Hope and personal growth initiative: A comparison of positive, future-oriented constructs

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Abstract

As new measures are added to the increasingly crowded positive psychology field, they must be juxtaposed with existing instruments to assess their relative utility and guide applied psychology researchers and clinicians in choosing appropriate measures. One such new measure is the Personal Growth Initiative Scale (PGIS; Robitschek, 1998). Comparing the PGIS with Synder et al.’s (1991) Hope Scale in a college-student sample (N = 378) with latent variable analyses using LISREL-8 revealed that PGI and hope are distinct yet related constructs (zero order r = 0.65; latent r = 0.84). Both constructs related to a selected set of outcome measures (optimism, psychological distress and well-being) but only hope accounted for a significant proportion of the variance in predicting these outcomes when hope and PGI were entered simultaneously in the model.

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1. Introduction

Positive psychology with its scholarly emphasis upon human strengths has grown rapidly since Martin Seligman’s 1999 Presidency of the American Psychological Association. Using the bully pulpit of the APA Presidency, Seligman (e.g., Seligman & Csikszentmihalyi, 2000) called upon psychologists to augment the previous focus upon pathology and explore human beings’ strengths. Both prior to and after Seligman’s “call”, psychologists increasingly have proposed new theories, scales, and applications that are built upon the assets of people. Within the last decade, for example, hope theory as articulated by Snyder and his colleagues (Snyder, 2002; Snyder et al., 1991), has emerged as a widely studied theoretical model for understanding hope in counseling and clinical areas. A new construct, personal growth initiative (PGI; Robitschek, 1998) now has begun to attract attention in these same areas. Despite theoretical and preliminary empirical similarities, however, there are no published studies examining the relationships between hope and PGI.

With the proliferation of new positive psychology theories and their related self-report measures, one caveat has been to make certain that the instruments are not mere replications of each other (see Lopez & Snyder, 2003). It is crucial for a lucid understanding of each new theory and its measure that we know to what degree it does or does not overlap with other similar theories and measures. A preliminary study by Magyar-Moe, Carlstrom, Cohen, and Boediman (2003) revealed correlations between the Hope and PGI Scales of \( r = 0.51–0.64 \), but these findings were secondary to the evaluation of a career course and not the result of planned comparisons between the constructs. What is needed is an intentional direct comparison of the constructs in predicting important marker or outcome variables. This is particularly important because hope and personal growth initiative share several important features. They both involve: (1) teachable goal-directed metacognitive processes; (2) setting clear future-oriented goals; (3) developing pathways to those goals (what Robitschek (1998) termed “action plans”); and (4) fostering the cognitive agency to implement those plans or pathways (Robitschek, 1998, 1999; Snyder et al., 1991).

Agency and pathways thinking are central to the definition of Hope (Snyder, 2002; Snyder et al., 1991). According to Snyder et al. (1991) hope involves a person having (1) personally valued goals; (2) the perceived ability to generate strategies (pathways) to achieve those goals; and (3) the motivation to apply those pathways in the goal-pursuit process (agency). Over the past decade of hope research (see Snyder, 2002), hope consistently has related to increased chances of successful goal attainments. For example, higher levels of hope have predicted superior individual and team performances among college athletes (Curry, Snyder, Cook, Ruby, & Rehm, 1997) and higher achievement test scores and grades in students from elementary school through the college years (Chang, 1998; Snyder et al., 1991; Snyder et al., 1997). Hope measured in incoming college freshmen even has predicted grade point averages, dropout rates, and college graduation rates after controlling for entrance examination scores (Snyder, Shorey et al., 2002).

High-hope persons evidence such superior performances because they: (1) are able to generate clearly defined goals; (2) identify multiple pathways to goals, which enable them to implement alternate strategies when currently used pathways fail (see Snyder, 2002); (3) have lower levels of performance and test-taking anxieties (Onwuegbuzie & Snyder, 2000; Snyder, 1999); and (4) are able to retain more positive affect after failures relative to their low-hope counterparts (Shorey, 2003). The retention of positive affect promotes a sense of agency, which, in turn, facilitates persistence.
The ability to maintain a sense of agency – remaining cognitively and behaviorally engaged in the goal-pursuit process – increases the odds that chosen pathways will yield successes. Once success is realized, resultant positive emotions feed back to further energize the goal-pursuit process (see Snyder, 2002). The belief in a positive future then results in lowered levels of psychological distress – less anxiety and less depression – and greater levels of psychological well-being in the form of life satisfaction and general positive affect (Shorey, Snyder, Yang, & Lewin, 2003; Snyder et al., 1991).

As a common process in psychotherapy, hope underlies the perceived abilities of clients to change and grow (Snyder, Parenteau, Shorey, Kahle, & Berg, 2002). In a similar vein, PGI has been defined as the degree to which individuals perceive themselves as being actively engaged in the change and growth process. PGI, in Robitschek’s conceptualization, is a metacognitive construct that facilitates an “intentional engagement in growth-enhancing cognitions and behaviors in all areas of life” (Robitschek, 1998, p. 184).

The PGI Scale initially was developed to assess the outcomes of wilderness programs for people who were in life transitions or seeking a sense of renewal. Such help-seeking may relate to positive support perceptions held by people who are high in PGI. Correspondingly, PGI has been associated with positive perceptions of family functioning and also has correlated positively with assertiveness, awareness of intentional ways of growth, an internal locus of control, emotional well-being, egalitarian sex roles, instrumentality, and multidimensional well-being (psychological, emotional, and social well-being). The PGI has correlated negatively with chance locus of control and psychological distress (Robitschek, 1998, 1999; Robitschek & Kashubeck, 1999; Robitschek & Keyes, 2004). Furthermore, PGI Scale scores have related to better vocational identity, assertiveness, career exploration, and problem-focused coping (Robitschek & Cook, 1999).

Given the aforementioned pattern of relationships between PGI Scale scores and various indices, Robitschek (1998, p. 197) has suggested that PGI is related to a “cognitive style associated with human agency.” This suggestion is consistent with the PGI Scale items (e.g., “I take charge of my life”) that closely mirror agency items in the Hope Scale (e.g., “I’ve been pretty successful in life”; and “I meet the goals that I set for myself”). Despite such similarities, however, these two constructs may be distinct in significant ways.

Although the PGI Scale, similar to the Hope Scale, is proposed to assess the intentional growth process across life domains (Robitschek, 1998), the PGI appears to be geared more toward goals relating specifically to personal change. The first three PGIS items are: “I know how to change specific things that I want in my life”; “I have a good sense of where I am headed in my life”; and “If I want to change something in my life, I initiate the change process.” Because PGIS items that assess plans (e.g., “I have a specific action plan to help me reach my goals”) come later in the measure, they already are anchored in these life change goals.

Although one hope pathways item is similar to the PGIS in its emphasis on “life” goals (“I can think of many ways to get the things in life that are most important to me”), the other Hope Scale items assess perceived abilities to strategize and achieve goals more generally. Consider for example the hope pathways items, “There are lots of ways around any problem;” and “Even when others get discouraged, I know I can find a way to solve the problem.” As the wording of these items suggests, the goals that anchor hopeful thinking may not relate specifically to life change. Change implies the letting go, or replacement, of a previously held set of beliefs or behaviors. Hope may relate to desiring such change, but, more generally, hope connotes pursuing goals to build upon or
add to what already exists. As such, hope may be more of an additive process relating to temporally distinct goals, whereas PGI may be more transitory, temporally diffuse, and relate to longer term life directions.

If hope and PGI are distinct constructs as suggested in the preceding paragraph, they should independently predict other future-oriented constructs such as optimism, as well as the associated outcomes of psychological distress and well-being. If PGI represents a subset of hopeful goals relating specifically to the change process, however, then PGI may be subsumed within the hope construct and not add to the prediction of these other constructs.

2. Method

2.1. Participants

Participants (208 women and 170 men aged 18–27 years, $M = 18.9$) were introductory psychology students at a large Midwestern university who filled out packets of self-report measures in order to partially fulfill course requirements. Because all college undergraduates are required to take these courses, the sample was representative of the larger undergraduate student body and was predominantly upper middle class and Caucasian (86%), with 5% Asian, 3% African-American, 3% Hispanic, and 3% other.

2.2. Measures

The Hope Scale (HS; Snyder et al., 1991) is a 12-item Likert-type scale with four items assessing pathways, four items assessing agency, and four distracters. The HS yields separate scores for the Pathways and Agency Subscales, or the entire Hope Scale can yield one score. In this respect, confirmatory factor analyses across multiple college student samples support using the agency and pathways subscale in creating a higher order hope factor (Babyak, Snyder, & Yoshinobu, 1993). Response options range from $1 = \text{definitely false}$ to $8 = \text{definitely true}$. Both Cronbach alphas (from 0.74 to 0.84) and test/retest reliabilities (0.73–0.82 over a 8–10-week period) are acceptable for the eight items in the two hope subscales (Snyder et al., 1991). Validity of the Hope Scale for use among undergraduate student and adult community populations has been established through ten years of empirical research as described previously. In the current study, the alpha for the combined hope scale was 0.77, and the alphas for the Agency and Pathways subscales were 0.79 and 0.69, respectively.

In the present study, domain representative “parcels” were created by taking the means across two pairs each for Agency (2, 12; 9, 10) and Pathways (1, 4; 6, 8) items. “Domain representative” means that the parcels sample from the whole domain of the named construct and not one specific aspect or “facet” of that construct (see Little, Cunningham, Shahar, & Widaman, 2002). Parcels, rather than individual scale items, were used to specify latent variables in our analyses so that fewer factor loadings would need to be estimated, and by extension, model degrees of freedom could be kept within reasonable limits given our limited sample size.

The Personal Growth Initiative Scale (PGI; Robitschek, 1998) is a nine-item Likert-type scale that assesses the degree to which a person is engaged in the cognitive and intentional process
of personal growth and change. Response options range from 1 = *definitely disagree*, to 6 = *definitely agree*. Although Robitschek (1998) hypothesized a four-factor solution for her scale, confirmatory factor analysis resulted in rejecting such a model in favor of a one-factor solution among adults enrolled in a wilderness program and college undergraduates. Cronbach alphas for the scale have ranged from 0.78 to 0.90, with test/retest reliabilities ranging from 0.73 to 0.84 over periods from one to eight weeks (Robitschek, 1998). Convergent and discriminant validities of the PGI Scale were discussed previously. Alpha for the overall PGI Scale in the present study was 0.87. Three domain representative parcels were created for the present study by computing the mean across every third PGI scale item.

*The Mental Health Inventory* (MHI; Davies, Sherbourne, Peterson, & Ware, 1988) is a 38-item measure designed for use in clinical or non-clinical samples. It yields three subscales (anxiety, depression, and loss of behavioral/emotional control) contributing to a global psychological distress scale, and three subscales (general positive affect, emotional ties, and life satisfaction) contributing to psychological well-being. Alphas for the two global scales ranged from 0.92 to 0.96, and test/retest reliabilities were 0.56–0.64 over a one-year period (Veit & Ware, 1983). Veit and Ware (1983) used confirmatory factor analysis in supporting two- and five-factor solutions in various adult community samples. Ostroff, Woolverton, Berry, and Lesko (1996) confirmed only the two-factor solution among the adolescent subset in Veit and Ware’s original sample. Heubeck and Neill (2000) similarly found support for only the two-factor solution in a sample of Australian adolescents and recommended this factor structure for future research in adolescent populations. Accordingly, we used the two-factor solution in the current study. An example psychological distress item is: “How often, during the past month, have you felt so down in the dumps that nothing could cheer you up?” An example psychological well-being item is: “How much of the time, during the past month, have you felt cheerful and light-hearted?”

For the present study, domain representative parcels were created for psychological distress by taking the mean score for the first, second, and third sequential eight item sets. For psychological well-being, parcels similarly were created by taking the mean score for three sequential item sets: five items each in the first two parcels and the remaining four items in the third parcel.

*The Life Orientation Test-Revised* (LOT-R; Scheier, Carver, & Bridges, 1994) is a ten-item Likert-type scale (four are filler items) that assesses individual differences in optimism (e.g., “In uncertain times, I usually expect the best”). Response options range from 0 (strongly disagree) to 4 (strongly agree) with higher scores indicating higher levels of optimism. Optimism, as assessed by the LOT-R, is a one-dimensional construct with demonstrated validity in relation to self-mastery, self-esteem, coping, anxiety and depression within college student samples. Within these samples, the LOT-R also has demonstrated acceptable reliability (alpha = 0.78), with test/retest reliabilities across four, 12, 24, and 28 weeks ranging from $r = 0.56$ to 0.79. Alpha for the LOT-R in the current study was 0.71. Domain representative parcels were created by taking the mean across three pairs of items (8,10; 1,7; 3,4) so that no two reverse-scored items were in the same pair.

### 2.3. Procedure

The measurement and structural models were assessed using LISREL-8 (Joreskog & Sorbom, 2001) for Windows. In interpreting model fit statistics it is important to note that in structural
equation modeling, the proposed model is considered the null model and the goal is not to reject it, but, rather, to obtain a non-significant $p$ value for the $\chi^2$ statistic (Rigdon, 1998). Because $\chi^2$ is sensitive to sample size, however, when samples are large (a 5:1 ratio of participants to estimated parameters is recommended; Kline, 1998) it can be expected that even models that closely approximate the covariance matrix (have good “fit”) will be rejected (Browne & Cudeck, 1993). Accordingly, other fit indices such as the non-normed fit index (NNFI) and comparative fit index (CFI) are commonly used in addition to the $\chi^2$ statistic to assess model fit. The NNFI and CFI values are commonly interpreted to be good at levels over 0.90 (Rigdon, 1998). The root mean square error of approximation (RMSEA) is an indicator of the degree of misfit per degrees of freedom and also is among the most widely used alternative fit indices, with values of 0.08 or below being acceptable and values of about 0.05 or less indicating close model fit (Browne & Cudeck, 1993).

3. Results

3.1. Measurement model

Zero-order correlations, means, and standard deviations for all parcelled indicators are presented in Table 1. In the measurement model (Fig. 1) all variables are allowed to covary freely. Ovals represent latent variables, rectangles represent measured indicators, curved lines with two arrows represent covariances, and straight lines with directional arrows represent direct effects with the arrow in the direction of the effect. This model consisted of hope agency, a latent variable with two domain representative parcels, hope pathways, a latent variable also with two domain representative parcels, and overall hope, a higher order latent variable representing the common variance from the lower order agency and pathways variables. Paths from overall hope to agency and pathways were equated to facilitate local model identification (see Little, Lindenberger, & Nesselroade, 1999).

The measurement model also contained latent variables of PGI, optimism, psychological distress, and psychological well-being, each defined by three domain-representative parcels. This overall measurement model had a good fit with the data, $\chi^2 = 228.40, df = 95, p < 0.01$, RMSEA = 0.063 (90% CI = 0.053; 0.073), NNFI = 0.98, CFI = 0.98. Factor loadings, residuals, beta weights, and correlations among latent variables for this model are presented in Fig. 1.

A test of whether the higher order hope and PGI variables represented the same or distinct constructs was performed by constraining to a value of one the previously estimated correlations from PGI to hope (latent $r = 0.84$; zero order $r = 0.65$), as well as equating the common correlations of hope and PGI with the three outcome variables – optimism, psychological distress, and psychological well-being. This test resulted in a significant change from the original measurement model in the model chi squared ($\Delta \chi^2 = 42.82, \Delta df = 4, p < 0.01$), indicating that hope and PGI are empirically distinct constructs. Additional analyses comparing PGI directly to hope pathways ($\Delta \chi^2 = 73.96, \Delta df = 4, p < 0.01$) and hope agency ($\Delta \chi^2 = 119.64, \Delta df = 4, p < 0.01$) as opposed to overall hope indicated that PGI also is distinct from both agency and pathways.
3.2. Structural model

In the structural model the Hope and PGI variables were allowed to covary, as were the three criterion variables of optimism, psychological distress, and psychological well-being. Direct paths led from both predictor variables to each of the three criterion variables. The structural model before deleting non-significant paths had the same model fit as the overall measurement model. In order to assess the relative contributions of pathways, agency, and PGI to the prediction of each of the outcome measures, direct effects were examined and non-significant paths were dropped beginning with the least significant effect. Because all paths from PGI to each of the outcome measures were non-significant, and because each effect for PGI was smaller than any effect for hope, all paths from PGI to each of the outcome measures were dropped in one step. The resulting test revealed a non-significant change in model fit ($\Delta \chi^2 = 6.37$, $\Delta df = 3$, $p = 0.09$).

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Zero-order correlations, means, and standard deviations of measured indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator</td>
<td>1</td>
</tr>
<tr>
<td>1. Path parcel 1</td>
<td></td>
</tr>
<tr>
<td>Path parcel 2</td>
<td>0.50</td>
</tr>
<tr>
<td>3. Agency parcel 1</td>
<td>0.19</td>
</tr>
<tr>
<td>4. Agency parcel 2</td>
<td>0.26</td>
</tr>
<tr>
<td>5. PGI parcel 1</td>
<td>0.30</td>
</tr>
<tr>
<td>6. PGI parcel 2</td>
<td>0.21</td>
</tr>
<tr>
<td>7. PGI parcel 3</td>
<td>0.27</td>
</tr>
<tr>
<td>8. LOT parcel 1</td>
<td>0.25</td>
</tr>
<tr>
<td>LOT parcel 2</td>
<td>0.18</td>
</tr>
<tr>
<td>10. LOT parcel 3</td>
<td>0.18</td>
</tr>
<tr>
<td>11. PD parcel 1</td>
<td>−0.14</td>
</tr>
<tr>
<td>PD parcel 2</td>
<td>−0.15</td>
</tr>
<tr>
<td>13. PD parcel 3</td>
<td>−0.10</td>
</tr>
<tr>
<td>14. PWB parcel 1</td>
<td>0.17</td>
</tr>
<tr>
<td>PWB parcel 2</td>
<td>0.19</td>
</tr>
<tr>
<td>16. PWB parcel 3</td>
<td>0.14</td>
</tr>
<tr>
<td>Mean</td>
<td>6.50</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>1.01</td>
</tr>
</tbody>
</table>

Path = pathways; PGI = personal growth initiative; LOT = optimism; PD = psychological distress; PWB = psychological well-being.
Remaining significant paths led from hope to optimism, psychological distress, and psychological well-being. This final model (Fig. 2) had a good fit with the data, $\chi^2 = 234.77, \text{df} = 98, p < 0.01$, RMSEA = 0.063 (CI = 0.053; 0.073), NNFI = 0.98, CFI = 0.98.
4. Discussion

Consistent with Robitschek’s (1998) propositions, the current analyses indicated that hope and PGI are related but distinct constructs. Nevertheless, when controlling for hope, the PGIS did not add to the prediction of optimism, or psychological distress or well-being. These findings suggest that relative to the PGIS, the Hope Scale assesses more global positive outcome expectancies for goals and that these global positive expectancies are what predict positive mental health outcomes.

Because the current study was a preliminary examination of the PGI and hope constructs in relation to a limited set of outcome measures, it will be important for future research to identify those instances when the PGI Scale relative to the Hope Scale, should be the measure of choice. Research with more diverse samples, in terms of age, socioeconomic status, and culture/ethnicity is needed as well as research looking at variables that may be more specific to PGI (e.g., vocational identity and career exploration or purpose in life). On this latter point, although PGI has been proposed to assess individuals’ conscious and intentional pursuits of growth across life domains, it may be prudent to take a more conservative stance and view PGI as relating specifically to domains that impact personal identity.

It could be argued that PGI is amenable to hope for personal growth and change – that is, people high in PGI may have the goals, pathways, and agency thinking specific to personal growth that would make achieving specifically growth-oriented goals more likely. This interpretation is consistent with the original development of the PGI Scale to assess the initiative to grow across domains related to personal identity in settings such as wilderness programs (Robitschek, 1998). In this respect, the PGI Scale could be the most appropriate measure to assess outcome expectancies relating to characterological change. When assessing expectancies for goals that are not specific to such personal identity issues, however, the Hope Scale should be the measure of choice.

References


