

## Research Report

# Looking to the Future to Appreciate the Present

## The Benefits of Perceived Temporal Scarcity

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**ABSTRACT**—Both psychological research and conventional wisdom suggest that it can be difficult to attend to and derive enjoyment from the pleasant things in life. The present study examined whether focusing on the imminent ending of a positive life experience can lead to increased enjoyment. A temporal distance manipulation was used to make college graduation seem more or less close at hand. Twice a week over the course of 2 weeks, college students were told to write about their college life, with graduation being framed as either very close or very far off. As predicted, thinking about graduation as being close led to a significant increase in college-related behaviors and subjective well-being over the course of the study. The present research provides support for the counterintuitive hypothesis that thinking about an experience's ending can enhance one's present experience of it.

events that were once sources of great pleasure or pain gradually lose their emotional power over time and through repeated exposure (e.g., Brickman & Campbell, 1971; Parducci, 1995; T.D. Wilson & Gilbert, 2008). A person's first experience watching the sun setting over the ocean, for example, might demand attention and accommodation, and he might be compelled to stop and appreciate its beauty. However, similar sunsets will cease to draw him in over time, and it will require more effort to acknowledge and appreciate them. In other words, it is easy to grow accustomed to the pleasant, enduring things around us, and effortful strategies are often required to keep these things novel and a source of enjoyment (Sheldon & Lyubomirsky, 2006).

### TEMPORAL SCARCITY AS A MOTIVATOR

The present study proposes that awareness of the fact that a positive experience is soon ending can facilitate behavioral change and enhanced subjective well-being. Positive experiences with imminent endings actually occur fairly frequently and can include events as ordinary as the changing of seasons or pleasant vacations, as well as more important events as the final semester of high school or college or moving away from a town that one enjoys. Presumably, being struck with the realization that a meaningful or pleasurable activity is soon ending brings its positive qualities to the forefront of one's attention along with a sense of motivation to make the most of it.

According to Cialdini's (1993) scarcity principle, when a resource becomes scarce, it increases in value. If one thinks of time as one such limited resource, an awareness of its potential unavailability can increase the value of an experience, making it more likely to be enjoyed (e.g., Carstensen, Isaacowitz, & Charles, 1999). There are some people whose lives are imbued with this sense of temporal scarcity, and there are anecdotes to suggest that they are especially appreciative. For example, those who have faced disease or trauma frequently report having a "new lease on life." Moreover, those who perceive having a

It is difficult to pass through the self-help aisle of a bookstore without being advised to "stop and smell the roses" or to cultivate an "attitude of gratitude." Indeed, the ability to attend to and savor the positive things in life is closely related to healthy psychological well-being (Janoff-Bulman & Berger, 2000), because, as noted by the French writer de la Rochefoucauld (1694/1930), "Happiness does not consist in things themselves but in the relish we have of them." But just how natural or easy is it to relish our daily life experiences?

Despite the well-meaning advice of the self-help literature, engaging in thoughts or behaviors that promote appreciation can be difficult (Bryant & Veroff, 2006). Because we tend to focus on novelty and change, we oftentimes find ourselves consumed by thoughts of work, family, and other obligations that demand attention. Moreover, theories of hedonic adaptation state that

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small amount of time left in their lives are more proactive in pursuing emotionally relevant goals (Fung & Carstensen, 2006), perhaps because a sense of “now or never” motivates them to make the most of every day.

## THE PRESENT RESEARCH

Whereas the examples mentioned above involve a focus on the transient nature of life itself, the present study examines a more common yet analogous experience, in which the ending of a phase of life is imminent. For most students, senior year of college is one such experience. College is a fun and meaningful time that many are sad to see end. But because college students are busy and often distracted by coursework, socializing, and campus activities, their attention might not readily be drawn to the positive qualities of college life. A recent study (Ersner-Hersfield, Mikels, Sullivan, & Carstensen, 2008) has examined the ending of positive life events, specifically college, and found that graduation day effectively elicits the mixed emotional experience of poignancy. The present experiment applies this line of research more specifically to subjective well-being and examines the behavioral consequences of a focus on endings.

## OVERVIEW

Recent studies (e.g., Sheldon & Lyubomirsky, 2006) have found that activities such as performing random acts of kindness lead to significant increases in one’s subjective well-being over the course of several weeks. The present study used a similar approach to examine the effects of a 2-week temporal scarcity intervention. About 6 weeks prior to graduation, a sample of fourth-year students wrote about their college experience. I used a manipulation adapted from A.E. Wilson and Ross (2001) and told the participants to think either about the fact that graduation is far off (grad-far condition) or the fact that graduation is soon (grad-soon condition). A third group wrote about what they do on a typical weekday. Over the next 2 weeks, they completed writing exercises and reported whether they had taken part in a number of college-related activities. It was hypothesized that, over time, those in the grad-soon condition would show an increase in subjective well-being and rate of engagement, as reflected in the number of college-related behaviors they took part in.

## METHOD

### Participants

Sixty-seven participants (15 males, 52 females) at the University of Virginia (UVA) who reported enjoying their college experience took part in an initial session in exchange for \$5. They were told that they would be entered into a raffle for cash prizes for completing subsequent online follow-up surveys. Sixty-one participants (93%) completed the follow-up questionnaire later in the day. The four follow-up questionnaires were completed

by 54 (80%), 26 (39%), 53 (79%), and 60 (90%) people, respectively.<sup>1</sup>

## Materials and Procedure

### Initial Session

Participants reported to a 30-min laboratory session and completed the four-item subjective-happiness scale (Lyubomirsky & Lepper, 1999), a measure of dispositional happiness that is widely used in emotion research. Responses were given using 7-point scales ( $\alpha = .90$ ). Participants were then randomly assigned to one of three conditions. In the grad-soon and grad-far conditions, participants were asked to write about their college experience for 10 min. The directions for the grad-soon condition were as follows (with changes made for grad-far instructions in brackets):

You are going to be taking part in a 10-minute writing exercise, in which you will be writing for a few minutes on several different topics, all related to your UVA experience. As you write, keep in mind that you only have a short amount of [a significant amount of] time left to spend at UVA. In fact, you have about 1,200 hours [about 1/10<sup>th</sup> of a year] left before graduation.<sup>2</sup>

Participants were then given four subtopics: “your friends here,” “the campus,” the activities you participate in here,” and “your overall college experience.” Each of these topics was preceded by the instructions, “Given *how little time you have left [that you have lots of time left]* at UVA, write how you feel about . . . .” Participants in the typical day condition were asked to write for 10 min about what they do on a typical weekday. This was broken down into four 2-hr increments to resemble the two experimental conditions. Following the writing exercise, all participants reported their current mood (Larsen, McGraw, & Cacioppo, 2001). They were paid \$5 and were instructed on how to complete the follow-up surveys.

### Follow-up Surveys

That evening, participants were emailed a link to an online survey. They reported their mood and whether or not they took part in 10 college-related activities that day. These activities were: “spent time with your friends”; “made plans to spend time with your friends”; “felt grateful for your friends”; “felt grateful for UVA”; “spent time on the Lawn”; “took a scenic route to class or some other destination”; “took pictures”; “went to a favorite restaurant, bar, or coffee-shop”; “took part in a UVA-related club or activity”; and “planned to take part in a UVA-related club or activity.” Responses were in a “yes or no” format.

<sup>1</sup>There was a low response rate on the second follow-up questionnaire due to computer error. Response rate did not differ by condition, and I used hierarchical linear modeling to model overall change when this time point was included in the analyses.

<sup>2</sup>1,200 hours and 1/10 of a year are roughly equivalent periods of time.

Over the next 2 weeks, participants were emailed links to a total of four similar surveys. They were asked to expand on one of the four subtopics they wrote about in the initial session. This was preceded by a form of the manipulation for those in the grad-soon and grad-far conditions; for example, “Write about why you are grateful for your friends at UVA, especially considering how little time [how much time] you have left in college” (the changes for the grad-far instructions are in brackets immediately following the text that it alters). Those in the typical-day condition were asked to write about what they do on a typical weekday. This was broken down into 2-hr time increments, as in the initial session, with one time increment in each email. Following these writing exercises, participants were asked to report their mood and whether or not they had taken part in the college-related activities listed above over the past few days.

The final survey was identical to the previous surveys, with the addition of the subjective-happiness scale (Lyubomirsky & Lepper, 1999), which I used to examine dispositional changes in happiness that occurred over the course of the study ( $\alpha = .91$ ). Participants were then debriefed via email.

## RESULTS

### Dispositional Changes: Pretest to Posttest

As predicted, participants in the grad-soon condition showed the largest increase in subjective well-being from pretest to posttest. A 2 (time)  $\times$  3 (condition) repeated-measures analysis of variance revealed a significant effect,  $F(2, 56) = 3.39, p < .05, p_{rep} = .93$ , indicating that there was a significant increase in subjective well-being for grad-soon participants in comparison with grad-far and control participants. Moreover, there was a significant increase in subjective well-being for the grad-soon participants,  $t(19) = -2.17, p < .05, p_{rep} = .92$ , but no significant changes for the grad-far,  $t(19) = 1.01, ns$ , or the control,  $t(18) = -1.34, ns$ , conditions (see Fig. 1).

### Behavioral Changes Over Time

To examine participants' change across the six time points and to allow for the inclusion of participants with missing data, I used hierarchical linear modeling (Raudenbush & Bryk, 2002) to create multilevel models. The first model calculated within-person change (e.g., change over time), and the second calculated between-person (e.g., condition difference) change.<sup>3</sup> These models tested for differences between the grad-soon condition and the average of the grad-far and control conditions (Test 1), as well as differences between the grad-far and control conditions (Test 2), to show that there were few differences between these two conditions. Ten college-related behaviors were

<sup>3</sup>Test 1 assigns a code of 2, -1, and -1 to the grad-soon, grad-far, and typical-day conditions, respectively, and Test 2 assigns a code of 0, 1, -1 to the grad-soon, grad-far, and typical-day conditions, respectively. The Level 1 model was as follows:  $Y = \beta_0 + \beta_1(\text{Time}) + r$ . The Level 2 model was as follows:  $\beta_1 = \gamma_{11} + \gamma_{12}(\text{Test 1}) + \gamma_{13}(\text{Test 2}) + e_1$ .

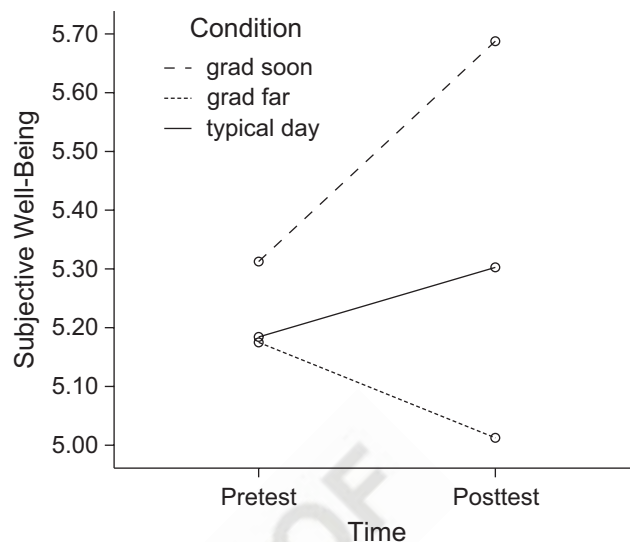


Fig. 1. Change in subjective-happiness scale scores from initial pretest to posttest. Possible scores range from 1 (*very unhappy*) to 7 (*very happy*).

correlated at the five time points ( $\alpha = .67, .70, .72, .65$ , and  $.70$ , respectively) and were summed to create a measure of total behaviors. The models above were used to analyze change in this summed measure. As predicted, there was a significant effect on Test 1,  $t(238) = 2.26, p < .05, p_{rep} = 0.94$ , such that those in the grad-soon condition participated in more activities over time than did participants in the other two conditions. As expected, there was no effect on Test 2,  $t(238) = 1.03, ns$ . These models were also used to calculate change in momentary mood over time and revealed no significant change.

## DISCUSSION

Although it may seem counterintuitive, the present study found that focusing on the impending ending of college promoted enhanced subjective well-being over the course of 2 weeks and resulted in greater participation in college-related activities. The present findings are particularly notable given that participants in both the grad-far and grad-soon conditions were appreciating college in a similar way in the follow-up surveys. Previous research has found that expressing appreciation leads to increased psychological well-being (Emmons & McCullough, 2003). However, the present study suggests that these benefits are more likely to accrue when a person is framing an event as being limited in time.

A likely possibility for increased subjective well-being in the grad-soon condition is that these participants reaped the psychological benefits associated with social engagement and connectedness as they became more engaged in college life over the course of 2 weeks. After all, strong social support and meaningful relationships are among the strongest predictors of happiness (Myers, 1999; Putnam, 2000). Future research should

examine possible mediators of the relationship between a focus on endings and subjective well-being.

Notably, participants in the grad-soon condition experienced increased subjective well-being over the course of 2 weeks, but this effect appears to be independent of momentary positive mood increases, as assessed immediately following each writing exercise. Not surprisingly, reflecting on the fact that a treasured experience is soon coming to an end is not likely to produce an immediate boost in positive affect. What it does seem to do is endow the short time remaining with special value (Cialdini, 1993). This touches on the counterintuitive nature of this manipulation. Future research could examine the extent to which people avoid thinking about the ending of a positive experience. In light of the present findings, this coping strategy may actually rob them of motivation and subjective well-being.

The range of time in which this savoring strategy is most effective is a second area for future research. This study took place 4–6 weeks prior to graduation. It is unclear if the grad-soon manipulation would produce the same feeling several years or even several months earlier. On the other hand, as graduation drew even nearer, all participants may have been similarly and increasingly struck by the powerful cues that accompany the end of a college career, such as picking up a cap and gown and taking final exams (Ersner-Hershfield et al., 2008). However, waiting for these cues may come with costs such as missed opportunities and possible future regrets. When participants were told that the end of a positive life event was close at hand, they were more likely to appreciate their experience in advance of that ending and make more of an effort of capitalize on the remaining time they had left in college.

In sum, the present study examined one possible way people may be able to derive more enjoyment out of daily life: by focusing attention on the impending ending of a positive life event. This attention promoted motivation and enhanced subjective well-being over a 2-week time period. Future research should continue to examine strategies people can use to enhance everyday experience.

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