It's a Wonderful Life: Mentally Subtracting Positive Events Improves People's Affective States, Contrary to Their Affective Forecasts

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Abstract

The authors hypothesized that thinking about the absence of a positive event from one's life would improve affective states more than thinking about the presence of a positive event but that people would not predict this when making affective forecasts. In Studies 1 and 2, college students wrote about the ways in which a positive event might never have happened and was surprising or how it became part of their life and was unsurprising. As predicted, people in the former condition reported more positive affective states. In Study 3, college student forecasters failed to anticipate this effect. In Study 4, Internet respondents and university staff members who wrote about how they might never have met their romantic partner were more satisfied with their relationship than were those who wrote about how they did meet their partner. The authors discuss the implications of these findings for the literatures on gratitude induction and counterfactual reasoning.

Keywords

positive affect; counterfactual reasoning; gratitude; affective forecasting; adaptation

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In 1897, the Rev. Johnson Oatman, Jr. published a hymn called "Count Your Blessings" with the lyrics, "Count your many blessings, every doubt will fly/And you will be singing as the days go by" (Osbeck, 1982, p. 54). Philosophers, spiritual leaders, life coaches, therapists, and grandmothers have echoed these sentiments, namely that people would be happier if they simply paused to consider the many positive events that have happened in their lives.

The scientific evidence for this hypothesis, however, is mixed. Emmons and McCullough (2003), in a seminal article, were the first to report experimental evidence in favor of the "count your blessings" hypothesis. In three experiments, participants were asked to list things for which they were grateful every day for 2 weeks, every day for 3 weeks, or once a week for 9 weeks. People in the various "count your blessings" conditions reported greater subjective

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well-being than did people in control conditions, but the results were not entirely consistent across studies. In two of the three studies, for example, there were no significant differences in reported positive or negative emotions between the gratitude and control conditions. Attempts to replicate these findings have yielded inconsistent results. At least four studies found no effect of thinking about positive events on people's positive emotions, negative emotions, or subjective well-being (Burton & King, 2008; Froh, Sefick, & Emmons, 2008; Lyubomirsky, Sousa, & Dickerhoof, 2006, Study 2; Sheldon & Lyubomirsky, 2006, Study 2). [1] Two studies, on the other hand, found that thinking about positive events did improve people's affect or well-being (Burton & King, 2004; Seligman, Steen, Park, & Peterson, 2005).

This mixed bag of results suggests that the effects of thinking about positive life events are not well understood. We suggest that the way in which people think about positive life events is critical, namely whether they think about the *presence* of the events (e.g., "I'm glad that Bob is part of my life") or the *absence* of the events (e.g., "imagine I had never met Bob!"). Most previous studies adopted the former approach, asking participants to think about the presence of positive events. This may not have had much impact, however, to the extent that people thought about familiar events to which they had adapted (Brickman & Campbell, 1971; Helson, 1964; Parducci, 1995). Having a wonderful spouse, watching one's team win the World Series, or getting an article accepted in a top journal are all positive events, and reflecting on them may well bring a smile; but that smile is likely to be slighter and more fleeting with each passing day, because as wonderful as these events may be, they quickly become familiar—and they become more familiar each time one reflects on them. Indeed, research shows that thinking about an event increases the extent to which it seems familiar and explainable (Arkes, Boehm, & Xu, 1991; Hasher, Goldstein, & Toppino, 1977). This has obvious benefit for negative events, but it also appears to attenuate positive feelings: The better people understand positive events, the less positive affect those events elicit (Wilson, Centerbar, Kermer, & Gilbert, 2005; Wilson & Gilbert, in press). In short, counting one's blessings—thinking about the presence of the positive events in one's life—may have only a minor impact on people's current affective states, to the extent that they have adapted to these events.

Is there a good way to "unadapt" to positive events? Perhaps thinking about the *absence* of those positive events would work. In the 1946 Frank Capra film *It's a Wonderful Life* (Capra, 1946), an angel named Clarence Odbody takes a suicidal man named George Bailey on a tour of the world as it would have been had George never been born. Rather than asking George to count his blessings, Clarence allows him to observe a world in which those blessings never came about. This exercise forces George to realize just how rare and precious the good things in his life actually are, which instantly cures his depression. Research suggests that, as saccharine as this cinematic trope may be, it captures a useful psychological insight. Research on norm theory (Kahneman & Miller, 1986) and counterfactual reasoning (Roese, 1997) suggests that thinking about the ways in which an event might not have occurred can make that event seem more surprising. One of the hallmarks of surprising events is that they elicit affect. In short, considering the absence of positive events may undo adaptation to them, at least temporarily. This possibility was anticipated by Frijda (1988), who speculated that "adaptation to satisfaction can be counteracted by constantly being aware of how fortunate one's condition is and of how it could have been otherwise, or actually was otherwise before—by rekindling impact through recollection and imagination" (p. 354).

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[1] All of the comparisons reported here are between conditions in which people thought about positive events and control conditions in which they were not asked to think about anything or thought about neutral topics, such as their typical day. Some of the studies also included conditions in which people thought about negative events (e.g., daily hassles) and found differences between the positive events and negative events conditions. Because we are interested in the effects of thinking about positive events, our review compared only the positive event with the control conditions. We did not include Study 3 from Lyubomirsky et al. (2006) because it did not include a control condition.

We tested the hypothesis that people's affective states would improve more after mentally subtracting positive events from their lives than after thinking about the presence of those events. We did so by asking people to write about why a positive event might never have happened and why it was surprising or why it was certain to be part of their lives and was not at all surprising. We predicted that people in the former condition would be most likely to "unadapt" to the event and, thus, experience positive affect.

Another purpose of the present studies was to fill a gap in the literature on counterfactual reasoning. Several studies have examined the affective consequences of mentally undoing negative events, but we are unaware of any that did the same for positive events. Participants in a study by Roese (1994), for example, were asked to think about an exam on which they did poorly and then to engage in downward counterfactual thinking (imagining how things could have been worse) or upward counterfactual thinking (imagining how things could have been better). As predicted, people in the former condition reported a better mood than did people in the latter condition, which has been referred to as an affective contrast effect (see also Mandel, 2003; Mandel & Dhami, 2005). A contrast effect is especially likely to occur when people use the counterfactual event as a reference point against which to judge their current circumstances (e.g., "I could have failed the exam; getting a C wasn't so bad after all"; Markman, McMullen, & Elizaga, 2008; McMullen, 1997).

To our knowledge, the affective consequences of mentally undoing positive events have not been tested. We predicted that a similar affective contrast effect would occur, namely that thinking about how a good thing might be absent from one's life (a negative reference point) would make a good thing seem even better. Further, we propose a mechanism by which this happens, namely that thinking about how an event might not have occurred makes it seem more surprising that it did.

Why have the effects of counterfactual thinking about positive events been neglected? One reason might be that this kind of thinking is relatively uncommon in everyday life; that is, people are much less likely to engage in "what if" reasoning after positive events than after negative events (Roese, 1997; Roese & Olson, 1997; Sanna & Turley, 1996). We are thus suggesting that there are affective benefits to a kind of thinking that people generally opt not to perform (mentally undoing positive events), possibly because they do not know it will improve their moods. We examined this possibility in the present studies by observing people's affective forecasts about counterfactually thinking.

Research has identified a number of errors in affective forecasting, chief among them a failure to anticipate how quickly one will adapt to an emotional event (Wilson & Gilbert, 2003). For example, Wilson et al. (2005) found that people adapted more slowly to positive events when they were uncertain about the nature of those events, opposite to their predictions about how they would feel. By the same token, we predicted that people would fail to appreciate the conditions under which they would unadapt to a positive event. On the face of it, thinking about the absence of a positive event seems unpleasant; why should we rain on our own parades by mentally subtracting from our lives things we value? It seems better to think about the presence of a good thing than the absence of that thing. For the reasons already discussed, however, we predicted that the opposite is true.

In Study 1, we asked college students to think of an event for which they felt grateful and then to write about the ways in which the event became part of their life and was unsurprising (the presence condition) or the ways in which the event might never have happened and was surprising (the absence condition). We included two control conditions, as well. In one, people simply described the event for which they felt grateful, without considering why it was surprising or unsurprising (the procedure used in several previous studies). We assumed that

describing a positive event would be similar to considering its presence in one's life and that this condition would thus yield results similar to the presence condition. In a second control condition, participants neither thought about an event for which they felt grateful nor wrote about it; they simply completed the dependent measures. We predicted that participants in the absence condition would report the most positive affect.

Study 1: Mentally Subtracting Positive Life Events

Method

Participants—Participants were 65 (21 male, 44 female) students from the University of Virginia (Charlottesville, VA), who received either course credit or a small gift (e.g., a snack or a pen) in return for their participation.

Procedure—We asked participants to describe an event for which they felt grateful from one of seven categories: education, health, safety/security, possessions, break/vacation/weekends/ holidays, act of kindness/support from others, achievement/performance. (Pilot participants had reported that it was relatively easy to generate positive events from these categories and to imagine that they were surprising or unsurprising.) Participants in the grateful control condition completed the dependent measures right after describing their positive event. Participants in the presence condition were then asked, "Please describe the ways in which this thing or event happened easily or was certain to become part of your life," and "Please describe the ways in which it is NOT AT ALL SURPRISING that this thing or event is part of your life." Participants in the absence condition were then asked, "Please describe ways that this thing or event might never have happened or might never have been part of your life," and "Please describe ways in which it is SURPRISING that this thing or event is part of your life." We asked participants in the presence and absence conditions to select the event to write about before being randomly assigned to a condition, to make sure that the condition instructions did not influence the event they selected. They were given half of a page of paper on which to answer the questions about the presence or absence of the event, and they answered at their own pace. Finally, participants randomly assigned to the no-writing control condition neither thought about an event for which they felt grateful nor wrote about it; they simply completed the dependent measures.

Dependent measures: Participants rated the extent to which they were currently experiencing each of 13 affective states (distressed, happy, thankful, upset, grateful, joyful, sad, hopeful, appreciative, lonely, depressed, secure, optimistic) on 7-point scales (1 = *not at all*, 7 = *extremely*). As an exploratory item, people in the presence, absence, and grateful control conditions also rated (on the same scale) how grateful they were for the event they had just described.

Results and Discussion

A research assistant who was unaware of the hypotheses of the study read participants' descriptions of their positive life events and coded the extent to which they had followed the instructions for their condition (e.g., whether they wrote about why the event was surprising in the absence condition). We eliminated from the analyses 5 participants who failed to follow the instructions: 3 participants in the absence condition and 2 participants in the presence condition. The final sample size was thus 60. There were no significant effects of gender in this or the subsequent studies.

Participants' responses to the 13 affect items were correlated; thus, we averaged them into one index after reverse scoring the negative items (α = .88). A one-way analysis of variance (ANOVA) revealed a significant main effect of condition (absence, presence, grateful control,

no writing control), $F(3, 56) = 2.72$, $p = .05$, $\eta^2 = .13$. As seen in Table 1, participants in the absence condition reported more positive feelings than did participants in the other three conditions. Planned comparisons revealed that participants in the absence condition reported significantly greater positive affect than did participants in the other three conditions, $F(1, 56) = 5.78$, $p = .02$, $r_{contrast} = .30$, and that participants in the other three conditions did not differ significantly from each other, $Fs(1, 56) < 1.26$, $ps > .26$.[2] Participants in the absence condition also reported that they were more grateful for the event they listed ($M = 6.75$, $SD = .45$) than did people in the presence ($M = 6.56$, $SD = .71$) or grateful control conditions ($M = 6.67$, $SD = .49$), but the main effect of condition was not significant on this measure, $F(2, 43) < 1$, ns.

As predicted, the only people in Study 1 who benefited from writing about a positive event were those asked to think about how the event was surprising and might have been absent from their lives. We attempted to replicate this effect in Study 2 and explore what mediated it.

Study 2: Surprise as a Mediator

Method

Participants—One hundred twenty (42 male, 73 female, 5 unidentified) students from the University of Virginia participated in this study. Participants received either a course credit or a small gift in return for their participation.

Procedure—We replicated Study 1 exactly, except that (a) we dropped the grateful control condition, given that responses in this condition were very similar to responses in the no-writing control condition in Study 1, and (b) we added new questions to shed light on what mediated the effect of the manipulations on people's affect. After completing the affect measures, participants in the absence and presence conditions rated how surprised they were that the thing/event had occurred, how well they thought that they understood "why this thing/event occurred to you or why it is in your life," how hard it was "to explain (put in words) why the thing/event occurred," as well as how mysterious, ordinary, and easy to control the event seemed to be, all on 7-point scales with appropriate endpoints. We also asked participants how long ago the event for which they were grateful had occurred.

Results and Discussion

Participants' responses to the 13 affect items were again highly correlated; thus, we averaged them into a single index after reverse scoring the negative items ($\alpha = .87$). A one-way ANOVA revealed a significant effect of condition, $F(2, 117) = 5.05$, $p = .008$, $\eta^2 = .08$. As predicted, participants in the absence condition reported the most positive affect, followed by participants in the presence and no-writing control conditions (see means in Table 1). A planned comparison revealed that the mean in the absence condition was significantly greater than the means in the other two conditions, $F(1, 117) = 10.01$, $p = .002$, $r_{contrast} = .28$. The means in the presence and no-writing control conditions did not differ significantly, $F(1, 117) < 1$, ns. As in Study 1, there were no significant differences between the absence and presence conditions on the direct question of how grateful participants were for the event they listed, $F(1, 82) < 1$, ns.

Participants in the absence condition reported feeling more surprised that the event occurred ($M = 4.18$, $SD = 1.77$) and less understanding of why it occurred ($M = 5.24$, $SD = 1.42$) than did participants in the presence condition ($M = 3.28$, $SD = 2.25$ and $M = 5.89$, $SD = 1.04$, respectively), $ts(82) > 2.01$; $ps < .05$; $ds = .44$ and 54, respectively. Initial analyses failed to demonstrate that people's reported surprise or understanding mediated the effects of condition

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[2]As a measure of effect size of contrasts involving more than two groups, we used the $r_{contrast}$ correlation statistic described by Rosnow, Rosenthal, and Rubin (2000).

on people's affect, although we should note that the sample size was too small to test mediation effects with adequate power (Fritz & MacKinnon, 2007). We had better luck when we limited the sample to those who wrote about an event that was not in the distant past. Inspection of the data revealed that most participants (75%) reported that the event had occurred in the previous 5 years, although 13% (6 in the absence condition, 5 in the presence condition) reported that the event for which they were grateful had occurred over 17 years ago, such as having a wonderful family or parents. These participants thus wrote about events that had been present for most or all of their lives (the mean age of the participants was 18.8 years), which might have made it difficult for them to imagine the event not having occurred. Consistent with this view, participants rated events that had happened more than 17 years ago as considerably less surprising than more recent events, Ms = 1.91 versus 3.96 (SDs = .94, 2.08), $t(82) = 3.21$, $p < .01$, $d = .71$. When we excluded participants who had described events that had happened more than 17 years ago, there was evidence that the reported surprisingness of the event mediated the effect of condition on affect. Condition ($0 = presence$, $1 = absence$) predicted surprise ($\beta = .27$, $p = .02$), and surprise predicted affect after we controlled for condition ($\beta = .21$, $p = .08$). Condition predicted affect ($\beta = .26$, $p = .03$), which dropped to $\beta = .21$ ($p = .09$) when we controlled for reported surprise. Because our sample size was relatively small, we tested the significance of this mediation with a bootstrap resampling method that provides a confidence interval for direct and indirect effects with bias correction (Mallinckrodt, Wei, Russell, & Abraham, 2006; Shrout & Bolger, 2002). The results revealed a nearly significant mediation effect ($p = .065$); the 95% confidence interval for the indirect effect was −.01, .20.

In Studies 1 and 2, participants reported more positive affect when they thought about the absence of a past positive event, and some evidence suggested that this happened because thinking about the absence of the positive event made it seem more surprising. In Study 3, we tested the prediction that people are unaware of the fact that writing about the absence of a positive event will improve their mood, which might help explain why people avoid this kind of counterfactual thinking in everyday life.

Study 3: Forecasters

Method

Participants—Forty-six (35 female, 11 male) students from the University of Virginia participated in return for course credit or a small gift.

Procedure—Participants were randomly assigned to read a description of the absence, presence, or no-writing control conditions used in Studies 1 and 2. They were asked to imagine that they were participating in one of these conditions and to predict how they would respond to the 13 affect items used in Studies 1 and 2. We then performed two manipulation checks, asking participants to recall information about the writing exercises, to see if they read the descriptions carefully.

Results and Discussion

Four participants answered the manipulation check questions incorrectly, and thus, we excluded their responses from the analyses. As in Studies 1 and 2, we averaged participants' ratings of the 13 affect items after reverse scoring the negative items ($\alpha = .88$). A one-way ANOVA revealed a significant effect of condition, $F(2, 39) = 16.67$, $p < .001$, $\eta^2 = .46$ (see means in Table 1). Not surprisingly, participants predicted that thinking about a positive life event would make them feel good; the mean of predicted affect in the presence and absence conditions was significantly higher than in the no-writing control condition, $F(1, 39) = 29.19$, $p < .001$, $r_{contrast} = .65$. As predicted, however, participants did not anticipate that writing about the absence of an event would make them feel better than writing about the presence of that

event; in fact, they predicted the opposite, although not significantly so, $F(1, 39) = 2.12$, $p = .15$, $r_{\text{contrast}} = .23$.

Although analyses that combine data from different studies must be interpreted with caution, it is worth noting that when the participants in Studies 1 and 2 were combined with the participants in Study 3, a 2 (Role: predictor vs. experiencer) × 2 (Condition: absence vs. presence) ANOVA revealed a Role × Condition interaction, $F(1, 142) = 8.37$, $p < .01$, $\eta^2 = .05$, suggesting that participants in Study 3 did not accurately predict the affective benefits of writing about the absence of an event experienced by participants in Studies 1 and 2.

In Study 4, we sought to replicate and extend the results of Studies 1–3 in the domain of romantic relationships. We asked people in long-term romantic relationships to write about how they met their partner and got together (presence condition) or how they might never have met their partner or gotten together (absence condition). We hypothesized that people in the absence condition would be happiest with their relationship but that people would predict the opposite.

Study 4: Romantic Relationships

Method

Participants—Participants were people who reported that they had been in an exclusive romantic relationship for at least 5 years ($M = 13.7$, range = 5–44 years). Some participants responded to online advertisements posted on social psychology research websites and completed the study online. Others were University of Virginia staff members who were randomly selected to receive an e-mailed invitation to participate. The Internet sample received their choice of $10 or entry into a lottery for a prize of $150. The university staff members received $20 or entry into a lottery for $200. Because the purpose of the study was to examine thinking about positive life events, we included only people whose reported level of satisfaction with their relationships (on baseline measures described below) was at or above the sample average. About half of the sample ($n = 42$) were from the Internet sample and the remainder ($n = 46$) were from the university staff sample. There were 65 women and 23 men.

Design and Procedure—Participants completed baseline measures of their satisfaction with their relationship (described below). At least 2 weeks later, they were randomly assigned to one of three conditions. Those in the presence condition spent 15–20 min describing in writing how they met their partner, how they started dating, and how they ended up together. Those in the absence condition spent 15–20 min describing in writing how they might never have met their partner, how they might never have started dating, and how they might not have ended up together. There were three versions of a control condition: (a) participants spent 15–20 min describing in writing their typical day; (b) participants spent 15–20 min describing in writing how they met a good friend who was not their romantic partner, how they started spending time with that friend, and how they ended up having a friendship with that friend; or (c) participants spent 15–20 min describing in writing how they might never have met a good friend who was not their romantic partner, how they might not have started spending time with that friend, and how they might not have ended up having a friendship with that friend. Because there were no significant differences in the responses of these three control groups, we combined their data into a single control condition. The Internet sample completed both the baseline measure and the writing task online. The university staff sample completed the baseline measure online and the writing task in the laboratory. After completing the writing task, all participants rated their satisfaction with their romantic relationship on the same measures they had completed at baseline.

Dependent Measures—Participants answered 12 questions about their happiness and satisfaction with their relationship. They indicated how happy they felt (1 = *not at all happy*, 7 = *extremely happy*) and then answered questions selected from three commonly used relationship measures. These included four questions from Hendrick's (1988) Relationship Assessment Scale ("In general, how satisfied are you with your relationship?" "To what extent has your relationship met your original expectations?" "How much do you love your partner?" "How many problems are there in your relationship?" [reverse scored], each on 7-point scales with appropriate endpoints); three items from Hatfield and Sprecher's (1986) Passionate Love Scale ("I would rather be with my partner than with anyone else," "I want my partner— physically, emotionally, mentally," "I have an endless appetite for affection from my partner," each on scales ranging from 1 = *not at all true* to 7 = *definitely true*); and two items from Rubin's (1970) Love Scale ("One of my primary concerns is my partner's welfare," "It would be hard for me to get along without my partner," each on 7-point scales with appropriate endpoints). Finally, people answered two questions about the extent to which they had thought about their partner in the previous 24 hours (1 = *almost no time*, 7 = *almost all of my time*) and whether those thoughts had been primarily positive or negative (1 = *mostly unpleasant thoughts*, 7 = *mostly pleasant thoughts*).

Forecasters: Sixteen additional participants (7 female, 9 male) from the sample of university staff members played the role of forecasters. Instead of completing the writing task at the second session, they instead read a description of either the presence or absence condition and then completed the dependent measures as they thought they would have completed them had they actually done the writing exercise. Forecasters were then shown the version of the writing exercise they had not seen and were asked whether they would prefer to have been in the presence or the absence condition and why.

Results and Discussion

Initial analyses revealed that there were no significant effects of sample or gender; thus, we collapsed across these variables in subsequent analyses. To adjust for individual differences in initial relationship satisfaction, we subtracted the mean of participants' baseline satisfaction ratings from the mean of their Time 2 satisfaction ratings; there were no significant differences between conditions on the baseline ratings, $F(2, 85) < 1$, *ns*. As predicted, people in the absence condition had the largest score on this index, indicating that they showed the largest increase in satisfaction after the writing exercise (see Table 2). A planned contrast that assigned a weight of 2 to the absence condition and −1 to the presence and control conditions was significant, $t(85) = 1.99$, $p = .049$, $r_{contrast} = .21$. The difference between the latter two conditions was not significant, $t(85) < 1$.[3]

As in Study 2, forecasters did not anticipate this difference. In fact, as seen in Table 2, those who imagined being in the absence condition predicted that they would feel somewhat worse than those who imagined being in the presence condition, $t(14) = 2.02$, $p = .06$, $d = 1.08$. A 2 (Role: experiencers vs. forecasters) × 2 (Condition: unsurprising vs. surprising story) ANOVA revealed a Role × Condition interaction, $F(1, 74) = 6.00$, $p = .02$, reflecting the fact that

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[3]We note several things about this analysis: First, the index of relationship satisfaction that averaged across all 12 items was only moderately reliable (α = .77). A factor analysis with a varimax rotation revealed a primary factor that explained 24% of the variance. Analyses on the average responses to the questions that loaded highly on this factor yielded similar (and slightly stronger) results. These variables were how happy people were, how satisfied they were with their relationship, the extent to which their relationship met their original expectations, the number of problems in their relationship (reverse scored), and the positivity of their thoughts about their partner in the last 24 hr. Second, because the question about how happy people were was similar to the dependent measures used in Studies 1– 3, it is interesting to note that the contrast reported above was also significant on this item alone (*p* = .048). Third, instead of using difference scores as the dependent measure, we also analyzed people's satisfaction at Time 2 using their satisfaction at Time 1 as a covariate. The results of these analyses were nearly identical to those reported above; for example, the contrast on the adjusted Time 2 means of all 12 items was significant (*p* = .05).

forecasters expected that they would feel better in the presence than the absence condition but that experiencers reported precisely the opposite. When asked which condition they would have preferred to have been in, 14 of 16 forecasters preferred the presence condition to the absence condition (a number that is different from chance with a binomial test, $p = .004$). When asked why, forecasters said things such as, "I love telling people how we ended up together because it is such a great story. It always makes me feel good about our relationship after I've told it."

General Discussion

We believe that our studies are the first empirical demonstration of what can be called the "George Bailey effect": people who wrote about how positive life events might not have occurred reported improved affective states, whereas people who wrote about how positive events did occur, simply described positive events, or did not think about positive events did not report improved affective states. We obtained tentative evidence in Study 2 that the perceived surprisingness of the event mediated this effect. Thinking about how a positive event might be absent from one's life made that event seem more surprising (indeed, participants in the absence conditions of Studies 1 and 2 were specifically asked to consider how the event was surprising). There is evidence that surprise intensifies people's affective reactions (Berns, McClure, Pagnoni, & Montague, 2001; Mellers, Schwartz, & Ritov, 1999; Schultz, Dayan, & Montague, 1997).

It is worth noting that the magnitude of some of the effects in our studies were modest. Imagining that a positive event was absent from one's life did not make people ecstatic; it made happy people a little happier. This is not surprising, given that people who were already happy on average performed a one-time writing exercise. In Study 1, for example, the average affect rating in the no-writing control condition was 5.06 on a 7-point scale, leaving only two scale points to move up. This restriction of range was even more pronounced in Study 4, in which we selected people whose rating of satisfaction with their relationship was at or above the sample average. Given that there was so little room to move up on our scales, it is impressive that our one-time manipulation had any effect. Finally, even small increases in positive affect can have important consequences. Fredrickson, Cohn, Coffey, Pek, and Finkel (2008) found that small increases in people's daily experience of positive emotion (but not decrease in negative emotion) improved life satisfaction and reduced depressive symptoms over time by making it easier for people to build personal resources, such as purpose in life and social support.

The present findings fill an important gap in the literature on counterfactual reasoning, which has explored the affective consequences of downward counterfactual reasoning for negative but not positive events. When people think about a negative life event, they feel better if they compare it with an even worse outcome (e.g., "I got a C on the test, but at least I didn't fail!" Roese, 1994). The present studies show that when people think about a positive life event, they feel better if they imagine how the event might never have happened.

The George Bailey effect is also reminiscent of a finding from the literature on downward social comparison, namely that comparing oneself to others who are worse off makes one feel better, at least under certain conditions (Buunk & Gibbons, 2007). The present studies show that comparing one's actual self to a hypothetical self who is worse off can also make one feel better. Although this might seem like a minor variation on the social comparison literature, it is worth noting that, similar to the literature on counterfactual reasoning, this literature focused on the effects of downward comparison following negative events, such as doing poorly on an exam or having a serious disease. We are unaware of any studies that manipulated downward comparison after a positive event and examined its impact on affective states. Although our

studies did not examine social comparison, they suggest that comparing oneself to less fortunate others, after a positive life outcome, might also have affective benefits, to the extent that it makes the positive outcome seem more surprising.

As noted earlier, research has found that people typically do not engage in counterfactual reasoning after positive events (Roese, 1997), nor are they likely to compare themselves with less fortunate others after something good happens (Gibbons et al., 2002). The present studies suggest a reason why people avoid comparative thinking after positive events: They are unaware of the affective benefits such thinking would cause. Forecasters in our studies mispredicted the effects of mentally subtracting good things from their lives and, in fact, tended to get the effect backward. In Study 4, for example, participants predicted that writing about how they met their romantic partner would make them feel better than writing about how they might never have met their partner and overwhelmingly preferred to engage in the former activity.

We do not mean to imply that thinking about the presence of positive life events will never improve people's affect. In Studies 1 and 2, we asked people to select a positive life event from a list of seven categories that we had pilot tested to be amenable to our manipulations, namely ones that people could easily imagine not being part of their lives. Although these were broad categories, covering a wide range of events, there may be other positive life events that are pleasurable to think about because people have not yet adapted to them. People undoubtedly adapt more slowly to some positive events than to others, such as ones that are novel, unexpected, variable, uncertain, and difficult to explain (Wilson & Gilbert, in press). To the extent that adaptation has not yet occurred, thinking about a positive event might well make people happy.

This line of reasoning may help explain why some studies have found that thinking about the presence of positive events improves people's affective states, whereas several others have not. As mentioned earlier, the initial study on gratitude listing found somewhat inconsistent results (Emmons & McCullough, 2003). Describing positive life events had the biggest impact in Study 3, in which the participants were people with neuromuscular disorders (the other two studies used college students). It may be that having a severe medical condition provides a negative reference point for events that are easy for others to take for granted. That is, people with a severe medical condition might not adapt as quickly to everyday positive events as others do and might be more likely to think about the absence of these events from their lives, thereby gaining more benefit from thinking about these events.

Similarly, a study by Seligman et al. (2005) may have found positive effects because people were asked to think about events to which they may not have adapted. Internet respondents were asked to list, on 7 consecutive days, three things that went well that day and the reasons for each good thing. Compared with a randomly assigned control group, these participants reported significantly less depression and, a month later, significantly more happiness (especially among people who continued the exercise on their own). Because the positive events people were asked to think about were very recent, people might not have adapted to them yet.

Another difference between our studies and several previous ones is that our participants wrote about positive life events only once, whereas participants in other studies wrote on multiple occasions (e.g., every day for 2 weeks in Emmons & McCullough, 2003). Perhaps writing about the presence of a positive event only once is too weak to have an impact. On the other hand, the more people think about an event the more familiar and explainable it seems (Arkes et al., 1991; Hasher et al., 1977), suggesting that when it comes to counting one's blessings, more might not be better. Consistent with this idea, Lyubomirsky, Tkach, and Sheldon

(2004, cited in Lyubomirsky, Sheldon, & Schkade, 2005) found that people who wrote about positive life events once a week for 6 weeks increased their well-being, but people who wrote about positive events three times a week for 6 weeks did not. Lyubomirsky et al. (2005) suggested that people who wrote more frequently might have become "bored with the practice, finding it less fresh and meaningful over time" (p. 126), which is consistent with our hypothesis that thinking about events to which one has adapted confers little benefit. These arguments are speculative, of course, and need to be tested with further studies.

In sum, past research on the effects of thinking about positive life events has revealed an inconsistent pattern of results. We suggest that thinking about events to which one has already adapted has little benefit, whereas thinking about how such events were surprising and might not have occurred can improve people's affective states. Unlike the movie *It's a Wonderful Life*, it is not necessary for an angel to show us what the world would look like if we had never been born. Instead, spending a few minutes mentally subtracting a good thing from our lives might make us feel better. To reinvigorate a relationship, for example, it might be better for people to think about how they might never have met their partner than to recount the story of how they did.

Acknowledgments

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Table 1

Means and Standard Deviations of Affect Ratings

Group	Study 1			Study 2			Study 3		
	n	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*
Absence	16	5.67	.97	38	5.73	.66	15	5.23	.99
Presence	18	4.77	.87	46	5.32	.85	13	5.68	.87
Grateful control	15	5.15	.99						
No-writing control	11	5.06	.91	36	5.19	.77	14	4.01	.51

Table 2

Means and Standard Deviations of Relationship Satisfaction in Study 4

Group	Experiencers			Forecasters		
	n	*M*	*SD*	*n*	*M*	*SD*
Absence	35	.18	.39	7	.07	.38
Presence	27	−.03	.39	9	.38	.15
Control	26	.01	.53			

Note. The means are the average of relationship ratings at Time 2 minus the average relationship ratings at Time 1 (baseline). The ratings were on 7-point scales. The higher the number, the greater the increase in satisfaction.