Agency and Pathways Components of Hope: Are Both Always Necessary?

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INTRODUCTION

Snyder et al. (2001) describes hope as a cognitive-motivational construct composed of two components: Agency and Pathways. Agency is a cognitive set consisting of having important goals and believing that one can initiate and sustain action toward goal attainment. Pathways is the perceived ability to find successful routes to goals.

Snyder and colleagues (Snyder et al., 2001, Snyder et al., 2002) have asserted that both the Agency and Pathways components are essential to the operation of hope. However, surprisingly few studies have directly tested this assertion. A recent study (Arnau, Rosen, Finch, Rhudy, & Fortunato, 2007) addressed this question using a structural modeling approach to evaluate the longitudinal effects of Agency and Pathways on anxiety and depressive symptoms. They found that Agency, but not Pathways, predicted decreases in anxiety and depression one month later. However, it may have been the case that Pathways predicts the same variance in anxiety and depression already captured by Agency, thus leading Agency to arbitrarily get the “credit” in the model (see Thompson & Borrello, 1985). Or, perhaps there is an additional synergy when both Agency and Pathways are active, which would imply an interaction. The current study was a follow-up designed to evaluate these two possible explanations.

GOALS OF THE CURRENT STUDY

(1) Determine if Pathways demonstrates incremental validity beyond Agency in predicting depression, anxiety, and stress one month later.

(2) Determine if there is an interaction between Agency and Pathways in the prediction of depression, anxiety, and stress one month later.

METHOD

Participants
This study used the same dataset used in the Arnau et al. (2007) study. Participants were 522 undergraduate college students (61.0% women) enrolled in psychology courses. Participants were primarily Caucasian (83.9%), but also Hispanic (9.2%), African-American (2.1%), Asian-American (2.5%) and “other” (2.3%). The sample had a mean age of with a mean age of 18.7 (SD = 0.86). Due to listwise deletion of missing data, actual sample sizes ranged from 456 to 488 for the analyses.

Procedure
Participants were administered the measures for this study as part of a larger battery of questionnaires. Sessions were run in groups of between 25-50 participants. Participants returned approximately one month later and completed the same questionnaires.

Measures
Snyder Hope Scale (SHS; Snyder et al., 1991). Consists of 12 items (4 filler items) rated on a 4-point Likert scale, tapping into the Agency (4 items) and Pathways (4 items) components of hope described by Snyder.

Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996). The BDI-II is a 21-item self-report measure of severity of depressive symptoms.

Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). The CES-D is a 20-item self-report measure of depression symptomatology.

Depression, Anxiety, Stress Scales (DASS; Lovibond & Lovibond, 1995). The DASS is a 42-item self-report measure of depression, anxiety, and stress symptoms, and yields subscales for each. The Anxiety scale taps cognitive and physiological symptoms of panic. The Stress scale taps into general worry and tension.

STATISTICAL ANALYSES

Creation of Depression Composite
Rather than conduct separate analyses for all three depression measures, we conducted a principal components analysis of scores from the BDI-II, CES-D, and DASS-Depression subscale. The factor scores were used as the Depression outcome variable.

Incremental Validity of Pathways versus Agency
A series of hierarchical regression analyses was used to address this question. Two regressions were conducted for each outcome variable. In the first, Agency was entered in the first step, then Pathways in the second step, evaluating the increase in the amount of variance accounted for in the second step. Next, the same analysis was run again, with the order of entry reversed.

Interaction of Agency and Pathways
Another set of hierarchical regressions was used to address whether Agency and Pathways interact in the prediction of depression, anxiety, or stress. Interaction terms were created using the product of the centered Agency and Pathways scores. The centered main effects for Agency and Pathways were entered in the first step, the interaction term was entered on the second step, and the resulting increase in the percentage of variance accounted for was evaluated for evidence of an interaction.

RESULTS

Incremental Validity of Pathways versus Agency
Table 1 presents the results of the incremental validity analysis of Agency and Pathways predicting depression. As seen in Table 1, the addition of Pathways to the model did not account for significant variance above and beyond Agency, but Agency accounted for significant variance beyond Pathways. This same pattern of results was also found for the analyses predicting anxiety and stress, but details are not presented here due to space limitations.

Interaction of Agency and Pathways
Table 2 presents the results of the interactional model of Agency and Pathways predicting depression. As seen in Table 2, there was no evidence for an interaction between Agency and Pathways predicting depression, as evidenced by the non-statistically significant increase in variance accounted for with the addition of the interaction term. The same results were found for anxiety and stress, but details are not presented here due to space limitations.

CONCLUSIONS

1) Agency and Pathways are not always both necessary, at least for predicting levels of depression, anxiety, or stress one month later.

2) Agency is a significant predictor of depression, anxiety, and stress, and Pathways does not significantly improve prediction.

3) Agency and Pathways do not interact in predicting depression, anxiety, or stress.