Research Article

Does Savoring Mediate the Relationships between Explanatory Style and Mood Outcomes?

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Abstract

Research has shown that explanatory style predicts negative mood outcomes as well as positive mood outcomes, but the mechanisms by which this occurs are unclear. We investigated here whether the manner in which people savor life events might help explain these relationships. Specifically, we examined whether amplifying and dampening savoring mediated the associations between pessimistic and optimistic explanatory styles on the one hand, and positive and negative mood outcomes on the other. A sample of 103 university students completed self-report measures of explanatory style (ASQ), savoring (WOSC), and a variety of mood outcomes (i.e., happiness, life satisfaction, depression, and anxiety). A manifest variable path model showed that: a) amplifying savoring mediated between optimism and positive mood; and b) dampening savoring mediated between pessimism and negative mood. Also, as expected, dampening savoring was a significant negative predictor of positive mood outcomes, and both optimism and pessimism were significant predictors of negative mood outcomes. Altogether these results provide support for several conclusions. First, explanatory style seemed to significantly impact in predictable ways on positive and negative mood states: optimism positively predicted positive outcomes and pessimism positively predicted negative outcomes. And second, savoring significantly mediated the influence of explanatory style on both positive and negative mood states. This latter finding suggests that positive and negative expectations about life significantly shape how individuals react to and regulate positive events in their life.

Keywords

Explanatory style, savoring, happiness, and mediation.

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The construct of explanatory style was proposed by Peterson and Seligman (Peterson, 1988; Peterson, Seligman, & Vaillant, 1988) as a way to understand how optimism and pessimism affects people's lives. Individual differences in explanatory style are based on how individuals habitually attribute the causes of life events (Peterson, 1991; Peterson, Buchanan, & Seligman, 1995) across three dimensions: source (internal vs. external), stability (stable vs. transient), and globality (global vs. specific). Most of the research on explanatory style to date has been concerned with pessimistic or negative attributional style, namely attributing internal, stable, and global causes for negative events (e.g., Mineka, Pury, & Luten, 1995; Robins & Hayes, 1995), but recently more attention has been paid to the reverse side of the coin, namely optimistic or positive explanatory style (e.g., Ho, Chan, Yau, & Yeung, 2011; Ho, Chu, & Yiu, 2008; Peterson & Steen, 2009). Individuals are seen to exhibit an optimistic explanatory style if they attribute internal, stable, and global reasons for positive events. Within the context of the field of positive psychology, one can ask whether an optimistic explanatory style is predictive of certain outcomes. A number of studies have shown that the optimistic explanatory style is predictive of a range of life outcomes such as better grades, occupational performance, and family interactions (Ciarrochi, Heaven, & Davies, 2007; Forgeard & Seligman, 2012)

Exactly how an optimistic explanatory style leads to a positive mood state or achievement is unclear. We propose that a person's savoring style would prove to be a good explanatory mechanism for the previously established relationship between explanatory styles and various mood outcomes. Bryant and Veroff (2007) have defined savoring as the set of cognitive and behavioural efforts that individuals make to enhance and amplify the positive impact of pleasant events. Savoring, as defined by Bryant and Veroff (2007), involves multiple dimensions, although recent work (Jose, Lim, & Bryant, 2012; Quoidbach, Berry, Hansenne, & Mikolajczak, 2010) suggests that savoring can be characterized as falling into the two broad groupings of amplifying savoring and dampening savouring. Quoidbach et al. (2010) have identified eight primary savoring types that fall into one of these two broad categories: four amplifying strategies (i.e., positive mental time travel, capitalizing, behavioural display, and being present) and four dampening strategies (i.e., negative mental time travel, suppression, distraction, and fault finding) were found to independently predict different aspects of overall well-being. Both approaches embrace the view that individual differences exist in regard to how much a given individual amplifies and/or dampens the experiences of positive events.

Based on Bryant's comprehensive description (Bryant & Veroff, 2007) of the nature and processes of savoring and the findings of these two subsequent empirical studies, we expected that amplifying savoring might mediate between optimistic explanatory style and positive mood outcomes, whereas dampening savoring might mediate between pessimistic explanatory style and negative mood outcomes. If empirical findings can be found to support these hypotheses, then we will have provided evidence in explaining how explanatory styles work to yield distinctive mood outcomes.

Explanatory Style for Negative Events

Explanatory style has its origin in the reformulated theory of the learned helplessness model as an approach to understand and describe individual differences in response to uncontrollable negative

events (Abramson, Seligman, & Teasdale, 1978). An individual who employs a pessimistic explanatory style, or in other words, consistently attributes negative events as internal ("It's because of me"), stable ("It's never going to disappear") and global ("It's going to impair everything I do"), has been shown to exhibit more negative health and psychological symptoms than an individual who explains the negative events with external, unstable, and specific causes. Some of the negative consequences include passivity, depression, impaired decision making and problem solving, low self-esteem, lower levels of social support, poor health immune function, and higher mortality (e.g., Ciarrochi & Heaven, 2008; Alloy et al., 2006; Jackson, Sellers, & Peterson, 2002; Lin & Peterson, 1990; Peterson, 1988; Peterson, et al., 1988; Singh, O'Byrne, Colligan, & Lewallen, 2010).

Explanatory Style for Positive Events

As noted above, most of the research on explanatory style has focused on the pessimistic explanatory style leading to depression, illness, and failure (Peterson & Steen, 2009), however, we would argue that it is equally important to study the optimistic attributional style. The optimistic explanatory style has been linked to a decrease in depression (e.g., Johnson, Crofton, & Feinstein, 1996; Needles & Abramson, 1990; Peterson & Seligman, 1984), hopelessness (Needles & Abramson, 1990), and physical illness (Rasmussen, Scheier, & Greenhouse, 2009) as well as higher subjective and physical wellbeing and career achievement (Forgeard & Seligman, 2012). Ho, Chan, Yau, and Yeung (2011) have reported that the optimistic explanatory style for positive events predicted post-traumatic growth in 90 Chinese women diagnosed with breast cancer. In addition, Ho, Chu, and Yiu's (2008) study with bereaved college students reported similar results, with the optimistic explanatory style being positively related to self-perceived post-traumatic growth. It seems then that individuals who espouse an optimistic explanatory style, attributing positive events to internal, stable, and global factors, are more likely to report positive outcomes. However, the means by which the optimistic explanatory style predicts positive outcomes is not clear, so the present study proposed and tested a possible mechanism for this relationship.

Explanatory Style and Savoring

The explanatory style literature has been criticised for emphasizing the relationships between explanatory style and distant outcome measures rather than examining the mechanisms that operate between explanatory style and these outcomes (Peterson & Steen, 2009). Peterson and Steen (2009) have proposed that the most typical and robust mechanism underlying explanatory style and outcomes is behaviour, and within this context it is possible that savoring efforts may be one such mechanism that translates a worldview such as optimism into outcomes such as happiness. In particular, Peterson (1991) has proposed that savoring could be one mechanism that underlies the relationship between explanatory style for positive events and mood outcomes, and this idea was the basis for the present study.

Taylor and Brown (1988), in their review of the pervasive overly positive view of the world that most people hold, have noted that positive expectations and emotions generated by the optimistic explanatory style protected individuals against the depressing consequences of loss and disappointment, and generally provide a foundation for caring and happy living. Thus, it seems very

possible that optimistic individuals are more likely to engage in behavioural strategies that would enhance and extend periods of positive mood, otherwise known as savoring.

People can savor pleasant experiences and positive moods in various ways. Bryant and Veroff (2007) have identified ten strategies of savoring, namely sharing with others, memory building, self-congratulation, temporal awareness, behavioral expression, sensory-perceptual sharpening, absorption, comparing, counting blessings, and kill-joy thinking. Sharing with others involves experiencing positive events such as sharing a graduation with family and friends. Memory building is the process of taking 'mental photographs' of the moment so that the experience can be relived later. Self-congratulation refers to taking pride in one's accomplishments. Temporal awareness describes thinking that the pleasurable moment is transitory and fleeting. Engaging in behavioral expression, such as laughing, jumping up and down, and exclaiming, can enhance the pleasure of the situation. Sensory-perceptual sharpening involves keenly focusing on being in the moment of a positive event such as closing one's eyes to focus one's attention on a particular piece of music. Absorption refers to attaining a state like flow in which one is completely absorbed in the task or moment. Comparing one's current state with another worse state can enhance appreciation and gratitude for the current experience. Counting blessings motivates a sense of gratitude for obtaining or experiencing something positive. Kill-joy thinking involves denigrating the experience, e.g., thinking that one is unworthy of the positive event. Whether and how these different strategies predict or lead to greater enjoyment and happiness has received increased attention in the literature.

Correlational, longitudinal, and experimental research has found that the strategies people use to savor positive experiences are related to their levels of daily mood and subjective well-being. In particular, savoring strategies that amplify positive emotions are associated with greater frequency of positive affect (Gentzler, Morey, Palmer, & Yi, 2013; Jose, Lim, & Bryant, 2012; Quoidbach, Berry, Hansenne, & Mikolajczak, 2010; Smith, Harrison, Kurtz, & Bryant, 2014). In randomized experiments, for example, college students who reminisced for one week using either memorabilia or cognitive imagery reported greater increased frequency of happy feelings, compared to participants in a control condition (Bryant, Smart, & King, 2005). In addition, the present-focused savoring strategy of mindfully photographing beautiful or meaningful images boosted positive mood, compared to photographing neutral subjects (Kurtz, 2015).

The present study was designed to answer the question of whether savoring is associated with the positive construct of optimism. A couple of previous studies have linked savoring strategies to levels of dispositional optimism, as assessed using the Life Orientation Test (Scheier & Carver, 1985). In particular, individuals who more often count blessings as a way to amplify positive feelings report higher optimism, whereas those who more often engage in kill-joy thinking to dampen positive feelings report greater pessimism (Bryant & Veroff, 2007). Also, people who more often up-regulate their positive emotions in everyday life report higher levels of optimism, compared to those who up-regulate positive emotions less often (Livingstone & Srivastava, 2012). The evidence for this proposed association, therefore, is scant, and further, it is not clear which aspects of savoring are associated with optimism and pessimism.

We need to use a robust psychometric factor structure of savoring in conjunction with both optimism and pessimism to answer this question. An economical model of savoring has been

proposed by Jose et al. (2012), who performed a factor analysis on the full range of Ways of Savoring Checklist items, and they derived two factors termed amplifying and dampening savoring. The amplifying savoring factor included items such as "I talked to another person about how good I felt" and "I reminded myself how lucky I was to have this good thing happen to me", and was defined as strategies used to "intensify positive emotional reactions to positive events" (p. 180). Bryant and Veroff's (2007) savoring strategies of self-congratulation, sharing with others, and counting blessings largely constituted this first factor. In contrast, the dampening savoring factor included items such as "I told myself how it wasn't as good as I'd hoped for" and "I told myself why I didn't deserve this good thing", and was defined as "behaviors and cognitions that diminish positive emotional reactions to positive events" (p. 180). Bryant and Veroff's savoring strategies of kill-joy thinking, temporal awareness, and comparing largely constituted the second factor.

Noting the similarity of valence between the two attribution styles and these two broad savoring styles, we expected to find that people who adopt an optimistic explanatory style would be more likely to employ amplifying savoring strategies, whereas people who adopt a pessimistic explanatory style would be more likely to employ dampening savoring strategies. The full set of hypotheses is enunciated in the following section.

Aims and Hypotheses

The chief overarching aim of the present study was to determine whether the two savoring factors, namely amplifying and dampening savoring styles, would mediate in expected ways between the two explanatory styles on the one hand and positive and negative mood outcome measures on the other hand. In particular, Hypothesis 1 proposed that dampening savoring would mediate between pessimistic explanatory style and negative mood (based on indices of depression and anxiety), and Hypothesis 2 proposed that amplifying savoring would mediate between optimistic explanatory style and positive mood outcomes (based on indices of happiness and life satisfaction). And last, Hypothesis 3 projected that pessimistic explanatory style would negatively predict amplifying savoring and positive mood outcomes, and that optimistic explanatory style would negatively predict dismissive savoring and negative mood outcomes.

Method

Participants

One hundred and three New Zealand university students from a mid-sized public university on the North Island (41 males and 62 females) whose age ranged from 18 to 46 years old (M = 20.52 years; SD = 4.37) participated in the study. The majority of the participants were European New Zealanders (77%), and the sample also included smaller numbers of Maori (2.9%), Pacific Islander (1.0%), Asian New Zealanders (5.8%), and those who classified their ethnicity as "Other" (12.6%). The participants were first-year psychology students who participated in the psychology participant pool for the course Introductory Psychology, and gained course credit for their participation. Ethical approval was obtained for the study from the sponsoring university, and signed informed consent was obtained from all participants.

Measures

Attributional style. Participants' attributional style was assessed using the Attributional Style Questionnaire (ASQ; Peterson, et al., 1982). Participants were presented with 12 hypothetical events: six positive (e.g., "You become very rich" and "You meet a friend who compliments you on your appearance") and six negative (e.g., "You have been looking for a job unsuccessfully for some time" and "You meet a friend who acts hostilely toward you") events. For each event, participants were asked to vividly imagine it happening to them, and then to think about what would be the "one major cause" of that event. Then they were asked to rate each cause along three 7-point Likert scales, asking about the three attributional dimensions of the cause, namely internality versus externality, stability versus instability, and globality versus specificity. A high composite score for positive events indicated a tendency to view the causes of positive events as internal, stable, and global, namely in an optimistic fashion, while a high composite score for negative events similarly indicated a tendency to view the causes of negative events as internal, stable, and global, namely in a pessimistic fashion.

Savoring. A shortened version (30 items) of the Ways of Savoring Checklist (WOSC; adapted from Bryant & Veroff, 2007) was used. We derived the short version by selecting three highly loading items from each of the 10 savoring subscales proposed by Bryant and Veroff (2007). Jose et al. (2012) have previously identified two broad but distinct savoring factors contained within the short scale of WOSC: amplifying savoring and dampening savoring. The eight dampening savoring items, e.g., "I reminded myself that it would be over before I knew it", and the 11 amplifying savoring items, e.g., "I talked to another person about how good I felt", identified in Jose et al.'s (2012) work were used in the present study. Responses were made on a 7-point Likert scale from "*not at all true of me*" (1) to "*very true of me*" (7). With the present dataset, the Cronbach's alpha for amplifying savoring was .80, and the Cronbach's alpha for dampening savoring was .86.

The 10 savoring dimensions identified by Bryant and Veroff mapped onto the two broad savoring strategies in this fashion: the amplifying savoring factor included items tapping sharing with others, memory building, self-congratulation, counting blessings, and behavioural expression, whereas the dampening savoring factor included items from kill-joy thinking, temporal awareness, and comparing.

Subjective happiness. We assessed participants' subjective happiness using the Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999). The SHS is a well-validated measure consisting of four items rated on a 7-point Likert scale, designed to provide a global, subjective assessment of happiness. An example item is "Compared with most of my peers, I consider myself: *less happy* (1) to *more happy* (7)." The Cronbach's alpha of the scale in the present dataset was .87.

Life satisfaction. Participants' life satisfaction was measured using the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), composed of five items rated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Two example items are "In most ways my life is close to my ideal" and "The conditions of my life are excellent." In the current study, the Cronbach's alpha for the scale was .84.

Depressive symptoms. A shortened form of the BDI-II (Beck, Steer, & Brown, 1996) was used to assess depressive symptoms: 10 items composed of four stems each, varying between no symptom

of depression (1) to extreme symptom of depression (4). A composite score was created by adding the scores for the 10 items. The Cronbach's alpha for the BDI scale in the present dataset was .84.

Anxious symptoms. The 20 trait anxiety items from the State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) were used to assess anxious symptoms in the present case. Participants used a 4-point Likert scale to indicate how much they endorsed self-descriptions such as "I feel nervous and restless" and "I feel 'calm, cool, and collected'" (reverse-coded). A composite score was created by adding the scores for the 20 items. Internal reliability was found to be excellent (Cronbach's alpha = .93).

Analytic Procedures

We first determined whether the ASQ measure, the WOSC measure, and the two mood outcomes yielded adequate internal reliability. Then we examined our research hypotheses by using a manifest variable path model. In the structural model, we included six manifest constructs, namely pessimistic and optimistic explanatory style from the ASQ, dampening and amplifying savoring from the WOSC, and positive and negative mood outcomes. Amos Ver. 22 (Arbuckle, 1995) was used to test the mediation hypotheses proposed for the study.

Results

Table 1 presents the means and standard deviations for all of the composite scores of the constructs. As expected, two general clusterings of correlations were evident: positive constructs and negative constructs. Also as expected, the means showed that individuals scored somewhat higher on positive attributions (optimism) and amplifying savoring than negative attributions and dampening savoring.

Psychometric Characteristics of the Constructs

Cronbach's alphas were computed on: a) *optimistic attributions*, namely ratings of internality, stability, and globality for the six positive scenarios in the ASQ, and the estimate of internal reliability was found to be .66, and b) *pessimistic attributions*, namely the same ratings for the six negative scenarios, and the alpha for this dimension was .65. The Cronbach's alpha for dampening savoring was .86, and for amplifying savoring it was .80. Since the two positive mood state variables were moderately highly correlated (.52) and the two negative mood state variables were even more highly correlated (.80), we decided to combine these variables into two valenced variables to effect a more parsimonious model. We first standardized the component variables before linearly combining depression with anxiety and combining life satisfaction with subjective happiness. The depression and anxiety items yielded a Cronbach's alpha for negative mood states of .94, and subjective happiness and life satisfaction items yielded an alpha of .87 for positive mood states.

Table 1. Descriptive statistics of averaged scores of all variables

	Neg attribs (Pess)	Pos attribs (Opt)	Damp Savoring	Amp Savoring	Depression	Anxiety	Happiness	Life sat
Neg Attribs		.18	.23*	.12	.21*	.35***	-.15	-.09
Pos Attribs			.09	.20*	-.17	-.11	.03	-.12
Damp Sav				.20*	.28**	.32***	-.12	-.11
Amp Sav					-.04	-.10	.35***	.27**
Depression						.80***	-.55***	-.32***
Anxiety							-.73***	-.47***
Happiness								.52***
Mean	4.28	4.78	3.14	4.84	18.28	44.57	18.64	22.53
SD	0.64	0.72	1.12	0.92	5.12	10.54	5.21	6.28
Range	2.3 to 6.6	2.7 to 6.7	1.0 to 6.0	2.4 to 7.0	12 to 33	23 to 69	6 to 28	11 to 35

Note. Damp = dampening savoring; Amp = amplifying savoring; Life sat = life satisfaction. *$p < .05$; **$p < .01$; ***$p < .001$.

Relationships among Explanatory Style, Savoring, and Mood Outcomes

We constructed a path model in which the two factors of the ASQ (optimistic and pessimistic explanatory styles) constituted the exogenous variables, the two factors of the WOSC (amplifying and dampening savoring) constituted the two mediating variables, and the two valenced mood outcomes constituted the two dependent variables. Maximum likelihood estimation in Amos was used to estimate parameters given that our data were normally distributed and not excessively skewed or kurtotic. We began model fitting of our SEM structural model by testing a fully saturated model, and sequentially removed non-significant paths from the model. The final pruned structural model is presented in Figure 1. The model demonstrated an adequate fit to the data, $\chi^2(96) = 174.84$, $\chi^2/df = 1.82$, $p < .001$, CFI = .90, TLI = .89, RMSEA = .07.

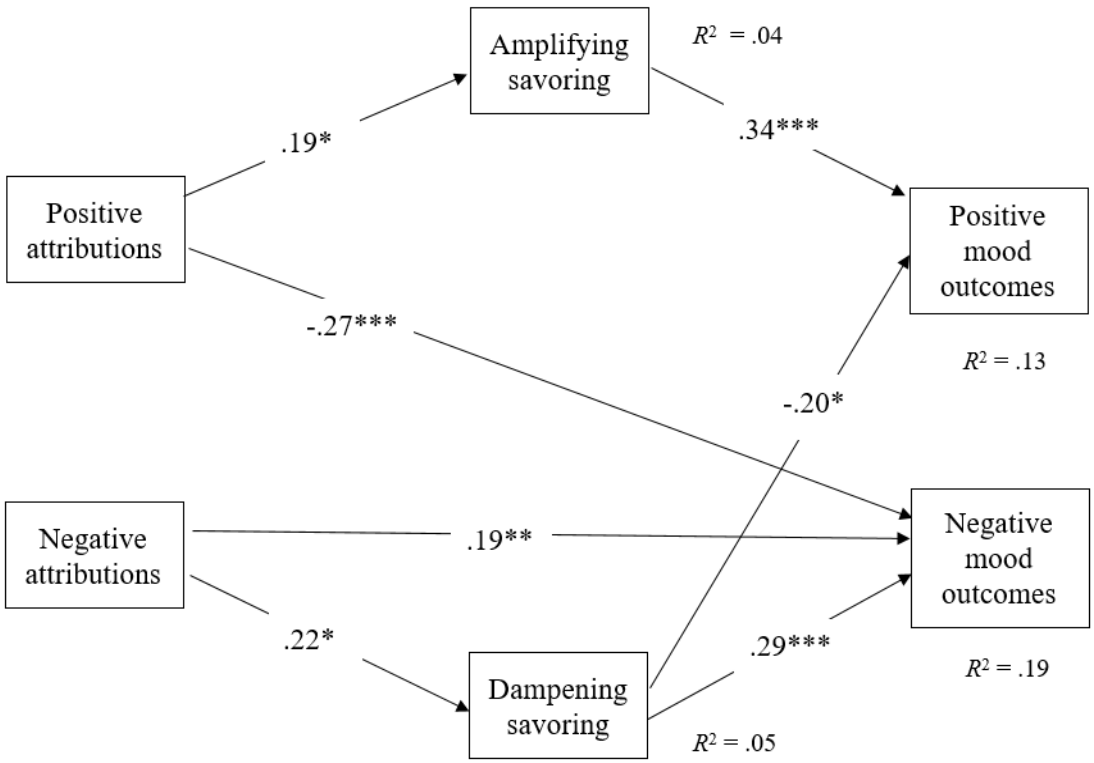

Figure 1. Manifest variable path model describing the relationships among explanatory style, savoring, and mood outcomes

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

General description of results. As predicted, Figure 1 shows that positive constructs were associated with each other, and negative constructs were associated with each other. The pessimistic attributional style positively predicted use of the dampening savoring strategy as well as the negative mood outcomes. A similar, but not identical, set of relationships was found for the positive constructs: the optimistic attributional style positively predicted amplifying savoring, and it, in turn, positively predicted the positive mood outcomes. No significant direct effect was noted between optimistic explanatory style and positive mood outcomes. In addition, as predicted, two cross-valence relationships were noted: a) dampening savoring negatively predicted positive mood outcomes, and b) optimistic explanatory style negatively predicted negative mood outcomes.

Did dampening savoring mediate between pessimism and negative mood outcomes? Hypothesis 1 proposed that the influence of a pessimistic explanatory style on negative mood outcomes would be mediated by dampening savoring. This hypothesis was tested with a bootstrapped mediation analysis embedded in the path model depicted in Figure 1. Amos used 2,000 iterations to make the bootstrapping estimation of the indirect effect, and results were reported with a 95% bias-corrected confidence interval. Statistical support was obtained for the proposed hypothesis: $a*b = .096$, $se = .055$, 95% CI = [.014, .242], $p = .021$.

Did amplifying savoring mediate between optimism and positive mood outcomes? Hypothesis 2 proposed that the influence of an optimistic explanatory style on positive mood outcomes would be mediated by amplifying savoring. Statistical support was obtained for the proposed hypothesis: $a*b = .075$, $se = .043$, 95% CI = [.003, .177], $p = .043$.

Did positive and negative constructs predict each other? Partial support for Hypothesis 3 was obtained: as expected, optimistic explanatory styles directly and negatively predicted the opposite-valenced (negative) mood outcomes variable, and dampening savoring negatively predicted positive mood outcomes. In contrast, pessimism did not directly predict positive mood outcomes nor did amplifying savoring predict negative mood outcomes. A possible mediation was explored, namely that pessimism would positively predict dampening savoring, which, in turn, would negatively predict positive mood outcomes, and evidence was obtained to support this interpretation, $a*b = -.060$, $se = .041$, 95% CI = [-.173, -.003], $p = .033$. In sum, two of the four possible predicted cross-valence associations were supported, but the other two were not.

Discussion

The current study examined savoring as a mediating variable between explanatory styles and mood outcomes. Support was obtained in the present study for the proposed mediation hypotheses: namely, that amplifying and dampening savoring would mediate the relationships between attributional styles with mood outcomes. Specifically, we found that the optimistic attributional style positively predicted the incidence of amplifying savoring, which in turn positively predicted happiness and subjective well-being. Similarly, the pessimistic attributional style positively predicted the incidence of dampening savoring, which in turn positively predicted depressive and anxious symptoms. And last, partial evidence for cross-valence influence was noted in that optimistic explanatory style

negatively predicted the negative mood construct and dampening savoring negatively predicted the positive mood construct.

Most studies on attributional style have focused on the pessimistic or negative attributional style leading to depression, anxiety, poor immunity, and high mortality (Peterson & Steen, 2009). Our findings are consistent with past studies, demonstrating that the tendency to attribute negative events to internal, global, and stable causes was positively associated with psychological distress such as depression and anxiety (e.g., Alloy et al., 2006; Mineka et al., 1995; Robins & Hayes, 1995) and was negatively related to positive mood outcomes such as life satisfaction (Chang & Sanna, 2007).

And consistent with past studies, our findings showed that an optimistic explanatory style was positively associated with positive mental health outcomes (in our study, as indicated by subjective happiness and well-being), and negatively associated with negative mood outcomes (in our study, as indicated by anxiety and depression). A good example of this finding in the literature is a study by Ho et al. (2011) who found that women with breast cancer who tended to attribute the causes of positive events to internal, global and stable factors reported more posttraumatic growth. On the other hand, women who attributed the causes of negative events to internal, global and stable factors were significantly more likely to endorse more symptoms of posttraumatic stress. Along the same vein, other studies have found that a tendency to assign internal, stable and global causes to positive events is related to lower levels of concurrent and subsequent depression (Fresco, Alloy, & Reilly-Harrington, 2006; Johnson, et al., 1996; Needles & Abramson, 1990). Cheng and Furnham (2001) found that optimistic explanatory style both increased reports of self-reported happiness and decreased scores on psychological distress.

The question of how these two explanatory styles lead to particular outcomes has been largely overlooked in the literature: empirical studies designed to answer this question are lacking. We could identify only one study, by Sanjuán and Magallares (2014), that examined a mediator, namely coping strategies, that might function between self-serving attributional bias and subjective well-being. Sanjuán and Magallares defined self-serving attributional bias as the tendency to attribute positive situations to internal, stable, and global causes, and negative situations to external, unstable, and specific causes. They found that self-serving attributional bias was positively related to problem-solving and positive cognitive restructuring coping strategies and inversely associated with avoidant coping strategies. Importantly the coping strategies, both approach and avoidant strategies, mediated the relationship between self-serving attributional bias and emotional well-being. The authors suggested that people who manifest self-serving attributional bias reported greater well-being because they did not avoid confronting their problems, but tried to solve them (problem-solving) or evaluate them more positively (positive cognitive restructuring). In a similar way, we have shown with the present set of findings that other mediators may 'explain' the verified associations between explanatory styles and mood outcomes, namely amplifying and dampening savoring.

The Mediating Role of Savoring between Explanatory Styles and Mood Outcomes

This section will explore the theoretical reasons why we proposed that the two savoring styles of amplifying and dampening functioned as mediators between optimistic and pessimistic explanatory

styles on the one hand and mood states on the other. We will first describe our measure of savoring within the context of the savoring literature.

Jose et al. (2012) identified two broad positive emotion regulation strategies—amplifying and dampening savoring—which were defined as behaviours and cognitions that either *intensify* or *diminish* positive emotional reactions to positive events. They found in their daily diary study that amplifying savoring was associated with positive mood outcomes and dampening savoring was associated with negative mood outcomes. In a similar vein, Wood, Heimpel, and Michela (2003) compared how people with high and low self-esteem described their reactions to positive life events. They found that people with low self-esteem tended to dampen positive life experiences, while their counterparts with high self-esteem tended to savor or intensify positive life events. The authors reasoned that people with low self-esteem might have engaged in dampening positive moods because they felt they were undeserving of positive experiences, and hence they actively avoided or muted positive experiences to maintain their expectations as well as the stability and predictability of their lives. Similar findings have been reported by Feldman, Joorman, and Johnson (2008), who found positive correlations between the tendency to dampen positive affect and low self-esteem, as well as between strategies to intensify positive affect and high self-esteem. Savoring, then, seems to be a self-regulatory mechanism that people use to maintain comfortable or familiar mood states.

Within the context of this literature, then, we would argue that our study makes a contribution to the literature by showing *how* explanatory styles predicted different mood outcomes, namely through the mediations of valenced savoring strategies. In particular, individuals who adopted an optimistic explanatory style tended to engage in amplifying savoring, which predicted higher levels of subjective happiness and wellbeing. On the other hand, individuals who adopted a pessimistic explanatory style tended to engage in dampening savoring, which predicted higher levels of depression and anxiety. In accordance with Swann and Shroeder's (1995) Self-Verification Theory, individuals' tendency to view positive events as internal, stable and global may motivate them to engage in amplifying savoring strategies to intensify and prolong their positive experience. In contrast, consistent with Wood et al.'s (2003) interpretation, individuals who tend to attribute internal, stable, and global causes to negative events may be more motivated to engage in dampening savoring to align their experiences to their personal expectations (e.g., being undeserving of positive emotions).

Limitations and Future Research

The present dataset was derived from a single occasion of data collection (i.e., it was concurrent). Our proposed path model is our prediction as to how these constructs are related to each other in a predictive sense, but of course the variables may exhibit different relationships over time. For example, positive and negative mood states may influence individuals to change their attributional style and/or alter how they savor positive events. Longitudinal data will be needed to determine whether the relationships identified here are robust over time. A second limitation was the low internal reliabilities of the explanatory style variables; more internally reliable measurements of optimism and pessimism would improve future research. A third limitation is that the sample was

composed of undergraduate psychology students in a Western country, thus, the present findings may or may not generalize to people of different ages and cultural background.

Future research might choose to assess attributional style, savoring, and mood outcomes on a set of common events. One approach would be to constrain for participants the content of their recollections ("Please think of a time when something unexpectedly good happened to you. Why did it happen? Rate the reasons on these three rating scales. Now tell us whether you used any strategies to enhance or extend this event. And last, tell us how you emotionally felt during and after the event."). A related approach would be to experimentally manipulate aspects of this process in the lab or a quasi-experimental setting.

Applied Implications

As pointed out by Peterson and Steen (2009), explanatory style studies have been chiefly devoted to identifying relationships between explanatory style and distant outcome measures rather than examining the mechanisms that operate between these constructs. Abramson et al. (1978), for instance, suggested that it is not the negative events per se that lead to depression, but rather the individuals' explanatory style for negative events that precipitate low mood or hopelessness. Identifying the mechanisms that mediate between these constructs allows us to more efficiently target interventions and therapies that are likely to be beneficial in fighting negative mood disorders. For example, cognitive behavioural therapies (CBT) highlight the deleterious functions of the pessimistic explanatory style, specifically the tendency to explain negative events as internal, stable, and global, and they seek to neutralize and/or move these tendencies toward more healthy options. Clinical studies have demonstrated the effectiveness of such therapies, not only in treating but also in preventing depression. Importantly, the efficacy of therapy has been shown to be mediated by changes in explanatory style (DeRubeis et al., 1990; Gillham, Reivich, Jaycox, & Seligman, 1995; Seligman et al., 1988).

Recent reports in the wellbeing literature has argued persuasively that well-being and happiness are not brought into being simply by the absence of disease and negative emotions (e.g., Fredrickson, 2000). Following the same line of reasoning, our findings point to the usefulness of interventions that not only aim to treat and prevent depression but also to optimize happiness and well-being. Although explanatory style might be fairly stable during the lifespan (Burns & Seligman, 1989), it is a learned cognitive response, and it is possible to enhance mental well-being by adopting a more optimistic attribution style for both positive and negative events (Cheng & Furnham, 2001). Gillham and colleagues (2006), for instance, reported that a prevention program, the Penn Resiliency Program, which is aimed to enhance optimistic explanatory style in adolescents was effective in preventing depression. Beyond employing psychological therapies and enrolling individuals in prevention programs, we should also broadly encourage enhancing amplifying savoring and diminishing dampening savoring in a wide variety of settings such as parenting within families, HR practices in businesses and institutions, and youth group settings.

Conclusions

The present study sought to shed light on why optimistic people also report higher happiness and psychological well-being. Empirical evidence was obtained here that optimistic people tend to

employ amplifying savoring, namely engaging in efforts to "intensify positive emotional reactions to positive events" (Jose et al., p. 180). The associations noted in the data reported here support the interpretation that optimistic people who use amplifying savoring also report higher levels of subjective happiness and life satisfaction. Bryant and Veroff (2007) provide considerable evidence that savoring is utilised by people to maximise the impact and lengthen the experience of pleasant events, so it is likely that these regular boosts in positive affect are responsible for the elevations in happiness and satisfaction. At the same time, lack of pessimism seems to predict reductions in dampening savoring, which is associated with lower anxiety and depression. Optimal outcomes, then, seemingly can be obtained by simultaneously embracing optimism and amplifying savoring and eschewing pessimism and dampening savoring.

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