics

Participants had an average social anxiety score of 24.94 ($SD = 14.18$), representing a distribution similar to that found in previous studies. Scores of at least one SD above the mean on the SIAS in our sample (39.12) correspond to scores above the cut off score of 34 used to distinguish people with impairing social anxiety (Brown et al., 1997). Participants had a BDI-II average score of 13.25 ($SD = 9.14$). Mean scores and standard deviation of daily measures across people are reported in Table 1.

Analytic Technique

As the data consisted of multiple observations of each individual participant, we analyzed the data with multilevel random coefficient modeling. Time variant variables at Level 1 included daily emotion regulation strategies, emotions, and social events; these variables

were group-mean centered. Time invariant variables at Level 2 included social anxiety and depressive symptoms, representing between-person effects; these were grand-mean centered. All models had a random intercept, and all slopes were treated as random effects for a conservative analysis. Analyses were performed with the program HLM 6.08 with restricted-likelihood estimation using robust standard errors, which provides for meaningful analyses despite expected skewness in daily variables (Raudenbush, Bryk, Cheong, & Congdon, 2000). Final models were checked for adherence to multilevel model assumptions.

To take full advantage of our data, we conducted two sets of analyses. To test for individual differences of overall strategy preferences in emotion regulation, we used person-level variables (social anxiety and depressive symptoms) at Level 2 to predict each of the specific strategies separately. To test for spillover effects, we analyzed the effects of emotion regulation strategy use on day T in predicting emotion experiences and life events on day $T + 1$, controlling for the constructs of interest on day T . Inclusion of data available only for subsequent calendar days resulted in analysis of 1,051 data points. We added Level 2 predictors to test for moderation effects. While analyses were conducted with social anxiety on a continuum, text references to high and low social anxiety levels refer to one $\pm$ SD from mean to capture simple slopes (Aiken & West, 1991).

Preliminary Analyses

Before addressing our hypotheses, we examined whether social anxiety had a main effect on outcome variables. Consistent with prior findings, higher social anxiety predicted more daily negative emotion ($b = 0.02$, $t(87) = 3.76$, $p < .001$) and less daily positive emotion ($b = -0.01$, $t(87) = -2.32$, $p = .02$). In analyses controlling for depressive symptoms, negative emotion was uniquely predicted by both depressive symptoms ($b = 0.03$, $t(86) = 3.76$, $p < .001$) and social anxiety ($p < .01$). Accounting for the effect of depressive symptoms ($b = -0.03$, $t(86) = -2.94$, $p < .01$), the effect of social anxiety on positive emotion was no longer significant ($p > .25$). In our sample, social anxiety did not predict the average frequency of daily positive social events ($p > .25$) or negative social events ($p > .10$). Depressive symptoms were positively related to negative social events ($b = 0.08$, $t(86) = 2.09$, $p = .04$) and unrelated to positive social events ($p > .50$).

Individual Differences in Emotion Regulation Strategies

We hypothesized that people high in social anxiety would use emotion suppression more often than people low in social anxiety (H1). As predicted, higher social anxiety predicted greater use of both positive emotion suppression ($b = 0.02$, $t(87) = 2.13$, $p = .04$) and negative emotion suppression ($b = 0.03$, $t(87) = 2.86$, $p = .004$). These effects remained significant even when accounting for depressive symptoms, which did not uniquely predict either regulation strategy ($p > .50$). Neither social anxiety nor depressive symptoms were a significant predictor of either cognitive reappraisal strategy ($p > .20$).

Spillover Effects from Emotion Regulation Strategies

Changes in Daily Emotion Experiences—Suppressing positive and negative emotions had differential effects on next day emotions. Accounting for the previous day's emotions, there was a main effect of negative suppression predicting greater next day positive emotion ($b = 0.07$, $t(88) = 2.84$, $p = .006$), and a trend effect for positive suppression predicting less next day positive emotion ($b = -0.05$, $t(88) = -1.66$, $p = .10$). There was also a trend main effect for negative reappraisal to predict less negative emotion on the following day ($b = -0.04$, $t(88) = -1.72$, $p = .09$) but other main and interaction effects with reappraisal strategies were nonsignificant ($p > .25$).

Consistent with our prediction that people high in social anxiety would experience enduring emotional consequences following emotion suppression of positive emotions (H2a), we found a significant social anxiety $\times$ positive emotion suppression interaction effect on the next day's positive emotion ($b = -0.01$, $t(87) = -2.19$, $p = .03$). To probe the structure of the interaction, we analyzed the simple effects for each group, represented in Figure 1 as one SD above and below the mean (Shacham, 2009). For people high in social anxiety, suppressing positive emotions predicted *less* positive emotion on the next day ($b = -0.13$, $p < .01$); this was not the case for people low in social anxiety ($b = 0.02$, $p > .50$). The interaction effect of social anxiety $\times$ negative emotion suppression was not significant for next day positive or negative emotion ($ps > .20$). While we expected cognitive reappraisal strategies to contribute to greater positive emotion and less negative emotion for people low in social anxiety (H3a), we failed to find support for this hypothesis ($ps > .30$).

Changes in Daily Social Events—Accounting for the prior day's social events, there was an overall trend for people to experience more positive social events on days after they suppressed negative emotions ($b = 0.20$, $t(88) = 1.95$, $p = .05$), but there were no other significant main effects of emotion regulation strategies on the next day's events ($ps > .25$). We hypothesized that for people high in social anxiety, suppressing positive emotions would predict fewer significant positive social events on the following day (H2b). In line with our hypothesis, the social anxiety $\times$ positive emotion suppression interaction effect was significant in predicting the next day's positive social events ($b = -0.03$, $t(87) = -2.51$, $p = .01$). For people high in social anxiety, suppressing positive emotion predicted marginally *less* frequent meaningful positive social events on the next day ($b = -0.37$, $p = .06$). In contrast, for people low in social anxiety, suppressing positive emotions predicted marginally *more* positive social events the next day ($b = 0.39$, $p = .09$). The pattern of results was similar to the Figure 1 depiction of positive emotion suppression on the next day positive emotions. The interaction effect of social anxiety $\times$ positive suppression was not significant despite pointing in the predicted direction ($p = .11$) of people high in social anxiety experiencing more negative social events on days after suppressing positive emotions. There were no significant interaction effects of social anxiety $\times$ negative suppression on the subsequent day's social events ($ps > .20$).

Lastly, we predicted that people low in social anxiety would experience social benefits from using cognitive reappraisal strategies, in which people high in social anxiety would be deficient (H3b). Consistent with expectations, we found a significant interaction of social anxiety $\times$ negative reappraisal on the next day's negative social events ($b = 0.01$, $t(87) = 2.67$, $p < .01$). As shown in Figure 2, for people low in social anxiety, greater use of cognitive reappraisal to reduce distress predicted fewer negative social events on the following day ($b = -0.27$, $p = .02$). In contrast, for people high in social anxiety, cognitive reappraisal was unrelated to the next day's negative social events ($b = 0.11$, $p > .25$). Other interaction effects involving reappraisal strategies were not significant in predicting the next day's social events ($ps > .20$).

Discussion

This study was the first to provide a glimpse into how daily emotion regulation strategies influence the social lives of people high in social anxiety. Using a daily process approach, we found that social anxiety influences the frequency, type, and consequences of reported emotion regulation strategies. In particular, people high in social anxiety use positive suppression more frequently, and use of this strategy led to less intense positive emotions and marginally fewer positive social events (on the next day). In contrast, use of cognitive reappraisal to reduce distress led to fewer negative social events (on the next day) for people low in social anxiety, but not for people high in social anxiety.

This was the first study to provide experiential sampling evidence of greater reliance on positive emotion suppression in people high in social anxiety. Suppression generally tends to increase self-monitoring (Richards, Butler, & Gross, 2003), which contributes to hyper-vigilant attention to possible social evaluative threat for people high in social anxiety (Bögels & Mansell, 2004). However, while suppressing negative emotions may be a simple decision for people who worry about displaying anxiety, deciding whether to suppress positive emotions may be more complicated. Thus, positive emotion suppression may particularly tax self-regulatory resources, which are necessary for successful social interactions (Muraven & Baumeister, 2000). Having less available cognitive resources for attending to and remembering social information during conversations (Richards & Gross, 1999) may further increase discomfort for people high in social anxiety. In sum, people high in social anxiety appear to more frequently use a strategy to minimize their evaluation concerns that, unfortunately, may also increase their anxiety and contribute to the maintenance of social anxiety.

Beyond being used more frequently by people high in social anxiety, positive emotion suppression also had interpersonal costs for people high in social anxiety. They experienced less positive emotion and marginally fewer positive social events on days after they suppressed positive emotions. One reason for this spillover is that positive emotion expression plays an important role in expanding our capacity for positive experiences (Fredrickson, 1998) and developing close relationships (Keltner & Haidt, 1999). In particular, people who express positive emotions are more likely to be described as kind, sympathetic, and sincere (Otta, Lira, Delevati, Cesar, & Pires, 1994). Thus, when people high in social anxiety suppress positive emotion displays, they may contribute to their feared outcome of being perceived as undesirable interaction or relationship partners (Baumeister & Tice, 1990). Surprisingly, for people low in social anxiety, positive emotion suppression, though less frequent, was associated with an *increase* in positive social events on the following day. One explanation for this effect is that they already display adequate prosocial behaviors, and suppression of such displays may be limited to times when they are inappropriate.

People high in social anxiety also failed to benefit from a generally adaptive emotion regulation strategy—cognitive reappraisal. Specifically, people low in social anxiety experienced a spillover benefit of fewer negative social events on days following using reappraisal of situations to reduce distress; in contrast, people high in social anxiety experienced similar levels of negative social events regardless of cognitive reappraisal use. This difference could be due to a skill deficit in properly carrying out the strategy or a biological deficit in how the brain responds to social threats (Goldin, Manber-Ball, et al., 2009; Goldin, Manber, et al., 2009). Alternatively, the wording of the item addressing reappraisal may have also captured experiential avoidance by changing the content of thoughts—a strategy overemployed by people high in social anxiety (Taylor, Lapos, & Alden, 2004). Either mechanism suggests that attempts to re-evaluate social threat may be less effective or shorter-lasting for those with high compared to low social anxiety.

The range of social anxiety scores in our sample provides evidence for potential generalizability to clinical samples (Brown et al., 1997), albeit with caution until replicated in people diagnosed with social anxiety disorder. Our findings demonstrate that people with debilitating social anxiety might not benefit from cognitive reappraisal as readily as nonanxious individuals. This finding supports implementing cognitive-behavioral strategies that target interpretation biases and teach cognitive modification strategies (Heimberg & Becker, 2002). In addition, by recognizing the consequences of escaping emotional experiences and the usefulness of various emotions to living a rich, valued life (Hayes, Luoma, Bond, Masuda, & Lillis, 1999), people with social anxiety difficulties can decrease

their reliance on emotion suppression in favor of more adaptive emotion regulation strategies (Kashdan, Weeks, & Savostyanova, 2011).

Caveats and Future Directions

While experience-sampling methodology presents advantages over single-administration self-report measures (Csikszentmihalyi & Larson, 1987), there are several caveats to the interpretation of our findings. Our use of end-of-day reporting still required people to reflect on an entire day to recall emotion experiences and regulation strategies. As such, people reported on strategies they were *consciously aware of* and *remembered* having used. To understand the full range and impact of emotion regulation in social anxiety, it will be necessary to examine both effortful and automatic processes that affect emotional experiences (Forgas, 1995). Future studies with more frequent and situation-specific assessments may shed more light on the success of specific strategies and their interpersonal impact.

Future research can capture several additional considerations in emotion regulation not addressed in this study. First, the timing of emotion regulation endeavors can affect the effort expended and thus their impact on functioning (Sheppes & Gross, in press). Second, understanding the motivation for modulating positive emotions may help to explain the strategy's differential effects on sequelae. For example, suppressing positive emotions for compassionate reasons (e.g., in the presence of someone who appears sad) may function differently than suppression due to feared evaluation (e.g., suppressing laughter during a conversation). Third, incorporating perceived self-efficacy in specific emotion regulation attempts might further help to explain some of the costs and benefits of particular strategies. Lastly, future studies may move from comparing particular emotion regulation strategies to studying how people adapt their behavior according to situational demands. We know little about flexibility in regulation strategies and how this is influenced by social anxiety, but literature suggests that flexible emotion regulation might be better than a reliance on a particular strategy (Kashdan & Rottenberg, 2010). The multiple future research directions provided underscore that we are just beginning to explore the complexity of daily emotional life.

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Figure 1. Trait social anxiety moderates the relationship between positive emotion suppression and next day positive emotions. * $p < .05$.

Figure 2. Trait social anxiety moderates the relationship between cognitive reappraisal and subsequent negative social events. † $p < .10$.

Table 1

Descriptive statistics for daily measures

	M (SD)	Within-person variance	Between-person variance	Person-Level Reliability
Positive reappraisal	3.32 (1.72)	1.87	1.07	
Negative reappraisal	3.27 (1.70)	1.82	1.04	
Positive suppression	1.82 (1.24)	0.94	0.65	
Negative suppression	2.83 (1.79)	2.15	1.06	
Positive emotion ^a	4.17 (1.20)	1.07	0.38	0.79
Negative emotion ^a	2.22 (1.05)	0.72	0.40	0.47
Positive social events ^b	10.56 (6.25)	26.42	12.61	0.48
Negative social events ^b	3.10 (3.93)	9.84	6.13	0.64

Note. $n = 89$ participants, with 1,261 daily observations.

^aScales consists of 6 items.

^bScales consists of 7 items.