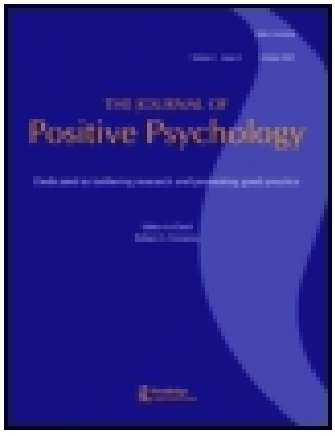

The Journal of Positive Psychology: Dedicated to furthering research and promoting good practice
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/rpos20

Grateful recounting enhances subjective well-being: The importance of grateful processing

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Published online: 20 Jun 2014.

To cite this article: Philip C. Watkins, Jens Uhder & Stan Pichinevskiy (2014): Grateful recounting enhances subjective well-being: The importance of grateful processing, The Journal of Positive Psychology: Dedicated to furthering research and promoting good practice, DOI: 10.1080/17439760.2014.927909

To link to this article: http://dx.doi.org/10.1080/17439760.2014.927909

The Journal of Positive Psychology, 2014
http://dx.doi.org/10.1080/17439760.2014.927909

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Grateful recounting enhances subjective well-being: The importance of grateful processing

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(*Received 17 January 2014; accepted 20 May 2014*)

We used a randomized controlled trial to test the effectiveness of a gratitude 3-blessings treatment for enhancing subjective well-being. Although several experimental studies have investigated gratitude interventions, many of these have used inadequate control conditions, and currently we know little about how gratitude treatments work. In this study, subjects were randomly assigned to one of three daily 1-week treatments: memory placebo, pride 3-blessings, or gratitude 3-blessings. The gratitude 3-blessings treatment significantly outperformed the comparison treatments in enhancing well-being. Moreover, the well-being of those in the gratitude treatment continued to climb after the treatment phase, similar to the findings of Seligman, Steen, Park, and Peterson (2005). We also found that the gratitude treatment enhanced the accessibility of positive memories compared to the comparison treatments. Our results suggest that exercises like the gratitude 3-blessings treatment may train cognitive biases that are salubrious to subjective well-being.

Keywords: gratitude; well-being; happiness; depression

Research on the benefits of gratitude appears to be so compelling that some have referred to gratitude as the 'poster child' of the positive psychology movement (as discussed in Wood, Froh, and Geraghty [2010]). Indeed, gratitude measures are strongly associated with subjective well-being (e.g. McCullough, Emmons, & Tsang, 2002; Watkins, Woodward, Stone, & Kolts, 2003; Wood, Joseph, & Maltby, 2008), and experimental studies have provided evidence that gratitude actually appears to cause enhanced emotional well-being (e.g. Emmons & McCullough, 2003; Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2011; Lyubomirsky, Sheldon, & Schkade, 2005; Watkins et al., 2003, for reviews, see Watkins, 2014; Watkins, Van Gelder, & Frias, 2009). In short, gratitude appears to be important to human happiness.

There is reason for concern, however, about these rosy conclusions regarding the benefits of gratitude. As pointed out by Wood et al. (2010), not all studies have revealed significant effects (e.g. Sheldon & Lyubomirsky, 2006), and many of those that have found effects have used 'control' treatments that might have actually caused decrements in well-being. For example, in perhaps the most cited gratitude intervention (Emmons & McCullough, 2003, Study 1), participants in the comparison condition recorded 'hassles' which could reasonably be seen as *decreasing* one's subjective well-being. In one sense, this appears to be a reasonable control condition – researchers want subjects to be recalling something in both treatment conditions – but it is now recognized that this comparison treatment is not ideal because it very well could be that the 'control' condition is actually causing decrements in subjective well-being. In these studies, we cannot be confident whether it is the gratitude treatment that is increasing well-being, the comparison treatment that is decreasing well-being, or some combination of the two. It appears that a number of studies have followed the lead of Emmons and McCullough (e.g. Froh, Kashdan, Ozimkowski, & Miller, 2009; Froh, Sefick, & Emmons, 2008), thus leaving the effectiveness of gratitude interventions in these studies in doubt.

As recommended by Wood et al. (2010), more gratitude experiments should use control conditions that are clearly not decreasing emotional well-being. Several studies have found significant effects from counting blessings exercises compared with no treatment control conditions (Emmons & McCullough, 2003, Study 3; Froh et al., 2008, Study 2; Lyubomirsky et al., 2005), and wait-list control conditions (Geraghty, Wood, & Hyland, 2010a, 2010b). The problem with these comparison conditions, however, is that they do not control for placebo and non-specific treatment effects. Perhaps the only study that unambiguously demonstrated that grateful recounting outperformed an effective placebo treatment was the so-called 3-blessings treatment of Seligman, Steen, Park, and Peterson (2005), but as will be explained below, it is not clear that this is clearly a *grateful* recounting exercise, or merely the recounting of positive events. The purpose of this study was to investigate the effectiveness of a gratitude 3-blessings treatment on subjective well-being, and to resolve some of the unanswered questions about the effectiveness of gratitude recounting exercises.

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The mechanisms for the effectiveness of gratitude treatments have yet to be determined. Two of the most cited gratitude interventions can be called exercises of *grateful recounting*, where participants recall grateful events (Emmons & McCullough, 2003; Seligman et al., 2005). Although both of these studies demonstrated the effectiveness of grateful recounting, the mechanisms for this effect are not clear. Stated differently, to date we do not really know *how* grateful recounting enhances subjective well-being. Indeed, it is possible that grateful processing is not the critical mechanism in these exercises that is causing increases in happiness. It might be that simply recalling positive events accounts for the increases in emotional well-being, and grateful processing of these positive events is not required. Because most gratitude researchers assume that grateful processing is a critical component of grateful recounting, it is important that research evaluates this mechanism. For example, we have argued that the good of gratitude may be explained in that gratitude amplifies the good in one's life (Watkins, 2011, 2014). Thus, we posit that when a positive event is recalled with gratitude, this should amplify the impact of retrieving this event on subjective well-being. This theory suggests that grateful processing is required to amplify the good in positive recollections.

This study sought to answer two unresolved questions regarding gratitude interventions. First, will grateful recounting exercises prove to be effective in enhancing subjective well-being when compared to an adequate placebo control treatment? Second, is *grateful processing* of positive events required for the effectiveness of grateful recounting exercises? We also investigated whether the gratitude treatment would enhance the accessibility of positive memories. In this study, we used a randomized controlled trial design. Subjects were randomly assigned to one of three treatments: memory placebo, pride 3-blessings, or gratitude 3-blessings. Subjects were administered well-being measures before the one-week treatment period, after treatment, and at one week and five weeks post treatment. We predicted that participants in the gratitude 3-blessings treatment would show significantly greater improvements in subjective well-being compared to the other treatments.

Method

Participants

Participants were recruited from undergraduate psychology courses in exchange for partial course credit, and 129 participants completed the study (memory placebo = 40, pride 3-blessings = 42, gratitude 3-blessings = 47; 92 females, 37 males). Participants were included in the study if they completed the outcome assessments and at least four of the seven daily treatments. This study was reviewed and approved by the Internal Review Board of Eastern Washington University.

Materials

We used a composite subjective well-being measure that consisted of standardized scores of the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), and the positive and negative affect scales of the PANAS (Watson, Clarke, & Tellegen, 1988). The negative affect scale on the PANAS was reverse scored, and the time frame for the PANAS was defined as how they felt 'for the past week.' We used the CES-D (Radloff, 1977) as a measure of depression. The short version of the Gratitude Resentment and Appreciation Test (GRAT-S) was used to measure trait gratitude as a possible moderator of treatment. The GRAT-S approximates the full measure well, and shows good reliability and validity (Thomas & Watkins, 2003; Watkins et al., 2003). Participants also completed a novel positive memory accessibility test at each assessment where subjects recalled 'significant or salient events' from the past week for 5 min. Each minute of this recall trial was demarcated, and we used the first minute of recall as our assessment of the accessibility of positive memories. After recalling significant events, participants went back to their written recollections and rated each event for valence ('positive,' 'negative,' 'both,' or 'neither'). Accessibility of positive memories was defined as the number of positive events each subject recalled within the first minute.

In all of our treatments, participants were told that the technique was 'designed to improve your happiness.' In the *memory placebo* condition, subjects were told 'Recent research suggests that a person's mood state may be improved by things as simple as the frequent practice of focused memory retrieval exercises.' For each evening during the treatment phase, subjects were to describe a different personal semantic memory. For example, on Day 1 they provided a description of their typical route to campus. In the *pride 3-blessings* condition, subjects first listed 'three things that went well' during the previous 48 h. After recalling these events, we asked subjects to 'write about how this particular experience or event made you feel that you are better than most or better than average (i.e. How does it make you feel like you stand out or have qualities that others don't have?).' The primary purpose of this treatment was to provide a positive recall control condition where subjects were not likely to process their memories in a grateful manner. The *gratitude 3-blessings* treatment was like the pride treatment in that subjects first listed three good things that had happened to them in the previous 48 h. For each event, we then instructed them to 'write about how this particular experience or event made you feel grateful.'

Procedure

After providing their written consent, participants filled out the pretreatment measures packet. Questionnaires in this packet included the outcome measures as described above, and several other scales not relevant to this study. At our pretest assessment, we also included an item that asked participants 'How motivated or interested are you in improving your happiness?', and students responded to this item on a 9-point Likert-type scale ranging from 'not interested in improving my happiness at all' to 'very interested in improving my happiness.' Participants were then randomly assigned to one of the three treatment conditions. They received an email regarding their specific treatment each afternoon for the next 7 days. Participants replied to the email after following instructions, and they were to complete each exercise by 10 AM the following morning. After the treatment phase subjects completed the outcome measures packet, and we administered these measures again one week and five weeks after the end of treatment. These packets were identical, except that at the end of the assessment we asked participants different questions concerning their treatment. At the post-test assessment we asked participants 'How much did you enjoy the evening exercises that you did last week?' Subjects responded on a 9-point Likert-type scale ranging from 'I disliked them very much' to 'I enjoyed them very much.' At both follow-up assessments, we asked students about how much they might have continued to practice their exercise. We asked participants 'Even though it was not required, did you continue to do the exercises on your own this past week?' They responded on a 5-point Likert-type scale, with each choice representing a different frequency of practice ranging from none to '4 or more times.'

Results

Our primary analytic approach was to use pretreatment scores of our outcome measures as the covariate, and then to analyze the impact of treatment across the three post-treatment outcome assessments (with time of assessment as a repeated measure). A 3 (between subjects: treatment group) × 3 (within subjects: time of assessment) analysis of covariance using GLM showed a significant effect for treatment condition on our composite well-being measure, as predicted; $F(2, 125) = 3.56$, $p = 0.031$, $\eta^2 = 0.054$. Post hoc pairwise comparisons using LSD showed that those in the gratitude 3-blessings treatment had significantly higher outcome scores across the three post-treatment assessments than did those in the pride 3-blessings ($p = 0.02$) and the memory placebo ($p = 0.04$) treatments. Although the interaction between time and condition was nonsignificant, $F(4, 250) = 0.97$, $p = 0.38$, as seen in Figure 1, in contrast with those in the comparison

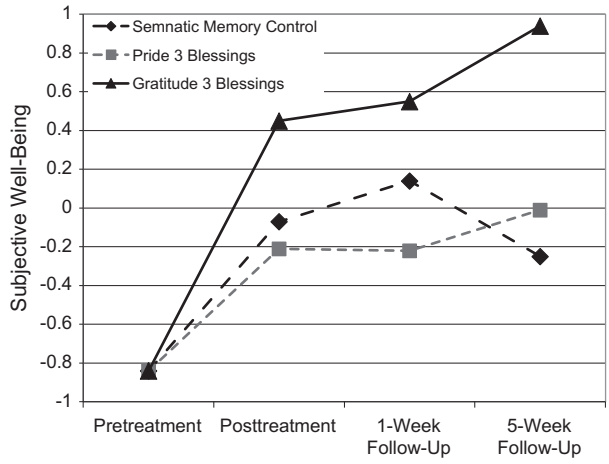

Figure 1. Impact of gratitude three-blessings treatment on subjective well-being. Because we used analysis of covariance using pretreatment scores as the covariate, all pretreatment means are represented as the pretreatment grand mean. Subsequent outcome scores are estimated marginal means.

treatments, the well-being of those in the gratitude condition continued to improve after treatment. Indeed, when analyzing each post-treatment assessment separately (using pretest well-being as the covariate), although non-significant trends were observed at post-test and 1-week follow-up, a significant treatment effect was only evident at the 5-week follow-up assessment, $F(2, 125) = 3.74$, $p = 0.026$. Figure 1 also shows that as expected, the subjective well-being of participants in all treatment conditions increased during the treatment phase.

Complimentary findings were revealed for our depression measure (CES-D). After controlling for pretreatment levels of depression, the 3 (treatment group) × 3 (time of assessment) ANCOVA with pretreatment depression levels as the covariate did not show a significant main effect for treatment, $F(2, 125) = 2.10$, $p = 0.13$. When comparing the treatment groups on depression with ANCOVA at 5-week follow-up, however, after controlling for pretreatment levels of depression, there was a significant difference in depression at this time of assessment, $F(2, 125) = 3.62$, $p = 0.03$, $\eta^2 = 0.06$. This result was obtained because the gratitude treatment showed significantly lower depression scores than the other treatments. Thus, like our well-being measure, the gratitude treatment showed the greatest impact 5 weeks after treatment. Table 1 includes the descriptive statistics for both of our primary outcome measures.

Our third analysis investigated the impact of treatment on our positive memory accessibility measure. Pretreatment levels of positive memory recall were used as the covariate in a 3 (treatment group) × 3 (time of assessment) ANCOVA. As predicted, we found a main effect for treatment, $F(2, 125) = 4.70$, $p = 0.01$, $\eta^2 = 0.06$. Post hoc LSD analyses showed that the gratitude treatment

Table 1. Means and standard deviations of outcome measures by treatment condition and time of assessment.

Outcome variable	Treatment condition	Time of assessment			
		Pretreatment	Post-treatment	1-Week follow-up	5-Week follow-up
Well-being	Memory placebo	−1.23 (2.74)	−.036 (2.55)	−0.15 (2.95)	−0.48 (3.34)
	Pride 3-blessings	−0.77 (2.63)	−0.15 (2.84)	−0.16 (3.06)	0.03 (2.55)
	Gratitude 3-blessings	−0.57 (2.37)	0.65 (2.38)	0.75 (2.16)	1.10 (2.03)
Depression (CES-D)	Memory placebo	15.64 (10.24)	13.36 (8.47)	13.17 (11.31)	14.28 (11.56)
	Pride 3-blessings	13.51 (10.50)	11.07 (11.14)	11.12 (11.03)	11.20 (9.49)
	Gratitude 3-blessings	14.05 (10.53)	11.21 (8.70)	10.05 (6.94)	8.67 (6.99)

SDs are in parentheses.

produced significantly greater recall of positive events than the memory placebo ($p = 0.02$) and pride 3-blessings ($p = 0.005$) over the three post-treatment outcome assessments. Contrasting somewhat with our primary outcome measures, however, the greatest impact of treatment was revealed at post-treatment assessment (see Figure 2).

We also investigated whether gender might moderate the impact of our gratitude treatment. Because of the low number of males in this study and because both comparison conditions had similar outcomes, we combined the placebo and the pride 3-blessings treatment into one comparison condition. We then conducted a 2 (treatment group) × 2 (gender) × 3 (time of assessment) ANCOVA with pretreatment well-being levels as the covariate. We found a significant treatment × gender interaction, $F(1, 121) = 3.91$, $p = 0.050$, suggesting that gender moderated the treatment effect. To investigate this effect, we conducted an ANCOVA for gender within each treatment condition. After controlling for pretreatment levels of well-being, gender had a significant impact on treatment outcome within the gratitude treatment condition, $F(1, 44) = 5.87$, $p = 0.02$, $\eta^2 = 0.12$. Somewhat surprisingly, men gained significantly more from the gratitude treatment than did women (Males: $M = 1.74$, SE = 0.43; Females: $M = 0.56$, SE = 0.24). No significant gender effect was observed in the comparison treatment condition, $F(1, 76) = 0.06$, $p = 0.83$.

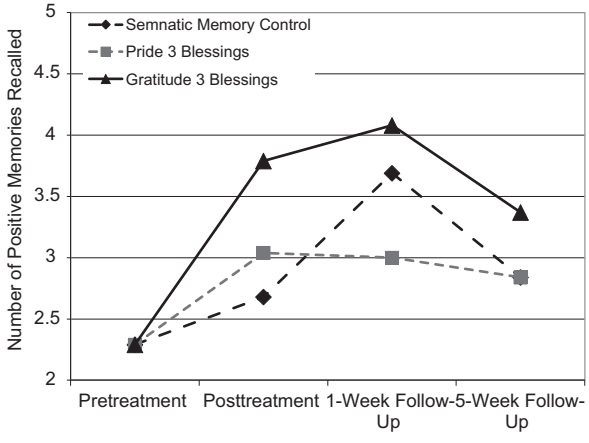

Figure 2. Impact of gratitude three-blessings treatment on retrieval of positive memories. Because we used analysis of covariance using pretreatment scores as the covariate, all pretreatment means are represented as the pretreatment grand mean. Subsequent outcome scores are estimated marginal means.

Because gender effects might be due to the fact that males tend to be lower in trait gratitude than women, we conducted a moderation analysis testing whether initial trait gratitude measured via the GRAT-S moderated our results. As with our gender analysis, we collapsed the two comparison conditions. Subjective well-being at pretest was entered as a covariate. The model was significant ($R = 0.647$, $R^2 = 0.419$; $F = 19.46$, $p < 0.00009$), and as expected, the effects of the covariate and treatment were also significant. More importantly, we found a marginal effect for the interaction of trait gratitude with treatment, $t = -1.92$, $p = 0.0578$. Investigation of the conditional effects of treatment on well-being showed significance at one SD below the mean on the GRAT-S, $t = 3.15$, $p = 0.002$, and at the GRAT-S mean, $t = 2.79$, $p = 0.006$. The conditional effect of treatment on well-being was not significant at GRAT-S level one SD above the mean, $t = 0.40$, $p = 0.689$. This interaction is illustrated in Figure 3. As seen in this figure, the gratitude treatment was more effective in enhancing well-being for those low than for those high in trait gratitude.

Finally, we conducted several analyses that inform about variables that might predict treatment improvement in the gratitude 3-blessings condition.[1] We first correlated participants' motivation/interest in improving their happiness with treatment outcome. We computed this analysis by correlating pretest motivation for happiness scores with well-being outcome scores, while controlling for pretest well-being in partial correlations. Motivation for happiness did not significantly predict outcome at any of our assessments: post-test: $r(42) = 0.08$, $p = 0.59$; 1-week follow-up: $r(42) = 0.01$, $p = 0.94$; and 5-week follow-up: $r(42) = 0.04$, $p = 0.79$.

We conducted similar analyses with participants' report of their enjoyment of the gratitude exercise. This

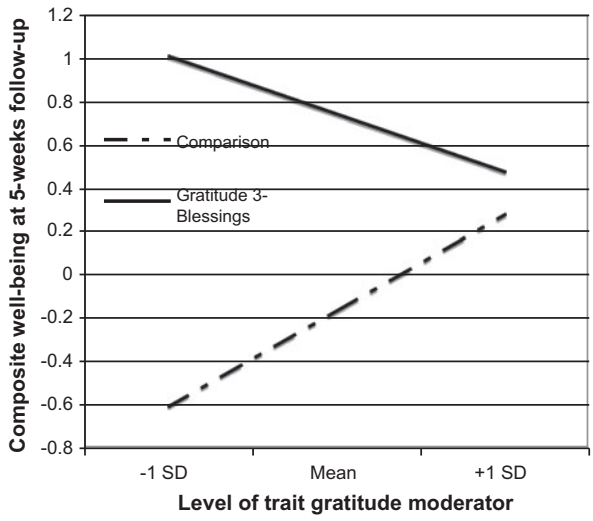

Figure 3. Conditional effect of treatment on subjective well-being at 5-week follow-up for moderator trait gratitude. Trait gratitude was assessed at pretest with the GRAT-S.

variable also failed to predict outcome with partial correlations: post-test: $r(44) = 0.06$, $p = 0.68$; 1-week follow-up: $r(44) = -0.03$, $p = 0.85$; and 5-week follow-up: $r(44) = -0.21$, $p = 0.16$. Interestingly, the only marginal finding here was actually a negative correlation between enjoyment of grateful recounting and improvement at the 5-week follow-up assessment. We should report, however, that individuals reported that they enjoyed the gratitude treatment more than the other treatments, $F(2, 142) = 4.35$, $p = 0.015$.

Finally, we investigated whether continued practice of the grateful recounting exercise contributed to enhanced well-being. First, we conducted a 3 (treatment group) × 2 (time of assessment) mixed ANOVA to determine if there were any reported differences between the treatments in terms of reported practice. Although a main effect for time of assessment was found, $F(1, 124) = 10.23$, $p = 0.002$ (showing that reported practice decreased with time), there was no significant main effect for treatment, $F(2, 124) = 1.31$, $p = 0.28$, and no significant interaction between treatment and time, $F(2, 124) = 0.14$, $p = 0.87$. To more carefully investigate the relationship between continued practice and improvement within the gratitude treatment condition, we computed partial correlations between reported practice and well-being scores at 1-week and 5-week follow-up while controlling for pretest subjective well-being. No significant relationships were found: 1-week follow-up: 1-week follow-up well-being: $r(44) = -0.02$, $p = 0.87$; 5-week follow-up well-being: $r(44) = 0.08$, $p = 0.59$; 5-week follow-up: $r(43) = 0.13$, $p = 0.38$, suggesting that continued practice of the grateful 3-blessings exercise did not contribute to improved outcome.

Discussion

In this study, we found that a 1-week gratitude 3-blessings exercise produced greater improvement in subjective well-being than either a pride 3-blessings or a memory placebo treatment. Because our memory placebo treatment also showed increases in well-being, it cannot be argued that the reason we found significant treatment differences was because the control treatment produced decrements in well-being. We believe that the fact that our gratitude treatment outperformed our comparison treatments against a backdrop of improvement in emotional well-being makes these results particularly strong. Moreover, those in the gratitude treatment continued to show increases in subjective well-being after the treatment phase.

This study sought to provide evidence that speaks to several heretofore unanswered questions. First, few of the previous experimental studies used control groups whereby we could conclude that gratitude was actually enhancing well-being (Wood et al., 2010). In the current study, however, we used a memory placebo condition that showed significant *increases* in subjective well-being. Thus, the fact that the gratitude treatment showed significantly greater increases in well-being than the placebo condition provides better evidence that grateful recounting causes increases in happiness.

Second, we sought to answer the question as to whether grateful processing was an important component of grateful recounting exercises. In previous work, it could be argued that the active mechanism was simply the activation of positive memories, i.e. grateful processing of these memories was not essential to the effectiveness of these treatments. In this study, we found that the gratitude 3-blessings treatment significantly outperformed the pride 3-blessings treatment in enhancing subjective well-being. Because both of these treatments involved activating an equivalent number of positive memories, this is strong evidence that grateful processing is required to show enhancements in well-being.

Taken together with other findings (Emmons & McCullough, 2003; Lyubomirsky et al., 2011; Seligman et al., 2005), our results suggest that exercises such as the gratitude 3-blessings intervention can enhance subjective well-being with a relatively low-cost treatment. Moreover, our results suggest that similar interventions could be used to decrease depression. Because effective treatments for depression exist, we suggest that 3-blessings interventions should be used as an adjunct to other effective depression treatments. In this context, it is important to highlight that we did not use a clinical population, thus future studies may want to investigate grateful recounting with clinically depressed individuals (Seligman, Rashid, & Parks, 2006).

Because trait gratitude is reliably lower in men than women (e.g. Watkins et al., 2003), and studies have

found that men report fewer benefits derived from gratitude (Kashdan, Mishra, Breen, & Froh, 2009), it could be argued that gratitude treatments might be less effective with men than women. In this study, however, we found that men gained more from the gratitude treatment than women. This is an interesting finding that needs to be replicated with larger numbers of male participants, but it could be that men have more to gain from gratitude than do women. Stated differently, women may already use gratitude effectively in their lives, and thus have less to gain from gratitude interventions. Indeed, we found a marginal interaction for trait gratitude as a moderator ($p = 0.057$, see Figure 3), suggesting that those low in trait gratitude at the beginning of the study gained more from the gratitude treatment than those high in trait gratitude.

In past papers we have argued that gratitude amplifies the good in memory, and thus gratitude should make positive memories more accessible (Watkins, 2004, 2014). Results from this study provide some support for this theory. Those who were in the gratitude treatment reliably recalled more positive events from the past week than those in the comparison treatments. There are several ways to interpret this finding. This result could be due to a retrieval effect, it could be an encoding effect, or it might not be a memory effect at all (it could be that the gratitude treatment actually created more positive events in the lives of these subjects). We believe that the most likely explanation is that grateful recounting encouraged increased awareness of benefits, and because these events were processed gratefully they were more deeply encoded. Future research could more specifically examine why grateful recounting appears to increase the accessibility of positive events.

Perhaps one of the most interesting findings of this study is that the subjective well-being of those in the gratitude treatment continued to climb after treatment. Indeed, their well-being was highest five weeks after the conclusion of the treatment phase. This is notable because in most treatment outcome studies the trend of emotional well-being after treatment is downward. Because Seligman et al. (2005) found a similar pattern with their 3-blessings treatment, we believe that this pattern of findings is not an anomaly. Why did participants in the gratitude treatment continue to improve after treatment? Because reported practice was not associated with treatment improvement, it does not appear that the trajectory of improvement was because participants were more likely to practice the gratitude 3-blessings treatment. We submit that grateful recounting serves to train cognitive biases that are conducive to subjective well-being. It is possible that the gratitude 3-blessings treatment trained individuals to be more aware of benefits in their life and they may have also been trained to process benefits in a grateful fashion. Thus, our gratitude treatment might have trained individuals to look for positive events. Additionally, the gratitude exercises might train individuals to gratefully process these benefits. This might involve attributing more value to the events, and interpreting the intentions and effort of the benefactor in a more positive manner. These ideas are clearly speculative at this point, but we believe that future research into the mechanisms of grateful recounting may benefit from following the lead of the *cognitive bias modification* paradigm (for a review, see Hertel & Mathews, 2011).

We believe that there is another important practical implication that arises from the pattern of our results. Because the well-being of those in the gratitude treatment continued to climb after the treatment phase, future studies should be careful when they measure well-being in grateful recounting experiments. If emotional well-being is only measured immediately after treatment, significant differences between the treatment conditions may not be found. The results of the current study and that of Seligman et al. (2005) suggest that the greatest benefits of grateful recounting are observed well after the active treatment has ceased.

One of the more salient limitations of this study is that we used college students. One advantage of this population, however, is that the participants were not necessarily motivated to improve their happiness. Our students were participating in the study to receive class credit, not necessarily to increase their happiness. Indeed, because one's motivation to improve their happiness was not related to improvement in the gratitude condition, it does not appear that this is required for the gratitude 3-blessings treatment to be effective. Moreover, it does not appear that people need enjoy the treatment in order to benefit from it. On the other hand, we did not ask our participants how motivated they were to pursue gratitude in order to enhance their happiness, and such a query might have resulted in a very different outcome. Despite the advantages of using college students, clearly this population limits how we may generalize these results. Future studies that use more diverse and representative populations should add important information to this field.

There are many unresolved issues that need to be investigated with grateful recounting treatments. For example, in this study we asked students to recall positive events from the last 48 h, whereas Seligman et al. (2005) used a 24-h time frame. In retrospect, we suspect that the 24-h time frame might be more effective because this might more forcefully train people to look for positive events. Future studies could investigate different time frames for the recollection of positive events. Another issue involves the length of treatment. If one week of daily treatment is effective, might two weeks be more effective? Time of day for grateful recounting should also be considered. When is the optimal time for

individuals to count their blessings? Grateful recounting studies have typically suggested completing these exercises in the evening before bed, but this is an issue that has yet to be resolved empirically. Because religiosity and spirituality have consistently been associated with gratitude (e.g. McCullough et al., 2002; Watkins et al., 2003), might religious individuals benefit more from gratitude interventions? It is even possible that gratitude interventions enhance spirituality (Watkins, 2014). What kinds of benefits should individuals focus on in grateful recounting? These exercises typically emphasize specific and time-limited events, but might this tend to obscure larger more consistent benefits that are not time limited? Should one focus on large benefits (e.g. one's spouse, one's occupation, and one's family), or on more specific examples of these benefits (e.g. one's spouse expressing pride in one of one's papers)? We suspect that some combination of counting the large and the specific blessings might prove to be best, but all these issues await future research. Watkins (2014) provides a more thorough discussion of these issues as they relate to gratitude treatments.

To conclude, we found that a 1-week gratitude 3-blessings treatment was effective in enhancing well-being when compared to placebo and positive memory comparison treatments. Moreover, the well-being of those in the gratitude treatment continued to improve well after the conclusion of treatment, leading us to speculate that the treatment trained cognitive habits that are salubrious to well-being. Blessings in life are prone to pass unnoticed, and grateful recounting exercises may help individuals notice and appreciate benefits in life, affirming the conclusions of an anonymous quip, 'Hem your blessings with thankfulness so they don't unravel.'

Funding

We wish to thank *Faculty Grants for Research and Creative Works* for providing the funding for this study, and also to Amy Sparrow, Cody Jensen, and Andrew Pereira for their assistance with data coding.

Note

1. We also conducted more formal regression moderation tests for all of these variables. None of these tests showed significant interactions.

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