

Hope, Optimism, and Affect as Predictors and Consequences of Expectancies: The Potential Moderating Roles of Perceived Control and Success

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Abstract

Hope and optimism may be differentially influential depending on the situational context. This study sought to (1) experimentally test whether hope and optimism differentially predict specific expectancies in controllable versus uncontrollable situations and (2) examine the relative impact of specific expectancies on affect when desired outcomes are (or are not) achieved. A 2x2 independent samples design was used to experimentally manipulate perceived control and situational outcome (i.e., success or failure). Online participants (N= 571) completed self-report measures of hope and optimism before being randomly assigned to one of four experimental conditions. Results showed that hope, but not optimism, predicted specific expectancies in the perceived control condition. Conversely, optimism, but not hope, predicted specific expectancies in the no perceived control condition. More optimistic specific expectancies of success predicted greater positive affect regardless of success or failure outcome.

Keywords: Hope, Optimism, Control, Specific Expectancy, Affect

Introduction

Snyder's (1994) hope and Scheier and Carver's (1985) optimism are associated with a number of health, performance, and psychological outcomes (Barnett, 2014; Bronk, Hill, Lapsley, Talib, & Finch, 2009; Gordon, 2008; Rasmussen, Scheier, & Greenhouse, 2009; Rand, 2009; Scheier & Carver, 1992; Zenger, Brix, Borowski, Stolzberg, & Hinz, 2010). Emerging research suggests that when examined concurrently, hope and optimism may differentially predict many of these outcomes (Fischer, Cripe, & Rand, 2018; Gallagher & Lopez, 2009; Rand, 2009). For example, hope, but not optimism, has been associated with undergraduate academic performance (Rand, 2009); whereas optimism, but not hope, has been associated with elements of hedonic subjective well-being, such as negative affect (Gallagher & Lopez, 2009). As such, there is a need to better understand *how*, and *under what conditions*, hope and optimism are differentially contributing to various outcomes.

Hope and Optimism

Snyder and colleagues (1991) defined hope as one's perceived ability to accomplish goals. Hope comprises two interrelated cognitive processes: pathways (i.e., one's perceived ability to create plans to meet goals) and agency (i.e., goal-directed energy; Snyder et al., 1991). Accordingly, hope is anchored in one's perception of personal abilities. By contrast, Scheier and Carver's (1985) optimism is a broader expectation that good, as opposed to bad, events are likely to occur in the future. There is no emphasis placed on *how* people expect desired future events will be achieved. Rather than formulating an expectation about the future based solely on the abilities of the self (c.f., hope), optimistic expectancies are thought to stem from several factors, including beliefs about the self, other people, the world, and luck (Rand, 2009). In line with this, existing theoretical and empirical research has differentiated hope and optimism based on where

positive expectancies are derived (Bryant & Cvengros, 2004; Fowler, Weber, Klappa, & Miller, 2017; Rand, 2018; Rand & Cheavens, 2009; Snyder, 1994; Scheier & Carver, 1985).

Several factor analytic studies have demonstrated that hope and optimism are distinct, albeit related, constructs (Bryant & Cvengros, 2004; Fowler, Weber, Klappa, & Miller, 2017; Gallagher & Lopez, 2009; Rand, 2009). In line with this, when measured together, hope and optimism uniquely predict several aspects of psychological well-being, including depressive symptoms (Wong & Lim, 2009), suicidal behaviors (Lucas, Chang, Lee, & Hirsch, 2018), and life satisfaction (Rand, Martin, & Shea, 2011; Wong & Lim, 2009). This suggests that hope and optimism may separately influence well-being through different mechanisms, such as coping strategies. In fact, hope has been more consistently associated with active, problem-focused coping strategies; whereas, optimism has been more consistently associated with passive, emotion-focused strategies (Bryant & Cvengros, 2004; Snyder et al., 1991; Rand, 2018). Thus, hope may be more influential in situations where individuals perceive greater personal control, and optimism may be more influential in situations where individuals perceive less personal control (see Gallagher & Lopez, 2009; Rand, 2018).

Hope is anchored in beliefs about one's abilities to achieve goals (i.e., "I meet the goals that I set for myself"; Snyder et al., 1991). In situations where individuals perceive control over a desired outcome, hope likely influences specific expectancies about a particular desired outcome (e.g., "I will successfully run a mile"). Conversely, because optimism is anchored in beliefs more general than the self, it may be more influential in situations where the actions of the self are less relevant (i.e., when individuals possess little or no control over an outcome; Gallagher and Lopez, 2009). For example, greater optimism may facilitate the belief that things will work out for the best, even when the circumstances are not controllable (e.g., "This traffic jam will clear

up soon”). This optimistic expectancy may lead to greater patience and emotional well-being while waiting on an uncontrollable outcome. In contrast, hopeful thinking may be unimportant or even noxious in situations with little personal control.

Some empirical evidence supports this theoretical distinction. In several studies, hope, but not optimism, has been associated better outcomes in controllable situations. For example, a study of law school students found that greater hope, but not optimism, predicted higher first-semester grades (Rand, Martin, & Shea, 2011). In another study, greater hope among individuals who identified as lesbian, gay, bisexual, or queer predicted greater personal identity development; whereas, optimism did not (Moe, Dupuy, & Laux, 2008). In addition, Snyder and colleagues (2005) found that higher-hope individuals could tolerate pain for longer periods of time than those with lower hope. In contrast, there was no relationship between optimism and pain tolerance. Finally, Gallagher and Lopez (2009) found that hope and optimism differentially predicted particular aspects of psychological well-being. Hope was found to be more highly associated with facets of eudaimonic well-being (e.g., autonomy, personal growth, and purpose in life); whereas, optimism was more highly associated with facets of hedonic well-being (e.g., positive and negative affect). They interpreted this as suggesting that eudaimonic well-being is more grounded in goal-directed activities than hedonic well-being. Despite this trend, the existing evidence examining hope’s association with controllable outcomes is correlational in nature. As such, it remains unclear whether differences in perceived control causally affect the relationship between hope and optimism, on the one hand, and specific expectancies on the other.

In addition to findings that suggest *when* hope and optimism differentially predict outcomes, findings by Rand (2009) provide some insight into *how* hope and optimism influence

outcomes. This study examined how hope and optimism differentially predicted academic performance in a sample of undergraduates. Rand (2009) found that hope, but not optimism, was associated with academic performance. Moreover, this relationship was found to be mediated by individuals' specific expectancies (i.e., situation-specific thoughts that develop when pursuing a particular goal). Indeed, trait hope predicted a specific grade expectancy, which, in turn, predicted actual academic performance. Given that academic performance is largely a *controllable* outcome, the results of this study suggest that hope is more relevant than optimism in controllable situations. Based on this preliminary evidence, it is necessary to test whether the perception of control over an outcome affects the relationships between generalized, trait expectancies (i.e., hope and optimism) and specific expectancies. Following the pattern found in Rand (2009), these specific expectancies should, in turn, contribute to various outcomes (see Figure 1 for theoretical model).

Because specific expectancies may be stronger predictors of outcomes than general expectancies, this also means that they may predict stronger affective reactions in relation to meeting goals. Several studies examining self-regulation theory (SRT) have shown that making progress toward and meeting specific goals increases positive affect (Carver & Scheier, 1998; Emmons & Kaiser, 1996; Lawrence, Carver, & Scheier, 2002). However, only a handful of studies have examined how affect is impacted when specific expectations for the self are not met (i.e., intrapersonal expectancy violations). These studies suggest that unmet positive expectations lead to higher levels of distress and negative emotionality and less self-satisfaction (Bettencourt & Manning, 2016; House & Perny, 1974; Negy, Schwartz, & Reig-Ferrer, 2009; Schlegel, Manning, & Bettencourt, 2013). For example, Bettencourt and Manning (2016) found that breast cancer survivors who expected to have a higher post-cancer quality of life than was currently

being experienced had increases in negative emotionality over time. Other studies have demonstrated that unmet expectations are associated with less satisfaction (Hammer & Harnett, 1974; House & Perney, 1974). House and Perney (1974) found that unexpected failure was more aversive than expected failure and unexpected success was more satisfying than expected success. Alternatively, a series of studies conducted by Locke (1967) suggested that success was associated with similar levels of satisfaction, and failure was associated with similar levels of dissatisfaction whether it was expected or unexpected. Thus, the few studies that have examined these relationships provide mixed evidence and span across a wide variety of expectancies (e.g., from expectancies about post-migration conditions to quality of life in breast cancer survivor to completing an object listing task; Bettencourt & Manning, 2016; Locke, 1967; Negy, Schwartz, & Reig-Ferrer, 2009). Thus, the effect of unmet expectations on affect needs further investigation.

Present Study

The present study addressed two gaps in the literature. First, we experimentally tested proposed theoretical differences between hope and optimism. Specifically, we tested whether the associations of hope and optimism with specific expectancies differed based on one's perception of control within a given situation. We hypothesized that hope, but not optimism, would be associated with specific expectancies in situations with perceived control over the outcome. In contrast, we hypothesized that optimism, but not hope, would be associated with specific expectancies in situations devoid of perceived control (Gallagher & Lopez, 2009; Rand, 2018). Second, we examined how unmet expectations influence affect. By addressing these gaps in the current literature on hope and optimism, we sought to clarify the relationships among trait expectancies, specific expectancies, and affective outcomes. Within the theoretical framework of

Figure 1, we aimed to examine whether specific moderators (i.e., perceived control and situational success or failure) altered the relationships between (1) trait and specific expectancies and (2) specific expectancies and affective outcomes.

Our first aim was to examine the effects of perceived control on the relationship between generalized expectancies and specific expectancies. In particular, we aimed to examine whether hope and optimism differentially predicted specific expectancy in situations with and without perceived control. We hypothesized that the perception of greater control over an outcome would cause hope, but not optimism, to be associated with a specific expectancy. In contrast, we hypothesized that the perception of lesser control over an outcome would cause optimism, but not hope, to be associated with a specific expectancy.

In turn, our second aim was to examine whether goal outcomes changed the relationship between specific expectancies and affect. We predicted that, in successful situations, more optimistic specific expectancies would be associated with improved affect (i.e., greater positive affect and lower negative affect). In contrast, we predicted that in unsuccessful situations, more optimistic specific expectancies would be associated with worsened affect (i.e., lower positive affect and higher negative affect).

Materials and Methods

Setting

The current study was conducted online using Amazon's Mechanical Turk platform (MTurk; www.mturk.com). A recruitment notice was posted to the MTurk platform at noon Eastern Standard Time in July of 2017, which advertised a study about personality and stress. One U.S. dollar was offered as compensation for participation in the study. After viewing the

recruitment notice through the MTurk platform, interested participants clicked a link that redirected them to an online survey.

Sample

A total of 722 adults were recruited through MTurk. Participants were eligible for participation in this study if they were from the United States, spoke English, were at least 18 years of age, and had access to MTurk. Because studies utilizing MTurk for recruitment have reported issues with engagement of participants (Wang, Sigerson, & Cheng, 2019), several steps were taken to ensure data quality and to exclude those who were inattentive when completing measures (DeSimone, Harms, & DeSimone, 2015). A total of 151 participants were excluded from analyses due to attention checks; 68 who missed both validity questions (i.e., “I have never seen anyone with brown eyes” and “I have never taken a shower in my life.”) and 83 who completed the study in an unrealistic time frame (i.e., less than five minutes or over 1 hour).¹ Differences between excluded and retained participants were examined with a series of independent samples t tests and chi square tests. We used $p < .01$ as the threshold for significant differences. Those excluded from the study were significantly younger ($t = 6.97, p < .001$), more likely to be male (Pearson chi-square = 14.23, $p = .001$), and had lower mean levels of optimism ($t = 2.84, p = .005$). There were no significant differences on other demographic variables or in trait levels of hope. Despite these differences, concerns regarding excluded participants’ honesty and effort in responding to the survey necessitated their exclusion. The final sample consisted of 571 participants. Demographic characteristics were assessed to characterize the sample (See Table 1).

Procedure

¹ Realistic time frame for completion was determined through clear breaks in a histogram of participant duration. Average completion time was 21.61 minutes (SD = 10.53 minutes).

After providing informed consent, participants completed several online self-report measures, including measures of hope and optimism. After completion of these measures, participants were randomly assigned to one of four experimental groups. A 2x2 independent samples design was used to experimentally manipulate: (1) the degree to which participants perceived a sense of personal control in an imagined situation; and (2) whether the participants experienced success or failure as a result of their imagined situation (i.e., goal outcome). This manipulation was derived from studies on counterfactual thinking (e.g., Roese, 1997) where participants are asked to imagine scenarios and make a choice between alternative behaviors (e.g., Smallman & Roese, 2009). Given that counterfactual thinking is associated with the perception of control (e.g., Nasco & Marsh, 1999), we reasoned that providing participants in one experimental group the option of choosing between alternative behaviors would increase their perception of control relative to participants in the group with no behavioral options. The experimental manipulation consisted of having participants read two out of four different passages; one of which manipulated perceived control and one of which manipulated goal outcome regarding a single imaginary driving situation (See Table 2 for experimental manipulation).

All participants were asked to imagine that they were on their way to a job interview when they suddenly became stuck in traffic. To manipulate the perception of personal control, half of the sample read that they had the choice to wait out traffic or take an alternate route to an interview (i.e., perceived control condition). The other half read that the only choice they had was to wait out the traffic (i.e., no perceived control condition). Immediately after reading this passage, perception of control within this situation was assessed as a manipulation check. Moreover, their specific expectancy of making it to the interview on time was assessed. Next,

regardless of experimental condition, participants were asked to indicate what they would do in this situation. In the perception of control condition, participants could choose to “Wait out traffic” or “Take alternate route.” Those in the no perception of control condition could only choose to “Wait out Traffic.” This served to strengthen the perception that participants either had or did not have control in this situation.

Finally, in order to manipulate goal outcome, participants were randomly assigned to either read that they made it to the interview on time and received the job (i.e., success condition) or that they did not make it to the interview on time and did not receive the job (i.e., failure condition). After reading the outcome, participants completed measures of state affect.

Measures

Perception of Control.

Perception of control was assessed with a single item visual analogue scale as a manipulation check. Participants were asked to indicate how much control they felt they had in the imaginary situation (i.e., “How much control do you feel you have in this situation?”) on a sliding 0-100 scale from “No control” to “Complete control.”

Specific Expectancy.

Specific expectancy within the imaginary situation was assessed with a single item visual analogue scale directly after reading the first passage. Participants answered the question “What do you think your chances are of getting to the interview on time?” on a sliding 0-100 scale from “No chance of making it on time” to “Will definitely make it on time.”

Hope.

Trait hope was measured using the Adult Hope Scale (AHS; Snyder et al., 1991). The AHS is a 12-item self-report scale consisting of four items measuring pathways, four items measuring agency, and four distractor items. The AHS generates a total hope score and separate

subscales for agency and pathways. Respondents indicate the degree to which each statement describes themselves using an 8-point Likert-type scale (1 = Definitely False to 8 = Definitely True). Higher scores indicate higher levels of hope. The AHS has been shown to be a temporally reliable and valid measure of hope (Bryant & Cvengros, 2004; Snyder, 2002). Cronbach's alpha of total AHS for the current study was .91.

Optimism.

Trait optimism was measured using the Life Orientation Test-Revised (LOT-R; Scheier, Carver, & Bridges, 1994). The LOT-R is a 10-item self-report scale consisting of six items measuring optimism and four distractor items. Respondents indicate the extent of their agreement with each statement using a 5-point Likert-type scale (0 = Strongly Disagree to 4 = Strongly Agree). Higher scores indicate higher levels of optimism. The LOT-R has been shown to be a temporally reliable and valid measure of optimism (Bryant & Cvengros, 2004; Scheier, Carver, & Bridges, 1994). Cronbach's alpha of total LOT-R for the current study was .89.

State Affect.

State positive and negative affect were measured using the Positive Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). The PANAS is a 20-item self-report scale consisting of 10 items measuring positive affect and 10 items measuring negative affect. Respondents indicate the extent to which they are currently feeling each of 20 emotions on a 5-point Likert-type scale (1= Very slightly to 5= Extremely). Positive affect and negative affect are scored separately. Higher scores indicate greater positive or negative affect. The PANAS has been shown to be a reliable and valid measure of state affect in non-clinical samples (Crawford & Henry, 2004). Cronbach's alphas of positive affect and negative affect for this study were .93 for both scales.

Analytic Plan

Preliminary Analyses

Assumptions of normality were assessed using Kline's (2011) guidelines. No issues with normality were found. Outliers were winsorized to 3 SD above or below the mean. No meaningful differences were found when analyses were run with and without winsorized data. Thus, we presented the corrected data. All analyses were run using Mplus Version 8 (Muthén & Muthén, 2017).

Hypothesis Testing Strategy

Aim 1. Multiple group measured variable path analysis (MVPA) was used in order to examine the differential effect of perceived control on the relationships between trait expectancy (i.e., hope and optimism) and specific expectancy. We modeled the MVPA with hope and optimism predicting specific expectancy. Using this method, we were able to examine the same path models in two groups (i.e., the control condition and no-control condition) simultaneously. We then examined the differences in relationships between (1) hope and specific expectancy and (2) optimism and specific expectancy by using equality constraints. We constrained the paths between hope and specific expectancy within both groups to be equal and conducted a chi-square difference test to examine whether the relationship between hope and specific expectancy varied as a function of perceived control. This same procedure was conducted a second time to examine whether perceived control influenced the relationship between optimism and specific expectancy.

Aim 2. Multiple group MVPA was conducted to examine whether goal outcomes (i.e., success condition or failure condition) influenced the relationship between specific expectancies and affect. We modeled the MVPA with specific expectancy predicting both positive and

negative affect. We were able to examine differences in this path analysis between the two groups simultaneously. Equality constraints and chi-square difference tests were again used in order to examine whether the relationship between specific expectancy and affect (i.e., positive and negative) differed by goal outcome.

Results

Preliminary Analyses

Descriptive statistics of study variables were calculated and are reported in Table 3. A series of independent samples t-tests and chi-squared tests were conducted to ensure that demographics and predictor variables did not vary as a function of membership in the experimental control conditions. No significant differences were found at $p < .01$.

An independent samples t-test was performed to ensure that perceived control was effectively manipulated. There was a significant difference in participant's perception of control by condition. Those in the no-control condition ($M = 20.43$, $SD = 22.27$) had significantly lower perceptions of control than those in control condition ($M = 51.94$, $SD = 26.18$; $t(569) = -15.49$, $p < .001$). There was also a significant difference in specific expectancy for the no-control condition ($M = 41.39$, $SD = 22.00$) and the control condition ($M = 56.45$, $SD = 22.40$; $t(569) = -8.10$, $p < .001$), with those in the control condition indicating that they were more confident in making it to the interview on time.

A second series of independent samples t-tests were performed to ensure that the manipulation of outcome (i.e., success or failure condition) impacted subsequent affect. There was a significant difference in participant's state affect by outcome condition. Those in the success condition reported experiencing significantly greater positive affect ($M = 34.87$, $SD = .54$) than those in the failure condition ($M = 22.19$, $SD = .52$; $t(569) = -16.83$, $p < .001$). Also,

those in the success condition reported experiencing significantly less negative affect ($M = 17.37$, $SD = .47$) than those in the failure condition ($M = 27.44$, $SD = .60$; $t(569) = 12.86$, $p < .001$). Thus, the manipulation of outcome significantly influenced subsequent affect in the directions that we hypothesized.

Aim 1

Post hoc Monte Carlo simulation models examined in Mplus revealed that all relationships examined for analyses in Aim 1 were adequately powered at .94. Multiple group MVPA was conducted to examine the differential relationships between hope, optimism, and specific expectancy in separate experimental groups (See Figure 2). In both models, hope and optimism were moderately correlated. In line with our hypothesis, MVPA indicated that hope, but not optimism, significantly predicted specific expectancy in the control condition. Also in line with our hypothesis, optimism, but not hope, significantly predicted specific expectancy in the no-control condition.

Next, we used this same model and constrained the beta weights of the regression path between hope and specific expectancy to be equal across groups. This model showed a significant difference in chi-square when compared to the model without equality constraints, indicating a significantly worse fitting model ($\Delta\chi^2 = 8.22$, $p < .001$). This suggests that the relationship between hope and specific expectancy was moderated by the perception of control.

Finally, we modified the MVPA model to constrain the beta weights of the regression path between optimism and specific expectancy to be equal across groups. Unlike the previous findings, this analysis showed that there was no significant difference in chi-square compared to the original model ($\Delta\chi^2 = 2.21$, $p = .137$). Thus, although optimism significantly predicted

specific expectancy *only* in the no control condition, the perception of control did not significantly moderate the relationship between optimism and specific expectancy.

Aim 2

Post hoc Monte Carlo simulation models examined in Mplus revealed that all relationships examined for analyses in Aim 2 were adequately powered between .93 - .94. In the success condition (See Figure 3), positive affect and negative affect were modestly correlated. Additionally, specific expectancy significantly predicted positive affect but not negative affect. Thus, more optimistic specific expectancies were associated with greater positive affect but unrelated to negative affect in the success condition.

In the failure condition, positive and negative affect were modestly correlated. More optimistic specific expectancy was significantly associated with greater positive affect but not negative affect. Thus, in the failure condition, higher expectancies of success were associated with experiencing greater positive affect but unrelated to negative affect.

To examine whether the relationships between specific expectancy and affect differed as a function of outcome group, we used the same path analysis model and constrained the beta weights of the regression path between specific expectancy and positive affect to be equal across groups. There was no significant difference in chi square between the original multiple group MVPA model and the new model with equality constraints ($\Delta\chi^2 = .37, p = .541$). Next, we constrained the beta weights of the regression path between specific expectancy and negative affect to be equal across groups. Again, we found no significant difference in chi square between the original multiple group MVPA and the new model ($\Delta\chi^2 = .41, p = .524$). Thus, goal outcome did not moderate the relationship between specific expectancy and affect. Contrary to what we

hypothesized, this suggests that higher expectancies for success were associated with more positive affect regardless of outcome.

Discussion

Recent research suggests that hope and optimism uniquely predict various outcomes. The main objectives of the current study were (1) to experimentally test whether perceived control alters the associations of hope and optimism with specific expectancies and (2) to examine whether experiencing success or failure changed the relationship between specific expectancies and affect. In line with theory (Gallagher & Lopez, 2009; Rand, 2018), we found that hope predicted specific expectancies within a controllable situation; whereas, optimism predicted specific expectancies within an uncontrollable situation. To our knowledge, this is the first study to provide experimental support for this theoretical claim. However, contrary to what has been suggested in the literature (Bettencourt & Manning, 2016; Negy, Schwartz, & Reig-Ferrer, 2009), we found that more optimistic specific expectancies were associated with greater positive affect, regardless of whether one experienced success or failure. In other words, even in the face of failure and unmet expectations, having a more positive situational outlook was associated with greater positive affect.

Our findings contribute to more precise conceptualizations of hope and optimism by depicting conditions under which they may influence the formation of specific expectancies. Hope may be more accurately conceptualized as one's perceived ability to accomplish *personally controllable* goals. In contrast, optimism may be more accurately conceptualized as an expectation that good events are likely to happen *to* someone, regardless of personal control.

The current results are consistent with theory. Rand (2018) posited that hope and optimism may diverge in terms of controllability, which may also be tied to different coping

styles. Specifically, he suggested that hope may lead to the use of particular coping strategies (e.g., problem-solving) in controllable situations; whereas, optimism may lead to the use of different coping strategies (e.g., positive reappraisal) in uncontrollable ones (Rand, 2018). This may explain why studies have found hope to be associated with active, problem-focused coping strategies and optimism to be associated with passive coping strategies (Bryant & Cvengros, 2004; Rand, 2018; Snyder et al., 1991). Indeed, hope may lead to active coping strategies that are best used in controllable situations, explaining why hope is linked to the formation of more optimistic specific expectancies in controllable situations. Alternatively, optimism may lead to passive or emotion-focused coping strategies which may be better suited to uncontrollable outcomes. This might explain why optimism is associated with the formation of more optimistic specific expectancies in uncontrollable situations. Hence, hope and optimism may contribute to self-regulation processes in different situations through different coping mechanisms.

Our findings suggest that hope and optimism differentially shape specific expectations of success depending upon the perception of control. In line with SRT (Carver & Scheier, 1998), expectations of success directly influence goal-related efforts. For example, according to SRT, if a hopeful person had higher specific expectations of success in completing a marathon, they would likely put in time and effort toward accomplishing this goal. Alternatively, if an optimistic person had a higher specific expectation of success in quickly making it through a line at an amusement park, they would be more likely to enter that line in the first place. Accordingly, the current findings suggest that hope and optimism's differential links with specific expectancy may contribute to differences in functioning and goal pursuits in controllable and uncontrollable situations.

Finally, the current findings also relate to the most frequently discussed theoretical difference between hope and optimism. In general, hope and optimism have been understood to differ in terms of where the expectations are derived (Bryant & Cvenegros, 2004). Hope is thought to be derived from beliefs about the self; whereas, optimism is thought to be derived from more generalized beliefs about the world and other factors external to the self (Rand, 2018). Our finding that hope is tied to controllable aspects is directly in line with this distinction. That is, if one has a positive expectation regarding their own abilities (i.e., hope), some element of control is required for this expectation to come to fruition. Differently, an expectation derived from beliefs about the world more broadly (i.e., optimism) may rely on perceptions about sources that do not require control (e.g., fate, karma, luck, others). Thus, the present findings support the current theoretical understanding of these concepts.

Identifying situations in which hope and optimism are most influential may aid successful goal pursuits. For instance, interventions designed to increase optimism may be most effective for promoting well-being in situations where individuals have less control over the outcome. This is would be in line with the findings of Fischer and colleagues (2018) who suggested that optimism may be more adaptive in dealing with the uncontrollable aspects advanced cancer. Thus, optimism interventions may be most helpful for health-related problems that lie largely outside of one's personal control (e.g., terminal illnesses). On the other hand, interventions that promote hopeful thinking may be better suited for situations that are personally controllable, such as academics, athletic performance, or general health behaviors.

Findings related to our second aim suggest that holding optimistic specific expectancies about future success lead to more positive affect regardless of whether or not one is successful.

In other words, holding positive specific expectancies appeared to minimize decrements in emotional well-being that arise from experiencing failure.

These findings go against several studies that have demonstrated a link between unmet intrapersonal expectations of positive outcomes and increases in stress, negative emotionality, and depressive symptoms (Bettencourt & Manning, 2016; Negy, Schwartz, & Reig-Ferrer, 2009). However, these studies examined expectancy violations regarding generalized experiences (e.g., expectations for future quality of life). Thus, it is possible that having unmet *generalized* expectations leads to increases in negative affectivity; whereas, intrapersonal expectancy violations regarding single, specific events (i.e., making it to a job interview) have less of an impact. In fact, this idea is supported by an early study by Locke (1967). In a three-part experimental study, Locke (1967) examined the impact of intrapersonal expectancy violations about success in a single task on subsequent satisfaction. He found that task-related performance was responsible for differences in post-task satisfaction. However, discrepancies in expectations of performance and actual performance had no relationship with satisfaction.² Similar to current findings, intrapersonal expectancy violations regarding success in a single task did not have an impact on feelings after the outcome. Thus, it is possible that one needs to experience intrapersonal expectancy violations repeatedly, or more generally, in order for this to have a deleterious impact on affect.

Limitations, Future Directions, and Conclusions

There are several limitations to this study worth noting. First, our manipulations were completed through a reading prompt and not a real-life scenario. Thus, these results may not

² Unfortunately, Locke (1967) did not report whether positive specific expectations of success alone were associated with higher levels of satisfaction. Thus, we cannot compare the current findings that specific expectancies predict better affect to these experiments.

generalize to real-world scenarios. Second, the present study only examined whether hope and optimism differentially predicted specific expectancy. Thus, we cannot say whether expectancy variables also differentially predict goal attainment. Finally, due to failing attention checks, a portion of the study sample was excluded from analyses. To examine the impact of this on our results, we conducted all analyses with the full sample (N=722). The pattern of results did not change nor did the interpretations of these findings. Given this, we feel confident that excluding participants based on our a priori validity standards did not unduly bias the results of this study.

Future research should examine whether the relationships between hope and optimism and successful goal pursuits are also moderated by perceived control. In addition, future studies should compare intrapersonal expectancy violations for specific (e.g., I will pass this test) and generalized expectancies (e.g., I will succeed in school), which may influence whether the impact of generalized and specific expectancy violations differentially predict affective well-being. Future studies might examine how appraisals of outcomes influence the relationships between specific expectancies and affect. For example, appraisals that one did all that one could do (e.g., “I tried my best to make it to the interview but did not get the job, so it must have been fate”) may result in optimistic expectations leading to greater positive affect regardless of success or failure.

The present study adds to the field of positive psychology by experimentally testing theoretical claims concerning differences between hope and optimism. In particular, the findings demonstrate important differences between hope and optimism in terms of their relative roles in the goal-pursuit process and resulting psychological well-being. Although hope and optimism appear similar, important differences exist. A better understanding of these distinctions should

lead to more precise interventions that could optimize motivation and increase adaptive outcomes.

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Table 1
Sample Demographics (N = 571)

Age (M, SD)	37.4,	12.6
Sex (n, %)		
Male	244,	42.7%
Female	325,	56.9%
Other	2,	0.4%
Race (n, %)		
White	394,	69.0%
Black/ African American	45,	7.9%
American Indiana or Native American	4,	0.7%
Asian/ Pacific Islander	71,	12.4%
Hispanic/Latino	46,	8.1%
Other	11,	1.9%
Education (n, %)		
No schooling completed	1	0.2%
Some high school, no diploma	5,	0.9%
High school graduate	52,	9.1%
Some college, no degree	135,	23.6%
Trade/technical/vocational training	14,	2.5%
Associate's degree	56,	9.8%
Bachelor's degree	226,	39.6%
Master's degree	71,	12.4%
Doctorate degree	11,	1.9%
Household income (n, %)		
Less than \$34,999	216,	37.8%
\$35,000 to \$74,999	198,	34.7%
\$75,000 to \$149,000	132,	23.1%
\$150,000 or more	25,	4.4%
Relationship Status (n, %)		
Single, never married	225,	39.4%
Married or domestic partnership	277,	48.5%
Widowed	8,	1.4%
Divorced	52,	9.1%
Separated	9,	1.6%

Table 2
Experimental Induction Passages

Manipulated Variable	Condition	Induction Passage
Perception of Control	Control	Imagine that you are driving in your car on the way to a very important job interview. You are driving on the road when suddenly you come to a stop. You look up and realize that you are stuck in a long traffic jam. However, you also realize that there is another route you can take. So, you are able to make the decision to take the other route or to wait out the traffic. By taking the other route, you may get to your interview on time or you may be even later than if you had waited out the traffic.
	No Control	Imagine that you are driving in your car on the way to a very important job interview. You are driving on the road when suddenly you come to a stop. You look up and realize that you are stuck in a long traffic jam. You also realize that there is no other route you can take to the interview, so you will have to wait out the traffic jam. By staying on this road, you may get to your interview on time or you may be much later than if you could have taken another route.
Outcome	Success	Fortunately, you were able to make it to your interview on time. As a result, you received a job offer.
	Failure	Unfortunately, you were not able to make it to your interview on time. As a result, you did not receive a job offer.

Table 3
Descriptive Statistics and Intercorrelations

Variable	1.	2.	3.	4.	5.
1. AHS	--				
2. LOT-R	.64**	--			
3. PA	.27**	.22**	--		
4. NA	-.11**	-.22**	-.42**	--	
5. SE	.15**	.15**	.16**	-.08	--
Mean	46.82	14.42	28.70	22.11	48.90
SD	10.06	5.60	10.99	10.27	23.43
α	.91	.89	.93	.93	---

Note. $N = 571$. AHS = Adult Hope Scale, LOT-R = Life Orientation Test- Revised, PA = Positive Affect as measured by the Positive and Negative Affect Schedule, NA = Negative Affect as measured by the Positive and Negative Affect Schedule, SE = specific expectancy
 * $p < .05$, ** $p < .01$.



Figure 1. A theoretical model of relationships between expectancies and outcomes. This model, based on findings from Rand (2009), depicts trait expectancies (e.g., hope and optimism) as predicting specific expectancies concerning a given situation. Specific expectancies then predict outcomes related to the situation (e.g., goal acquisition, affect, effort toward goal).

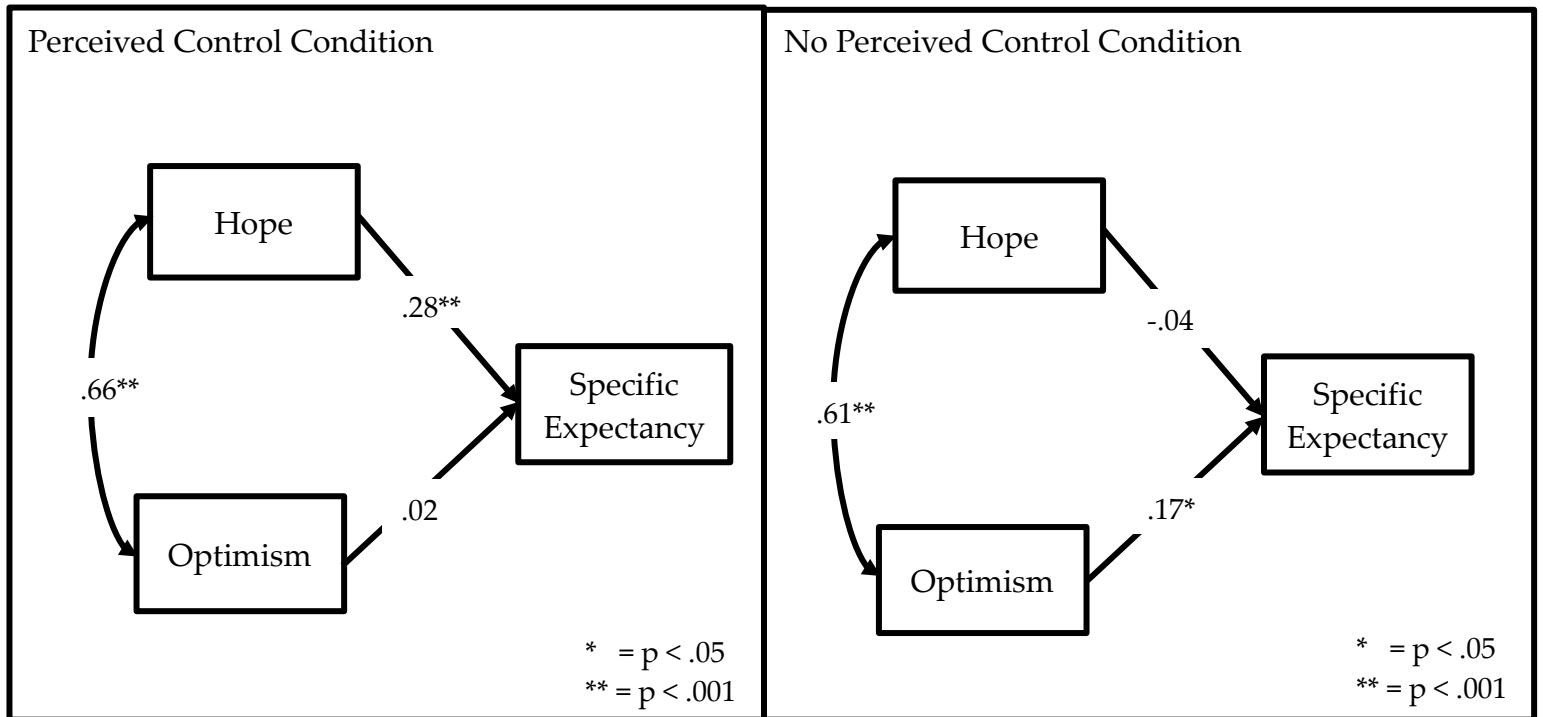


Figure 2. Results from multiple group MVPA examining the differential effect of perceived control condition on the relationships between trait expectancy (i.e., hope and optimism) and specific expectancy. Only hope significantly predicted specific expectancies in the perceived control condition. Only optimism significantly predicted specific expectancies in the no perceived control condition.

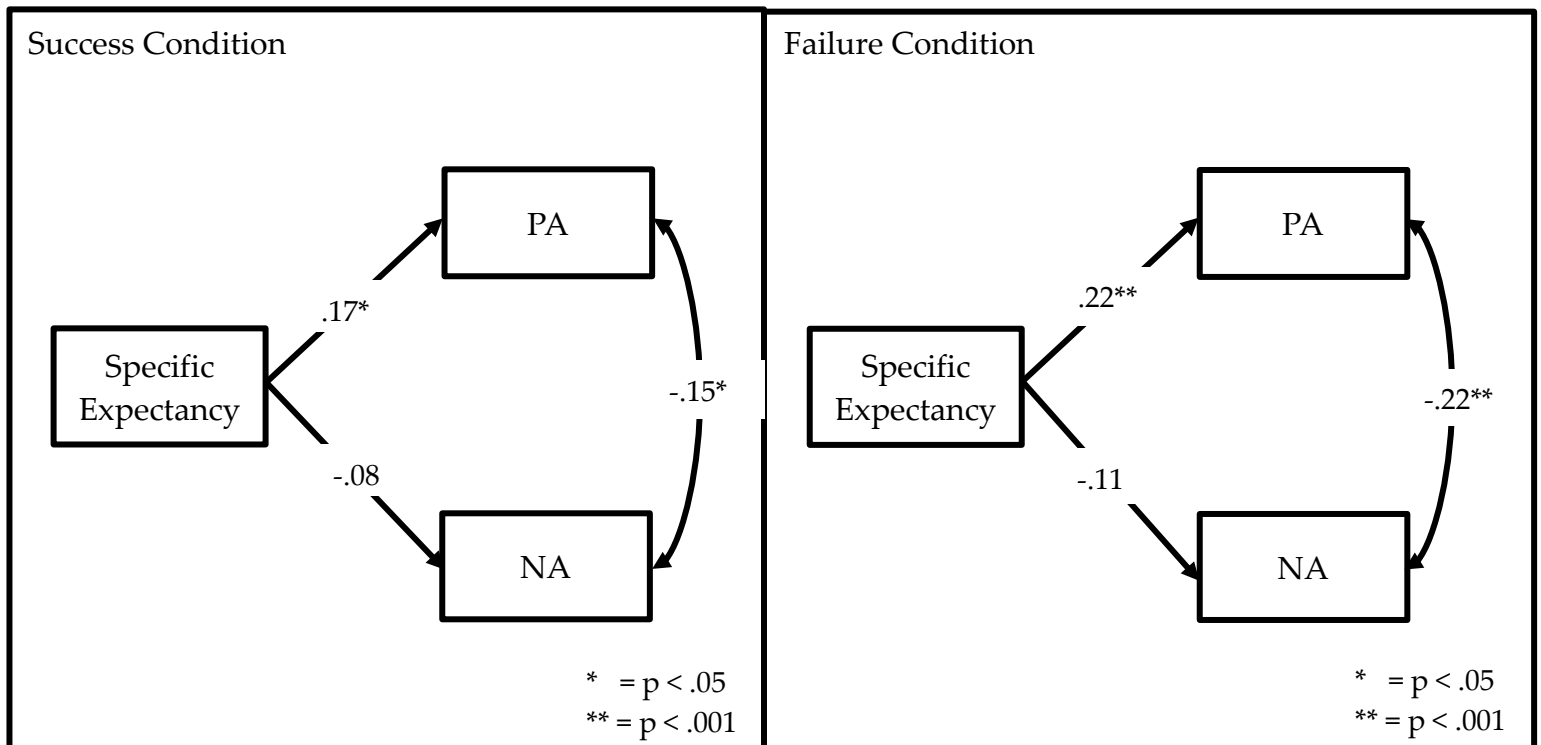


Figure 3. Results from multiple group MVPA examining the differential effect of goal outcome condition on the relationships between specific expectancy and affect. More optimistic specific expectancies predicted greater positive affect regardless of whether participants experienced situational success or failure. Specific expectancies were not associated with negative affect in the success condition but were positively related to negative affect in the failure condition.