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Optimism, Promotion Pride, and Prevention Pride as Predictors of Quality of Life

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The relationship between optimism and two potential sources of optimistic beliefs—promotion pride (based on a history of success in promotion regulation) and prevention pride (based on a history of success in prevention regulation)—was explored. Optimism was more strongly related to promotion pride than prevention pride (controlling for neuroticism), consistent with past work showing that anticipating success increases eagerness motivation but decreases vigilance motivation. This suggests that the psychology of prevention regulators is not captured well by the existing literature on optimism. Although prevention pride does not predict self-reports of well-being; it does predict adaptive functioning independent of optimism, neuroticism, and promotion pride. Promotion pride uniquely predicted a sense of purpose in life or goal directedness. Both promotion and prevention pride predicted active coping. It is argued that promotion and prevention pride tell us something unique and important about the role of successful self-regulation in determining quality of life.

Keywords: optimism; regulatory focus; regulatory pride; neuroticism

Man’s real life is happy, chiefly because he is ever expecting that it soon will be so.

—Edgar Allan Poe

Beware of rashness, but with energy and sleepless vigilance go forward and give us victories.

—Abraham Lincoln

Optimism, in recent years, has been the subject of a great deal of attention as well as an extensive body of research (for reviews, see Chang, 2001; Peterson, 2000; Peterson & Bossio, 1991; Scheier & Carver, 1992; Seligman, 1991; Snyder, 1994; Taylor, 1989). Measures of optimism have been shown to predict diverse and important benefits for individuals—positive mood (see Weisse, 1992), mastery-oriented achievement (Curry, Snyder, Cook, Ruby, & Rehm, 1997; Peterson & Park, 1998), physical health (Kamen-Siegel, Rodin, Seligman, & Dwyer, 1991; Peterson, 1988; Scheier & Carver, 1987; Segerstrom, Taylor, Kemeny, & Fahey, 1998), and greater recovery from illness or surgery (Scheier et al., 1989), to name but a few. Optimists have more adaptive and stable coping tendencies (Carver, Weintraub, & Scheier, 1989), adjust better to the rigors of college life (Aspinwall & Taylor, 1992), adopt safer sexual behavior (Morrill, Ickovics, Golubchikov, Beren, & Rodin, 1996), and have greater success in alcohol treatment programs (Strack, Carver, & Blaney, 1987). Finally, optimism has been shown to predict academic, athletic, military, occupational, and political success (see Peterson, 2000). There are few constructs in psychology that have known the predictive utility and uniformity of results currently enjoyed by optimism.

What is Optimism?

What is optimism exactly and why does it predict such a wondrous variety of positive outcomes? Anthropologist Lionel Tiger (1979) described optimism as “a mood or attitude associated with an expectation about the social or material future—one which the evaluator regards as socially desirable, to his advantage, or for his pleasure” (p. 53). Current research on optimism has been dominated by a small set of operationalizations, which share the assumption that optimism is essentially a cognitive

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construct with strong motivational underpinnings and consequences.

Carver, Scheier, and their colleagues have studied the effects of dispositional optimism, described as a generalized expectation that good things will happen and that bad things will not. In other words, optimism is an individual’s belief about the likelihood of obtaining positive outcomes in the future. According to their self-regulatory model of behavior (Carver & Scheier, 1981, 1999), being optimistic (i.e., having positive expectancies) increases the likelihood that an individual will continue to strive toward achieving his or her goal, whereas those individuals with more pessimistic beliefs will be more likely to disengage from their goals. It is this self-regulatory mechanism that is thought to underlie the positive psychological and physical benefits associated with dispositional optimism (Carver, Pozo, Harris, & Noriega, 1993; Scheier & Carver, 1987, 1992).

This and other approaches to the study of optimism (see Peterson, 2000; Seligman, 1991; Snyder et al., 1996; Taylor & Brown, 1988) share the common assumption that optimistic beliefs influence the direction and intensity of our goal-directed action. For example, Schneider (2001) writes,

> Within our reality we may often be able to discover a positive perspective on our situation . . . that helps us to achieve peace of mind, appreciation for our experiences, and mobilization for future endeavors. This perspective invites emotions such as hope, pride, curiosity, and enthusiasm, which are likely to be powerful contributors to the essence of meaning, as well as powerful motivators. (p. 252)

Thus, optimistic expectancies help to give us a sense of success in life and allow us to better bolster our resources and maintain strong motivation as we attempt to reach our goals.

**Promotion Pride and Prevention Pride**

Putting aside for a moment the research on optimism, past work in the domain of self-regulation also has examined the role that subjective feelings of success play in determining motivational strength. Recently, Higgins and his colleagues (Higgins, 2000; Idson, Liberman, & Higgins, 2000) have argued that anticipatory goal reactions will have different effects on motivation depending on the self-regulatory system at work. Regulatory focus theory (Higgins, 1997) distinguishes between two motivational systems—promotion and prevention—that serve two fundamentally different needs: the distinct survival needs of nurturance (e.g., nourishment) and security (e.g., protection), respectively. Nurturance-related regulation involves a promotion focus, a concern with advancement, growth, and accomplishment (or, more generally, the presence or absence of positive outcomes). Motivation in the promotion self-regulatory system is characterized by eagerness and the use of eagerness means (i.e., approach means, going for “hits”). Security-related regulation involves a prevention focus, a concern with protections, safety, and responsibility (or, more generally, the presence or absence of negative outcomes). Motivation in the prevention self-regulatory system is characterized by vigilance and the use of vigilance means (i.e., avoidance means, ensuring against “false alarms”).

According to McClelland and Atkinson’s classic theory of achievement motivation (e.g., Atkinson, 1964; McClelland, 1951, 1961; McClelland, Atkinson, Clark, & Lowell, 1953), over time, a new achievement task elicits the feelings associated with past task engagements. For individuals with a subjective history of success, for example, a new achievement task elicits a feeling of pride. This achievement pride produces anticipatory goal reactions that energize and direct behavior to approach the new task goal.

In a recent series of studies (Harlow, Friedman, Higgins, Taylor, & Shah, 1998; Higgins et al., 2001), Higgins and his colleagues developed and employed a measure of individuals’ subjective histories of success in both promotion and prevention regulation: the Regulatory Focus Questionnaire (RFQ). They found that participants with a subjective history of success in promotion or prevention experienced a sense of achievement pride and that promotion pride oriented participants to use eagerness means to attain the goal, whereas prevention pride oriented participants to use vigilance means.

RFQ items were designed to assess individuals’ perceived histories of effective and ineffective self-regulation. Prevention items made reference to prevention of negative outcomes (i.e., the absence of negative outcomes and the presence of negative outcomes, respectively), such as “How often did you obey rules and regulations that were established by your parents?” (effective prevention) and “Not being careful has gotten me into trouble at times” (ineffective prevention). Promotion items made reference to promotion of positive outcomes (i.e., the presence of positive outcomes and the absence of positive outcomes, respectively), such as “How often have you accomplished things that got you ‘psyched’ to work even harder?” (effective promotion) and “I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them” (ineffective promotion).

Each of the resulting scales exhibited good internal reliability (\(\alpha = .73\) for the Promotion scale; \(\alpha = .80\) for the Prevention scale). A principal components factor analysis revealed two factors with eigenvalues greater than 1, accounting for 29% and 21% of the total variance (a
total of 50% of the variance). The factors corresponded to the hypothesized promotion and prevention factors. None of the hypothesized promotion items loaded on the same factor as the prevention items, and none of the hypothesized prevention items loaded on the same factor as the promotion items. As expected, the two factors were virtually orthogonal, exhibiting only a modest positive correlation, $r = .21$. Some positive relation between the two scales would be expected given that both scales relate to individuals’ experience of being effective in self-regulation. A subsequent confirmatory factor analysis using LISREL 8 (Jöreskog & Sörbom, 1993) with 268 undergraduate participants provided support for the hypothesized factor structure. The goodness of fit index suggested an excellent fit (.95), and the adjusted goodness of fit was only slightly lower (.93). There was also evidence that incorporating whether the items related to prevention or promotion significantly improved the fit of the latent factor structure over that constructed on the basis of the valence of the items alone (i.e., on just whether an item referred to success or failure). Finally, a test-retest reliability study with 71 University of Maryland undergraduate participants found that over a period of 2 months, the RFQ Promotion scale had a .79 correlation ($p < .0001$) and the RFQ Prevention scale had a .81 correlation ($p < .0001$) (Harlow et al., 1998).

Harlow et al. (1998) and Higgins et al. (2001) also reported that the RFQ showed good convergent and discriminant validity. The promotion scale had a significantly stronger positive relation than the prevention scale to the Eysenck and Eysenck (1964) Extroversion scale (partial $r = .38$ vs. $-.31$, respectively) and the Carver and White (1994) BAS Drive (partial $r = .32$ vs. $-.16$), Reward Responsiveness (partial $r = .31$ vs. $-.03$), and Fun Seeking scales (partial $r = .34$ vs. $-.34$). These scales generally relate to being eager, risky, carefree, and focused on the future presence of positive outcomes. The promotion scale also had a significantly stronger negative relation than the prevention scale to the Jones and Rhodewalt (1982) Self-Handicapping Scale that measures negative expectancy with regard to future positive outcomes (partial $r = -.49$ vs. $-.20$).

For the Extroversion scale and the BAS Drive and Fun Seeking scales, the prevention scale was also distinct from the promotion scale in having a significant negative relation, consistent with effective prevention being negatively related to being risky and carefree. Also as expected, the prevention scale had a significantly stronger positive relation than the promotion scale to the Jackson (1974) PRF Cognitive Structure (partial $r = .18$ vs. $-.02$, respectively) and Harm-Avoidance (partial $r = .25$ vs. $-.22$) scale. These scales generally relate to being organized and avoiding mistakes. The prevention scale also had a significantly stronger negative relation than the promotion scale to the Jackson (1974) PRF Impulsivitv scale that relates to being careless and reckless (partial $r = .34$ vs. $-.08$).

These results suggest that experiencing a history of promotion effectiveness is related to being eager, risky, and oriented toward the future presence of positive outcomes (toward accomplishments and advancements), whereas experiencing a history of prevention effectiveness is related to being careful, cautious, and oriented toward ensuring against negative outcomes (toward being responsible and faultless). As expected, these different histories did not relate differently to achievement motivation. The promotion scale and the prevention scale each had modest positive relations to the Jackson (1974) PRF Achievement scale (promotion partial $r = .21$, prevention partial $r = .15$). Thus, the promotion and prevention histories of experiencing self-regulatory effectiveness differ in the quality of their experiences and in their strategic inclinations but not in the amount of their achievement motivation.

The effects of promotion and prevention pride on decision-making strategies and goal striving were explored in a series of studies (Higgins et al., 2001). In one study, participants performed decision-making tasks (in a sunk-costs paradigm) that involved the possibility of making either an “error of omission” or an “error of commission.” As predicted, higher promotion pride individuals were less likely to make the former error and, independently, higher prevention pride individuals were less likely to make the latter error.

Another study examined individuals’ inclination to have few or many means to attain each of their goals. The process of generating alternative means to reach a goal involves a trade-off—each alternative produced represents a chance to offer a correct solution (i.e., to attain a “hit”), but it also represents a chance to offer an incorrect solution (i.e., to commit an error). Promotion-focused individuals, with their inclination to ensure “hits” and ensure against errors of omission, should tend to generate more alternatives in the course of problem solving than prevention-focused individuals, who are inclined to ensure “correct rejections” and to ensure against errors of commission (see Liberman, Molden, Idson, & Higgins, 2001). Thus, it was predicted that higher RFQ Promotion scores would be positively related to the number of means per goal and that, independently, higher RFQ Prevention scores would be negatively related to the number of means per goal. The participants in Study 2 described their means for fulfilling each of their goals. As predicted, individuals higher in promotion pride generated significantly more means, whereas the reverse was true for prevention pride.

In another study, participants imagined themselves in a situation where they were tempted by a pizza but suc-
succeeded in maintaining their diet. This imagined scenario was followed by a set of cognitive-attentional tactics that could be used in the situation. These tactics were known to empirically vary in their effectiveness (Ayduk, 1999; see also Mischel, Cantor, & Feldman, 1996). They included (a) tactics that advance the diet maintenance goal, such as attending to long-term, superordinate goals of successful diet maintenance (e.g., the “health/appearance benefits”), and (b) tactics that impede the diet maintenance goal, such as attending to competing short-term goals (e.g., “[thinking] about how yummy the pizza is”). RFQ Promotion scores were positively related to using tactics that advance diet maintenance, whereas, independently, higher RFQ Prevention scores were negatively related to tactics that impede diet maintenance.

Promotion and Prevention Pride as Sources of Optimism

It is useful to think about promotion and prevention pride as potential sources of optimism and the function that optimism may play in the promotion and prevention regulatory systems. Individuals with a history of success in promotion regulation (and thus promotion pride) or a history of success in prevention regulation (and thus prevention pride) are clearly more likely to have positive expectations about the future and thus be optimistic. This is not to say, however, that optimism and regulatory pride are the same thing. First, a past history of success is not the only source of optimism. Second, the eagerness strategic motivation characteristic of promotion pride has implications for ways of dealing with the world beyond the anticipation of success (e.g., choosing speed over accuracy, preferring multiple means to a goal) (see Higgins et al., 2001). Third, the vigilance strategic motivation characteristic of prevention pride also has implications for dealing with the world beyond the anticipation of success (e.g., choosing accuracy over speed, preferring fewer means to a goal, etc.) (see Higgins et al., 2001), and optimism could actually diminish the vigilance motivation that is characteristic of prevention pride.

Previous research on regulatory focus has found that actual or anticipated success results in an increase in eagerness motivation but a decrease in vigilance motivation (i.e., feeling more calm and relaxed), whereas actual or anticipated failure results in an increase in vigilance and a decrease in eagerness (Idson et al., 2000). Thus, motivation in the promotion system is increased by actual or anticipated gain and decreased by actual or anticipated nongain, whereas motivation in the prevention system is increased by actual or anticipated loss and decreased by actual or anticipated nonloss (see Idson et al., 2000).

If promotion and prevention pride should predict optimism, what effect does optimism have on subsequent self-regulation in each system? The experience of promotion pride orients individuals toward eagerness, and the anticipation of success maintains that eagerness during goal pursuit. More simply put, having an optimistic outlook is a way to maintain one’s eagerness motivation and should result in enhanced functioning in the promotion system. This is not the case in the prevention system, however. It would seem that an optimistic outlook would not be as adaptive when attempting to regulate effectively in a prevention focus because anticipating success decreases vigilance motivation. Nonetheless, given that obtaining security is also critical to well-being, prevention pride should successfully predict many aspects of psychological and physical well-being. Thus, promotion pride and prevention pride should relate differently to optimism and indicators of well-being.

A recent study suggests that they might. Foerster, Grant, Idson, and Higgins (2001) looked at how success and failure feedback influence expectancies in an ongoing task for participants with either a promotion or prevention focus. Promotion-focused participants reported very high expectancies for future performance when given success feedback and moderate expectancies when given failure feedback. In contrast, prevention-focused participants reported only moderate expectancies when given success feedback and low expectancies when given failure feedback. Foerster and colleagues (2001) argued that this asymmetry was the result of participants using expectancies strategically to maintain or increase motivation. Prevention-focused participants did not generate high expectancies, even after success feedback because high expectancies would lead to less vigilance motivation and subsequently poorer performance. Notably, they still had higher expectancies after success than after failure, but they had lower expectancies after the same success than did promotion-focused participants. We might expect to find that successful prevention regulators (those with prevention pride) also might “dampen” or “suppress” their optimism to maximize motivation. The work of Cantor and Norem (1989; Norem & Cantor, 1986) on defensive pessimism similarly suggests that such strategies can be highly successful. Thus, we would not expect prevention pride to be as strong a predictor of optimism as promotion pride.

The Potential Role of Neuroticism

Neuroticism is a general, relatively stable dimension of personality referring to the chronic experience of negative affect (e.g., sadness, anxiety, guilt, etc.) as well as associated cognitive and behavioral characteristics such as low self-esteem and insecurity (Smith, Pope, Rhodewalt, & Poulton, 1989). Neuroticism has long been considered a central construct in many models of fundamental personality traits (Digman & Inouye, 1986;
McCrae & Costa, 1987; Norman, 1963). It has been found to be highly stable (McCrae & Costa, 1984) and to have at least some genetic basis (Fuller & Thompson, 1978; Tellegen et al., 1988). Smith et al. (1989) found that the Life Orientation Test (LOT), the most commonly used index of dispositional optimism, had limited discriminant validity relative to measures of neuroticism and argued that the coping style correlates of the LOT may actually reflect neuroticism rather than optimism (see also McCrae & Costa, 1986). Thus, in the following study, a measure of neuroticism was included for two reasons: (a) because neuroticism is negatively related not only to optimism but also to promotion and prevention pride (as found by Harlow et al., 1998), the possibility that the relationship between promotion pride and optimism is due entirely to neuroticism must be ruled out, and (b) it is important to demonstrate that promotion and prevention pride influence well-being and affective functioning above and beyond the effects of neuroticism.

Overview of the Present Study

Our study was designed to look more closely at the relationships among optimism, neuroticism, and promotion and prevention pride. We hypothesized that of the two kinds of regulatory pride, only promotion pride (and not prevention pride) would emerge as a source of optimism. In addition, we predicted that promotion and prevention pride, as indicators of a history of successful self-regulation, would positively predict affective functioning, well-being, and adaptive coping styles, independent of the effects of optimism and neuroticism. In addition, we predicted that to the extent that measures of psychological well-being and adaptive functioning contain items relating to having high expectancies for the future, individuals with prevention pride would not endorse them. In other words, individuals high in prevention pride, although able to report having had past successes, should be reluctant to endorse items indicating confidence in a successful future because such confidence would undermine their vigilance. Finally, we expected dispositional optimism and neuroticism to have their own effects on affective functioning and well-being, independent of the effects of promotion or prevention pride.

METHOD

Participants

One hundred and sixty-seven Columbia undergraduates were paid $8 for their participation. Participants were 84 women and 83 men. No sex differences were found in the study.

Measures

**RFQ.** The RFQ (Higgins et al., 2001) is an 11-item measure and contains two psychometrically distinct subscales. The Promotion subscale measures individuals’ subjective histories of promotion success with items such as “How often did you accomplish things that got you ‘psyched’ to work even harder?” and “I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them” (reverse scored). The Prevention subscale measures individuals’ subjective histories of prevention success with items such as “How often did you obey rules and regulations that were established by your parents?” and “Not being careful has gotten me into trouble at times” (reverse scored). Higher scores on either the Promotion or Prevention subscale reflect individuals’ sense of their history of promotion or prevention success in goal attainment, respectively. (See the appendix for complete list of RFQ items.) The two subscales typically exhibit a modest positive correlation (Higgins et al., 2001).

**LOT.** The LOT-Revised (Scheier, Carver, & Bridges, 1994) is the most widely used measure of dispositional optimism (conceived of as a generalized expectancy for positive outcomes). It is a unidimensional measure consisting of 10 items (including 4 filler items), such as “In uncertain times, I usually expect the best” and “If something can go wrong for me, it will” (reverse scored). Participants respond on a scale ranging from 0 (strongly disagree) to 4 (strongly agree), with higher scores indicating greater optimism.

The Eysenck Personality Inventory—Neuroticism Subscale. The Neuroticism Subscale (Eysenck & Eysenck, 1964) consists of 10 items and concerns generally ineffective self-regulation and contains items related both to feeling tense and nervous and to feeling lonely and miserable.

The Beck Depression Inventory (BDI). The BDI (Beck & Steer, 1987) is a widely used and well-validated measure of depressive symptoms, consisting of 21 items that measure the cognitive, affective, and vegetative aspects of depression. Higher scores indicate greater depression.

The Hopkins Physical Symptoms Checklist—58 (HSCL) (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). The HSCL is a self-report measurement of a variety of psychological symptoms, including anxiety, depression, interpersonal sensitivity, obsessive-compulsive disorder, and somatization. The checklist asks participants to rate how often they have experienced particular symptoms in the past 2 weeks. Scores range from 1 (not at all) to 4 (extremely).

The Ryff Psychological Well-Being Scales. This measure (Ryff, 1989) consists of six scales measuring different
aspects of psychological well-being: autonomy, environmental mastery, purpose in life, self-acceptance, personal growth, and positive relations with others. Participants are asked to indicate the extent of their agreement with statements such as “In general, I feel I am in charge of the situation in which I live” (environmental mastery scale).

The COPE Scale. The COPE Scale (Carver et al., 1989) is a multidimensional coping inventory used to assess the different ways in which people respond to stressful episodes in their lives. Active coping, planning, and seeking instrumental social support are considered varieties of problem-focused coping. Seeking emotional social support, positive reinterpretation, acceptance, denial, and turning to religion are considered forms of emotion-focused coping. Focusing on and venting emotion, behavioral disengagement, mental disengagement, and turning to alcohol or drugs are considered maladaptive forms of coping. Participants are instructed to indicate what they usually do when confronted with a difficult or stressful event.

Procedure

Participants were given a packet of questionnaires to complete. The order of presentation was varied across participants. Four different orderings of questionnaires were used. There were no discernable effects of order.

Each packet contained the RFQ (Higgins et al., 2001), the Neuroticism Subscale (Eysenck & Eysenck, 1964), and the LOT-Revised (Scheier et al., 1994). Dependent measures included in the packet were the BDI; the HSCL, including the Depression and Anxiety subscales; the Well-Being Scales (Ryff, 1989); and the COPE Scale (Carver et al., 1989).

RESULTS AND DISCUSSION

Promotion and Prevention Pride, Dispositional Optimism, and Neuroticism

Promotion and prevention pride as measured by the RFQ were modestly positively correlated (r = .19, p < .05). As predicted, promotion pride and dispositional optimism (LOT) were significantly positively related (r = .33, p < .001). Dispositional optimism was marginally positively correlated with prevention pride (r = .13, p = .10). This difference in correlation magnitude was statistically reliable (t = 2.13, p = .05). Harlow, Friedman, and Higgins (1997) also found that both promotion pride (r = .63, p < .001) and prevention pride (r = .13, p < .05) had independent positive relations to optimism as measured by the LOT and that the positive relation was stronger for promotion pride than prevention pride. The stronger positive relation for promotion pride also is consistent with the promotion-prevention asymmetry in task-specific expectancies found by Foerster et al. (2001).

Promotion pride and prevention pride were both negatively related to neuroticism (promotion r = -.24, p = .002; prevention r = -.24, p = .002). Finally, neuroticism and optimism were negatively correlated (r = -.34, p < .001), consistent with the findings of Smith et al. (1989).

The fit of several possible models of the relations among promotion and prevention pride, neuroticism, and optimism were examined using EQS (Bentler & Wu, 1995). The analyses were conducted on covariance matrices and the solutions were generated on the basis of maximum-likelihood estimation. Following Hoyle and Panter (1995), both absolute (e.g., chi-square) and incremental (e.g., Comparative Fit Index—CFI) fit indices were used to evaluate the fit of the models to the data. The hypothesized model (Model A) was one in which both promotion and prevention pride predict low neuroticism, promotion pride and neuroticism predict optimism, and promotion and prevention pride positively (modestly) covary (see Figure 1). The results from our analysis strongly supported the hypothesized model because each fit statistic met the conventional criteria for a good-fitting model, χ²(1, N = 148) = .20, p = .66; root mean square error of approximation (RMSEA) = .00; CFI = 1.0.

Three alternative models were tested: (a) Model B, in which promotion pride and prevention pride predict neuroticism, only neuroticism predicts optimism (i.e., neuroticism fully mediates any relationship between promotion pride and optimism), and promotion pride and prevention pride covary; (b) Model C, in which promotion and prevention pride predict both neuroticism and optimism, promotion and prevention pride covary, and neuroticism and optimism are unrelated; and (c) Model D, which was identical to Model A with the added parameter of prevention pride predicting optimism. Fit statistics could not be calculated for this last model because there were no residual degrees of freedom. However, the standardized parameter estimate for the link between prevention pride and optimism in this model was .03, which did not approach significance, suggesting that Model A was a better fit to the data. The results from the analyses of Models B and C (see Table 1) indicated that none of the alternative models provided a good fit to the data and the hypothesized model provided a far better fit than any of the alternative models.

Zero-Order Correlations Between Promotion Pride, Prevention Pride, Optimism, and Dependent Measures

AFFECTIVE FUNCTIONING

Table 2 displays the zero-order correlations between promotion and prevention pride, optimism, neuroti-
cism, and indices of affective disorder. Consistent with past research, dispositional optimism (LOT) and neuroticism were strong negative predictors of each affective disorder we measured: depression (BDI and HSCL), anxiety, somatization, obsessive-compulsive disorder, and interpersonal sensitivity.

Promotion pride negatively predicted depression, obsessive-compulsive disorder, and interpersonal sensitivity but did not reliably predict anxiety or somatization. Of interest, prevention pride emerged as a strong negative predictor of all the affective disorders that were measured.

WELL-BEING

Zero-order correlations among the measures of optimism, neuroticism, regulatory pride, and six indices of well-being (Ryff, 1989) are shown in Table 3. Dispositional optimism (LOT) was a strong predictor of all six indices of well-being: autonomy, environmental mastery, personal growth, positive relationships, purpose in life, and self-acceptance. Promotion pride also emerged as a predictor of all six kinds of well-being. Neuroticism negatively predicted each type of well-being, although the relationship between neuroticism and personal growth was only marginally significant. Finally, prevention pride predicted environmental mastery, purpose in life, and self-acceptance but did not predict autonomy, personal growth, or positive relationships.

COPING STYLES

Zero-order correlations among measures of optimism, regulatory pride, and ways of coping with negative or stressful life events are shown in Table 4. Dispositional optimism (LOT) predicted active coping, planning, positive reinterpretation of the event, and acceptance and negatively predicted denial. Neuroticism showed the opposite pattern, negatively predicting active coping, positive reinterpretation, and acceptance and positively predicting denial, behavioral disengagement, and turning to alcohol or drugs.

Promotion pride significantly predicted active coping and planning and negatively predicted behavioral disengagement. Prevention pride predicted active coping and planning and negatively predicted turning to alcohol or drugs.

Path Analyses of Direct and Indirect Effects

To determine both the unique effects of optimism, promotion pride, and prevention pride on the measurements of psychological well-being and adaptive functioning, as well as the possible mediation of promotion pride effects through optimism, a series of path analyses were conducted using EQS (Bentler & Wu, 1995), based on the model in Figure 1. We ran models separately for each of the dependent variables we measured (i.e., affective disorders, indices of well-being, and coping styles). EQS provides both parameter estimates (βs) and a z test of the mediated (indirect) effect of the independent variables on the dependent variables through other variables in the model.

AFFECTIVE FUNCTIONING

Path diagram coefficients for the direct effects of promotion pride, prevention pride, and optimism on each index of affective functioning are presented in Table 5.

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**Figure 1** Model of the relationship among regulatory pride, optimism, neuroticism, and well-being.

**Table 1:** Results From Comparisons of Model Fit

<table>
<thead>
<tr>
<th>Model</th>
<th>Model Fit</th>
<th>NFI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>NNFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesized Model A</td>
<td>$\chi^2(1) = 0.20$, $p = .66$</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
<td>1.10</td>
</tr>
<tr>
<td>Model B</td>
<td>$\chi^2(2) = 12.77$, $p = .00$</td>
<td>0.77</td>
<td>0.78</td>
<td>0.18</td>
<td>0.34</td>
</tr>
<tr>
<td>Model C</td>
<td>$\chi^2(1) = 12.44$, $p = .00$</td>
<td>0.77</td>
<td>0.77</td>
<td>0.27</td>
<td>-0.40</td>
</tr>
</tbody>
</table>

Note: CFI = Comparative Fit Index; NFI = Bentler-Bonnet Normed Fit Index; RMSEA = root mean square error of approximation; NNFI = Bentler-Bonnet Non-Normed Fit Index.
Path analyses suggest that much of the influence of promotion pride on affective functioning is mediated by optimism and neuroticism and that much of the influence of prevention pride on affective functioning is mediated by neuroticism. However, for depression, as measured by the BDI, independent effects of both promotion pride and prevention pride did emerge. Prevention pride also independently predicted the absence of interpersonal sensitivity. Neuroticism significantly predicted each affective index, as did dispositional optimism (LOT), with the exception of predicting Obsessive-Compulsive Disorder.

**WELL-BEING**

Path analysis of regulatory pride, optimism, and neuroticism effects on well-being revealed independent effects (i.e., not mediated by optimism or neuroticism) of promotion pride on every index of well-being with the exception of autonomy ($\beta = .12, p < .2$) (see Table 6). The effect of promotion pride on autonomy does appear to be partially mediated by optimism.

Optimism had significant independent effects on autonomy, personal growth, and self-acceptance. The correlation of optimism with having a sense of purpose in life (see Table 3) appears to be due in large part to

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**TABLE 2:** Zero-Order Correlations for Regulatory Pride, Optimism, and Affective Disorders

<table>
<thead>
<tr>
<th></th>
<th>BDI</th>
<th>HSCL-Depression</th>
<th>HSCL-Anxiety</th>
<th>HSCL-Somatization</th>
<th>HSCL-OCD</th>
<th>HSCL-Interpersonal Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion pride</td>
<td>$-0.32^{***}$</td>
<td>$-0.25^{**}$</td>
<td>$-0.12$</td>
<td>$-0.12$</td>
<td>$-0.24^{**}$</td>
<td>$-0.20^{**}$</td>
</tr>
<tr>
<td>Prevention pride</td>
<td>$-0.33^{***}$</td>
<td>$-0.28^{***}$</td>
<td>$-0.24^{**}$</td>
<td>$-0.21^{**}$</td>
<td>$-0.28^{***}$</td>
<td>$-0.32^{***}$</td>
</tr>
<tr>
<td>Life Orientation Test</td>
<td>$-0.37^{***}$</td>
<td>$-0.35^{***}$</td>
<td>$-0.30^{***}$</td>
<td>$-0.28^{***}$</td>
<td>$-0.29^{***}$</td>
<td>$-0.34^{***}$</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>$0.46^{***}$</td>
<td>$0.59^{***}$</td>
<td>$0.45^{***}$</td>
<td>$0.41^{***}$</td>
<td>$0.50^{***}$</td>
<td>$0.57^{***}$</td>
</tr>
</tbody>
</table>

**NOTE:** BDI = Beck Depression Inventory, HSCL = Hopkins Physical Symptoms Checklist, OCD = obsessive-compulsive disorder. **$p < .01$, ***$p < .001$. All $p$ values are two-tailed.

**TABLE 3:** Zero-Order Correlations for Regulatory Pride, Optimism, and Indices of Well-Being

<table>
<thead>
<tr>
<th></th>
<th>Autonomy</th>
<th>Environmental Mastery</th>
<th>Personal Growth</th>
<th>Positive Relationships</th>
<th>Purpose in Life</th>
<th>Self-Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion pride</td>
<td>$0.21^{**}$</td>
<td>$0.49^{***}$</td>
<td>$0.32^{***}$</td>
<td>$0.28^{***}$</td>
<td>$0.58^{***}$</td>
<td>$0.52^{***}$</td>
</tr>
<tr>
<td>Prevention pride</td>
<td>$0.01$</td>
<td>$0.24^{**}$</td>
<td>$-0.05$</td>
<td>$0.01$</td>
<td>$0.21^{**}$</td>
<td>$0.24^{***}$</td>
</tr>
<tr>
<td>Life Orientation Test</td>
<td>$0.27^{***}$</td>
<td>$0.42^{***}$</td>
<td>$0.30^{***}$</td>
<td>$0.28^{***}$</td>
<td>$0.31^{***}$</td>
<td>$0.48^{***}$</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>$-0.20^*$</td>
<td>$-0.52^{**}$</td>
<td>$-0.16$</td>
<td>$-0.37^{***}$</td>
<td>$-0.31^{***}$</td>
<td>$-0.43^{***}$</td>
</tr>
</tbody>
</table>

*$p < .05$, **$p < .01$, ***$p < .001$. All $p$ values are two-tailed.

**TABLE 4:** Zero-Order Correlations for Regulatory Pride, Optimism, and Coping Styles

<table>
<thead>
<tr>
<th></th>
<th>Active Coping</th>
<th>Planning</th>
<th>Positive Reinterpretation</th>
<th>Acceptance</th>
<th>Denial</th>
<th>Behavioral Disengagement</th>
<th>Alcohol or Drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion pride</td>
<td>$0.33^{***}$</td>
<td>$0.30^{***}$</td>
<td>$0.04$</td>
<td>$0.06$</td>
<td>$-0.07$</td>
<td>$-0.21^{**}$</td>
<td>$-0.16$</td>
</tr>
<tr>
<td>Prevention pride</td>
<td>$0.26^{**}$</td>
<td>$0.17^{*}$</td>
<td>$0.07$</td>
<td>$0.11$</td>
<td>$-0.06$</td>
<td>$-0.06$</td>
<td>$-0.37^{***}$</td>
</tr>
<tr>
<td>Life Orientation Test</td>
<td>$0.23^{***}$</td>
<td>$0.28^{***}$</td>
<td>$0.26^{**}$</td>
<td>$0.40^{***}$</td>
<td>$-0.18^{*}$</td>
<td>$-0.16$</td>
<td>$-0.04$</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>$-0.25^{**}$</td>
<td>$-0.14$</td>
<td>$-0.24^{**}$</td>
<td>$-0.18^{*}$</td>
<td>$0.27^{**}$</td>
<td>$0.26^{**}$</td>
<td>$0.25^{**}$</td>
</tr>
</tbody>
</table>

*$p < .05$, **$p < .01$, ***$p < .001$. All $p$ values are two-tailed.

**TABLE 5:** Path Diagram Coefficients for Direct Effects of Promotion Pride, Prevention Pride, and Optimism on Affective Disorders

<table>
<thead>
<tr>
<th></th>
<th>BDI</th>
<th>HSCL-Depression</th>
<th>HSCL-Anxiety</th>
<th>HSCL-Somatization</th>
<th>HSCL-OCD</th>
<th>HSCL-Interpersonal Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion pride</td>
<td>$-0.17^{*}$</td>
<td>$-0.09$</td>
<td>$0.03$</td>
<td>$0.01$</td>
<td>$-0.10$</td>
<td>$-0.02$</td>
</tr>
<tr>
<td>Prevention pride</td>
<td>$-0.18^{*}$</td>
<td>$-0.10$</td>
<td>$-0.10$</td>
<td>$-0.09$</td>
<td>$-0.12$</td>
<td>$-0.18^{*}$</td>
</tr>
<tr>
<td>Life Orientation Test</td>
<td>$-0.18^{*}$</td>
<td>$-0.17^{*}$</td>
<td>$-0.20^{*}$</td>
<td>$-0.16^{*}$</td>
<td>$-0.12$</td>
<td>$-0.15^{*}$</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>$0.32^{*}$</td>
<td>$0.50^{*}$</td>
<td>$0.37^{*}$</td>
<td>$0.34^{*}$</td>
<td>$0.42^{*}$</td>
<td>$0.48^{*}$</td>
</tr>
</tbody>
</table>

**NOTE:** BDI = Beck Depression Inventory, HSCL = Hopkins Physical Symptoms Checklist, OCD = obsessive-compulsive disorder. *$p < .05$. All $p$ values are two-tailed.
the association between optimism and promotion pride.

Neuroticism negatively predicted environmental mastery, positive relationships, and self-acceptance. Generally speaking, prevention pride (in contrast with promotion pride) did not emerge as a strong, reliable predictor of reports of well-being when controlling for the effects of neuroticism.

COPING STYLES

Path analyses (see Table 7) generally replicated the pattern of results found in the zero-order correlations (see Table 4) with the exception of several interesting differences. The effect of prevention pride on planning was no longer reliable. In addition, optimism was no longer a reliable predictor of active coping, suggesting that the zero-order correlation of optimism and active coping (see Table 4) was due in large part to the association between optimism and promotion pride. Both promotion and prevention pride were significant independent predictors of active coping. Promotion pride also predicted planning, positive reinterpretation of a setback, and marginally negatively predicted behavioral disengagement ($\beta = -.16, p < .10$). Optimism predicted planning, positive reinterpretation of a setback, and acceptance. Prevention pride as a unique predictor of not using alcohol or drugs is also notable. Finally, neuroticism positively predicted denial and behavioral disengagement.

GENERAL DISCUSSION AND CONCLUSIONS

Optimism has been shown in prior research to predict a wide variety of important indices of psychological and physical well-being, ranging from affect to achievement to recovery from illness. In this study, we looked at the relation between optimism and two potential sources of optimism—promotion and prevention pride (Higgins et al., 2001)—controlling for the potentially confounding role of neuroticism. We predicted that although both promotion pride and prevention pride might be sources of optimism, the relation between optimism and promotion pride would be the stronger of the two. This is because optimism serves a function for promotion pride that it does not for prevention pride. Namely, anticipating success (i.e., being optimistic) increases the eagerness motivation characteristic of promotion regulation but decreases the vigilance motivation characteristic of prevention regulation. We predicted that both promotion pride and prevention pride would be negatively related to neuroticism. The results of our study support this prediction.

Our major objective was to examine how promotion and prevention pride might further contribute to our understanding of quality of life and well-being in concert with the influences of dispositional optimism and neuroticism. In a series of path analyses, we found that the effects of prevention pride and promotion pride on affective functioning (e.g., somatization, interpersonal sensitivity, anxiety) were largely mediated by optimism and neuroticism. The significant exception was in the case of BDI depression, for which both promotion and prevention pride emerged as independent predictors.

Consistent with the results from measures of affective functioning, dispositional optimism was strongly related to coping styles involving positive feelings about the self and one’s situation (i.e., positive reinterpretation and acceptance) in response to a negative event. Neuroticism predicted denial and behavioral disengagement. In
contrast, promotion and prevention pride were uniquely predictive of active coping (and also, in the case of promotion pride, negatively related to behavioral disengagement). This suggests that whereas optimism may predict having a “sunnier outlook” in the face of adversity, promotion and prevention pride have additional motivational benefits that dispositional optimism alone does not, which cannot be accounted for solely by the absence of negative affectivity (i.e., neuroticism).

It is interesting to note that dispositional optimism predicts passive acceptance of negative events, which may be highly adaptive in response to uncontrollable stressors but could be maladaptive when actions could be taken to alleviate the problem. It is also worth noting the significance of prevention pride independently predicting active forms of coping. What this highlights is that strategic vigilance does not mean inhibiting behaviors. Individuals can be careful and avoid mistakes by taking action as well as by inhibiting behaviors. Finally, prevention pride negatively predicted turning to alcohol or drugs, which is consistent with the perceived need to maintain one’s vigilance. Dispositional optimism was strongly related to the kinds of well-being that tap directly into feeling good about yourself: self-acceptance (e.g., “I like most aspects of my personality”), personal growth (e.g., “I am the kind of person who likes to give new things a try”), and autonomy (e.g., “I judge myself by what I think is important, not by the values of what others think is important”). Promotion pride also independently predicted these types of well-being, suggesting that promotion pride leads individuals to feel good about themselves over and above the effects of optimism per se. In addition, promotion pride uniquely predicted having a sense of purpose in life, or goal directedness (e.g., “I enjoy making plans for the future and working to make them a reality”). These findings highlight how goal-directed self-regulation can bring about psychological health that cannot be predicted just by anticipation of future success. Neuroticism, as one might expect, independently predicted the absence of environmental mastery, positive relationships, and self-acceptance.

Prevention pride did not emerge as a particularly strong predictor of these indices of well-being, in contrast to the results obtained for coping. As just noted, many of these indices of well-being involve expressions of self-confidence and feeling good about oneself. Regulatory focus theory argues that successful prevention regulation requires vigilance. Thus, those individuals high in prevention pride may be loath to explicitly acknowledge that they are “doing well” because this would lower their vigilance. Indeed, recent research by May, Endo, and Higgins (2001) has found that individuals high in prevention pride, whether chronically or experimentally induced, do not express high self-esteem, whereas high-promotion-pride individuals do express high self-esteem.

Taken together, these results suggest that past research on the relation between optimism and well-being may not have captured the well-being benefits of prevention pride, for two reasons. First, successful prevention regulators will not look like dispositional optimists when measured with inventories such as the LOT, and second, successful prevention regulators may not “admit” that they are doing well on explicit self-report measures of well-being.

The solution, we propose, is to take into account both promotion pride and prevention pride as sources of well-being and effective coping, along with dispositional optimism and neuroticism. In addition, perhaps we might expect to find more pronounced positive effects of prevention pride on well-being with a more implicit measure of well-being, or with the use of dependent measures that are less directly tied to positive expectancies about the future. What is clear is that beyond optimism and neuroticism, both promotion pride and prevention pride make unique contributions to our understanding of quality of life.

**APPENDIX**

**Regulatory Focus Questionnaire Items**

**Promotion pride items:**

1. Compared to most people, are you typically unable to get what you want out of life? (1 = never or seldom to 5 = very often)
2. How often have you accomplished things that got you “psyched” to work even harder? (1 = never or seldom to 5 = many times)
3. Did you get on your parents’ nerves often when you were growing up? (1 = never or seldom to 5 = often)
4. How often did you obey rules and regulations that were established by your parents? (1 = never or seldom to 5 = always)

**Prevention pride items:**

1. How often did you obey rules and regulations that were established by your parents? (1 = never or seldom to 5 = always)
6. Growing up, did you ever act in ways that your parents thought were objectionable? (1 = never or seldom to 5 = very often)

8. Not being careful enough has gotten me into trouble at times. (1 = never or seldom to 5 = very often)

REFERENCES


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