Research Reports

Integrating Humor and Positive Psychology Approaches to Psychological Well-Being

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Abstract

In this study we investigated how individual differences and personality constructs taken from the positive psychology and humor domains of psychology may play an important role in psychological well-being. Participants completed measures assessing trait gratitude, savoring, and humor styles; along with several positive and negative indicators of psychological well-being (e.g., life satisfaction, positive affect, depression, and anxiety). We first examined the degree of empirical and conceptual overlap among the personality constructs from these two domains. Here, we found that higher levels of gratitude and savoring were associated with higher levels of self-enhancing and affiliative humor, whereas higher levels of aggressive and self-defeating humor were primarily associated with lower levels of gratitude. Subsequent regression analyses indicated that the positive psychology construct of gratitude was predictive of several different indices of positive and negative well-being, whereas savoring was most predictive of greater positive affect. In addition, these regression analyses also revealed that the humor styles of self-enhancing and self-defeating humor provided a significant increase in the prediction of several positive and negative indices of well-being, above and beyond the effects attributable to the positive psychology constructs alone. These findings were then discussed in terms of developing a broader and more integrated theoretical approach to the understanding of psychological well-being.

Keywords: humor, gratitude, savoring, life satisfaction, positive affect, depression, well-being

Introduction

Considerable research in psychology has supported the proposal that individual differences in personality characteristics or styles can have a marked influence on psychological well-being. In the humor domain, for example, a number of studies have now identified how various humor styles are differentially associated with well-being. These four distinct humor styles, as initially proposed by Martin, Puhlik-Doris, Larsen, Gray, and Weir (2003), include: (i) affiliative humor, or using humor to connect and foster relationships with others, (ii) self-enhancing humor, or using humor to cope effectively under stressful life circumstances, (iii) self-defeating humor, or using humor in a self-deprecating manner, and (iv) aggressive humor, or using humor to denigrate and bring down others.

Expected relationships between these four humor styles and constructs indicative of psychological well-being have been clearly documented in the humor research literature (Kuiper, 2012; Martin, 2007). As one illustration,

Martin et al. (2003) found that higher levels of affiliative and self-enhancing humor were associated with higher levels of self-esteem, and lower levels of both depression and anxiety. Self-defeating humor was also associated with these well-being measures, but in the expected opposite directions. Furthermore, both aggressive and self-defeating humor were associated with greater hostility toward others. These findings, which have been replicated a number of times in the humor literature, support a major distinction between humor styles that may serve to enhance well-being (i.e., adaptive humor, such as affiliative and self-enhancing humor) versus humor styles that may be detrimental (i.e., maladaptive humor, such as self-defeating and aggressive humor).

Research in other domains of psychology has also explored the links between personality characteristics and psychological well-being. In the positive psychology domain, for example, considerable work has examined how individual difference characteristics have meaningful consequences for maintaining and enhancing overall well-being (Seligman & Csikszentmihalyi, 2000). Substantial interest has been garnered around the construct of gratitude, when considered as a personality characteristic or trait, and how it may be involved in facilitating psychological well-being. This trait conceptualization of gratitude refers to individual differences in the frequency and intensity of grateful affect (McCullough, Emmons, & Tsang, 2002).

Research has demonstrated that trait gratitude correlates with measures of psychological well-being in the expected manner. As one example, a recent study found that individuals who pay more attention to feeling grateful for aspects of their lives report fewer depressive symptoms (Lambert, Fincham, & Stillman, 2012). Studies of gratitude more generally have shown that higher levels of gratitude are associated with a variety of positive indicators of well-being (e.g., life satisfaction, positive affect); with converse relationships evident between higher gratitude and negative indicators of well-being (e.g., negative affect, depression during a life transition) (Emmons & McCullough, 2003; Wood, Maltby, Gillett, Linley, & Joseph, 2008).

In addition to gratitude, other constructs have been investigated within the positive psychology domain. For instance, researchers have also examined how individual differences in the savoring of positive experiences are meaningful for psychological well-being. Bryant and Veroff (2007) have defined savoring as the process of attending to and enhancing a positive experience through the use of various cognitive and behavioral strategies – for example, telling others about one's experience. These researchers have also proposed that cognitive and behavioral responses to positive experiences reflect stable differences in personality. Research has indicated that this trait conceptualization of savoring has significant bearing on well-being. To illustrate, one study reported that the savoring of positive events was important for the happiness individuals derived from the experience (Jose, Lim, & Bryant, 2012).

When taken together, the above research provides some initial empirical support for the proposal that individual differences in personality may have an effect on psychological well-being. What is still missing, however, is a more unified examination of how the various styles and characteristics identified in the humor and positive psychology domains may relate to psychological well-being. To date, almost all of the work in these two domains of psychology has proceeded independently. There has been very little integration of theory and findings between these two domains, although both focus on the same fundamental topic and issues, namely, the study of individual difference factors that shape how a person perceives, interacts with, and interprets the various experiences and events they encounter on a daily basis. Thus, little is yet known about how individuals with high levels of trait gratitude, for example, may also use the various humor styles. Nor is much known about how the positive psychology

constructs, such as gratitude or savoring, may combine with humor styles to exert an influence of psychological well-being.

Accordingly, the present study was designed to provide a unified examination of these issues by integrating recent research and theory in both domains. In particular, we were interested in determining how a combined examination of some of the main individual difference constructs in both the humor and positive psychology domains would help us understand more fully how these personality characteristics and humor styles may then relate to psychological well-being. We did this by assessing individual differences in the four humor styles, along with levels of personal gratitude and savoring, in a sample of over 250 participants. In addition, we also assessed level of psychological well-being for each participant in our study by focusing on both the presence of positive indicators, such as subjective happiness, satisfaction with life, and positive affect; as well as negative indicators such as increased levels of depression, anxiety and stress.

Since little research has thus far combined these two domains of study, our initial focus was on the possible relationships between the positive psychology constructs of gratitude and savoring, and each of the four humor styles. In general, we expected that high levels of trait gratitude and savoring would be linked to a greater endorsement of the two adaptive humor styles. This pattern was expected as the more positive orientation to life exhibited by those higher on gratitude and savoring would also be reflected in their humor style preferences. Thus, it was anticipated that higher levels of gratitude and savoring would be associated with greater use of affiliative humor, as this would be consistent with a positive orientation to make social interactions more enjoyable. Likewise, we expected these two positive psychology constructs to be positively associated with self-enhancing humor, as this would be consistent with helping to promote and maintain a positive view of the self, particularly when dealing with various stressful situations.

Conversely, we expected that higher levels of trait gratitude and savoring would be inversely related to greater endorsement of maladaptive humor use. This pattern stems from the notion that the overall positive orientation towards life displayed by those individuals with higher levels of gratitude and savoring is basically incompatible with the negative focus of each of the two maladaptive humor styles. Given their positive orientation, these individuals are much less likely to engage in self-defeating humor that puts down the self, and are also much less likely to use aggressive humor that is extremely harmful to others, and highly disruptive of social and personal relationships.

The second major issue we examined in this study was the combined contribution of the positive personality constructs of gratitude and savoring, along with the four humor styles, to predicting levels of psychological well-being. Here, we were particularly interested in determining whether the humor styles made a significant additional contribution to predicting well-being, above and beyond what could be predicted by just knowing an individual's level of gratitude and savoring. Although past research has looked at these constructs separately, there is very little research examining their combined contribution to psychological well-being. It could be the case, for example, that once gratitude and savoring are taken into account, there is little additional predictive variance in psychological well-being that can be attributable to the humor styles. This pattern would suggest that the conceptual degree of overlap between these constructs is of a sufficient magnitude to render humor styles redundant in the prediction of well-being (once an individual's level of gratitude and savoring is known). On the other hand, if the humor styles still contribute significantly to well-being, above and beyond gratitude and savoring, this would suggest there are

unique aspects associated with humor, distinct from gratitude and savoring, that still impact significantly on psychological well-being.

We examined these possibilities by using multiple regression procedures to predict the various well-being outcomes (e.g., subjective happiness, depression), entering the two positive personality constructs as the first block of predictors and the four humor styles as the second block. Overall, it was anticipated that there would be a unique role for both humor and positive psychology when predicting well-being. That is, given the different proposed functions of the humor styles and gratitude and savoring, it was expected that neither the roles of humor nor positive psychology would be entirely subsumed under the other. Yet, at the same time, it was expected that some constructs would be more important for the prediction of certain outcomes. For example, given that the practice of savoring is uniquely tied to positive experiences, it was expected that savoring would account for more unique variance within the context of positive versus negative indicators of well-being (e.g., positive affect).

Method

Participants

A total of 268 students enrolled in introductory psychology courses at the University of Western Ontario participated in this study. One case was excluded from any analyses, due to the substantial proportion of missing data. Thus, the final sample was comprised of 267 students (212 females, 54 males, and 1 unidentified), who ranged in age from 16 to 43 (M = 18.35, SD = 1.98). Ethics approval was obtained prior to data collection.

Measures

Humor Styles Questionnaire (HSQ; Martin et al., 2003) — The HSQ consists of 32 items, with 4 subscales comprised of 8 items each. Each subscale measures the extent to which a person typically engages in either self-enhancing humor (e.g., If I'm feeling depressed, I can usually cheer myself up with humor), affiliative humor (e.g., I laugh and joke a lot with my closest friends), aggressive humor (e.g., If someone makes a mistake, I will often tease them about it), or self-defeating humor (e.g., I let people laugh at me or make fun at my expense more than I should). Ratings for each item are made on a 7 point scale, ranging from 1 = Totally Disagree to 7 = Totally Agree.

The four subscales of the HSQ have demonstrated appropriate internal consistency, with Cronbach's alphas ranging from .77 to .81 (Martin et al., 2003). Factor analytic work and relatively low intercorrelations between the subscales indicate that these measures tap humor styles that are relatively distinct from one another. The HSQ has also demonstrated adequate construct validity, as peer ratings of sense of humor were positively correlated with HSQ scores (Martin, 2007).

Gratitude Questionnaire-6 (GQ-6; McCullough et al., 2002) — The GQ-6 is a 6 item self-report measure of trait gratitude that is widely used in research (Wood, Froh, & Geraghty, 2010). The GQ-6 assesses individual differences in the frequency and intensity of grateful affect (e.g., I have so much in life to be thankful for), with each item rated on a 7 point scale ranging from 1 = strongly disagree to 7 = strongly agree. This measure of trait gratitude exhibits appropriate internal consistency (Cronbach's alpha = .82); as well as discriminant validity with respect to related constructs, such as optimism, hope, and vitality (McCullough et al., 2002).

Ways of Savoring Scale (WOSC; Bryant & Veroff, 2007) — The WOSC examines the extent to which an individual, in response to a recent positive event, engages in various cognitive-behavioral strategies pertaining to savoring. Although the original WOSC has 10 different subscales for assessing savoring, many of these subscales have only modest levels of internal consistency (Lindberg, 2005). As such, the selection of items for the present study was based on recent factor analytic work which revealed the presence of an "amplifying savoring" factor (α = .80) that assesses the dispositional tendency to savor positive events (e.g., "I talked to another person about how good I felt"). The three items from the original WOSC that loaded most strongly on this factor were used in the present study. Each item was rated on a 7 point scale with 1 = definitely does not apply to 7 = definitely applies. Thus, higher scores represented greater savoring.

Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) — The PANAS is composed of 20 items and yields two separate scores for positive and negative affect. Using a 5-point scale, participants indicate the frequency with which they experience a variety of emotions, from 1 (very slightly or not at all) to 5 (extremely) over the past week. Examples of positive affect items are "interested", "strong" and "enthusiastic". Negative affect items include "distressed", "upset", and "guilty". The PANAS is a well-validated, commonly used measure of positive and negative affect. High reliability has been demonstrated, as well as good convergent validity with other measures of pleasant and unpleasant moods (Watson et al., 1988).

Depression, Anxiety, and Stress Scales-21 (DASS-21; Lovibond & Lovibond, 1995) — The three subscales of the DASS-21 assess depressive, anxious, and stressful symptomology. This self-report measure is composed of 21 items in which respondents are asked to rate their agreement with statements using a 4-point scale, ranging from 0 (did not apply to me at all) to 3 (applied to me very much, or most of the time). In the present study, participants were instructed to rate the statements based on their experiences over the previous week. The DASS-21 has demonstrated good internal consistency, with Cronbach's alphas ranging from .87 for anxiety to .94 for depression (Antony, Bieling, Cox, Enns, & Swinson, 1998). Acceptable concurrent validity has also been documented, with DASS-21 scores correlating highly with other measures of depression, anxiety, or stress.

The Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999) — The SHS is a four-item self-report measure of subjective judgments regarding global happiness. Using 7-point scales, participants first rated their own general level of happiness (1 = not a very happy person to 7 = a very happy person), and then rated their happiness compared to their peers (1 = less happy to 7 = more happy). The remaining two items provide respondents with a description of what characterizes happy people and unhappy people, and then asked the participant to assess how well this applies to them (e.g., Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you? 1 = not at all and 7 = a great deal). Scores on each item are combined to yield a total happiness score, with higher scores representing increased levels of happiness. This scale has been used widely, and within the field of positive psychology, in particular. It has been shown to have good to excellent internal consistency, with internal reliability estimates ranging from .79 to .94. This measure has also demonstrated adequate test-retest reliability, as well as good convergent validity with other questionnaires measuring happiness (Lyubomirsky & Lepper, 1999).

The Satisfaction with Life Scale (SWL; Diener, Emmons, Larsen, & Griffin, 1985) — The SWL is another measure commonly employed within the domain of positive psychology, and assesses cognitive judgments regarding global life satisfaction. Respondents are asked to rate their agreement with four statements, using a 7-point scale ranging from 1 =strongly disagree to 7 = strongly agree. Sample items include, "In most ways, my life

is close to ideal" and "I am satisfied with life". Participants' total scores range from 5 to 35, with a score above 20 thought to indicate adequate satisfaction with one's life. Excellent internal consistency has been demonstrated, with reliability estimates ranging from .86 to .90. With respect to convergent validity, moderate to strong correlations have been documented between the SWL and other measures of well-being.

Procedure

Once participants viewed the description of the study on the Psychology Department website and then signed up for the study, they were randomly directed to one of four versions of the research questionnaire. These versions were created to help control for any possible ordering effects (i.e., a complete reverse ordering of scales; orderings which had scales positioned in the middle of one survey version being then placed at the beginning and end of other versions, and so on). Regardless of the version of the research survey that participants were directed to, they were first presented with a Letter of Information and then gave their informed consent to participation before proceeding. After completing the study, participants received a debriefing form.

Results

Inspection of Table 1 reveals that the means, standard deviations, and ranges for the humor, positive psychology and well-being measures are comparable to those reported in previous research. Reliability coefficients were all quite acceptable for our set of measures, with Cronbach alphas ranging from .75 to .89.

Table 1

Means, Standard Deviations, Range and Reliabilities for All Measures

Measure	*M*	*SD*	Range	Reliability
Affiliative Humor	43.91	7.11	22-56	.83
Self-Enhancing Humor	34.34	7.70	13-52	.81
Aggressive Humor	28.64	7.80	9-53	.77
Self-Defeating Humor	28.82	8.79	10-55	.83
Gratitude	34.40	5.57	9-42	.83
Savoring	15.05	3.49	3-21	.75
Depression	12.30	4.28	7-26	.86
Anxiety	12.27	4.01	7-26	.79
Stress	14.45	4.28	7-28	.82
Negative Affect	23.04	7.69	10-49	.87
Positive Affect	30.77	7.15	11-49	.87
Happiness	18.67	4.97	4-28	.89
Life Satisfaction	24.23	6.25	5-35	.89

Note. N = 267 for all measures.

Table 2 presents the correlations between each of the four humor styles and the two positive psychology constructs of gratitude and savoring. In accord with our expectations, greater levels of trait gratitude were associated with significantly higher levels of both affiliative and self-enhancing humor; and significantly lower levels of both aggressive and self-defeating humor. Higher levels of savoring were also associated in the expected manner with greater endorsement of the two adaptive humor styles (i.e., affiliative and self-enhancing). For the maladaptive styles, however, greater savoring was only associated with lower levels of aggressive humor. Thus, in contrast to gratitude, savoring was not significantly related to self-defeating humor.

Table 2

Correlations Between the Four Humor Styles, and Gratitude and Savoring

	Affiliative Humor	Self-Enhancing Humor	Aggressive Humor	Self-Defeating Humor
Gratitude	.33**	.33**	-.29**	-.16*
Savoring	.27**	.43**	-.13*	.01

*$p < .05$. **$p < .01$.

In order to explore the above relationships further, we conducted a principal components analysis on the measures of gratitude, savoring and four humor styles, using a varimax rotation. The resulting factor structure and loadings are shown in Table 3. Factor 1 represents a broad positive orientation towards dealing with life experiences and events, with the highest factor loadings being evident for the two adaptive humor styles (self-enhancing and affiliative), and the two positive psychology constructs (trait gratitude and savoring). In contrast, Factor 2 primarily represents a negative orientation, as reflected in higher levels of both aggressive and self-defeating humor use, coupled with lower levels of gratitude. Savoring was not included in this second factor, however, as the Factor 2 loading for this construct was not substantive. Taken together, these findings indicate that there are meaningful relationships between the various humor styles and the positive psychology constructs of gratitude and savoring. The adaptive styles of humor are clearly linked to higher levels of gratitude and savoring, suggesting some degree of conceptual overlap; whereas the maladaptive humor styles are associated with lower levels of gratitude, but not savoring.

Table 3

Factor Structure and Loadings for Humor Styles and Positive Psychology Constructs

	Factor 1: Positive Life Orientation	Factor 2: Negative Life Orientation
Gratitude	.69	-.48
Savoring	.75	-.19
Self-Enhancing Humor	.76	.17
Affiliative Humor	.69	.21
Aggressive Humor	-.07	.76
Self-Defeating Humor	.13	.67

Positive Psychology and Humor Styles Predicting Well-Being

Hierarchical regression analyses were conducted to determine the contribution of the two positive psychology constructs and the four humor styles to psychological well-being. Each of these analyses also considered the degree to which humor contributed to the prediction of well-being, above and beyond gratitude and savoring. Thus, for each well-being measure (e.g., happiness, anxiety), gratitude and savoring were entered as predictors in Block 1, and the four humor styles were then entered as Block 2. Details of these analyses are described below, with a summary of all significant findings and the regression coefficients (*B*) shown in Table 4.

Negative Well-Being

When considering just the Block 1 predictors of depression, the regression equation was significant, R^2 = .21, $F(2, 264) = 34.20$, $p < .001$, with gratitude being the sole significant contributor (*B* = -.33). The subsequent inclusion of the Block 2 predictors of the four humor styles resulted in a significant incremental change in R^2 of .13, *F*-change

(4, 260) = 13.00, $p < .001$. The regression equation for this overall model was significant, $R^2 = .34$, $F(6, 260) = 22.13$, $p < .001$; and showed that gratitude was the largest significant predictor ($B = -.27$), followed by self-enhancing humor ($B = -.18$), and then self-defeating humor ($B = .14$).

Similar predictive patterns were observed for stress, negative affect, and anxiety. When considering just the Block 1 positive psychology predictors, only a lower level of gratitude was predictive of higher stress, greater negative affect, and greater anxiety. As shown in the Table 4 regression coefficients, savoring did not contribute significantly. However, adding in the Block 2 humor styles resulted in a significant increase in the prediction for each negative well-being measure. In terms of stress, the final regression equation for this overall model was significant; with less self-enhancing humor, more self-defeating humor, and less gratitude all contributing significantly to greater stress levels (see Table 4 for the individual regression coefficients). For negative affect, the overall regression model showed that less gratitude, less self-enhancing humor, more self-defeating humor, and less affiliative humor all contributed significantly to greater negative affect. Finally, a slightly different pattern emerged for the overall model predicting anxiety, with less gratitude, more savoring, less self-enhancing humor, and more self-defeating humor, all playing a predictive role (see Table 4 for coefficients).

Overall, the above patterns of findings support a role for positive psychology constructs (particularly gratitude) and humor styles (particularly self-enhancing and self-defeating humor) in the prediction of negative psychological well-being. Furthermore, these findings indicate that the humor styles add significantly to the prediction of negative well-being outcomes, above and beyond what is known about an individual's level of trait gratitude. The only peculiar finding in this set of analyses was that higher levels of savoring actually contributed to greater anxiety. This finding, however, should be considered in the context of the large set of significant predictors included in the overall final regression model for this specific negative well-being measure.

Positive Well-Being

When considering only gratitude and savoring, the Block 1 findings revealed that both of these positive psychology constructs played a significant predictive role. In particular, higher levels for all three positive outcome measures (happiness, satisfaction with life, and positive affect) were predicted by both higher levels of gratitude and higher levels of savoring (see Table 4 for individual regression coefficients). Thus, in contrast to negative well-being, savoring appears to play a much more prominent role in predicting positive well-being; and is actually a primary predictor for positive affect (with gratitude providing a much smaller contribution for this outcome measure).

The addition of the Block 2 humor styles to each regression model resulted in a significant increase in predicted variance for all three positive outcome measures (see Table 4 for details). In the resulting overall regression models, greater self-enhancing humor and less self-defeating humor were significant predictors for all three positive outcome measures.

Aggressive humor also added significantly to the prediction of satisfaction with life; whereas affiliative humor added significantly to the prediction of positive affect. However, as evident by the individual regression coefficients shown in Table 4, it was self-enhancing humor that appeared to be the most important humor style, in terms of predicting each of the positive well-being measures.

Table 4

Summary of Significant Findings and Regression Coefficients for All Regression Analyses

Well-Being Measures	Block 1 Predictors	Block 2 Change	Overall Model and Predictors
Depression	$F = 34.20$*** $R^2 = .21$ Gratitude (-.33)***	F-change = 13.00*** R^2 change = .13	$F = 22.13$*** $R^2 = .34$ Gratitude (-.33)*** Self-Enhancing (-.18)*** Self-Defeating (.14)***
Stress	$F = 7.95$*** $R^2 = .06$ Gratitude (-.19)***	F-change = 7.89*** R^2 change = .13	$F = 8.19$*** $R^2 = .34$ Self-Enhancing (-.13)*** Self-Defeating (.13)*** Gratitude (-.11)*
Negative Affect	$F = 13.66$*** $R^2 = .09$ Gratitude (-.45)***	F-change = 8.71*** R^2 change = .11	$F = 10.90$*** $R^2 = .20$ Gratitude (-.28)*** Self-Enhancing (-.23)*** Self-Defeating (.21)*** Affiliative (-.15)*
Anxiety	$F = 18.94$*** $R^2 = .13$ Gratitude (-.28)***	F-change = 7.68*** R^2 change = .09	$F = 12.08$*** $R^2 = .22$ Gratitude (-.20)*** Savoring (.19)* Self-Enhancing (-.12)*** Self-Defeating (.12)***
Happiness	$F = 44.57$*** $R^2 = .25$ Savoring (.35)*** Gratitude (.30)***	F-change = 26.01*** R^2 change = .21	$F = 37.82$*** $R^2 = .47$ Self-Enhancing (.32)*** Gratitude (.20)*** Self-Defeating (-.10)***
Life Satisfaction	$F = 51.43$*** $R^2 = .28$ Gratitude (.44)*** Savoring (.38)***	F-change = 5.47*** R^2 change = .06	$F = 21.96$*** $R^2 = .34$ Gratitude (.43)*** Self-Enhancing (.32)*** Savoring (.28)* Self-Defeating (-.10)*** Aggressive (.09)*
Positive Affect	$F = 27.09$*** $R^2 = .17$ Savoring (.67)*** Gratitude (.18)*	F-change = 17.09*** R^2 change = .17	$F = 22.63$*** $R^2 = .34$ Savoring (.45)*** Self-Enhancing (.41)*** Self-Defeating (-.17)*** Affiliative (-.16)**

*$p < .05$. **$p < .01$. ***$p < .001$.

It is also important to note that, in the overall regression models, greater gratitude remained as a significant predictor for two of the three positive outcomes (i.e., happiness and life satisfaction), and appeared to be particularly

important for predicting life satisfaction. In contrast, savoring was no longer a significant predictor for happiness, but remained as one of the predictors in the final overall regression equation for satisfaction with life. Finally, as shown by the regression coefficients reported in Table 4, savoring remained as the most important single predictor in the overall model of positive affect, followed closely by self-enhancing humor.

Overall, these results underscore the importance of both positive psychology constructs and humor styles when considering positive indicators of well-being. Thus, just as was the case with negative well-being, the humor styles once again contributed significantly to the prediction of well-being, with the major emphasis being on self-enhancing and self-defeating humor. In a similar fashion, gratitude was also involved in predicting both positive and negative psychological well-being. Perhaps the biggest distinction was that savoring appears to play much less of a role when considering negative well-being, but assumes increasing prominence in the prediction of positive well-being indices, such as positive affect.

Discussion

Previous work has demonstrated the separate roles that humor styles and positive psychology constructs, such as gratitude and savoring, have within the context of psychological well-being. To date, however, very little research has yet explored how these individual difference constructs may relate to one another, or work in conjunction to enhance or detract from well-being. As two rapidly growing and promising areas of study, it is important to know whether these constructs function as relatively isolated individual difference strategies that can impact on overall well-being, or whether a given construct or style is part of a broader network of adaptive or maladaptive strategies employed by an individual. Furthermore, it is important to know whether the strategies within a given domain dominate or render other strategies less important, when considered together; or whether there appears to be a combined role for both humor styles and positive psychology constructs in predicting psychological well-being.

We first addressed these theoretical and empirical issues by examining the basic relationships between gratitude, savoring, and the four humor styles. In line with our expectations, we found that higher gratitude and savoring were positively linked with higher levels of both adaptive humor styles (affiliative, self-enhancing), along with lower levels of aggressive humor. Higher trait gratitude was also associated with lower levels of the maladaptive style of self-defeating humor that has predominantly been implicated in negative well-being (Martin et al., 2003). We also found that two more fundamental dimensions appear to underlie all of these relationships. The first dimension corresponds to a broad, positive orientation for perceiving, interpreting and reflecting upon one's life situations and experiences. Conversely, the second dimension, which captures more aggressive and self-defeating humor, coupled with lower levels of gratitude, appears to reflect a broad negative orientation to approaching and dealing with life events and experiences. Overall, these patterns of findings clearly reinforce the interwoven nature of the various individual difference constructs examined in our study. In addition, they also highlight the need to consider constructs from these two domains of psychology in a more unified manner. In this integrated approach, each individual construct is acknowledged as part of a more fundamental positive or negative orientation for dealing with a wide variety of life circumstances and experiences.

Accordingly, future theoretical development and elaboration needs to take into account the exact nature of the combined contribution of these constructs to psychological well-being. Our findings consistently indicated that the humor styles contributed to well-being, above and beyond the contributions of gratitude and savoring. For the negative indicators of well-being, we found that lower levels of gratitude and self-enhancing humor, along with

higher levels of self-defeating humor, were the most consistent significant predictors of depression, anxiety, stress, and negative affect. Overall, this pattern clearly highlights the important roles of gratitude and the self-focused humor styles (i.e., self-enhancing and self-defeating) in determining negative well-being.

A similar pattern emerged for the positive indicators of well-being, which once again implicated gratitude and the self-focused humor styles as prominent predictors of higher levels of subjective happiness, life satisfaction, and positive affect. In this case, however, there seems to be a much stronger role for savoring, with this individual difference construct being a significant predictor of two of the three positive indicators of well-being. It was particularly interesting that savoring played the predominate role in determining positive affect levels, in spite of humor's traditional very strong association with mirth and positive affect (Martin, 2007). If this pattern replicates in future studies, it might help elucidate some of the critical distinctions between savoring as a strategy and the role of adaptive humor styles, such as affiliative and self-enhancing humor.

More generally, these findings point to a number of important conclusions. Firstly, they indicate that although constructs within the humor and positive psychology domains are certainly related, they should not be thought of as completely interchangeable. This was illustrated by the significant relationships uncovered between the humor styles and gratitude and savoring, but with different combinations of constructs from both of these domains then being necessary to best predict the various indicators of well-being. As such, an important direction for future research would be to delineate why these constructs in the humor and positive psychology domains are related, and then uncover what is happening at a conceptual level, now that we have some initial documentation of what is happening empirically. Here, the challenge for future research is to more fully map out the underlying theoretical processes and mechanisms that are differentially associated with these humor and positive psychology constructs, and then determine how they may impact to either facilitate or detract from psychological well-being. It may be the case, for example, that gratitude and the self-focused humor styles were most crucial for self-reported well-being in our study because these strategies have particular significance for coping effectively under adverse life circumstances (Kuiper, 2012; Martin et al., 2003; Wood et al., 2010).

This segues into our second important conclusion that when positive psychology constructs are investigated in the context of well-being, there is still a very important role for humor styles. Our findings consistently implicated the self-focused humor styles (i.e., self-enhancing and self-defeating humor) as being particularly meaningful for well-being, even after trait gratitude and savoring were considered. Furthermore, among the positive psychology constructs, gratitude emerged as being most critical for the prediction of well-being, even when the humor styles were taken into account.

Altogether, this study provides support for the argument that the humor styles and constructs within positive psychology, such as gratitude and savoring, should be conceptualized as belonging together, but as having different, important roles. The implications are that a combined approach to well-being, rather than an approach that solely stresses the predominant role of humor or positive psychology, is probably the most beneficial and accurate. In accord with this notion, research initiatives might consider various theoretical models of well-being that take into account individual differences and strategies from both these domains. To illustrate, future studies might examine the extent to which constructs from these two domains interact with one another, in terms of having a differential impact on psychological well-being (e.g., high/low levels of gratitude by high/low levels of self-enhancing humor). This type of extension could build upon many prior studies that have documented the moderating effects of humor on well-being, including such indicators as stress (Lehman, Burke, Martin, Sultan, & Czech, 2001) and depression

(Hugelshofer, Kwon, Reff, & Olson, 2006). At the same time, it would be important for future research to also consider how humor may play a mediating role in psychological well-being, as several studies have now provided support for this alternative theoretical perspective (see Kuiper, Klein, Vertes, & Maiolino, this issue; Kuiper & McHale, 2009). Clearly, there are a large number of research avenues that can be pursued here.

In integrating these two domains further, it should be remembered that one aspect of sense of humor has already been included in positive psychology approaches. In particular, humor has been identified as one of 24 positive character strengths in the Value in Action – Inventory of Strengths (VIA-IS; Peterson & Seligman, 2004). In this approach, humor is defined as a general positive attribute (e.g., likes to laugh and joke) and does contribute substantially to greater life satisfaction. One difficulty with this positive psychology approach, however, is that it virtually ignores a large body of contemporary humor literature which clearly shows the existence of both positive and negative humor styles, with each having very different implications for psychological well-being (Edwards & Martin, this issue; Kuiper, 2012). As such, a further benefit of theoretically integrating these two domains is the clear acknowledgement that humor is a multi-faceted construct, with some aspects being of benefit to well-being and other aspects being quite detrimental.

Another promising extension of the current work might build upon contemporary research in both the humor and positive psychology domains that has aimed to capitalize on the benefits of these approaches by training individuals in humor and positive psychology exercises (e.g., Crawford & Caltabiano, 2011; Sin & Lyubomirsky, 2009). In light of our findings, it would be important for this research to contrast exercises from the different domains with one other, and investigate the value of being trained in a combination of the most impactful humor and positive psychology strategies. This might include, for example, learning how to decrease one's use of self-defeating humor, while also learning to increase the use of positive strategies pertaining to the use of self-enhancing humor and gratitude.

Finally, it is important to point out the various limitations of the present study. These include the use of a university student sample and self-report measures, in a cross-sectional design, to draw causal inferences. Given these limitations, a logical extension of this work would be to utilize diary-format measures and observational research to corroborate the present findings. Furthermore, it would also be important to integrate experimental manipulations into this line of research, in order to draw more powerful causal conclusions, while also avoiding singular reliance on inherent trait characteristics. In our lab, we have just completed a study that does this by directly comparing different exercises for increasing psychological well-being that are modeled after humor and positive psychology approaches. In this study we were interested in pre to post exercise differences for various well-being measures such as feelings of control, life satisfaction, and negative affect. Preliminary findings indicated that the humor, gratitude, and savoring exercises can exert varying degrees of benefit over a control-condition exercise. In addition, we also found some initial empirical support for the notion that trait differences in humor styles, gratitude, and savoring have further important implications for the benefits individuals derive from a given humor or positive psychology exercise. In general, such approaches will help disentangle the contribution of individual personality attributes from advantages that accrue as a function of strategies or exercises derived from the humor and positive psychology literatures.

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