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An Examination of Two Positive Organizational Interventions: For Whom Do These Interventions Work?

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Owing to the importance of employee psychological well-being for a variety of work- and non-work-related outcomes, practitioners and scholars have begun to broaden the scope of workplace well-being interventions by incorporating principles from positive psychology. Among such positive interventions, gratitude exercises have arguably emerged as the “gold standard” practice, with much research pointing to their effectiveness. However, existing workplace interventions lack a true (i.e., no intervention) control group, and effects have been observed for some—but not all—outcomes tested. Therefore, the purpose of this brief report was to conduct a concise but methodologically rigorous evaluation of the effectiveness of 2 positive psychology workplace interventions in improving employee affect, and to examine potential moderators of intervention effectiveness. Ninety-two employees in a large social services agency were assigned to (a) a gratitude intervention, (b) an intervention in which participants alternated between the gratitude activity and one involving increasing social connectedness, or (c) a wait list control condition, for 1 month. Neither intervention produced a main effect on any of the 3 affective outcomes measured. However, agreeableness, conscientiousness, and job tenure were significant moderators of intervention effectiveness. We discuss the implications of these preliminary results in an effort to advance the literature on workplace positive psychology interventions.

Keywords: well-being, intervention, moderators, positive psychology

Given the significant consequences of employee psychological well-being for both individual (e.g., Luthans, Avolio, Avey, & Norman, 2007) and organizational (e.g., Harter, Schmidt, & Keyes, 2003) outcomes, scholars and organizations have developed various interventions aimed at enhancing well-being (e.g., job stress interventions, work redesign). In recent years, some scholars have sought to broaden the repertoire of potential workplace well-being interventions by borrowing from the more general research on positive psychology practices (e.g., Chan, 2010).

Our primary goal is to contribute to this literature by conducting a concise but methodologically rigorous evaluation of two exercises, which, based on theoretical rationale and evidence from outside the organizational arena, should yield similar well-being benefits at work. One intervention—a gratitude exercise—arguably represents the “gold standard” of such positive psychology

practices, as findings outside the organizational domain consistently document the benefits of gratitude exercises (Wood, Froh, & Geraghty, 2010). To our knowledge, however, only three previous studies examined gratitude interventions in the workplace, none of which contained a true (i.e., no-intervention) control group. As such, replicating the benefits of this type of intervention with such a group is important for internal validity purposes. To the extent that we would indeed find benefits of a gratitude exercise beyond a wait list control group, we sought to assess, in a preliminary investigation, whether we could further improve upon the exemplar gratitude intervention by designing an intervention in which a gratitude exercise is paired with a second exercise meant to foster social connectedness in the workplace. This particular intervention design is based on two theoretical premises: first, that a *variety* of activities may enhance effectiveness by preventing hedonic adaptation and/or boredom among intervention participants; and second, that social connectedness and gratitude reflect two different core aspects of well-being (Ryff & Singer, 1998), and thus have greater net potential for enhancing participants’ well-being. The notion that well-being interventions could be enhanced by incorporating variety has been discussed within the positive psychology literature, but such speculations have rarely been tested (but see Sheldon & Lyubomirsky, 2006, for an exception). Finally, we address a set of personal characteristics as moderators of the value of these interventions, again borrowing from an often stated, but seldom examined, premise that the effectiveness of such interventions varies as a function of individual differences (Schueller,

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2012). Given that this is an initial investigation into many of these questions—and, accordingly, is presented as a brief report—the study findings should be interpreted as preliminary.

Fostering Everyday Thoughts and Behaviors to Enhance Well-Being

We use the sustainable happiness model (Lyubomirsky, Sheldon, & Schkade, 2005) as the theoretical framework and motivation for developing the current intervention (see Bolier et al., 2013, for a review). According to this model, sustainable happiness is largely a function of “everyday” positive cognitive or behavioral activities (e.g., savoring the moment, avoiding social comparisons). The model implies that these thoughts and activities should matter more—especially in terms of duration—than do most objective life circumstances, in part because one can “change” those circumstances either by thinking about them in a certain manner and/or by taking some actions to alter them.

Although various different types of interventions have been developed, we chose to implement a gratitude intervention, wherein employees were asked to think about and record the things about their job or work for which they were grateful. We chose this intervention because considerable prior research links gratitude, as both a state and a trait, to enhanced psychological well-being; moreover, gratitude interventions from outside the organizational domain demonstrate the benefits of such exercises (although not universally; see Wood et al., 2010). In the organizational domain, too, we are aware of three gratitude intervention studies that have demonstrated the psychological benefits of practicing gratitude (Bono, Glomb, Shen, Kim, & Koch, 2013; Chan, 2010; Kaplan et al., 2014). However, none of those studies contained a true control group. In addition, they revealed effects for some—but not all—outcomes. Thus, we suggest that replicating the benefits of such an exercise is important.

With respect to *why* gratitude should enhance well-being, scholars have advanced several theoretical explanations. For example, practicing gratitude may counteract the so-called “negativity bias” by shifting employees’ focus from negative events to positive ones (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Deliberately focusing on the positive things at work on a regular basis may impact work-related well-being by leading to more frequent reexperiencing of the positive emotions associated with the event and help stimulate a habit of paying more attention to the positive, as opposed to the negative. Moreover, according to adaptation theory (Brickman & Campbell, 1971), gratitude may impact well-being by allowing people return to a state of hedonic neutrality following positive experiences. Given these theoretical reasons and the generally supportive evidence, we expect similar benefits here.

Specifically, we examined the effectiveness of the interventions in impacting three *affective* workplace well-being outcomes: job-related positive and negative affective well-being (PAWB and NAWB, respectively) and job stress. Affective states are more ephemeral relative to the more cognitively laden aspects of well-being, and thus more immediately impacted by work events (Weiss, 2002). In addition, we hypothesize that the interventions will impact job stress, insofar as job stress can also be conceptualized as a proximal, relatively affective experience (Lazarus, 1999). Thus, we offer this hypothesis:

Hypothesis 1: Compared with those in wait list control group, employees who complete the gratitude intervention will ex-

perience a significant postintervention increase in (a) positive affect, and decreases in (b) negative affect and (c) job stress.

A “Mixed” Gratitude and Social Connectedness Intervention

According to Sheldon and Lyubomirsky (2012), the greater the variety of positive events experienced, the less likely people are to succumb to hedonic adaptation. Thus, varying activities should reduce the likelihood of habituation and, in turn, produce especially pronounced well-being gains. Here, we assess this idea directly by asking participants to alternate between engaging in the gratitude exercise and engaging in behavioral strategies aimed at increasing social ties at work. We refer to this as the “mixed” condition.

We chose to focus on social connectedness, given that feelings of interpersonal connectedness are a basic psychological motivation (e.g., Ryan & Deci, 2000) and have been deemed one of the four core features of well-being (Ryff & Singer, 1998). In support of this notion, a large body of research has demonstrated that feelings of social affiliation and related constructs are critical to psychological health and well-being (e.g., Pinquart & Sörensen, 2000).

Despite the proposed benefits of social connectedness, it is important to note that Kaplan and colleagues (2014) tested the efficacy of a social connectedness intervention activity and found that the exercise had no impact on any of the well-being outcomes measured in the study. We suspect that the social connectedness exercise alone was not impactful insofar as it only contained a behavioral component. Therefore, perhaps there is a need to implement an intervention that combines social connectedness with another exercise that is more reflective and cognitive in nature, such as practicing gratitude. We therefore propose the following:

Hypothesis 2: Compared with those in the wait list control group, employees who complete the mixed intervention will experience a significant postintervention increase in (a) positive affect, and decreases in (b) negative affect and (c) job stress.

Moderators of Intervention Effectiveness

Here, based on theoretical considerations with respect to the nature of the interventions, we focused on two personality factors and one demographic variable that we suggest should impact intervention effectiveness. Specifically, we focused on moderators that we suggest can be expected to generalize across different types of positive workplace interventions.

Agreeableness

Agreeableness is defined as one’s tendency to desire to maintain positive relationships with others through associated traits (e.g., warmth, friendliness). It predicts both the number and quality of social relationships (Asendorpf & Wilpers, 1998). Further, agreeable individuals tend to view their social interactions as less conflicted and see others involved as more positive and likable (Graziano, Jensen-Campbell, & Hair, 1996). Thus, agreeable individuals should, in general, have more pleasant interpersonal experiences to engage in and reflect upon, and should therefore

benefit more from the activities aimed at increasing social connectedness and gratitude journaling, respectively. Formally, we propose the following:

Hypothesis 3: Agreeableness will moderate the effectiveness of the interventions, such that more agreeable employees will experience significantly greater increases in postintervention (a) positive affect, and significant decreases in postintervention (b) negative affect and (c) job stress.

Conscientiousness

Conscientiousness refers to the extent to which a person is dependable, persistent, organized, and goal-directed (Costa & McCrae, 1992). We suspect that such tendencies should generally lead one to actively engage in the intervention; however, given the rigidity and routinization that characterizes higher conscientiousness, such individuals may only halfheartedly participate in the activities because they perceive them as detracting from “more important” task work (in contrast, employees low in conscientiousness should view the activities as a welcome distraction from task work). It is also possible that individuals who are very high in conscientiousness will tend toward more frequent activity completion, but to their own detriment. Thus, we hypothesize the following:

Hypothesis 4: Conscientiousness will moderate the effectiveness of the interventions, such that highly conscientious employees will experience significant decreases in postintervention (a) positive affect, and significant increases in postintervention (b) negative affect and (c) job stress.

Job Tenure

Finally, we chose to focus on job tenure because the sustainable happiness model suggests that, although individuals have a well-being set point, there is variability in the set point depending on one’s circumstances. We suggest that the amount of time one has spent in a particular job can be a particularly impactful moderator of well-being, given evidence indicating that longer tenure is associated with greater stress and burnout (Carney et al., 1993). These effects may be particularly pronounced in the current sample, given that we conducted the study in a social service agency—a context in which burnout is common (Maslach, Schaufeli, & Leiter, 2001). The present activities could be experienced as especially “uplifting” work events that serve to psychologically boost exhausted employees (at the extreme end of the continuum) or (positively) interrupt the routine of those who have habituated to their job circumstances. Given this, we assert the following:

Hypothesis 5: Job tenure will moderate the effectiveness of the interventions, such that employees with relatively higher tenure will experience significantly greater increases in postintervention (a) positive affect, and significant decreases in postintervention (b) negative affect and (c) job stress.

Method

Participants

Ninety-two employees from a large social service agency in the Mid-Atlantic region of the United States participated. The organi-

zation was primarily female; accordingly, the vast majority of the final sample was female (92.4%). Participants worked an average of 42.53 hr per week ($SD = 6.46$), and had a mean age of 46.63 years ($SD = 12.28$). About 47% of the sample held jobs involving direct contact with clients (e.g., case worker), 30.5% had general administrative jobs (e.g., program coordinator), and 21.7% held managerial or leadership positions.¹

Procedure

We met with various agency department heads to discuss the study. E-mails describing the study logistics and containing a link to the first survey were then sent to 121 local agency directors. Eighteen directors who were interested forwarded the e-mail to all of their subordinates. Directors themselves could also elect to participate in the study. Upon visiting the link, participants viewed the eligibility requirements and had the opportunity to agree to the informed consent. Eligibility requirements included being at least 18 years old, working at least 20 hr per week, and having worked for the agency for at least 3 months.

Participants were told that the purpose of the study was to explore avenues for increasing well-being at work and were asked to provide demographic information and to complete initial measures. They also created a personal identifier code (to link their Time 1 and Time 2 responses). Subsequently, participants were assigned² to one of two intervention conditions (a gratitude or mixed intervention condition) or to a wait list control group and received detailed instructions within the survey. The survey indicated that participants were to complete their assigned intervention at least two times a week for a 4-week period. During this period, participants received e-mail reminders twice a week³ to complete their intervention. The reminder e-mails contained a link to a secure website in which participants anonymously logged in using their unique personal identifier code and recorded activity completion (activity details are provided in the next section). Immediately following the intervention or wait period, participants were asked to complete the same set of measures included in the initial survey (excluding demographics), and to respond to all measures with respect to the past month of the intervention or wait period. Importantly, the process of participating in the interventions after

¹ One participant did not report his or her job title.

² Participants were assigned to condition by agency location. This method was used to avoid any potential issues that could arise if some employees within the same agency were assigned to one of the treatment conditions while others were assigned to the wait list control group. For example, we considered the possibility that the validity of the intervention could be threatened if participants found out that others were in another condition.

³ Current theory and empirical results do not offer consistent guidance with respect to frequency, intensity, or duration of activities needed to move one beyond his or her set point. Thus, we modeled these intervention design features after those in other gratitude studies (e.g., Rash, Matsuba, & Prkachin, 2011). We also found that two of the three gratitude studies in the organizational domain that produced significant benefits lasted 2 weeks or less (i.e., Bono et al., 2013; Kaplan et al., 2014). Based on these studies (and others), we concluded that completing the activities twice a week for 4 weeks should be sufficient to induce effects.

Table 1
Descriptive Statistics and Correlations for Focal Variables at the Two Time Points

Characteristic	Mean	SD	1	2	3	4	5	6
Time 1								
1. PAWB	3.34	.72	(.94)					
2. NAWB	2.92	.68	-.66	(.79)				
3. Job stress	3.10	1.19	-.48	.62	(.91)			
4. Gratitude	3.38	1.11	.63	-.49	-.29	(.96)		
5. Social connectedness	3.88	.99	.44	-.42	-.25	.37	(.90)	
6. Job satisfaction	3.71	.80	.79	-.59	-.59	.60	.33	(.94)
7. Turnover intent	2.42	1.24	-.51	.62	.54	-.46	-.37	-.62
Time 2								
1. PAWB	3.34	.76	(.96)					
2. NAWB	2.73	.64	-.71	(.80)				
3. Job stress	3.01	1.18	-.52	.69	(.93)			
4. Gratitude	3.61	1.04	.75	.54	-.43	(.96)		
5. Social connectedness	3.97	.88	.59	-.58	-.35	.59	(.90)	
6. Job satisfaction	3.74	.77	.84	-.72	-.55	.71	.59	(.90)
7. Turnover intent	2.28	1.21	-.57	-.68	.62	-.54	-.47	-.64

Note. Times 1 and 2 are pre- and postintervention for the immediate groups, and pre- and postwait period for the wait list control groups, respectively. $N = 28$ for gratitude condition, $N = 25$ for mixed condition, and $N = 39$ for wait list control group. Correlations with an absolute value greater than .25 are significant at the .01 level, and the correlation with an absolute value equal to .25 is significant at the .05 level. PAWB = positive job-related affective well-being; NAWB = negative job-related affective well-being. Coefficient α reliabilities are reported on the diagonal.

the initial survey did not start for the wait list control group⁴ until the activity period had ended for the other two groups.

A total of 141 employees agreed to participate and completed the initial set of measures. Of these 141 employees, 92 completed the intervention program and also responded to the follow-up measures (an overall completion rate of 65%; 28 in the gratitude condition, 25 in the mixed condition, and 39 in the wait list control group). A series of analyses demonstrated no significant differences between the Time 2 responders versus nonresponders on any demographic or focal study variables assessed at Time 1.

Gratitude intervention. At least twice weekly, participants were asked to think about and record two things in their job or work for which they are grateful (examples included supportive work relationships, sacrifices or contributions that others have made for you, advantages or opportunities at work, and thankfulness for the opportunity to have your job in general).

Mixed intervention. Participants were asked to complete the gratitude intervention and a social connectedness intervention each at least once per week. To complete the social connectedness intervention, participants were asked to engage in one of several activities (e.g., "Instead of e-mailing a coworker, call him or her, or go to his or her desk to discuss the topic you were going to e-mail about"; "Do something social outside of work hours with a coworker or coworkers") aimed at increasing their social connections in the workplace, and instructed to choose an activity that is beyond something they would have ordinarily done.

Outcome Measures

All responses were made on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Exploratory factor analyses supported the anticipated factor structure for the measures, and coefficient alpha reliabilities at the two time points for all measures were all within an acceptable range and are presented in Table 1.

Primary outcomes. Both PAWB and NAWB were measured using six items from an abbreviated version of the Job-Related Affective Well-Being Scale (Van Katwyk, Fox, Spector, & Kelloway, 2000). The job stress scale consisted of four items adapted from a measure developed by Hendrix (1987).

Additional outcomes. We also included measures of gratitude and social connectedness to assess whether the interventions concurrently caused changes in these variables (i.e., a manipulation check). To measure gratitude, we used three-items from the Gratitude Adjective Checklist developed by McCullough, Emmons, and Tsang (2002). Social connectedness was assessed via four items selected from the Social Connectedness scale of Lee and Robbins's (1995) measure of belongingness.

Moreover, we assessed job satisfaction and employee turnover intentions to validate the logic that the interventions here should more strongly influence short-term affective reactions (i.e., PAWB, NAWB, and job stress) than more distal and evaluative ones (i.e., job satisfaction and turnover intent). We measured job satisfaction using four items adapted from a measure developed by Brayfield and Rothe (1951), and turnover intentions using two items from a scale developed by Cammann, Fichman, Jenkins, and Klesh (1983). The correlation for the two turnover items at each of the two time points was 0.72 and 0.69.

Moderator Variable Measures

Both agreeableness and conscientiousness were assessed using the corresponding scales of the Big Five Inventory-10 (Rammstedt & John, 2007). Participants responded to the following prompt "I see myself as someone who . . ." The two items for agreeableness

⁴ We implemented a wait list control condition rather than a pure control condition because we wanted to ensure that all employees who wanted to complete the intervention would have the opportunity to do so, even if not immediately.

were "... is generally trusting" and "... tends to find fault in others," and the items for conscientiousness were "... does a thorough job" and "... tends to be lazy" (the latter items for both were reverse scored). The correlations between the two agreeableness and conscientiousness items were 0.81 and 0.34, respectively. To assess job tenure, participants indicated the number of years and months they worked in this particular position.

Finally, participants were asked to provide demographic information, namely, their age, gender, race, ethnicity, number of average hours worked per week, and their current job title (see Table 2 for a summary of sample characteristics).

Results

A series of ANOVA analyses indicated that there were no significant mean differences between the two experimental groups and wait list control group on any continuous variables. Moreover, two-way chi-square tests revealed no significant associations between any condition and categorical variables, with the exception of race, $\chi^2(6, N = 135) = 14.67, p = .023$. The wait list control group contained more African Americans. Descriptive statistics and correlations for the outcomes variables at the two time points appear in Table 1.

In order to perform the manipulation check and to test Hypotheses 1 and 2, we created two dummy variables to distinguish the gratitude and mixed groups, respectively, from the wait list control group and conducted a series of multiple linear regression analyses in which we regressed each of the postintervention (or postwait period) outcomes of interest onto the dummy variables. The manipulation check results

indicated that intervention assignment did not significantly predict increased gratitude ($\beta = 0.02, p = .90$, for the gratitude group; $\beta = 0.12, p = .34$, for the mixed group), or increased social connectedness ($\beta = 0.03, p = .81$, for the mixed group). Moreover, intervention group assignment did not significantly predict increased PAWB ($\beta = -0.18, p = .15$, for the gratitude group; $\beta = -0.13, p = .33$, for the mixed group), decreased NAWB ($\beta = 0.17, p = .19$, for the gratitude group; $\beta = -0.01, p = .97$, for the mixed group), or job stress ($\beta = -0.03, p = .84$, for the gratitude group; $\beta = -0.03, p = .83$, for the mixed group). Thus, Hypotheses 1 and 2 were not supported. Consistent with our expectations, intervention group assignment also did not significantly predict decreased intent to turnover ($\beta = 0.09, p = .47$, for the gratitude group; $\beta = 0.08, p = .57$, for the mixed group), or increased job satisfaction ($\beta = -0.147, p = .24$, for the gratitude group; $\beta = -0.08, p = .55$, for the mixed group).

We tested the moderation hypotheses by regressing the two dummy variables, relevant moderator variable, and interaction terms onto the postintervention (or postwait period) outcome variables of interest. When comparing the gratitude condition with the wait list control group, more agreeable employees experienced increases in postintervention PAWB ($\beta = 0.46, p = .08$) and significant increases in gratitude ($\beta = 0.38, p = .04$; see Figures 1A and 1B). Results were not significant for NAWB, job stress, job satisfaction, or turnover intent, or when comparing the mixed condition with the wait list control group. Thus, Hypothesis 3 was partially supported for the gratitude condition, but not for the mixed condition.

Table 2
Sample Characteristics Across Three Groups

Characteristic	Gratitude condition (n = 28)		Mixed condition (n = 25)		Wait list control (n = 39)	
	n	%	n	%	n	%
Age						
M (SD)	46.71	(12.68)	42.36	(12.81)	49.31	(11.13)
20–29	3	10.71	7	28.00	2	5.13
30–39	5	17.86	2	8.00	6	15.38
40–49	7	25.00	7	28.00	9	23.08
50–59	7	25.00	8	32.00	13	33.33
60–70	6	21.43	1	4.00	9	23.08
Gender						
Male	1	3.60	1	4.00	5	12.82
Female	27	96.40	24	96.00	34	87.18
Race						
African American	2	7.14	1	4.00	8	20.51
American Indian	0	.00	0	.00	0	.00
Asian	1	3.57	0	.00	0	.00
Hawaiian/Pacific	0	.00	0	.00	0	.00
Caucasian	24	85.71	24	96.00	30	76.92
Declined to answer	1	3.57	0	.00	1	2.56
Ethnicity						
Hispanic/Latino	2	7.14	1	4.00	0	.00
Not Hispanic/Latino	26	92.86	24	96.00	39	100.00
Hours worked/week (months)						
M (SD)	41.54	(5.92)	42.42	(5.78)	43.31	(7.24)
20–29	1	3.57	0	.00	0	.00
30–39	1	3.57	5	20.00	1	2.56
40–49	23	82.14	16	64.00	32	82.05
50–60	3	10.71	4	16.00	6	15.38

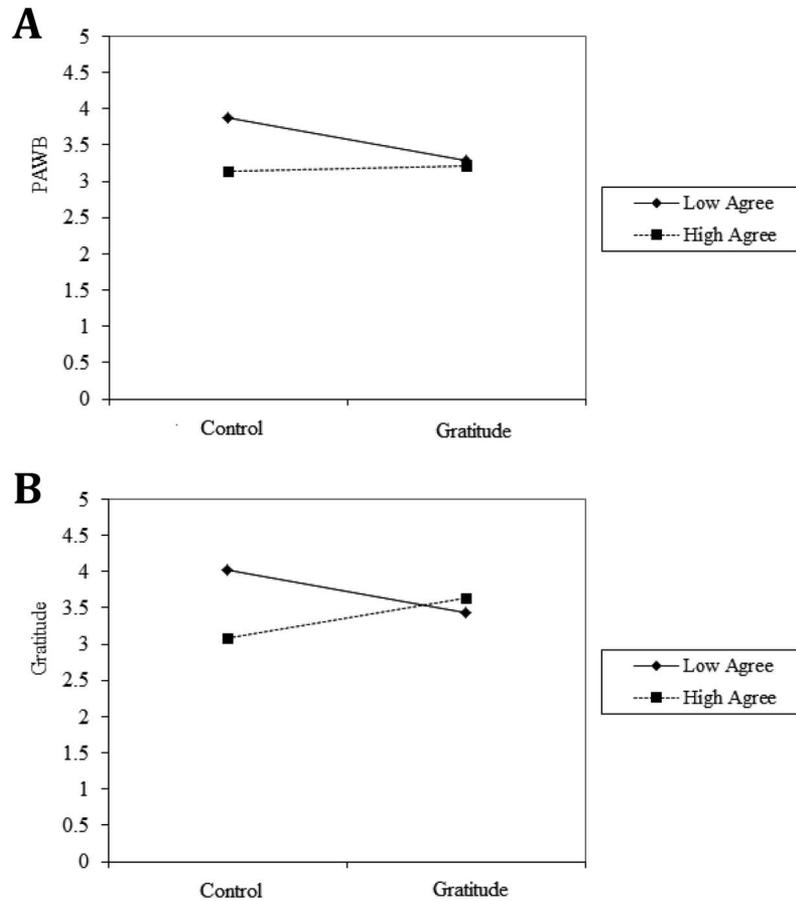


Figure 1. Interaction of agreeableness and condition assignment on postintervention (A) positive job-related affective well-being (PAWB), and (B) gratitude. Agree = Agreeableness.

Consistent with Hypothesis 4, when comparing the gratitude condition with the wait list control group, more conscientious employees experienced significantly greater decreases in postintervention PAWB ($\beta = -.30, p = .04$) and increases in NAWB ($\beta = 0.31, p = .03$; see Figures 2A and 2B). Results were not significant for the remaining outcomes or for the mixed condition. Hypothesis 4 was therefore partially supported for the gratitude condition but not for the mixed condition.

Contrary to Hypothesis 5, compared with the wait list control group, *less* tenured employees who had practiced gratitude experienced significantly greater decreases in postintervention job stress ($\beta = .40, p = .03$; see Figure 3A). Likewise, job tenure moderated the effectiveness of the mixed intervention for PAWB such that less tenured employees benefited from the intervention ($\beta = -.37, p = .03$; see Figure 3B). Results were not significant for any of the other outcomes.

Discussion

This is among the first tests of positive psychology interventions in the workplace. Building on prior intervention research, in this brief report, we sought to evaluate the “gold standard” of interventions (gratitude) compared with two other conditions: (a) a control group and (b) a new “mixed” intervention designed to meld

benefits of gratitude with benefits of social interaction as well as benefits of activity variety itself. Another key aim was to explore individual differences as possible moderators of intervention outcomes. We offer several potential explanations for the current study findings.

Overall, the current findings, although preliminary, suggest that individual differences in personality and job tenure significantly impact the effectiveness of positive interventions. However, neither intervention had a significant main effect on well-being. Although contrary to our predictions, these findings are not especially anomalous. In fact, quantitative and qualitative reviews indicate that the outcomes of such interventions vary (Bolier et al., 2013; Wood et al., 2010). We suggest that perhaps the particular mix of activities used in this context was suboptimal because any potential benefit of variety in reducing hedonic adaptation was countered by the specific nature of the social interaction activity itself.

Indeed, theoretical rationale generally favors the current social interaction intervention (e.g., Ryan & Deci, 2000). However, several “devilish” details may have limited the efficacy of the social intervention (see Kaplan et al., 2014). First, the current study’s social activities might have been perceived by participants as burdensome or overly contrived; arguably, individuals may want

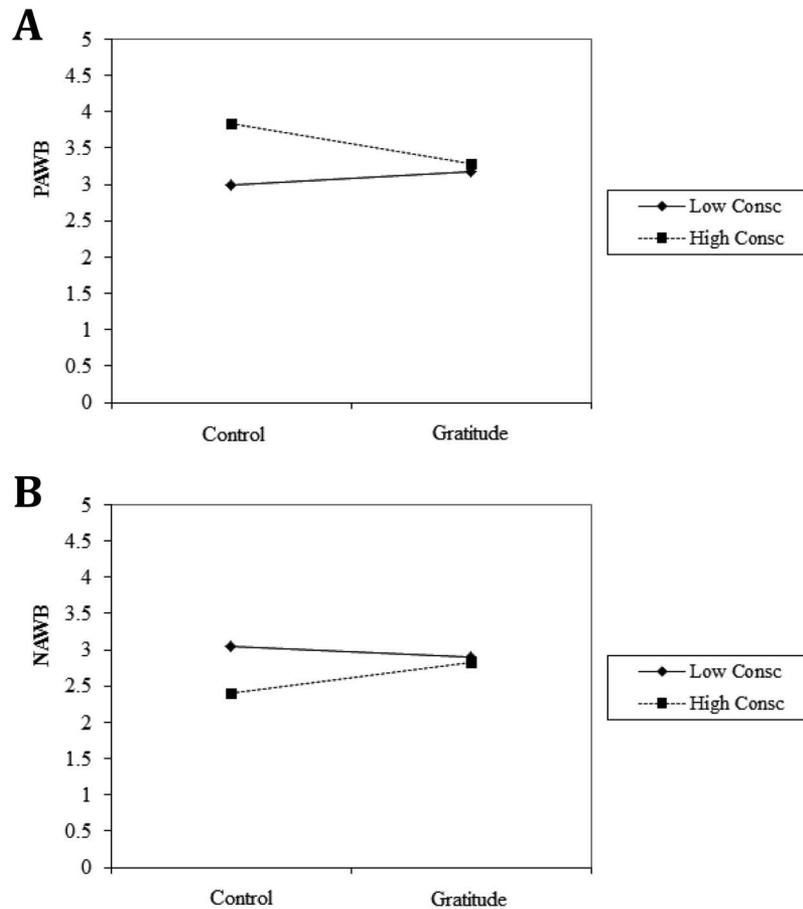


Figure 2. Interaction of conscientiousness and condition assignment on postintervention (A) positive job-related affective well-being (PAWB), and (B) negative job-related affective well-being (NAWB). Consc = Conscientiousness.

to initiate such interaction on their own terms. According to social determination theory, individuals have three basic psychological needs—autonomy, relatedness, and competence (Ryan & Deci, 2000). In the social interaction intervention, we may have been “robbing Peter” (autonomy needs) to “pay Paul” (relatedness needs). Second, unlike the solitary nature of the gratitude activities, social activities necessarily involve two or more parties. Given this dependency on others, it is not surprising that social activities produce more varied outcomes compared with interventions completed by participants themselves alone. Third, participants’ anecdotal responses indicated that not all social interactions were positive.

As with the mixed intervention, several specific aspects of the current gratitude intervention may explain the lacking main effect on well-being. First, and perhaps of most significance, we included a wait list control condition—something that is frequently lacking in gratitude interventions inside and outside of the organizational domain (see Wood et al., 2010). Although the current null results certainly do not imply that gratitude interventions are ineffective, they do arguably suggest that including a control condition would have resulted in nonsignificant findings for some other studies. Additionally, the current interventions were framed rather specif-

ically (e.g., recording two *work*-related things for which one is grateful) compared with other employee interventions (e.g., Bono et al., 2013) in which participants recorded “three good things”—personal or work-related—that happened during the day. Participants in that study were also asked to offer attributions for *why* the good things had occurred, which, in and of itself, may yield benefits through deeper appreciation of the *meaningfulness* of good things (see Seligman, Steen, Park, & Peterson, 2005).

Moreover, given the rarity with which individual moderators are explored in this literature (e.g., Schueller, 2012), the current findings are noteworthy. Beyond providing evidence that individual differences can influence intervention efficacy, the current findings also suggest the seldom-considered possibility that for some individuals, “positive” interventions might yield *negative* outcomes. For instance, as predicted, gratitude intervention outcomes tended to be more negative among individuals high in conscientiousness, perhaps because they approach their performance of intervention activities as fulfilling an obligation as opposed to something intended to provide personal meaning and growth.

Our results also indicated more detrimental outcomes in the gratitude condition for individuals lower in agreeableness. Plausibly, these employees may have fewer positive interpersonal expe-

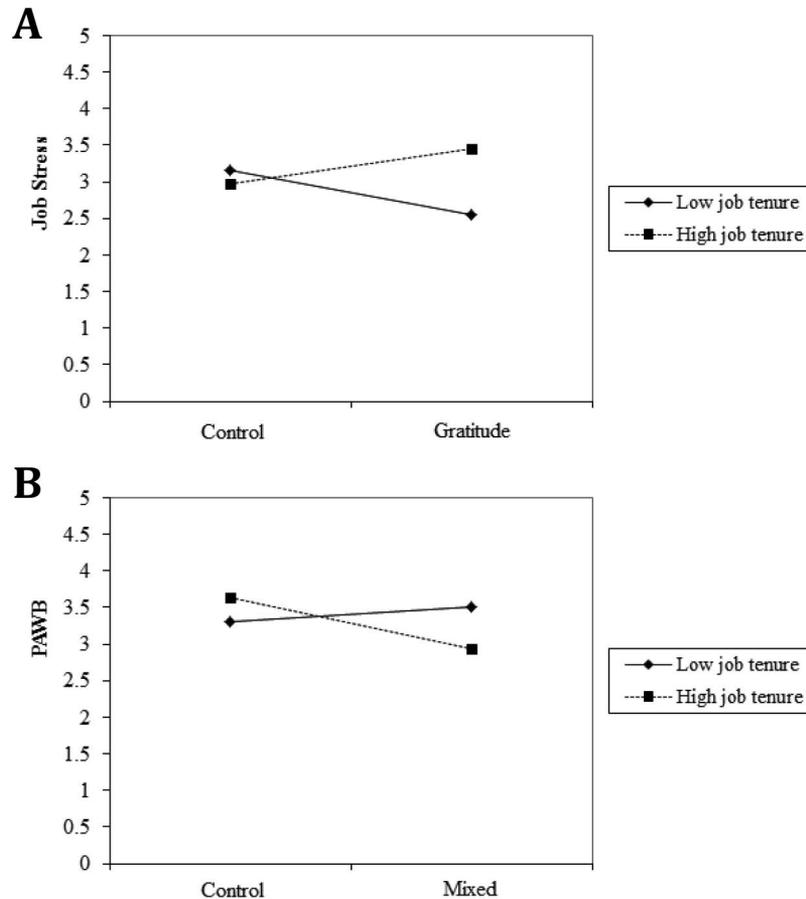


Figure 3. Interaction of job tenure and condition assignment on postintervention (A) job stress, and (B) positive job-related affective well-being (PAWB).

periences upon which to reflect. Additionally, the tendency for people low in agreeableness to distrust others might manifest within this context as cynicism about the interventions, perhaps even interpreting them as manipulative.

Finally (and unexpectedly), *shorter* job tenure was associated with intervention benefits. Plausibly, less tenured employees have more potential for upward personal growth and thus greater optimism about their jobs, as well as about the intervention. Alternatively, some interventions may address detriments to well-being, like role ambiguity, which are especially pertinent for employees in new jobs (Anseel, Beatty, Shen, Lievens, & Sackett, 2015).

This study also has some potential limitations. First, contrary to some prior studies, we observed no significant intervention main effects; moreover, we cannot conclusively isolate the factor(s) responsible for the inconsistent findings. It may be that these null findings can be attributed to insufficient power. As a reviewer noted, another possibility is that these interventions produce mild hedonic discomfort in the short term but, ultimately, higher eudaimonic well-being in the longer term. Assessing an outcome such as workplace meaningfulness over time would have been advantageous. Also, although not the focus of the present study, we suggest that future studies should more closely examine the role of intervention design features (i.e., frequency and intensity of inter-

vention activities) on intervention effectiveness. Third, we examined only a small subset of many potentially relevant moderating factors (e.g., as suggested by a reviewer, we did not examine traits that have often been linked to well-being, such as extraversion and trait negative affect). Related to this, we did not randomly assign participation frequency, leaving open the possibility that there was differential participation (and, resultant change) owing to other factors. Notably, though, participation frequency did not moderate the main effects.

In conclusion, the current brief report provides some preliminary, but potentially significant, findings regarding the effectiveness of different positive interventions in the workplace as well as the individual differences that may moderate those effects.

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