Re-examining hope: The roles of agency thinking and pathways thinking

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A considerable amount of research in hope is driven by Snyder's (1994) model which proposes that hope is positively associated with agency thinking and pathways thinking. However, the current research suggests that hope as understood by the layperson (Hope) is only associated with agency thinking and not with pathways thinking. This was found over four studies using different agency and pathways variables, different Hope variables, different methods, and different cultures. Implications of these findings for Snyder's model are discussed.

Keywords: Hope; Trait agency; Trait pathways.

Many researchers agree that hope is characterised by an expectation that a desired goal will be attained (e.g., Averill, Catlin, & Chon, 1990; Bruininks & Malle, 2005; Farran, Herth, & Popovich, 1995; McGeer, 2004; Pettit, 2004; Stotland, 1969). In contrast, Snyder offered a unique perspective, which posits that hope comprises two appraisals occurring simultaneously: (1) the appraisal that one is capable of executing the means to attain desired goals (agency thinking); and (2) the appraisal that one is capable of generating those means (pathways thinking).
his view, the experience of agency thinking plus pathways thinking is the experience of hope itself. In essence, his view proposes that hopeful people believe that they are able to do something to obtain their goals (see Snyder, 2002, for a review of relevant research).

However, Snyder’s model cannot explain why some people remain hopeful when they feel that there is nothing they can do to get what they want (Aspinwall & Leaf, 2002; Bruininks & Malle, 2005). Also, people often feel altruistic hope for others who are suffering and whom they cannot do anything to help (Averill et al., 1990; Bruininks & Malle, 2005). Consistently, studies that examined actual experiences of hope found that hopeful people often feel that they can do little to attain their goals (e.g., Bruininks & Malle 2005; Roseman, Spindel, & Jose, 1990; Smith & Ellsworth, 1985).

Researchers have also questioned why agency thinking and pathways thinking are treated in Snyder’s model as equivalent to hope when they are conceptually different (Tennen, Affleck, & Tennen, 2002). Agency thinking and pathways thinking are appraisals that are related to hope or are antecedents of hope, but they do not necessarily describe the nature of hope itself. Further, Snyder (1994) saw hope as a cognition, departing from other researchers, who see hope as an emotion or, if not, as a state with an affective component (Aspinwall & Leaf, 2002; Averill et al., 1990; Bruininks & Malle, 2005).

There are also measurement concerns. Snyder conceptualised Trait Agency, the trait version of agency thinking, as the chronic tendency to perceive oneself as capable of implementing the required means to reach goals. However, the items that measure it (e.g., “I meet the goals that I set for myself”, “I’ve been pretty successful in life”, “My past experiences have prepared me well for my future”) say little or nothing about executing specific goal-related actions. The same problem exists for the items for State Agency, the state version of agency thinking (e.g., “Right now I see myself as being pretty successful in reaching this goal”, “At this time, I see myself as reaching this goal”); no mention is made about executing specific actions to obtain a target goal. Instead, both trait and state items seem only to tap into a general sense that goals can somehow be attained, regardless of one’s ability in obtaining them (Aspinwall & Leaf, 2002; Tennen et al., 2002).

Without invoking agency thinking and pathways thinking, other researchers examine hope by directly asking participants how hopeful they feel. For instance, Bruininks and Malle (2005) asked their participants “How would you describe hope?” and to describe a time “when you felt hope”. Appraisal studies have used similar items (e.g., “How hopeful do you feel now?”, “How hopeful did you feel in this event?”) to measure current or recalled hope experiences (e.g., Mauro, Sato, & Tucker, 1992; Roseman et al., 1990; Smith & Ellsworth, 1987). These researchers are interested in hope as understood by laypersons, instead of pre-defining what hope is and seeing whether the data fit the definition, and have found that hope is associated with a belief that goals are somehow attainable regardless of whether the person knows how to achieve them.

In sum, there is a discrepancy between Snyder’s model of hope and the nature of hope as experienced by people. Snyder argued that hope involves agency thinking and pathways thinking, which essentially means believing that goals can be attained by one’s own resources. However, when other researchers (e.g., Averill et al., 1990; Bruininks & Malle, 2005; Roseman et al., 1990) directly asked participants about their hope experiences, they found that this belief was often not present. As far as we know, no studies have tested whether the layperson’s notion of hope is associated with agency thinking and pathways thinking.

We report four studies that examined this issue. Given our objective, we utilised the two ways of measuring hope that past studies have employed—Snyder’s approach and the direct approach. In Studies 1 to 3, we measured Trait Agency and Trait Pathways (the chronic tendencies to engage in agency thinking and pathway thinking, respectively) and directly asked participants, over time, how hopeful they felt about broad and abstract issues (e.g., personal growth
and the future in general; Hope). Snyder’s model would predict that high levels of Trait Agency and Trait Pathways should be associated with high levels of Hope over time. In Study 4, we examined how State Agency and State Pathways (specific state-level agency and pathways appraisals) made towards focused and concrete goals were related to how hopeful one felt towards achieving those goals (Hope: Goal). Snyder’s model would predict that both State Agency and State Pathways should be positively related to Hope: Goal. In view of the measurement concern associated with agency thinking, we do not restrict agency thinking to the definition Snyder proposed but are open to conceptualising it as the sense that desired goals can generally be attained. Our studies were conducted in two cultures—USA (Studies 1 and 2) and Singapore (Studies 3 and 4). In sum, this research employed different agency and pathways variables, different direct measures of hope, different methods, and different cultural samples to test the generalisability of its findings.

STUDY 1

Study 1 examined whether Trait Agency and Trait Pathways could predict how hopeful participants were about their personal growth (Hope: Growth) over two time-points (Times 1 and 2) a month apart.

Method

Participants

A total of 109 students (57 females) from the University of Michigan participated for a monetary compensation (mean age = 18.7, SD = 0.67).

Procedure

Participants completed measures for Time 1 in labs. A month later, they completed Time 2 measures online in locations of their choosing.

Measures

Trait Hope. The Trait Hope Scale (Snyder et al., 1991) was rated only on Time 1 on 9-point scales that ranged from 0 (strongly disagree) to 8 (strongly agree). Respective items for Trait Agency (α = .82; see introduction for items) and Trait Pathways (α = .83; example item, “I can think of many ways to get out of a jam”) were averaged.

Hope: Growth. Participants rated the items “I feel hopeful about being a better person than I am now” and “I feel hopeful about becoming the type of person I aspire to become” on 9-point scales that ranged from 0 (strongly disagree) to 8 (strongly agree). They were rated on Time 1 (α = .81) and Time 2 (α = .79) and were averaged to form Hope: Growth.1

Result and discussion

Descriptive statistics for Studies 1 to 3 are presented in Table 1. Hierarchical Linear Modeling (HLM; Raudenbush & Bryk, 2002) was used. A simple-intercept model was tested in which the cross-participant average of Hope: Growth was estimated with Trait Agency and Trait Pathway entered as between-participant predictors. As shown in Table 1, Trait Agency was positively associated with Hope: Growth, whereas Trait Pathways was not associated with it.

STUDY 2

The design of Study 2 was similar to Study 1 except that Hope was measured as the extent to

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1 Due to the larger studies that Studies 1, 2, and 3 were part of, there were some scaling differences between measures. These scaling differences did not affect the results and the measures were converted to range from 0 to 8 if comparisons were made.
which participants felt hopeful about their future in general (Hope: Future).

**Method**

**Participants**
Participants were 124 students (49 females) from the University of Michigan (mean age = 18.1, SD = 0.45).

**Procedure**
The procedure was exactly the same as that in Study 1 except that Hope: Future (instead of Hope: Growth) was measured at Times 1 and 2.

**Measures**

**Trait Hope.** The Trait Hope Scale was rated only on Time 1 on 9-point scales that ranged from 0 (strongly disagree) to 8 (strongly agree). Items for Trait Agency (α = .82) and for Trait Pathways (α = .83) were averaged.

**Hope: Future.** Participants rated the item “I feel hopeful about the future” on a 5-point scale that ranged from 0 (strongly disagree) to 4 (strongly agree) on Time 1 and Time 2. Only one item was used because another item would appear repetitive. The results were similar regardless of whether one item or two items (as in Hope: Growth) were used.

**Result and discussion**
The same HLM model examined in Study 1 was tested. As shown in Table 1, Trait Agency, but not Trait Pathways, was positively associated with Hope: Future.

### STUDY 3

In Study 3, the same variables examined in Study 1 (Trait Agency, Trait Pathways, and Hope: Growth) were examined, allowing a direct replication test of the findings. Second, we also examined retrospective reports of hope felt in the recent past (Hope: Past). Hence, we could examine whether retrospective reports of Hope produced consistent results with concurrent reports (e.g., Hope: Growth). Third, we extended our measurement period by a month, measuring Hope over three observations spaced out equally over two months. This, to some extent, addressed issues about the duration of the relationships found in Studies 1 and 2. Finally, a Singaporean sample was used; it was of interest to examine whether similar findings could be found in a mainly collectivistic culture like Singapore.

**Method**

**Participants**
Participants comprised 163 (134 females) undergraduates from the National University of Singapore (NUS) who participated for course credits (mean age = 20.2, SD = 1.60).

**Procedure**
Participants completed measures for Time 1 in labs. They returned one month (Time 2) and two months (Time 3) later to complete other measures.

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<tr>
<th>Study 1: Hope: Growth (6.61, 1.12)</th>
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<td>Trait Agency (6.91, 1.15)</td>
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<td>Trait Pathways (6.65, 1.15)</td>
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<th>SE</th>
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<td>Trait Pathways (5.70, 1.22)</td>
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<td>Trait Agency (4.37, 1.26)</td>
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<td>Trait Pathways (4.76, 1.49)</td>
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<th>Study 3: Hope: Past (4.35, 2.07)</th>
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<td>Trait Agency (4.37, 1.26)</td>
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<td>Trait Pathways (4.76, 1.49)</td>
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Note: **p < .01; ***p < .001. In each parenthesis are M and SD of the variable, which was converted to range from 0 to 8 for comparability with other variables; the means for all Hope variables were computed across all time points.
Measures

Trait Hope. The Trait Hope items were rated only on Time 1 and respective items were averaged to form Trait Agency ($\alpha = .81$) and Trait Pathways ($\alpha = .83$). All items were rated on 7-point scales that ranged from 1 (strongly disagree) to 7 (strongly agree).

Hope: Growth. Participants rated the Hope: Growth items used in Study 1 on 7-point scales that ranged from 1 (strongly disagree) to 7 (strongly agree). The items were rated at Time 1 ($\alpha = .87$), Time 2 (.93), and Time 3 (.82), and were averaged to form Hope: Growth.

Hope: Past. Participants were asked to look back over the past one month and indicate how often they had felt hope on a 7-point scale that ranged from 1 (never at all) to 7 (most of the time). This item was rated at all three time-points.

Results and discussion

As preliminary analyses, we examined whether there were cross-cultural differences in Hope: Growth, Trait Agency, and Trait Pathways. An analysis of variance (ANOVA) showed that the American participants (from Study 1) were higher in Hope: Growth (averaged across Times) than the Singaporean participants (from Study 3), $F(1, 271) = 103.82$, $p < .001$, $\eta^2 = .23$ (see Table 1). Another ANOVA showed that the American participants (pooled across Studies 1 and 2) were higher in Trait Agency, $F(2, 394) = 406.34$, $p < .001$, $\eta^2 = .45$, and in Trait Pathways, $F(2, 394) = 164.27$, $p < .001$, $\eta^2 = .25$, than the Singaporean participants.

The same HLM analyses were used. Replicating Study 1, Trait Agency positively predicted Hope: Growth whereas Trait Pathways did not predict it (Table 1). Also, only Trait Agency, and not Trait Pathways, was positively associated with Hope: Past.

STUDY 4

Studies 1 to 3 showed that Trait Agency positively predicted Hope over time, whereas Trait Pathways was not related to Hope at all. The consistent lack of relationship between Trait Pathway and Hope was especially disconcerting since it is in direct contrast with Snyder’s view. It was unclear whether these findings were a consequence of examining the relationship between trait-level pathways thinking and multiple reports of state hope in the context of broad life issues. The effects of pathways thinking might be more evident in the context of a focused and concrete goal (e.g., the goal of getting good grades) and might not be revealed in association with hope felt towards broad and abstract issues (e.g., personal growth or the future). Also, because Trait Pathways was a trait variable and Hope was examined as state variables, it was unclear whether this mismatch in state versus trait was a reason why the two were not related to each other.

Therefore Study 4 measured all three variables as state variables and in reference to the same specific goal. Participants thought of a goal they were currently pursuing and indicated their specific agency and pathways appraisals (State Agency and State Pathways, respectively) made on that goal. They also rated how hopeful they were about attaining the target goal (Hope: Goal). Three goals were examined for each participant; participants thought of the first goal, rated the State Agency, State Pathways, and Hope: Goal items, and repeated the same procedure with the next two goals. This was to ensure that our findings could be replicated across several goals.

Method

Participants

Participants comprised 192 (146 females) undergraduates from NUS who participated for course credits (mean age = 20.2, $SD = 1.44$).
**Procedure**

Participants were told to think of a goal (Goal 1) that they were aiming for but had yet to achieve. They were instructed not to think of impossible goals (e.g., flying to a different planet) or trivial goals (e.g., catching a movie) but to think of important, challenging, and realistic goals (e.g., getting an A grade for a certain class). They described the goal in a few words and rated the measures that followed. They repeated the same procedure for Goals 2 and 3.

**Measures**

*State Hope.* Participants rated the State Agency items (see introduction for example items) and the State Pathway items (e.g., “I can think of many ways to reach this goal”) from the State Hope Scale (Snyder et al., 1996) for all three Goals on 10-point scales that ranged from 1 (strongly disagree) to 10 (strongly agree). Respective items were averaged to form State Agency (α = .80, .83, .83, and for Goals 1, 2, and 3, respectively) and State Pathways (α = .75, .85, and .82, for Goals 1, 2, and 3, respectively).

*Hope: Goal.* Participants rated the item “How hopeful are you about achieving this goal?” for all three Goals on 10-point scales that ranged from 1 (strongly not hopeful) to 10 (strongly hopeful).

**Results and discussion**

Descriptive statistics are shown in Table 2. Most of the goals stated were academic goals (e.g., “Getting into honours”), relationship/romantic goals (e.g., “Getting a boyfriend”), and career goals (e.g., “Getting a good job that earns”). For each Goal, we regressed Hope: Goal simultaneously onto State Agency and State Pathways. As shown in Table 2, Hope: Goal was positively related to State Agency but was not related to State Pathways, and this was found for all three Goals. Averaging the respective variables across Goals, we computed the composite Total State Agency (α = .68), Total State Pathways (α = .55), and Total Hope: Goal (α = .69). Another simultaneous regression analysis showed that only Total State Agency, but not Total State Pathways, predicted Total Hope: Goal (see Table 2).

**GENERAL DISCUSSION**

A considerable amount of research in hope is driven by Snyder’s conceptualisation of hope as the equivalence of agency thinking combined with pathways thinking. However, past studies call into question how much agency thinking and pathways thinking should characterise the average person’s understanding of hope (Averill et al., 1990; Bruininks & Malle, 2005; Roseman et al., 1990; Smith & Ellsworth, 1985). In Studies 1 to 3, we measured Trait Agency and Trait Pathways and examined how people who differed on these traits varied in how hopeful they were about broad life issues (e.g., personal growth and the future; Hope) over time. Snyder’s model would predict that individuals who have a strong chronic tendency to engage in both agency thinking (Trait Agency) and pathways thinking (Trait Pathways) should report higher levels of Hope over time. However, all three studies showed that Trait Agency was positively associated with Hope whereas Trait Pathway was not related to it. And the same findings were obtained using retrospective reports of hope (Study 3). To examine whether these findings could be obtained when all variables were

| Table 2. Regression weights predicting Hope: Goal by State Agency and State Pathways (Study 4) |
|---------------------------------|-----|-----|
| **Hope: Goal for Goal 1 (6.98, 1.78)**    | **b** | **SE** |
| State Agency (6.70, 1.67)       | .74*** | .07 |
| State Pathways (5.86, 1.87)    | -.06  | .06 |
| **Hope: Goal for Goal 2 (6.84, 1.94)**    | **b** | **SE** |
| State Agency (6.78, 1.69)       | .77*** | .08 |
| State Pathways (6.45, 1.84)    | -.12  | .08 |
| **Hope: Goal for Goal 3 (6.82, 1.86)**    | **b** | **SE** |
| State Agency (6.71, 1.61)       | .73*** | .08 |
| State Pathways (6.40, 1.64)    | -.05  | .08 |
| **Total Hope: Goal (6.88, 1.46)**    | **b** | **SE** |
| Total State Agency (6.73, 1.29) | .81*** | .07 |
| Total State Pathways (6.23, 1.30) | -.05  | .07 |

*Note:* ***p < .001. In each parenthesis are M and SD of the variable, which ranged from 1 to 10.
state variables directed at the same specific goal, we had participants think of more concrete goals they were pursuing (e.g., Getting an A in a class) and rate their State Agency and State Pathways towards their target goals and how hopeful they felt about attaining them (Hope: Goal). The results were consistent—only State Agency was positively related to Hope: Goal, and State Pathways was not related to it. In sum, the same findings were found using different agency and pathway variables, different Hope variables, different methods, and different cultural samples.

It is important to first reiterate that the agency items (for both trait and state versions) do not seem to be measuring perceived capacity for executing goals-related actions (as Snyder had proposed them to be). We conjecture that they could be measuring an expectation that desired goals can somehow be attained (not necessarily by one’s own means). If so, then the findings that agency thinking was positively related to hope are consistent with past studies (e.g., Bruininks & Malle, 2005; Roseman et al., 1990; Smith & Ellsworth, 1985) in suggesting that hopeful people tend to think that desired goals are attainable even if personal resources are exhausted. Future studies, however, should test our conjecture and examine what the agency thinking items do measure.

Study 4 addressed the concern that perhaps the lack of relationship between Trait Pathways and Hope found in Studies 1 to 3 was because pathways thinking was not measured in reference to a concrete goal. Also, the fact that Trait Pathways was a trait variable and the Hope constructs were state variables might explain the lack of relationship between them. However, in Study 4, when pathways thinking was measured as State Pathways in reference to specific and concrete goals, it did not predict the hope felt towards the same goals. Further, the same finding was found across all three goals participants generated, suggesting that the lack of relationship between pathways thinking and hope was robust across different kinds of goals.

These considerations suggest the following conclusions. According to Studies 1 to 3, individuals who have a tendency to believe that their goals are generally attainable are more likely to chronically report feeling hopeful about their personal growth and the future and to report feeling hopeful recently; however, the extent to which people tend to believe that they can generate means to desired goals does not predict hope. According to Study 4, at the state level, as long as people feel that a specific and concrete goal can somehow be attained, regardless of whether they see themselves as able to generate ways to achieve that goal, they are likely to feel more hopeful. These findings appear to be consistent with many accounts stating that hope can be felt as long as there is the belief that an important goal can be attained, even without the belief in oneself to generate the means to obtain it (Farran et al., 1995; McGeer, 2004; Pettit, 2004; Stotland, 1969).

However, these conclusions should not be overstated because there are still more issues to be addressed before one can more assuredly say that agency thinking predicts hope and pathways thinking does not. First, we do not know whether the findings in Study 4 would differ as a function of goals; the effects of pathways thinking on hope may be more evident in certain goals (e.g., goals in which one can easily think of the means). Second, we cannot tell whether the relationship between agency thinking and hope would still exist in highly traumatic incidents; perhaps even a person who chronically believes that goals can be achieved (i.e., high Trait Agency) might still lose hope when the situation gets extremely dire. Third, the use of the direct Hope measures followed from our objective but future studies can examine the same issue by having participants describe their hope experiences and then examining whether these actual hope experiences contain agency thinking and pathways thinking.

The current research helps to address the broader question of what hope is. Snyder’s model seems most relevant to situations where people are still able to change the environment in their favour. However, there are other kinds of hope situations where such personal influence would lose its relevance. First, there are those extremely traumatic situations in which people are aware
that what is desired may be beyond reach and that their talents and capabilities are exhausted. Another type of hope situation does not involve that much despair or trauma. For example, some religious perspectives encourage a hope that has little to do with personal strength, such as the biblical hope for redemption of the world (Hebblewaite, 1984). Finally, in everyday circumstances, when we say, for instance, that “I hope the weather will be better” or “I hope the price of petrol will drop”, personal control plays no or little role and yet hope is relevant. How does hope arise in these contexts?

Finally, the same pattern of relationships was found in the USA and in Singapore, suggesting similar mechanisms underlying hope between the two countries. However, Singaporeans were lower in Trait Agency, Trait Pathways, and Hope than Americans (Studies 1 to 3). This is quite consistent with findings that East Asians are more self-critical and are more likely to expect negative events happening to them than North Americans (e.g., Chang, Asakawa, & Sanna, 2001; Heine & Lehman, 1995). However, the exact reasons why Singaporeans specifically are lower in these variables than Americans are unknown.

To conclude, although Snyder’s model might be useful for understanding the cognitive components of hope, its veracity should be tested. Direct assessments of hope are useful for testing models like Snyder’s and in using them, the current research found that hope is not associated with pathways thinking. On a more general note, this research suggests that an adequate understanding of hope is still elusive and that future studies should more thoroughly explore the nature of hope.

REFERENCES


