

Emotion

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Two Definitions of Waiting Well

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Waiting for uncertain news is often distressing, at times even more distressing than facing bad news. The goal of this article was to investigate strategies for “waiting well” during these periods of uncertainty. Specifically, we propose 2 definitions of waiting well. First, people can wait in such a way as to ease their distress during the waiting period. Second, people could wait in such a way as to ease the pain of bad news or enhance the thrill of good news. We conducted a longitudinal study of law graduates ($N = 230$) awaiting their result on the California bar exam. Participants completed questionnaires prior to the exam, every 2 weeks during the 4-month waiting period, and shortly after learning whether they passed or failed. Cross-lagged models revealed that participants were quite unsuccessful at waiting well by our first definition. That is, their coping strategies were ineffective for reducing distress associated with uncertainty, apparently even backfiring in some cases. However, multiple regression analyses examining relationships between waiting experiences and responses to good and bad news found that many participants were successful at waiting well according to our second definition: Participants who suffered through a waiting period marked by anxiety, rumination, and pessimism responded more productively to bad news and more joyfully to good news, as compared with participants who suffered little during the wait. These findings substantiate the difficulty of enduring a stressful waiting period but suggest that this difficulty may pay off once the news arrives.

Keywords: uncertainty, waiting, expectations, anxiety, emotion regulation

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Whether one is learning news about a job interview, college admissions, or a loved one’s medical test results, some of the most important events in people’s lives occur at the end of uncertain and stressful waiting periods. Literally thousands of articles and dozens of books address the processes of stress and coping that arise in the face of a setback (e.g., failing to secure the desired job or hoped for college admission, receiving a serious diagnosis), yet little guidance is available as people wait to see whether the setback will occur. This paucity of empirical attention is particularly problematic in light of limited but growing evidence that suggests waiting for uncertain news is more anxiety-provoking than facing unequivocally bad news, including news of cancer (Lebel et al., 2003; Nosarti, Roberts, Crayford, McKenzie, & David, 2002; Poole, 1997), news of a failed in vitro fertilization effort (Boivin & Lancaster, 2010), and news of a professional failure (Sweeny & Falkenstein, 2015). In this article, we address two questions in an effort to provide guidance for “waiting well.” First, can people wait in a way that eases the distress associated with awaiting uncertain news? This question addresses one definition of waiting well: waiting in a way that reduces distress during the waiting period. Second, can people wait in a way that eases the pain of bad

news or enhances the thrill of good news? This question addresses a second definition of waiting well: waiting in a way that reduces distress (in the case of bad news) or increases excitement (in the case of good news) when the news arrives.

Waiting Well, Definition 1: Coping Effectively With the Waiting Period

Theoretical and empirical examinations of stress and coping provide insight into the myriad ways people cognitively and behaviorally manage stressful situations, such as a death in the family or an overly demanding job. However, this body of research is at best an imperfect fit to the study of uncertain waiting periods, the nature of which renders many typical coping strategies inappropriate (e.g., problem-focused coping; Aldwin & Revenson, 1987; acceptance, Folkman & Lazarus, 1988) and introduces idiosyncratic coping strategies that are not considered in traditional studies of stress and coping (e.g., bracing for the worst; Sweeny, Carroll, & Shepperd, 2006). The uncertainty navigation model (Sweeny & Cavanaugh, 2012) proposes a number of coping strategies that people employ during uncertain waiting periods. In contrast to approaches to understanding stress and coping in the face of a known stressor, the uncertainty navigation model captures processes that are unique to or heightened during periods of uncertainty. For example, the model identifies anxiety as a key affective response to waiting, consistent with recent research contrasting the emotional experience of waiting versus receiving bad news (Boivin & Lancaster, 2010; Sweeny & Falkenstein, 2015), and it highlights the future-focused nature of uncertain waiting periods with the inclusion of future-focused coping strategies such

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as preventive action, proactive coping, expectation management, and preemptive benefit finding. Figure 1 presents an updated version of the uncertainty navigation model, which guided the current investigation. Note that the figure visually depicts the pieces of the model relevant to each definition of waiting well.

The model aims to capture the specific demands that arise during uncertain waiting periods. As people await uncertain news, they must prepare logistically and emotionally for multiple possible outcomes, tolerate (and ideally embrace) their uncertainty about these outcomes, and keep their distress at a manageable level. Thus, the model includes three primary strategies for coping with uncertainty: consequence mitigation, reappraisal, and direct emotion management. People may engage in all, some, or none of these strategies during a waiting period. The model predicts that distress over uncertainty prompts use of these strategies, and the strategies in turn reduce distress (Definition 1 of waiting well). However, the effectiveness of these strategies for easing distress remains untested, and thus the current study examines the theorized bidirectional nature of distress and uncertainty navigation strategies during a waiting period.

Consequence mitigation comes in two forms: preventive action (previously referred to as objective consequence mitigation; Sweeny & Andrews, 2014; Sweeny & Cavanaugh, 2012) and proactive coping (previously referred to as psychological consequence mitigation). Preventive action aims to reduce objective consequences that might arise if the waiting period ends in bad news. For example, a woman awaiting results from a breast biopsy might make plans for childcare and inquire about leave policies at her job so she is prepared in the event that she needs to undergo treatment. Proactive coping similarly aims to reduce consequences of bad news, but the focus is on psychological consequences in this case. Previous investigations of proactive coping processes suggest that people often marshal tangible, emotional, and social resources in anticipation of a potential stressor (Aspinwall & Taylor, 1997).

Reappraisal comes in several forms during uncertain waiting periods, including managing expectations (either by bracing for the worst or embracing hope and optimism; Sweeny et al., 2006), preemptively finding the silver lining in the feared bad outcome (referred to as preemptive benefit finding in the model), and psychologically distancing oneself from the emotional impact of potentially bad news. In each case, reappraisal strategies involve

thinking differently about some aspect of the upcoming news. That is, expectation management strategies alter one's perspective on the probability of good and bad news; preemptive benefit finding alters one's perspective on the desirability of good and bad news; and distancing alters one's perspective on the implications of good and bad news.

Finally, the model proposes that people engage in direct emotion management strategies during waiting periods, namely distraction (Mischel & Mischel, 1983; Van Dillen & Koole, 2007) and emotional and expressive suppression (Gross & Levenson, 1993; Srivastava, Tamir, McGonigal, John, & Gross, 2009). Unlike reappraisal strategies, which aim to change the way people see the upcoming news, distraction and suppression address the current emotional experience by either focusing attention elsewhere (distraction) or simply trying not to feel or express anxiety and other negative emotions (suppression).

A key premise of the uncertainty navigation model is that anxiety and rumination lie at the heart of uncertain waiting periods (see Figure 1). Recent findings support the specific role of anxiety in these experiences of uncertainty, such that anxiety surprisingly decreases upon the arrival of bad news, relative to the high levels of anxiety that typify waiting periods (Boivin & Lancaster, 2010; Sweeny & Falkenstein, 2015). Other work confirms the close ties between anxiety and rumination during waiting periods, during which these experiences are strongly and positively correlated and follow nearly identical trajectories over time (Sweeny & Andrews, 2014; see also Garnefski & Kraaij, 2006). To test our first definition of waiting well, the current study examined the effectiveness of the aforementioned uncertainty navigation strategies for reducing anxiety and rumination over the course of a consequential waiting period. We note that the emotion regulation literature identifies rumination as an emotion regulation strategy, albeit a generally detrimental one (e.g., Aldao, Nolen-Hoeksema, & Schweizer, 2010). Although we recognize that people at times engage in rumination as a deliberate strategy, the type of rumination of interest to the current study is that which arises as an unwelcome intrapsychic intruder, similar to depressive rumination (e.g., Lyubomirsky & Nolen-Hoeksema, 1995; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008).

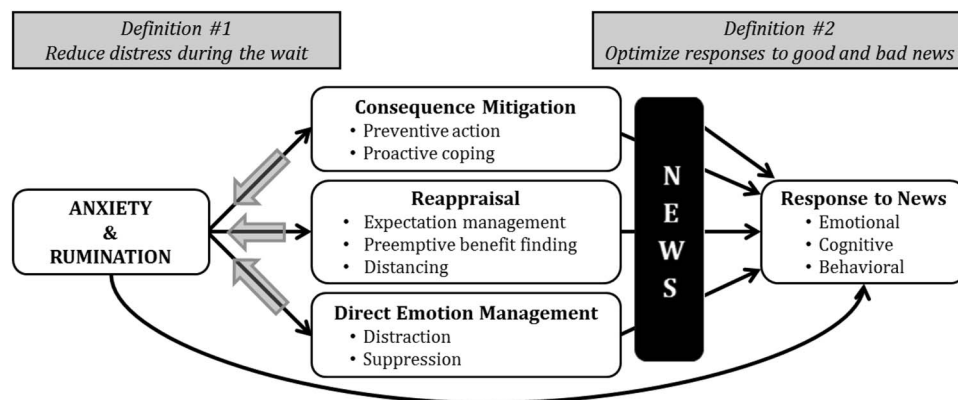


Figure 1. The uncertainty navigation model, revised.

Waiting Well, Definition 2: Preparing Effectively for Good and Bad News

The waiting periods of relevance to this article are stressful but also temporary by definition. With rare exception, people eventually learn the news they await, thus ending the distress of uncertainty but often initiating the distress that accompanies bad news (Sweeny & Falkenstein, 2015). Thus, a second definition of waiting well is waiting in a way that mitigates the sting of bad news and enhances one's excitement over good news.

The only research we know of that directly addresses the relationship between uncertainty experiences and responses to news examines the effect of prior expectations on emotional responses to outcomes that confirm or disconfirm one's expectations (Mellers, Schwartz, Ho, & Ritov, 1997; Shepperd & McNulty, 2002; Sweeny & Dillard, 2014; Sweeny & Shepperd, 2010; van Dijk & van der Pligt, 1997). To the extent that people are optimistic about a particular outcome, they risk disappointment if the outcome falls short of expectations. In contrast, people who brace for the worst and instead adopt a pessimistic outlook reduce their chances of disappointment and increase their chances of elation if the outcome is better than expected. Thus, although a considerable body of evidence emphasizes the benefits of optimism as a general mindset (e.g., Carver & Scheier, 1981; Nes & Segerstrom, 2006; Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000), maintaining optimistic expectations over the course of a waiting period may be unwise (Krizan & Sweeny, 2013; Sweeny & Shepperd, 2010).

In fact, people seem to be aware of optimism's risks in the context of uncertain waiting periods. One study asked people to indicate whether optimism or pessimism was a wise strategy in a variety of scenarios, and participants prescribed less optimism when one's control over the outcome was relatively low (Armor, Massey, & Sackett, 2008). Furthermore, people consistently lower their expectations as they approach the moment of truth, when any unrealistic optimism will soon be shattered (Sweeny & Krizan, 2013). These findings consistently point to bracing for the worst as the best way to wait well, at least by our second definition, but the relative merits of other uncertainty navigation strategies for this purpose remain untested.

Overview and Hypotheses

We examined the two definitions of waiting well in a longitudinal study of law graduates awaiting and receiving their results on the California bar exam. The period of time following the bar exam is an ideal context in which to study uncertainty navigation processes because the outcome is important and consequential, and the waiting period itself has a predictable beginning and end and is consistent across everyone who takes the exam on a particular date (Sweeny & Andrews, 2014). Furthermore, the time between the exam and availability of exam results (approximately 4 months) is short enough to reasonably study but also long enough to initiate complex processes that unfold over a waiting period and after the news arrives.

To investigate what it means to wait well, we addressed two overarching questions with our analyses. First, does the timely use of uncertainty navigation strategies predict better (or worse) experiences during the waiting period (Definition 1)? Consistent with the uncertainty navigation model, we tentatively hypothesized that

to the extent people engage in uncertainty navigation strategies (consequence mitigation, reappraisal, and direct emotion management), they will report less anxiety and rumination over the course of the waiting period.

Second, do distress and strategy use during the waiting period predict responses to good and bad news (Definition 2)? Consistent with research on expectation disconfirmation, we hypothesized that people who brace for the worst during the waiting period will respond more productively (e.g., minimizing negative emotions and maximizing positive emotions, minimizing denial and maximizing motivation) to both good and bad news, relative to those who maintain an optimistic outlook. Extending this hypothesis, we further anticipated that people who experience greater distress and disruption in general during the waiting period (i.e., greater anxiety and rumination, greater use of other coping strategies) will also respond better to good and bad news. Although we are not aware of any research directly supporting the latter hypothesis, people tend to evaluate improving sequences as more palatable than declining sequences (Kaakko et al., 2003; Loewenstein & Prelec, 1993; Ross & Simonson, 1991). For example, children report less pain and discomfort following a dental procedure that got increasingly easier than following a similar procedure that got increasingly difficult (Kaakko et al., 2003), and adults report feeling happier following a series of financial events that proceed from a loss to a gain rather than from a gain to a loss (Ross & Simonson, 1991). These findings tentatively suggest that a particularly miserable waiting period will set people up for an improving sequence (nowhere to go but up!), which will leave them relatively satisfied after receiving their news.

Method

Participants

Law school graduates ($N = 230$) taking the July 2013 California bar exam were recruited from 103 law schools across the United States. The final sample represented 27 law schools from 12 different states plus Washington, DC. The schools with the greatest representation in our sample were Chapman University (18%), Hastings College of the Law (15%), Loyola Marymount University (16%), and University of California, Los Angeles (11%). Of the 230 participants who enrolled in the study, 184 (80%) completed all 10 questionnaires (see below for details), and 213 (93%) completed at least eight questionnaires. Participants were 61% female, with a mean age of 27.60 years ($SD = 4.59$), and 67% White, 25% Asian or Pacific Islander, 7% Hispanic, and 1% Black. One hundred eighty-four participants (85%) reported passing the exam.

Procedures

Participants provided consent after the initial recruitment period and prior to completing the baseline survey. All participants were compensated with Amazon gift cards at the completion of the study. The full study consisted of 10 surveys beginning in the two weeks prior to the July 2013 California bar exam and ending after results became available in November 2013. The first survey was completed an average of 13.70 days ($SD = 2.96$ days) prior to the start of the exam, and the final survey was completed after par-

Participants learned whether they passed the exam, an average of 44.96 hours after the results became available online ($SD = 21.12$ hours). The remaining eight surveys were completed at regularly spaced intervals across the 4-month waiting period, starting several days after participants completed the exam and ending within 24 hours prior to learning their results. All procedures complied with APA ethical standards.

The variables of interest to this article (i.e., those included in the uncertainty navigation model) are part of a larger study. Full study materials are available as supplemental materials online.

Measures

Baseline questionnaire. The first questionnaire included measures of trait-like individual differences and baseline assessments of several key waiting variables, as indicated in our full study materials (see online supplemental materials). Here, we describe only our baseline measure of general affect, which served as a control variable in our analyses. We assessed general affect with 15 items that were selected specifically for the present study but have similar wording to those in Positive and Negative Affect Schedule—Expanded Form (Watson & Clark, 1994). Specifically, participants indicated the extent to which they were currently feeling inspired, relieved, grateful, happy, content, at peace, hostile, upset, ashamed, afraid, disappointed, regretful, depressed, discouraged, and angry (1 = *very slightly or not at all*, 5 = *extremely*). We reverse-coded the positive affect items to create a composite of general negative affect ($M = 2.84$, $SD = 0.76$, Cronbach's $\alpha = .89$).

Waiting period questionnaires. Participants completed identical questionnaires at each of the eight waiting time points, which we hereafter refer to as Waiting 1 through Waiting 8. Pertinent to this article, these questionnaires assessed key variables in the uncertainty navigation model (Sweeny & Cavanaugh, 2012). Unless otherwise indicated, the measures are similar or identical to those reported in Sweeny and Andrews (2014) from an earlier study of bar exam waiting experiences.

Distress. Participants indicated the extent to which they felt anxious in the past three days at all waiting time points by responding to a 10-item measure of anxiety that included eight general items (e.g., calm, distressed) and two items specific to the bar exam (“I am worried about my bar exam results”). All items were rated on a five-point scale (1 = *not at all*, 5 = *extremely*; $M = 2.84$, $SD = 0.68$, all Cronbach's α s $> .91$). Participants also responded to the anxiety measure at baseline ($M = 3.64$, $SD = 0.75$, $\alpha = .88$).

Rumination about the bar exam was measured at each point using three bar-specific items. These items included the general rumination item used by Sweeny and Andrews (2014; “I can't seem to stop thinking about the bar exam”; 1 = *strongly disagree*, 5 = *strongly agree*) and two new items that asked how often in the past three days participants had “thought about the bar exam prior to starting this survey” and “brought up the bar exam in conversation with other people,” (1 = *not at all*, 5 = *almost constantly*; $M = 2.90$, $SD = 0.66$, all α s $> .77$). Participants also responded to the rumination measure at baseline ($M = 4.37$, $SD = 0.64$, $\alpha = 0.62$).

Direct emotion management. Direct efforts to manage emotions about the bar exam were measured with three items at each

waiting time point, one that assessed distraction and appeared in Sweeny and Andrews (2014; “I've been trying to distract myself from thinking about my bar exam results”; $M = 2.92$; $SD = 1.00$) and two new items intended to capture the emotion regulation strategy of emotional suppression (“I've been trying to stop myself from thinking about the bar exam,” “I've been trying to hide my feelings about the bar exam from other people”; 1 = *strongly disagree*, 5 = *strongly agree*; $M = 2.64$; $SD = 0.87$, all α s $> .66$).

Reappraisal. At each waiting time point, participants estimated the probability that they would pass the bar exam (between 0% and 100%) based on their “intuitive, gut feeling” ($M = 66.76$, $SD = 19.35$). Participants also estimated their likelihood of passing at baseline ($M = 72.49$, $SD = 16.59$).

Bracing for bad news was measured with two items (“I'm bracing for the worst when it comes to my bar exam results,” “I want to make sure to keep my expectations low when it comes to my bar exam results”; 1 = *strongly disagree*, 5 = *strongly agree*; $M = 3.21$; $SD = 0.92$, all α s $> .67$).

Efforts to manage expectations toward optimism and hope were assessed with two items (“I'm hoping for the best when it comes to my bar exam results,” “I'm trying to be optimistic about my bar exam results”; 1 = *strongly disagree*, 5 = *strongly agree*; $M = 4.11$; $SD = 0.58$, all α s $> .57$). Although Sweeny and Andrews (2014) examined these items separately, strong correlations between the items across time points (r s $> .41$) and across several subsequent studies prompted us to combine the two items into a composite representing an optimistic and hopeful approach (as opposed to a pessimistic, bracing approach) to expectation management.

Efforts to preemptively identify benefits of failure were assessed with three items (e.g., “I feel like I'll learn from the experience if I fail the bar exam”; 1 = *strongly disagree*, 5 = *strongly agree*; $M = 1.95$, $SD = 0.80$, all α s $> .68$).

Distancing was measured with five items (e.g., “The bar exam is a valid measure of intelligence,” “The bar exam is overvalued in my profession”; 1 = *strongly disagree*, 5 = *strongly agree*; $M = 3.47$, $SD = 0.78$, all α s $> .79$).

Consequence mitigation. The measures of consequence mitigation were novel to this study. Regarding proactive coping, participants first indicated if they had spent any time in the prior three days thinking about how they would cope in case of failure (M across waiting time points = 39.5% responded yes). Participants then indicated how much time in the prior three days they spent thinking about how they would cope (1 = *very little time*, 5 = *a great deal of time*). If participants responded “no” to the initial dichotomous question, we assigned them a zero for the continuous measure of time spent. Due to significant positive skewness at most time points, we then log transformed this variable after adding a constant (1) to each score (prior to log transformation, $M = 1.11$, $SD = 1.08$; after log transformation, $M = .22$, $SD = 0.19$).

We also assessed preventive action. Participants first indicated if they had done anything in the prior three days to minimize problems that might occur in case of failure (M across waiting time points = 15.8% responded yes). Due to the low rate of these efforts, we did not consider this variable further.

Postnews questionnaire. The final questionnaire first asked participants whether they had passed or failed the bar exam. As noted earlier, the vast majority of participants passed (85%). Based

on their response to this question, participants were directed to items addressing their responses to passing or failing.

Responses to failing. Participants who failed the bar exam ($n = 33$) first completed three subscales of the Bad News Response Scale (Sweeny & Legg, 2014; Sweeny & Shepperd, 2007), adapted with instructions relevant to failing the bar exam. The measure included five items each to assess denial (e.g., “I don’t want to accept it,” “I’m unable to believe that this situation is happening”; $M = 2.74$, $SD = 1.10$, $\alpha = .90$), acceptance (e.g., “I’ve accepted that I can’t change the situation,” “I’ve accepted that the situation might not get better”; $M = 3.16$, $SD = 0.91$, $\alpha = .70$), and active responding (e.g., “I’m taking immediate action,” “I’m thinking about how to change my life to make the situation better”; $M = 2.85$, $SD = 0.87$, $\alpha = .76$; for all items, 1 = *not at all*, 5 = *very much*).

Participants who failed also responded to two items assessing unpleasant surprise (“Things turned out worse than I expected,” “I’m disappointed with my results”; 1 = *strongly disagree*, 5 = *strongly agree*; $M = 4.03$, $SD = 0.93$, $r = .41$, $p = .02$).

Responses to passing. Participants who passed the bar exam ($n = 184$) responded to two items assessing pleasant surprise (“Things turned out better than I expected,” “I’m relieved about my results”; $M = 4.26$, $SD = 0.73$, $r = .33$, $p < .0001$).

Results

Relationships Between Strategy Use and Distress

Predicting global distress. To examine the relationships between use of uncertainty navigation strategies and participants’ global waiting experience, we first created composites averaging the eight measures of anxiety, rumination, and strategy use (one composite per waiting variable). We controlled for baseline anxiety (or rumination) in our analyses to minimize the statistical influence of general tendencies toward anxiety and rumination, thus isolating the relationships between use of specific strategies during the waiting period and waiting-specific anxiety or rumination.

Table 1 presents standardized regression coefficients representing the relationship between use of each strategy and anxiety or

rumination. Looking first at anxiety, participants who engaged in more distraction and suppression, braced more, and used less positive expectation management (marginally significant) were more pessimistic regarding their chances of passing, and engaged in more proactive coping experienced higher levels of anxiety on average during the waiting period. Distancing and preemptive benefit finding were unrelated to anxiety after controlling for baseline anxiety.

Turning to rumination, participants who engaged in more distraction and suppression, braced more, were more pessimistic regarding their chances of passing, and engaged in more proactive coping ruminated more on average during the waiting period. Positive expectation management, distancing, and preemptive benefit finding were unrelated to rumination after controlling for baseline rumination.

Relationships between trajectories of distress and strategy use. Moving beyond global distress to experiences and strategy use over time, we next fitted bivariate growth models simultaneously to anxiety or rumination with each uncertainty navigation strategy in MPlus 6.12 (Muthén & Muthén, 2010) to evaluate whether the trajectory patterns were associated across the waiting period. We were particularly interested in the correlations among change features between experiences (i.e., anxiety or rumination) and strategy use (considered individually) to consider whether change patterns may be linked.

We centered each growth curve at Waiting 4, and thus interpretations of the intercept and linear slope reflect the level and instantaneous rate of change (i.e., tilt of the curve), respectively, at Waiting 4. (Univariate growth curve model estimates and model fit information are available in the online supplemental materials). These models indicated that a quadratic model fit best for all variables (compared with linear, $ps < .0001$) except benefit finding, for which a linear model fit best (compared with a model of no change, $p < .0001$). Thus, in most cases we present relationships between both quadratic and linear components (i.e., the shape and tilt of the curves, respectively). Figure 2 presents the univariate trajectories for each variable, and Table 2 presents the estimates for each relationship between change components.

Table 1
Regression Coefficients Predicting Averaged Waiting Anxiety and Rumination From Averaged Strategy Use

Strategy	Predicting anxiety β [95% CI]	Predicting rumination β [95% CI]
Direct emotion management		
Distraction	.51 [.41, .62]	.54 [.43, .65]
Suppression	.56 [.45, .66]	.51 [.40, .62]
Reappraisal		
Outcome predictions	-.28 [-.39, -.17]	-.23 [-.34, -.11]
Bracing	.33 [.22, .43]	.23 [.12, .35]
Positive expectation management	-.11 [-.22, .0001]	.04 [-.08, .15]
Preemptive benefit finding	-.02 [-.14, .09]	-.05 [-.17, .07]
Distancing	.05 [-.06, .17]	.02 [-.10, .14]
Consequence mitigation		
Proactive coping	.28 [.17, .38]	.41 [.31, .52]

Note. All analyses control for baseline anxiety or rumination. CI = confidence interval.

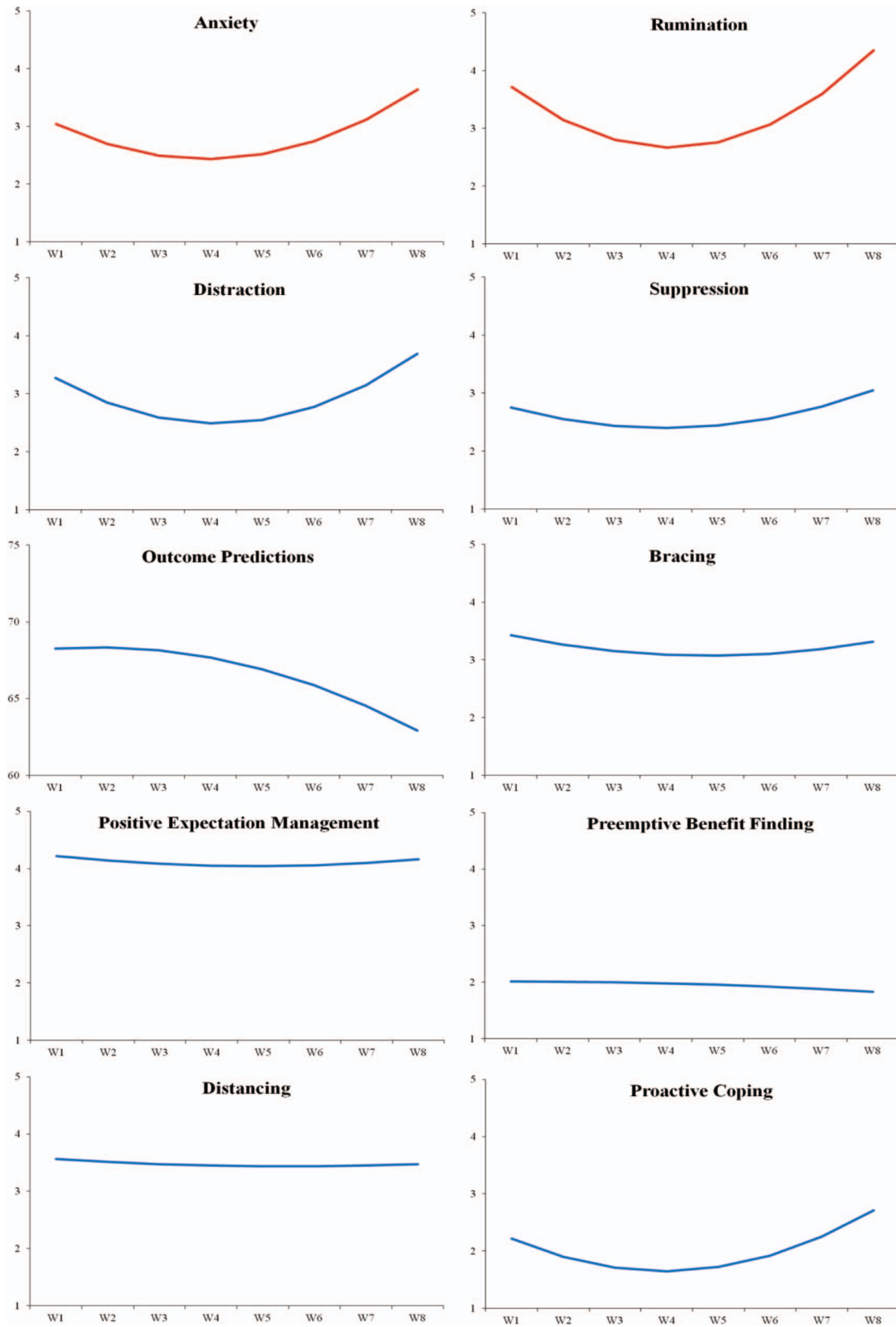


Figure 2. Expected trajectories from multilevel growth models. W1 through W8 = the eight waiting time points. See the online article for the color version of this figure.

Table 2
Relationships Between Change Components in Bivariate Growth Models

Strategy	Anxiety			Rumination		
	I	L	Q	I	L	Q
Direct emotion management						
Distraction						
I	.66*	.09	.05	.69*	.21*	-.41*
L	.22*	.85*	-.50*	.23*	.88*	-.44*
Q	-.48*	-.22 [†]	.50*	-.42*	-.14	.64*
Suppression						
I	.73*	.09	.05	.72*	.25*	-.41*
L	.13	.71*	-.10	.18 [†]	.61*	-.12
Q	-.72*	-.31*	.61*	-.64*	-.24	.60*
Reappraisal						
Outcome predictions						
I	-.40*	.13	-.04	-.30*	.04	.22*
L	-.35*	-.24 [†]	.42*	-.34*	-.12	.29*
Q	.28*	-.04	-.46*	.24*	-.13	-.32*
Bracing						
I	.44*	-.06	.02	.33*	.12	-.27*
L	.23*	.35*	-.18	.23*	.53*	-.52*
Q	-.12	.04	.20	-.14	-.10	.35 [†]
Positive expectation management						
I	-.23*	.07	.19 [†]	-.01	.12	-.06
L	.06	-.15	.27 [†]	.11	.04	-.17
Q	.21 [†]	.20	-.32*	.19 [†]	-.04	.14
Benefit finding						
I	-.02	-.06	.07	-.01	-.06	-.10
L	-.02	.02	-.33*	-.04	-.08	-.04
Distancing						
I	.11	-.12	.22*	.09	.11	-.14
L	-.16 [†]	-.06	.11	-.03	.15	-.06
Q	.14	.13	.09	.15	-.09	.11
Consequence mitigation						
Proactive coping						
I	.72*	.29*	-.40*	.71*	.31*	-.59*
L	-.22	.74*	-.23	.01	.68*	-.20
Q	.01	-.35*	.81*	.17	-.19*	.34*

Note. Estimates are standardized. All growth curves were centered at Waiting 4. Intercepts (I) indicate the level at Waiting 4; linear components (L) indicate the tilt of the curves; quadratic components (Q) indicate the shape of the curves.

[†] $p < .10$. * $p < .05$.

The bivariate growth model findings were generally consistent with the conclusions from the regression analyses with averaged distress and strategy use, suggesting that anxiety and rumination are related to both the level of and pattern of change in strategy use across the waiting period. Specifically, the results in Table 2 indicate that features of the temporal trajectories of distraction, suppression, outcome predictions, bracing, and proactive coping were related to features of the temporal trajectories of both anxiety and rumination. The trajectories of positive expectation management and preemptive benefit finding were related to that of anxiety, but not rumination. The trajectory of distancing was not significantly related to that of either anxiety or rumination.

Cross-lagged relationships between distress and strategy use. Although the analyses presented thus far begin to paint a picture of the dynamics between strategy use and distress, establishing causal order is a thorny task. For example, it is possible that focusing on distraction or bracing for the worst leads people to feel more anxious and to ruminate more during a waiting period, but it is equally likely (and perhaps more intuitive) to conclude that

people who feel anxious and ruminative consequently expend more effort to distract themselves and manage their expectations.

Although the correlational nature of our study does not allow for definitive causal conclusions, analyses that capitalize on the longitudinal nature of the study can illuminate temporal order. Thus, we used structural equation modeling using Mplus (Version 6.12, Muthén & Muthén, 2010) to examine cross-lagged relationships between anxiety and rumination on the one hand and strategy use on the other. We fitted a latent crosslag-simplex model that assumed each latent trait was identified by a single variable at each wave and was equally reliable, and which parsed the wave-specific (unreliable) variance from variance that is transmitted across waves (see McArdle, 2009). For each variable pairing (e.g., anxiety with distraction, rumination with bracing), we fitted a model that included all simplex and cross-lagged paths. We then conducted model fit comparison tests between the full cross-lagged model and three alternative models: one in which the directional paths from distress to strategy use were fixed to zero, one in which the directional paths from strategy use to distress were fixed to

zero, and one in which all cross-lagged paths were fixed to zero. For variable pairs that showed a cross-lagged relationship, either bi- or unidirectional, we then fitted models in which all paths in a particular direction (anxiety/rumination to strategy use, or vice versa) were held constant.

Here we summarize the conclusion from each set of models, organized by uncertainty navigation strategy for clarity. We present model information and fit indices for the best fitting models (i.e., the simplest model that did not show a decrement in fit from the successively more complex model), and model comparison tests are available in supplemental materials (online). We also summarize the findings from the cross-lagged models in Table 3.

Direct Emotion Management

Distraction. Model comparison tests suggest that the temporal relationship between anxiety and distraction is bidirectional, such that higher anxiety at one waiting time point predicts more distraction efforts at the next time point, and vice versa. A model in which both sets of paths were held constant (i.e., equated) was the best fitting model, root-mean-square error of approximation [RMSEA] = .064; 95% confidence interval [CI] [.051, .077]). See Tables 4 and 5 for standardized path coefficients in the best fitting model. Note that for models that held one or both sets of paths constant, the standardized paths nonetheless vary somewhat because the models were fitted to the unstandardized data. Unstandardized estimates are available upon request.

Tests for rumination suggest a similarly bidirectional relationship, such that more rumination at one waiting time point predicts

more distraction efforts at the next time point, and vice versa. As with anxiety, a model in which both sets of paths were held constant was the best fitting model, RMSEA = 0.087, 95% CI [.075, .100].

Suppression. Model comparison tests suggest that the temporal relationship between anxiety and suppression is bidirectional, such that higher anxiety at one waiting time point predicts more suppression efforts at the next time point, and vice versa. A full cross-lagged model with all paths freely estimated (no paths equated) was the best fitting model, RMSEA = .073, 95% CI [.060, .087]. Note in Table 4 that the path from anxiety to suppression is positive at the start of the waiting period but becomes negative toward the end. The path from suppression to anxiety is generally positive but only strong at the start and end of the waiting period.

Tests for rumination suggest a similarly bidirectional relationship, such that more rumination at one waiting time point predicts more suppression efforts at the next time point, and vice versa. In this case, a model in which the paths from rumination to suppression, but not from rumination to distress, were held constant was the best fitting model, RMSEA = .076, 95% CI [.063, .089]. Note in Table 5 that the path from suppression to rumination (paths from rumination to suppression are equated) is generally positive but only strong at the start of the waiting period.

Reappraisal

Expectation management. Though not explicitly an uncertainty navigation strategy, people often proactively manage their outcome predictions during waiting periods (Sweeney &

Table 3
Summary of Relationships in Cross-Lagged Models

Strategy	Bidirectional relationship	Distress predicts strategy (only)	Strategy predicts distress (only)
Direct emotion management			
Distraction			
Anxiety	✓		
Rumination	✓		
Suppression			
Anxiety	✓		
Rumination	✓		
Reappraisal			
Outcome predictions			
Anxiety		✓	
Rumination	✓		
Bracing			
Anxiety		✓	
Rumination			✓
Positive expectation management			
Anxiety			
Rumination			
Benefit finding			
Anxiety			
Rumination			
Distancing			
Anxiety			
Rumination			
Consequence mitigation			
Proactive coping			
Anxiety	✓		
Rumination	✓		

Table 4
Path Coefficients for Anxiety and Strategy Use in Best Fitting Cross-Lagged Models

Strategy	Waiting 1 → Waiting 2	Waiting 2 → Waiting 3	Waiting 3 → Waiting 4	Waiting 4 → Waiting 5	Waiting 5 → Waiting 6	Waiting 6 → Waiting 7	Waiting 7 → Waiting 8
Direct emotion management							
Anxiety → distraction ^a	.10*	.08*	.08*	.09*	.09*	.09*	.12*
Distraction → anxiety ^a	.10*	.11*	.10*	.10*	.10*	.08*	.09*
Anxiety → suppression	.16	-.02	.19*	.07	.16 [†]	-.22 [†]	-.11
Suppression → anxiety	.25*	.15	.09	-.06	.14 [†]	.28*	.26*
Reappraisal							
Anxiety → predictions ^a	-.02*	-.02*	-.02*	-.02*	-.02*	-.02*	-.02*
Predictions → anxiety ^b	—	—	—	—	—	—	—
Anxiety → bracing ^a	.05*	.04*	.03*	.04*	.03*	.04*	.04*
Bracing → anxiety ^b	—	—	—	—	—	—	—
Consequence mitigation							
Anxiety → proactive coping	-.29 [†]	.25*	-.26	.01	-.08	.30*	-.41*
Proactive coping → anxiety ^a	.08*	.07*	.05*	.06*	.06*	.05*	.07*

Note. Path estimates are standardized.
^a Paths are fixed to be constant. ^b Paths are set to zero.
[†] $p < .10$. * $p < .05$.

Krizan, 2013; Sweeny et al., 2006). Model comparison tests tentatively suggest that the temporal relationship between anxiety and outcome predictions is unidirectional, with higher anxiety at one time point predicting more pessimistic predictions at the next time point, but not vice versa. A model in which the paths from predictions to anxiety were set to zero and paths from anxiety to predictions were held constant was the best fitting model for anxiety and outcome predictions, RMSEA = .078, 95% CI [.065, .091]. In contrast, the temporal relationship between rumination and outcome predictions was bidirectional, such that more rumination at one time point predicts more pessimistic predictions at the next time point, and more pessimistic predictions at one time point generally (but not consistently) predicts more rumination at the next, RMSEA = .066, 95% CI [.052, .079]. Note in Table 5 that the path from predictions to rumination changes direction leading up to the moment of truth; most paths are weak but negative (pessi-

mistic predictions predict rumination), but more pessimistic predictions at Waiting 7 predict less rumination at Waiting 8.

Turning next to bracing, model comparison tests suggest that the temporal relationship between anxiety and bracing is largely unidirectional, such that higher anxiety at one waiting time point predicts more bracing at the next time point, but not vice versa. A model in which the paths from bracing to anxiety were fixed to zero and the paths from anxiety to bracing were held constant was the best fitting model for anxiety and bracing, RMSEA = .058, 95% CI [.044, .072]. In contrast, model comparison tests for rumination and bracing suggest a unidirectional relationship in the opposite direction, such that more bracing at one waiting time point generally predicts more rumination at the next time point, but not vice versa, RMSEA = .058, 95% CI [.044, .073]. Note in Table 5, however, that much like the relationship between outcome predictions and rumination, the path from bracing to rumination changes direction

Table 5
Path Coefficients for Rumination and Strategy Use in Best Fitting Cross-Lagged Models

Strategy	Waiting 1 → Waiting 2	Waiting 2 → Waiting 3	Waiting 3 → Waiting 4	Waiting 4 → Waiting 5	Waiting 5 → Waiting 6	Waiting 6 → Waiting 7	Waiting 7 → Waiting 8
Direct emotion management							
Rumination → distraction ^a	.09*	.09*	.08*	.09*	.10*	.10*	.12*
Distraction → rumination ^a	.07*	.08*	.07*	.07*	.07*	.06*	.06*
Rumination → suppression ^a	.05*	.05*	.05*	.05*	.06*	.06*	.07*
Suppression → rumination	.40*	.08	.09	.02	.15 [†]	.03	-.07
Reappraisal							
Rumination → predictions ^a	-.02*	-.02*	-.02*	-.02*	-.02*	-.02*	-.02*
Predictions → rumination	-.05	-.09	.01	-.06	-.02	-.03	.23*
Rumination → bracing ^b	—	—	—	—	—	—	—
Bracing → rumination	.04	.13*	-.05	.06	.07	-.003	-.18*
Consequence mitigation							
Rumination → proactive coping	-.02	.24 [†]	-.39 [†]	.25*	-.04	.27*	-.46*
Proactive coping → rumination ^a	.08*	.07*	.05*	.06*	.06*	.06*	.08*

Note. Path estimates are standardized.
^a Paths are fixed to be constant. ^b Paths are set to zero.
[†] $p < .10$. * $p < .05$.

Table 6
Regression Coefficients Predicting Postnews Responses From Averaged Distress

Waiting variable (distress or strategy use)	Response to failing ($n = 33$)				Response to passing ($n = 184$)
	Denial β [95% CI]	Acceptance β [95% CI]	Active responding β [95% CI]	Unpleasant surprise β [95% CI]	Pleasant surprise β [95% CI]
Distress					
Anxiety	.17 [-.19, .49]	.05 [-.27, .35]	.46* [.11, .72]	.07 [-.29, .41]	.49* [.35, .68]
Rumination	.12 [-.24, .46]	-.03 [-.34, .29]	.57* [.25, .82]	.11 [-.25, .45]	.31* [.17, .47]
Direct emotion management					
Distraction	-.01 [-.41, .38]	-.01 [-.36, .34]	.31 [†] [-.05, .69]	.04 [-.28, .37]	.46* [.33, .60]
Suppression	-.16 [-.52, .23]	-.04 [-.37, .31]	.40* [.03, .73]	<.01 [-.38, .38]	.48* [.35, .63]
Reappraisal					
Outcome predictions	.45* [.05, .64]	-.16 [-.39, .17]	-.38* [-.60, -.01]	.61* [.21, .73]	-.43* [-.64, -.32]
Bracing	-.29 [-.65, .10]	.26 [-.11, .56]	.59* [.28, .90]	-.47* [-.79, -.10]	.48* [.34, .61]
Positive expectation management	.43* [.04, .48]	-.34 [†] [-.39, .01]	-.07 [-.28, .19]	.68* [.25, .59]	.03 [-.14, .20]
Benefit finding	-.30 [-.64, .07]	-.06 [-.38, .28]	.13 [-.24, .49]	-.18 [-.54, .19]	.14 [†] [-.01, .28]
Distancing	-.06 [-.42, .57]	-.04 [-.49, .40]	<.01 [-.49, .49]	-.03 [-.53, .46]	.07 [-.07, .21]
Consequence mitigation					
Proactive coping	-.47* [-.71, -.11]	<.01 [-.30, .30]	.43* [.10, .70]	-.12 [-.44, .23]	.22* [.08, .39]

Note. All analyses control for baseline affect. CI = confidence interval.

[†] $p < .10$. * $p < .05$.

leading up to the moment of truth, such that more bracing at Waiting 7 predicts less rumination at Waiting 8.

Finally, turning to positive expectation management, model comparison tests suggest no cross-lagged relationship with either anxiety or rumination.

Preemptive benefit finding. Model comparison tests suggest no cross-lagged relationship between either anxiety or rumination and preemptive benefit finding.

Distancing. Model comparison tests suggest no cross-lagged relationship between either anxiety or rumination and distancing.

Proactive coping. Model comparison tests suggest that the temporal relationship between anxiety and proactive coping is bidirectional. A model that estimated both sets of paths but which held constant the paths from proactive coping to anxiety was the best fitting model for anxiety and proactive coping, RMSEA = .057, 95% CI [.042, .071]. More proactive coping at one time point predicted greater anxiety at the next time point, but the strength and direction of the paths from anxiety to proactive coping varied across the waiting period.

Similarly, the temporal relationship between rumination and proactive coping was bidirectional, and again a model that estimated both sets of paths but which held constant the paths from proactive coping to rumination was the best fitting model, RMSEA = .065, 95% CI [.052, .079]. More proactive coping at one time point predicted more rumination at the next time point, and more rumination at one time point generally predicted greater proactive coping at the next.

Relationships Between Distress and Responses to News

To examine the relationships between waiting variables and responses to good and bad news, we again used the composites averaging the eight measures of anxiety, rumination, and strategy use, this time as predictors of postnews measures. We ran analyses separately for participants who failed and participants who passed. We note that findings regarding responses to

failure should be interpreted with caution due to the relatively small sample size in these analyses ($n_{fail} = 33$ vs. $n_{pass} = 184$). In all analyses, we controlled for baseline affect to reduce the influence of general tendencies toward positive or negative emotionality. Table 6 presents the standardized regression coefficients representing relationships between waiting variables and postnews responses, controlling for baseline affect. We note that simple (unadjusted) bivariate correlations between waiting variables and postnews measures or multiple regression analyses controlling for other baseline and dispositional variables did not notably alter the findings.

Responses to bad news. We first examined postnews responses of participants who reported that they failed the bar exam. Recall that participants who failed indicated their degree of denial, acceptance, active responding, and unpleasant surprise. Regarding denial, participants who engaged in more positive expectation management and who were generally more optimistic in their outcome predictions during the waiting period reported a greater sense of denial in response to the news of failure. Participants who engaged in less proactive coping during the waiting period also responded to failure with marginally greater denial.

Acceptance is in many ways the opposite of denial. Although no waiting variable significantly predicted responding to failure with acceptance, participants who engaged in less positive expectation management reported marginally more acceptance following failure.

Looking next at active responding, participants who were more anxious, ruminated more, engaged in more distraction (marginal) and suppression, braced more, and were generally more pessimistic in their outcome predictions during the waiting period reported greater motivation to take action in the face of failure. Participants who engaged in more proactive coping during the waiting period also responded to failure with greater motivation to take action.

Last, we examined participants' emotional response to failing the bar exam. Participants who were generally more optimistic in

their outcome predictions and who engaged in more positive expectation management experienced more unpleasant surprise in responses to failure, and participants who braced more during the waiting period experienced less unpleasant surprise.

Responses to good news. Finally, we examined postnews responses of participants who reported that they passed the bar exam. Recall that participants who passed indicated their degree of pleasant surprise, which represents a composite of relief and a sense that their outcome was better than expected. Participants who were more anxious, who ruminated more, who engaged in more distraction and suppression efforts, and who engaged in more preemptive benefit finding (marginally significant) during the waiting period experienced more pleasant surprise in response to the good news that they had passed the bar exam. Participants who braced more and who were generally more pessimistic in their outcome predictions also experienced more pleasant surprise. Finally, participants who engaged in more proactive coping during the waiting period responded more positively to the good news.

Discussion

The goal of this article was to answer two questions, each addressing alternative definitions of “waiting well.” First, can people wait in a way that eases their distress during uncertain waiting periods? Second, can people wait in a way that sets them up to respond better to the news when it arrives? Appropriately, our findings present some good news and some bad news. The bad news is that few (if any) deliberate uncertainty navigation strategies seem to be effective for reducing distress during waiting periods. Although our study was not designed to assess the presence or frequency of specific strategies, participants’ ratings suggest that many of them did indeed engage the theorized coping strategies during the waiting period. For example, averaging across the eight waiting measurement points, 51% of participants provided average distraction ratings that were at or above the midpoint of the scale; 60% of participants provided average ratings on the two bracing items that were at or above the midpoint; and a whopping 95% provided average ratings on the two positive expectation management items that were at or above the midpoint. No strategy had a notable floor effect. However, these mental gymnastics failed to consistently or remarkably reduce people’s distress during the waiting period, as we discuss in more detail below. Thus, by our first definition of waiting well, people seem to be failing miserably.

The good news is that impatient waiters can take heart: A difficult waiting period, plagued by anxious, negative thinking, seems to pay off once the news arrives. Participants who reported a particularly agonizing wait for their bar exam results got a boost when the news was good and took less of a blow when the news was bad. Thus, by our second definition of waiting well, at least some people seem to be succeeding.

(In)Effectiveness of Coping Strategies During Waiting Periods

We conducted a thorough evaluation of the effectiveness of strategies for coping with uncertainty, as outlined in the uncertainty navigation model, using three analytic strategies. We first assessed the average relationship between distress and strategy

use, controlling for baseline distress to target processes specific to the waiting period. Note that this approach is relatively conservative, as presumably people who were very anxious or who experienced persistent rumination in the days leading up to the bar exam were likely the same people who experienced distress during the waiting period following the exam. Second, we examined relationships between trajectories of distress and trajectories of strategy use to capture synchrony or asynchrony in these processes. Finally, we marshaled the full force of the longitudinal design to examine cross-lagged relationships between distress and strategy use over time. On the whole, our conclusions regarding our first definition of waiting well are quite consistent across these three analytical approaches.

Direct emotion management. Starting with the strategy of distraction, each set of analyses points to a bidirectional relationship between distress and distraction, such that greater distress predicts greater use of distraction, and greater use of distraction predicts greater distress. The apparent harm of such efforts was somewhat surprising, given both the intuitiveness of distraction as a coping strategy in the context of uncertainty and research supporting the use of distraction as an effective antidote to rumination (Bagby & Parker, 2001; Chang, 2004; Fennell & Teasdale, 1984). Of course, our measure of distraction tapped effort more than effect (“I’ve been *trying to* distract myself from thinking about my bar exam results,” emphasis added), so perhaps distraction is only effective to the extent that one can truly, if temporarily, forget about the uncertainty. Nonetheless, our findings suggest that the advice to “just try to distract yourself” or to “take your mind off it” is not necessarily a recipe for a distress-free waiting period.

Turning to emotional and expressive suppression, the picture is quite similar, albeit somewhat less consistent in the final cross-lagged model. As a whole, distress and suppression efforts were positively and bidirectionally related, such that rising distress predicted greater efforts to suppress anxiety, and suppression efforts predicted greater subsequent distress. These findings are unsurprising in light of consistent evidence demonstrating the harmfulness of suppression as an emotion regulation strategy (Gross & John, 2003; Gross & Levenson, 1997). Perhaps a better alternative would be to simply experience and express emotions in a natural way without attempting to suppress them (see work on mindfulness; e.g., Chambers, Gullone, & Allen, 2009), but it is also possible that deliberate emotional expression might be effective for mitigating the detrimental effects of suppression. Myriad studies have demonstrated the benefits of expressive writing for resolving distress over past unpleasant and even traumatic experiences (Lepore & Smyth, 2002; Pennebaker, 1997; Sloan, Marx, Epstein, & Dobbs, 2008). More relevant to waiting periods, several studies have introduced expressive writing interventions during ongoing stressful events (e.g., preparing for a graduate school entrance exam, stress after first heart attack) and found that this exercise can be useful for mitigating depression and increasing quality of life (Frattaroli, Thomas, & Lyubomirsky, 2011; Willmott, Harris, Gellaitry, Cooper, & Horne, 2011). Although no research to our knowledge has examined the effectiveness of emotional expression during uncertain waiting periods, the clear ineffectiveness of emotional suppression suggests that expressive writing might be a useful target for future interventions.

Reappraisal. Managing expectations about one’s likely outcome is a coping strategy somewhat unique to, and quite prevalent

during, uncertain waiting periods (Sweeny et al., 2006; Sweeny & Krizan, 2013). Despite the familiar recommendation to hope for the best but brace for the worst, in reality these two approaches are somewhat in conflict. In our study, the strategies of bracing and positive expectation management (an internally reliable composite of hoping for the best and trying to be optimistic) were consistently negatively correlated, with r s ranging from $-.14$ to $-.31$ at each point during the waiting period.

Comparing the effectiveness of these expectation management strategies, each seemed to have some merit, although the findings were inconsistent across analyses and across measures of distress. Bracing was generally associated with greater anxiety, but only unidirectionally in the final cross-lagged model (greater anxiety predicted more bracing). The relationship with rumination was more complex, such that rumination did not predict bracing, and bracing predicted rumination inconsistently across the waiting period. Initially, more bracing predicted rising rumination, but the final path was in the opposite direction, such that bracing toward the moment of truth predicted less rumination in the final hours before the news. Any particular path should be interpreted with caution, but this apparent benefit of bracing at the end of the waiting period is consistent with theoretical and empirical evidence for the benefits of well-timed pessimism at the moment of truth (Carroll, Sweeny, & Shepperd, 2006; Sweeny & Krizan, 2013; Sweeny & Shepperd, 2010).

The relationship between distress and positive expectation management was weaker, but some analyses suggest that on the whole, this strategy may do more good than harm. The overall relationship between anxiety and positive expectation management was weak but negative during the waiting period (no relationship with rumination), and the trajectories of anxiety and positive expectation management were also negatively related (again, no relationship with the trajectory of rumination). However, the cross-lagged analyses suggested no temporal relationship between either measure of distress and positive expectation management. We tentatively conclude that embracing hope and optimism does little or no harm, and potentially some good, at least during the duration of the waiting period.

Consistent with the one previous study to examine benefit finding and distancing during waiting periods (Sweeny & Andrews, 2014), these strategies were largely unrelated to distress. The trajectory of benefit finding was related to anxiety (negatively), but neither strategy was associated with distress overall or in cross-lagged models. Perhaps benefit finding and distancing do not belong in the list of uncertainty navigation strategies, but it is also possible that measurement issues are to blame for the null relationships between these strategies and distress. Unlike direct emotion management and expectation management, we assessed benefit finding and distancing through “echoes” of their use (i.e., recognition of a silver lining in failure, perceptions of the personal relevance of the bar exam) rather than directly asking about deliberate use of these strategies. Studies currently underway have added more direct questions about benefit finding and distancing (i.e., “I have been trying to focus on good things that might come from failing the bar exam,” “I have been trying to remind myself that failing the bar exam would not mean that I am incompetent or unqualified to practice law”), but the role of these strategies during waiting periods is currently unclear.

Proactive coping. Although too few participants engaged in preventive action to usefully examine that strategy, numerous people indicated that they were engaging in proactive coping. Unfortunately, it seems that these proactive coping efforts may have increased distress. Proactive coping was associated with heightened distress across analyses, and the cross-lagged models suggest that this strategy was more a source than a reflection of distress. Of course, this strategy is future-focused, designed to pay off in the face of failure rather than during the waiting period, a topic we turn to next.

Downstream Consequences of Waiting Experiences

The bleak picture painted by our examination of coping strategies during the waiting period looks a bit brighter when we fast-forward to the point when the news arrives. Even if some distress is unavoidable during the period of uncertainty, this distress seems to provide a useful contrast that makes bad news feel less bad and good news feel even better. Thus, even if people fail to wait well by our first definition (mitigating distress during the waiting period), they are likely to succeed by the second definition (optimizing responses to good and bad news).

Easing the agony of defeat. Before discussing responses to bad news, we note that fortunately for our participants (if somewhat inconvenient for our research question), only 33 people in our sample failed the bar exam. Thus, we focus on relatively large effects and ones that are consistent across several measures to mitigate the likelihood of drawing spurious conclusions. With this caveat in mind, the findings largely aligned with our hypothesis that a waiting period marked by distress and pessimism portends a relatively productive response to bad news. That is, controlling for baseline affect, people who reported greater anxiety, more rumination, more direct efforts to manage their emotions, more pessimistic outcome predictions, and more bracing during the waiting period were more motivated to spring into action after finding out they failed the bar exam, presumably with an eye on retaking the exam at the next available opportunity (approximately 3 months later). In contrast, people who engaged in more positive expectation management and who were more optimistic about their chances of passing responded to news of failure with a sense of disbelief and denial.

Although proactive coping seemed to fail as an uncertainty navigation strategy, it may have succeeded at its intended purpose: People who coped proactively with the possibility of failure responded to failure with less denial and more motivation to take productive action. Finally, people’s emotional response to bad news, specifically unpleasant surprise, was solely and strongly predicted by optimism and a failure to brace during the waiting period. People often brace in an effort to avoid being caught off-guard by failure (Sweeny et al., 2006), and in this study it seemed to have its intended effect.

These findings bring to mind the strategy of defensive pessimism, a reaction to anxiety that embraces pessimistic expectations followed by detailed reflection on worst case scenarios, which then leads to preventive efforts (Norem, 2001; Norem & Cantor, 1986; Spencer & Norem, 1996). In fact, although not the focus of this article, the current study included a measure of defensive pessimism in the baseline questionnaire, which was positively correlated with distress, direct emotion management, bracing, and pro-

active coping during the waiting period (r s between .14 and .29, p s < .04). Although the trait-like measure of defensive pessimism was not associated with any postnews variable (r s between .01 and .22, p s > .23), it seems that people who behaved like defensive pessimists during the waiting period were more prepared for the news when it arrived.

Enhancing the thrill of victory. Anecdotal evidence suggests that all too often people receive eagerly awaited good news only to find the news disappointingly underwhelming. The findings from our study suggest that people are more likely to be underwhelmed by good news to the extent that they sail through the waiting period with relative ease. Specifically, people who reported greater distress, more distraction and suppression efforts, more pessimistic outcome predictions, and more bracing during the waiting period were more pleasantly surprised by the news that they had passed the bar exam. Furthermore, proactive coping emerged as an effective strategy in the face of good news as well as bad, such that people who engaged in more proactive coping felt more pleasantly surprised by good news. Perhaps spending time pondering how to cope with bad news makes it all the sweeter if people ultimately need not use the coping strategies they carefully put in place.

On a broad note, we did our best to remove the influence of “third variables” in the relationship between waiting experiences and responses to bad news by controlling for baseline affect. For example, it is likely that someone who is dispositionally happy will experience little distress during a waiting period and little distress (or great joy) in the face of news, with no causal relationship between these emotional experiences. However, even if we failed to control for all relevant third variables, the pattern of results renders these sorts of explanations unlikely. On the whole, people who were particularly negative (distressed, pessimistic) during the waiting period were the very same people who were particularly positive upon learning their result on the bar exam, and the pattern of findings remained nearly identical when we removed control variables from our analyses.

Unanswered Questions

In light of our findings, perhaps the most daunting task that lies ahead in the nascent study of waiting periods is to identify strategies or interventions that reduce distress as people are waiting without sacrificing the benefits of a challenging waiting period for responses to good and bad news. The need for such revelations is clear: In the context of health-related waiting periods, and particularly biopsies, studies have revealed levels of anxiety and depression during the wait for biopsy results that in a substantial minority of patients exceeded clinical thresholds for anxiety disorders (Lampic, Thurfjell, Bergh, & Sjöden, 2001; Lebel et al., 2003; Pineault, 2007) or levels typically seen in psychiatric outpatients (Poole et al., 1999). Even outside the context of life-or-death outcomes, people report levels of anxiety during waiting periods that far exceed their anxiety in the face of bad news (Boivin & Lancaster, 2010; Sweeny & Falkenstein, 2015). The uncertainty navigation model provides insight into potentially fruitful targets for intervention, and the current study adds specificity regarding the likely consequences of upregulating or downregulating various aspects of the waiting experience. The task ahead, then, is to identify interventions

that balance the elements of the model in ways that promote waiting well by both definitions.

Despite our findings (seemingly) to the contrary, we suspect that distraction can be an effective strategy for reducing immediate distress to the extent that people are able to fully immerse themselves in an engaging and unrelated task. In fact, although our analyses did not identify any self-reported strategy as particularly effective, the overall temporal patterns of distress and strategy use across the waiting period reveal a period of relative ease during the middle of the wait (see Figure 2). We suspect that these consistently U-shaped patterns (see also Sweeny & Andrews, 2014) may reflect people’s success in taking their minds off the bar exam as the exam itself becomes a distant memory and the news feels like it will take an eternity to arrive. In fact, this temporal pattern might make distraction a particularly effective strategy for optimizing emotional responses to both waiting and news. That is, it seems that distraction is well-timed: It takes people’s minds off the uncertain outcome when the performance is far in the past and news is far in the future, rendering efforts to evaluate the performance or prepare for the news relatively useless. As the moment of truth draws near, people increasingly attend to their pending fate and thus can marshal their efforts to brace themselves for the upcoming news.

Beyond distraction, interventions that are effective for reducing distress and bolstering well-being in other contexts may prove fruitful in the context of waiting periods as well. For example, mindfulness meditation aims to increase focus on the present moment rather than the past or future, while promoting nonjudgmental acceptance of one’s thoughts and feelings (Kabat-Zinn, 1994). The present-focus of mindfulness training is particularly well-suited to provide relief from persistent rumination and anxiety about future events (e.g., Jain et al., 2007; Lykins & Baer, 2009; Ramel, Goldin, Carmona, & McQuaid, 2004), and its focus on nonjudgmental acceptance is well-suited to reduce angst in the face of bad news and promote effortlessly joyful reactions to good news. Furthermore, positive activities such as expressing gratitude, counting blessings, performing kind acts, and visualizing one’s best self have proven effective for enhancing happiness and well-being across diverse samples and in myriad contexts (see Lyubomirsky & Layous, 2013; Sin & Lyubomirsky, 2009) and thus may be effective for reducing negative emotions and boosting positive emotions across the entire span of the waiting/news cycle.

Finally, social support may play an important role in people’s waiting experiences. A previous study of the waiting period following the bar exam asked participants to report how many times during the previous three days they had brought up the bar exam in conversation with other people (for other findings from this data set, see Sweeny & Andrews, 2014). Although people were far more likely to talk about the bar exam shortly after completing the exam and as the moment of truth approached, even in the middle of the waiting period the average frequency was one to two conversations within the relevant three days. The frequency of these conversations makes clear that opportunities for support arise repeatedly throughout consequential waiting periods, and a vast literature supports the benefits of effective social support for mental and physical health (e.g., Schaefer, Coyne, & Lazarus, 1981; Thoits, 1995; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Whom people should seek out for support, how they should seek support, and how others should provide support during uncertain

waiting periods and after the news arrives are key questions for future research.

Concluding Thoughts

We began with two definitions of waiting well: waiting in a way that improves the waiting period, or waiting in a way that improves responses to good and bad news. In the end, our findings reveal an emotional trade-off. If people find a way to reduce their distress during the waiting period (albeit a difficult task, our findings suggest), they risk being flattened by bad news and overwhelmed by good news. If people are unable to manage their distress and instead endure a miserable waiting period, they can take solace in knowing that their relief over good news will be all the more immense, and their devastation over bad news will be relatively light.

References

- Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review, 30*, 217–237. <http://dx.doi.org/10.1016/j.cpr.2009.11.004>
- Aldwin, C. M., & Revenson, T. A. (1987). Does coping help? A reexamination of the relation between coping and mental health. *Journal of Personality and Social Psychology, 53*, 337–348. <http://dx.doi.org/10.1037/0022-3514.53.2.337>
- Armor, D. A., Massey, C., & Sackett, A. M. (2008). Prescribed optimism: Is it right to be wrong about the future? *Psychological Science, 19*, 329–331. <http://dx.doi.org/10.1111/j.1467-9280.2008.02089.x>
- Aspinwall, L. G., & Taylor, S. E. (1997). A stitch in time: Self-regulation and proactive coping. *Psychological Bulletin, 121*, 417–436. <http://dx.doi.org/10.1037/0033-2909.121.3.417>
- Bagby, R. M., & Parker, J. D. A. (2001). Relation of rumination and distraction with neuroticism and extraversion in a sample of patients with major depression. *Cognitive Therapy and Research, 25*, 91–102. <http://dx.doi.org/10.1023/A:1026430900363>
- Boivin, J., & Lancaster, D. (2010). Medical waiting periods: Imminence, emotions and coping. *Women's Health, 6*, 59–69. <http://dx.doi.org/10.2217/whe.09.79>
- Carroll, P., Sweeny, K., & Shepperd, J. A. (2006). Forsaking optimism. *Review of General Psychology, 10*, 56–73. <http://dx.doi.org/10.1037/1089-2680.10.1.56>
- Carver, C. S., & Scheier, M. F. (1981). *Attention and self-regulation: A control theory approach to human behavior*. New York, NY: Springer-Verlag. <http://dx.doi.org/10.1007/978-1-4612-5887-2>
- Chambers, R., Gullone, E., & Allen, N. B. (2009). Mindful emotion regulation: An integrative review. *Clinical Psychology Review, 29*, 560–572. <http://dx.doi.org/10.1016/j.cpr.2009.06.005>
- Chang, E. C. (2004). Distinguishing between ruminative and distractive responses in dysphoric college students: Does indication of past depression make a difference? *Personality and Individual Differences, 36*, 845–855. [http://dx.doi.org/10.1016/S0191-8869\(03\)00157-0](http://dx.doi.org/10.1016/S0191-8869(03)00157-0)
- Fennell, M. J., & Teasdale, J. D. (1984). Effects of distraction on thinking and affect in depressed patients. *British Journal of Clinical Psychology, 23*, 65–66. <http://dx.doi.org/10.1111/j.2044-8260.1984.tb00628.x>
- Folkman, S., & Lazarus, R. S. (1988). The relationship between coping and emotion: Implications for theory and research. *Social Science & Medicine, 26*, 309–317. [http://dx.doi.org/10.1016/0277-9536\(88\)90395-4](http://dx.doi.org/10.1016/0277-9536(88)90395-4)
- Frattaroli, J., Thomas, M., & Lyubomirsky, S. (2011). Opening up in the classroom: Effects of expressive writing on graduate school entrance exam performance. *Emotion, 11*, 691–696. <http://dx.doi.org/10.1037/a0022946>
- Garnefski, N., & Kraaij, V. (2006). Cognitive emotion regulation questionnaire—development of a short 18-item version (CERQ-short). *Personality and Individual Differences, 41*, 1045–1053.
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology, 85*, 348–362. <http://dx.doi.org/10.1037/0022-3514.85.2.348>
- Gross, J. J., & Levenson, R. W. (1993). Emotional suppression: Physiology, self-report, and expressive behavior. *Journal of Personality and Social Psychology, 64*, 970–986. <http://dx.doi.org/10.1037/0022-3514.64.6.970>
- Gross, J. J., & Levenson, R. W. (1997). Hiding feelings: The acute effects of inhibiting negative and positive emotion. *Journal of Abnormal Psychology, 106*, 95–103. <http://dx.doi.org/10.1037/0021-843X.106.1.95>
- Jain, S., Shapiro, S. L., Swanick, S., Roesch, S. C., Mills, P. J., Bell, I., & Schwartz, G. E. (2007). A randomized controlled trial of mindfulness meditation versus relaxation training: Effects on distress, positive states of mind, rumination, and distraction. *Annals of Behavioral Medicine, 33*, 11–21. http://dx.doi.org/10.1207/s15324796abm3301_2
- Kaakko, T., Horn, M. T., Weinstein, P., Kaufman, E., Leggot, P., & Coldwell, S. E. (2003). The influence of sequence of impressions on children's anxiety and discomfort. *Pediatric Dentistry, 25*, 357–364.
- Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life*. New York, NY: Hyperion.
- Krizan, Z., & Sweeny, K. (2013). Causes and consequences of expectation trajectories: “High” on optimism in a public ballot initiative. *Psychological Science, 24*, 706–714. <http://dx.doi.org/10.1177/0956797612460690>
- Lampic, C., Thurfjell, E., Bergh, J., & Sjöden, P. O. (2001). Short- and long-term anxiety and depression in women recalled after breast cancer screening. *European Journal of Cancer, 37*, 463–469. [http://dx.doi.org/10.1016/S0959-8049\(00\)00426-3](http://dx.doi.org/10.1016/S0959-8049(00)00426-3)
- Lebel, S., Jakubovits, G., Rosberger, Z., Loisel, C., Seguin, C., Cornaz, C., . . . Lisbona, A. (2003). Waiting for a breast biopsy. Psychosocial consequences and coping strategies. *Journal of Psychosomatic Research, 55*, 437–443. [http://dx.doi.org/10.1016/S0022-3999\(03\)00512-9](http://dx.doi.org/10.1016/S0022-3999(03)00512-9)
- Lepore, S. J., & Smyth, J. M. (Eds.). (2002). *The writing cure: How expressive writing promotes health and emotional well-being*. Washington, DC: American Psychological Association. <http://dx.doi.org/10.1037/10451-000>
- Loewenstein, G., & Prelec, D. (1993). Preferences for sequences of outcomes. *Psychological Review, 100*, 91–108.
- Lykins, E. L., & Baer, R. A. (2009). Psychological functioning in a sample of long-term practitioners of mindfulness meditation. *Journal of Cognitive Psychotherapy, 23*, 226–241. <http://dx.doi.org/10.1891/0889-8391.23.3.226>
- Lyubomirsky, S., & Layous, K. (2013). How do simple positive activities increase well-being? *Current Directions in Psychological Science, 22*, 57–62. <http://dx.doi.org/10.1177/0963721412469809>
- Lyubomirsky, S., & Nolen-Hoeksema, S. (1995). Effects of self-focused rumination on negative thinking and interpersonal problem solving. *Journal of Personality and Social Psychology, 69*, 176–190.
- McArdle, J. J. (2009). Latent variable modeling of differences and changes with longitudinal data. *Annual Review of Psychology, 60*, 577–605. <http://dx.doi.org/10.1146/annurev.psych.60.110707.163612>
- Mellers, B., Schwartz, A., Ho, K., & Ritov, I. (1997). Decision affect theory: Emotional reactions to outcomes of risky options. *Psychological Science, 8*, 423–429. <http://dx.doi.org/10.1111/j.1467-9280.1997.tb00455.x>
- Mischel, H. N., & Mischel, W. (1983). The development of children's knowledge of self-control strategies. *Child Development, 54*, 603–619. <http://dx.doi.org/10.2307/1130047>
- Muthén, L. K., & Muthén, B. O. (1998–2010). *Mplus user's guide* (6th ed.). Los Angeles, CA: Authors.

- Nes, L. S., & Segerstrom, S. C. (2006). Dispositional optimism and coping: A meta-analytic review. *Personality and Social Psychology Review, 10*, 235–251. http://dx.doi.org/10.1207/s15327957pspr1003_3
- Nolen-Hoeksema, S., Wisco, B. E., & Lyubomirsky, S. (2008). Rethinking rumination. *Perspectives on Psychological Science, 3*, 400–424.
- Norem, J. K. (2001). Defensive pessimism, optimism, and pessimism. In E. C. Chang (Ed.), *Optimism and pessimism: Implications for theory, research, and practice* (pp. 77–100). Washington, DC: American Psychological Association. <http://dx.doi.org/10.1037/10385-004>
- Norem, J. K., & Cantor, N. (1986). Defensive pessimism: Harnessing anxiety as motivation. *Journal of Personality and Social Psychology, 51*, 1208–1217. <http://dx.doi.org/10.1037/0022-3514.51.6.1208>
- Nosarti, C., Roberts, J. V., Crayford, T., McKenzie, K., & David, A. S. (2002). Early psychological adjustment in breast cancer patients: A prospective study. *Journal of Psychosomatic Research, 53*, 1123–1130. [http://dx.doi.org/10.1016/S0022-3999\(02\)00350-1](http://dx.doi.org/10.1016/S0022-3999(02)00350-1)
- Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science, 8*, 162–166. <http://dx.doi.org/10.1111/j.1467-9280.1997.tb00403.x>
- Pineault, P. (2007). Breast cancer screening: Women's experiences of waiting for further testing. *Oncology Nursing Forum, 34*, 847–853. <http://dx.doi.org/10.1188/07.ONF.847-853>
- Poole, K. (1997). The emergence of the 'waiting game': A critical examination of the psychosocial issues in diagnosing breast cancer. *Journal of Advanced Nursing, 25*, 273–281. <http://dx.doi.org/10.1046/j.1365-2648.1997.1997025273.x>
- Poole, K., Hood, K., Davis, B. D., Monypenny, I. J., Sweetland, H., Webster, D. J. T., . . . Mansel, R. E. (1999). Psychological distress associated with waiting for results of diagnostic investigations for breast disease. *The Breast, 8*, 334–338. <http://dx.doi.org/10.1054/brst.1999.0085>
- Ramel, W. I., Goldin, P. R., Carmona, P. E., & McQuaid, J. R. (2004). The effects of mindfulness meditation on cognitive process and affect in patients with past depression. *Cognitive Therapy and Research, 28*, 433–455. <http://dx.doi.org/10.1023/B:COTR.000045557.15923.96>
- Ross, W. T., & Simonson, I. (1991). Evaluations of pairs of experiences: A preference for happy endings. *Journal of Behavioral Decision Making, 4*, 273–282.
- Schaefer, C., Coyne, J. C., & Lazarus, R. S. (1981). The health-related functions of social support. *Journal of Behavioral Medicine, 4*, 381–406. <http://dx.doi.org/10.1007/BF00846149>
- Shepperd, J. A., & McNulty, J. K. (2002). The affective consequences of expected and unexpected outcomes. *Psychological Science, 13*, 85–88. <http://dx.doi.org/10.1111/1467-9280.00416>
- Sin, N. L., & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: A practice-friendly meta-analysis. *Journal of Clinical Psychology, 65*, 467–487. <http://dx.doi.org/10.1002/jclp.20593>
- Sloan, D. M., Marx, B. P., Epstein, E. M., & Dobbs, J. L. (2008). Expressive writing buffers against maladaptive rumination. *Emotion, 8*, 302–306. <http://dx.doi.org/10.1037/1528-3542.8.2.302>
- Spencer, S. M., & Norem, J. K. (1996). Reflection and distraction: Defensive pessimism, strategic optimism, and performance. *Personality and Social Psychology Bulletin, 22*, 354–365. <http://dx.doi.org/10.1177/0146167296224003>
- Srivastava, S., Tamir, M., McGonigal, K. M., John, O. P., & Gross, J. J. (2009). The social costs of emotional suppression: A prospective study of the transition to college. *Journal of Personality and Social Psychology, 96*, 883–897. <http://dx.doi.org/10.1037/a0014755>
- Sweeny, K., & Andrews, S. E. (2014). Mapping individual differences in the experience of a waiting period. *Journal of Personality and Social Psychology, 106*, 1015–1030. <http://dx.doi.org/10.1037/a0036031>
- Sweeny, K., Carroll, P. J., & Shepperd, J. A. (2006). Is optimism always best? Future outlooks and preparedness. *Current Directions in Psychological Science, 15*, 302–306. <http://dx.doi.org/10.1111/j.1467-8721.2006.00457.x>
- Sweeny, K., & Cavanaugh, A. G. (2012). Waiting is the hardest part: A model of uncertainty navigation in the context of health. *Health Psychology Review, 6*, 147–164. <http://dx.doi.org/10.1080/17437199.2010.520112>
- Sweeny, K., & Dillard, A. (2014). The effects of expectation disconfirmation on appraisal, affect, and behavioral intentions. *Risk Analysis, 34*, 711–720. <http://dx.doi.org/10.1111/risa.12129>
- Sweeny, K., & Falkenstein, A. (2015). *Is waiting really the hardest part? Comparing the emotion experiences of awaiting and receiving bad news.* Manuscript submitted for publication.
- Sweeny, K., & Krizan, Z. (2013). Sobering up: A quantitative review of temporal declines in expectations. *Psychological Bulletin, 139*, 702–724. <http://dx.doi.org/10.1037/a0029951>
- Sweeny, K., & Legg, A. M. (2014). *Validating the bad news response scale.* Unpublished manuscript, Department of Psychology, University of California, Riverside, CA.
- Sweeny, K., & Shepperd, J. A. (2007). Do people brace sensibly? Risk judgments and event likelihood. *Personality and Social Psychology Bulletin, 33*, 1064–1075. <http://dx.doi.org/10.1177/0146167207301024>
- Sweeny, K., & Shepperd, J. A. (2010). The costs of optimism and the benefits of pessimism. *Emotion, 10*, 750–753. <http://dx.doi.org/10.1037/a0019016>
- Taylor, S. E., Kemeny, M. E., Reed, G. M., Bower, J. E., & Gruenewald, T. L. (2000). Psychological resources, positive illusions, and health. *American Psychologist, 55*, 99–109.
- Thoits, P. A. (1995). Stress, coping, and social support processes: Where are we? What next? *Journal of Health and Social Behavior, 35*, 53–79. <http://dx.doi.org/10.2307/2626957>
- Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin, 119*, 488–531. <http://dx.doi.org/10.1037/0033-2909.119.3.488>
- van Dijk, W. W., & van der Pligt, J. (1997). The impact of probability and magnitude of outcome on disappointment and elation. *Organizational Behavior and Human Decision Processes, 69*, 277–284. <http://dx.doi.org/10.1006/obhd.1997.2688>
- Van Dillen, L. F., & Koole, S. L. (2007). Clearing the mind: A working memory model of distraction from negative mood. *Emotion, 7*, 715–723. <http://dx.doi.org/10.1037/1528-3542.7.4.715>
- Watson, D., & Clark, L. A. (1994). *The PANAS-X: Manual for the Positive and Negative Affect Schedule-Expanded Form.* Ames: The University of Iowa.
- Willmott, L., Harris, P., Gellaitry, G., Cooper, V., & Horne, R. (2011). The effects of expressive writing following first myocardial infarction: A randomized controlled trial. *Health Psychology, 30*, 642–650. <http://dx.doi.org/10.1037/a0023519>

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