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An Investigation of Implicit Theories of Well-Being, Optimism, and Coping Mechanism Selection

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Abstract

Folkman and Lazarus (1991) argue that incremental theorists have more faith in their ability to alter situations and would be more likely to select active coping strategies (Hong et al., 1999). An optimistic worldview may also have important implications for the way people choose to cope (Aspinwall & Taylor, 1992). Using the MTurk online platform, the present study investigated the relationship between implicit personality theories (IPT), optimism, and coping mechanism selection. As hypothesized, incremental beliefs were associated with more optimism. However, they were also associated with a greater likelihood of using self-blame, which is typically conceptualized as a passive coping strategy (Carver et al., 1989). These findings suggest the need for the continued investigation of self-blame as a potential precursor to active coping strategies.

An Investigation of Implicit Theories of Well-Being, Optimism, and Coping Mechanism

Selection

Introduction

Implicit theories posit that personal attributes, for example one's intelligence, are either malleable and therefore can be changed (incremental theory) or fixed and therefore cannot be changed (entity theory) (Dweck, Chiu, & Hong, 1995). Dweck et al. contend that people adopt these implicit theories in order to provide a framework for "analyzing and interpreting" the actions of those around them (p. 267). Thus, these beliefs influence the way people form judgments and process information about the self (intrapersonally) and others (interpersonally); Weiner, 2000).

An individual's belief in her ability to change as influenced by her implicit personality theory could influence the coping mechanisms she selects (Hong, Chiu, Dweck, Lin & Wan, 1999). When faced with a stressful situation an individual can choose to use either active coping mechanisms in which the stressor is confronted and solved or passive coping mechanisms in which the stressor is avoided (Carver, Scheier, & Weintraub, 1989; Folkman & Lazarus, 1980). The selection of coping mechanisms can also be influenced by an optimistic disposition, or one's tendency to look at and expect favorable outcomes (Stanton & Snider, 1993). Stanton and Snider's (1993) research has shown that individuals who are more optimistic tend to use more active rather than passive coping mechanisms. In this study, we investigate the connections between implicit personality theories of well-being, optimistic dispositions, and their influence on the selection of coping mechanisms.

Implicit Theories

Implicit personality theories (IPT) can have considerable impact on the way individuals process information and make judgments about themselves and others. For example, research has

shown that implicit theories influence how one perceives failure (an intrapersonal perception), how well one adjusts during major life transitions, and how one perceives interpersonal experiences.

For example, when an individual experiences failure, they can attribute the failure to a lack of effort, a lack of ability, or another source. A 1999 study conducted by Hong et al. hypothesized that implicit theories would be correlated with effort and ability attributions. After receiving false negative feedback on a task that purportedly measured intelligence, participants were asked to fill out a survey that measured their attributions regarding their failure on the task. It was found that incremental theorists were more likely than entity theorists to attribute their failure to effort - a malleable characteristic.

The implicit theory of emotion that an individual endorses (that is, whether one feels emotions are fixed or malleable) has been correlated with how well an individual copes with major life transitions. Tamir, John, Srivastava, and Gross (2007) investigated the relationship between implicit theories of emotion and how well first year students adjust to college. These researchers measured how often participants self-reported the experience of positive emotions (happiness and interest) and negative emotions (anger, anxiety, and sadness). It was found that entity theorists engaged in less cognitive reappraisal to control their emotions and experienced fewer positive and more negative emotions than did incremental theorists. As a result, the authors concluded that individuals who endorse an entity theory were considered to have a poorer adjustment (Tamir et al., 2007). The results from this study suggest that the implicit theory of emotion a person endorses can influence a person's emotional outcomes during stressful life events.

In addition to influencing one's intrapersonal perceptions, the implicit theory an individual holds can also impact the way one understands and judges others. Chiu, Hong, and

Dweck (1997) hypothesized that those who subscribe to an entity theory would be more likely than incremental theorists to use "traits or trait relevant information" to make predictions about another's behavior (p.19). The findings from this study suggest that entity theorists used trait information to form judgments and understand the actions of those around them whereas incremental theorists did not. Entity theorists were also more likely than incremental theorists to believe that they could confidently predict a person's behavior based on information given about their traits. Finally, entity theorists were more confident than incremental theorists when making inferences regarding a person's traits based on their behavior (Chiu et al., 1997). Research indicates that entity and incremental theorists differ both in the type of information used to make judgments and in the conviction they have regarding the accuracy of their judgments regarding others. Together, these studies highlight the wide range of influence implicit personality theories have on their subscribers, as well as the implications these theories have for the ways people process information and make judgments about the self and others.

Domain specificity. It is important to note that implicit theories have the caveat of being domain specific. A domain is conceptualized as an attribute a person has (e.g., well-being, intelligence, or creativity; Howell, Passmore, & Holder, 2016; Sternberg, 1985). In 1995, Dweck et al. discovered that although the wording of different domain specific implicit theory scales were similar, statistically the scales were unique from one another. This finding suggests that implicit theories are domain specific and are not linked to one another; that is, if a person holds an entity theory in one domain they do not necessarily hold an entity theory in other domains.

Coping Mechanisms

Implicit personality theories have been shown to have a profound impact on an individual's thoughts and behavior, and could potentially influence the way an individual copes with negative life events. Coping mechanisms are defined as the cognitive and behavioral efforts

an individual makes when faced with a stressor (Folkman & Lazarus, 1991). Folkman and Lazarus (1980) suggest that there are two general categories in which the various types of coping can fall: problem focused (or active; Noh & Kaspar, 2003) coping and emotion focused (or passive; Noh & Kaspar, 2003) coping.

Passive coping mechanisms. Passive coping mechanisms serve the function of mitigating negative emotions through a change in attention or change in the significance of the situation (Folkman & Lazarus, 1991). Passive coping mechanisms are most often used when individuals believe they are unable to change the stressful situation, and instead view the stressor as something that must simply be weathered (Folkman & Lazarus, 1980). For example, self-blame, behavioral disengagement, and distraction are categorized as passive coping mechanisms (Carver, Scheier, & Weintraub, 1989). Self-blame is defined as a coping strategy in which one feels guilty and blames themselves for the stressor's occurrence (McCrae & Costa, 1986). One example of self-blame is when children blame themselves for their parents' divorce. Behavioral disengagement is defined by Carver et al. (1989) as a strategy in which a person decreases any efforts to manage the problem. A person who is attempting to quit smoking could behaviorally disengage by no longer attempting to reduce the number of cigarettes they smoke. Finally, self-distraction is understood to be coping by engaging in other activities to take one's mind off of the situation (Carver, 1997). An example of self-distraction would be going shopping instead of studying for an important exam. These coping mechanisms are considered to be passive because they are employed with the purpose of mitigating negative emotions and avoiding the stressor (Carver et al., 1989).

Active coping mechanisms. In contrast to passive coping mechanisms, active coping mechanisms focus on confronting the stressor and changing the negative situation (Folkman & Lazarus, 1980). Active coping mechanisms are typically selected when a person believes they

can change the stressful situation through their actions (Folkman & Lazarus, 1980). One such active coping mechanism is planning (Carver et al., 1989). According to Carver et al. (1989) planning is defined as coping by devising strategies to handle the stressor, deciding what steps to take, and thinking about how to most effectively handle a stressor. For example, one could set several smaller and more manageable goals that would lead to the achievement of a larger, more daunting goal in order to cope (via planning) with the stress of achieving the larger goal.

Implicit Personality Theory Influence on Coping Mechanism Selection

Dweck et al. (1995) argue that incremental theorists have more faith in their ability to alter stressful situations through the use of coping mechanisms. In 1999, Hong et al. measured the influence of implicit theories of intelligence on effort versus ability attributions, and how those attributions would in turn affect coping. The findings from this research indicated that incremental theorists were more likely to take action when faced with a stressful situation (Hong et al., 1999). As a result of their likelihood to expend effort to address a stressor, Hong et al. (1999) suggest that incremental theorists are more likely to engage in active coping mechanisms. In contrast, entity theorists do not believe they can change a troublesome occurrence and are more likely to respond through the selection of passive coping techniques, such as disengagement (Dweck et al., 1995).

Research conducted by Doron, Stephan, Boiché, and LeScanff (2009) investigated how student's implicit theories would impact the coping mechanisms they used to mitigate the stress of exams. It was found that planning, active coping, and venting of emotions were all positively correlated with an incremental belief of one's ability. Additionally, behavioral disengagement was found to be positively correlated with an entity belief of one's ability (Doron et al., 2009). Together, these arguments strongly suggest that implicit personality theories (IPT) influence the selection of one's coping mechanisms.

Optimism

Optimism and pessimism are thought of as generalized expectancies, which can also have important implications for the way an individual copes with stress (Scheier & Carver, 1992). To investigate the relationship between optimism and the effects of traumatic stress, Dougall, Hyman, Hayward, McFeeley, and Baum (2001) studied recovery and rescue workers who were present at the site of the US Air Flight 427 crash. Participants were studied 2, 6, 9, and 12 months after the crash. It was found that those who were more optimistic used less avoidant mechanisms to cope and had less self-reported distress. Optimism was also found to be positively correlated with the use of problem-focused (or active) coping styles. Similarly, in 2002 Fournier, de Ridder, and Bensing investigated the contribution of optimism to coping with chronic illness. More positive and optimistic self-efficacy beliefs were positively correlated with task-oriented coping. Together, these studies provide evidence that optimism is related to an individual's coping style.

Hypothesis

Although there is an abundance of research on implicit theories, optimism, and coping mechanism selection as separate factors, there is little research on the relationship between these factors. Thus, this study specifically investigated the relationship between implicit personality theories, optimism, and coping mechanism selection. It was hypothesized that people who hold incremental beliefs would be more likely to be optimistic and select active coping mechanisms (e.g., planning). On the other hand, those with an entity perspective were expected to be more pessimistic and to use passive coping mechanisms (e.g., behavioral disengagement).

Methods

Participants

The sample consisted of 68 individuals (38 females and 30 males). The participants ranged in age from 23-67 ($M = 40.82$, $SD = 12.55$). The sample was comprised mostly of those who were Non-Hispanic White and married (Table 1).

Materials

A 15-minute survey was created on Qualtrics and hosted by the Amazon Mechanical Turk (MTurk) online platform. The survey included a measure of implicit theories of well-being (Howell, Passmore, & Holder, 2016), subscales from the Brief COPE (Carver, 1997), and the LOT-R (Scheier et al., 1994).

Implicit theories of well-being scale. The Implicit Theories of Well-Being Scale was derived from a 1999 scale created by Dweck to measure implicit theories of ability. In order to measure implicit theories of well-being, the items on the scale were altered by Howell et al. (2016) to refer to well-being instead of ability. The scale consists of four items to measure entity beliefs and four items to measure incremental beliefs (Howell et al., 2016). Items on this scale include statements such as "To be honest, you can't really change your level of well-being" and "You can change even your basic well-being considerably." Responses were recorded via a Likert-type scale ranging from "strongly agree" (1) to "strongly disagree" (5), with incremental and entity personality theory subscales scores ranging from 4-20. The scale used in this study has been shown to have a moderate level of reliability (8 items; $\alpha=0.83$; Howell et al., 2016).

Brief COPE. The COPE inventory was designed by Carver et al. in 1989 to assess the different ways individuals cope with stressors. In 1997, Carver developed a shortened version of this measure, the Brief COPE, which was used in the present study. The Brief COPE consists of 14 subscales, with each subscale composed of two items. The subscales that were used in this

study were self-blame (2 items; $\alpha = 0.69$), planning (2 items; $\alpha = 0.73$), active coping (2 items; $\alpha = 0.90$), positive reframing (2 items; $\alpha = 0.79$), behavioral disengagement (2 items; $\alpha = 0.65$), and self-distraction (2 items; $\alpha = 0.71$) (Carver, 1997). Items from these subscales consisted of statements including "I think hard about what steps to take" (planning), "I turn to work or other activities to take my mind off things" (self-distraction), "I take action to try to make the situation better" (active coping), "I look for something good in what is happening" (positive reframing), "I give up the attempt to cope" (behavioral disengagement), and "I criticize myself" (self-blame). Responses to the items were recorded via a Likert-type scale ranging from "I usually don't do this at all" (0) to "I usually do this a lot" (3) (Carver, 1997).

Revised Life Orientation Test (LOT-R). The Life Orientation Test (LOT) was devised in 1985 by Scheier and Carver to assess dispositional optimism. The Revised Life Orientation Test (or LOT-R; Scheier, Carver, & Bridges 1994) consists of three statements reflecting an optimistic perspective, three statements reflecting a pessimistic perspective, and four filler items. Items on this measure that reflect an optimistic perspective include statements such as "In uncertain times, I usually expect the best." Items which reflect a pessimistic perspective include "I hardly ever expect things to go my way." Responses to the items were recorded via a Likert-type scale ranging from "I agree a lot" (1) to "I disagree a lot" (4) (Carver et al., 2005). A higher score on this measure indicates a greater level of optimism. This six item scale has been shown to have a moderate level of reliability ($\alpha = 0.78$; Scheier et al., 1994).

Trap questions. The use of online platforms for survey data collection has increased dramatically. However, some researchers have expressed significant concern about the bias inherent to web-based surveys and the resultant quality of the data that is collected on these platforms (Chen, 2011; Rouse, 2015; Eysenbach, 2004). As a result, several researchers have suggested protocols for collecting high quality data (Eysenbach, 2004). For example, *The*

Journal for Medical Internet Research uses the CHERRIES checklist guidelines to improve the quality of web-based surveys, and requires the reporting of efforts made in this regard studies (Eysenbach, 2004). The CHERRIES checklist suggests that features such as completion rate and whether duplicate entries were controlled for should be reported for the appropriate evaluation of online studies. In addition to journals attempting to improve the scientific rigor of the studies they publish, the online platforms are following suit. Amazon, who is responsible for the MTurk platform, has also created a “best practice” document for how to do online research (Amazon Mechanical Turk, 2011). This document contends that surveys should be designed to enhance the accuracy of participant results, and survey-takers who submit unacceptable work should be blocked. In addition to recommendations to consider attention checks (particular responses are required or the survey does not continue), and alerts in survey design (using honesty affirmation statements to increase conscientiousness), trap questions have emerged as one way to measure whether the sample has been conscientious (DePalma, Rizzotti, & Branneman, 2017). These questions are simple and factual in nature and can be judged against a standard correct answer. Ultimately, what these entities agree on is that there must be some kind of a quality check applied to online research and that we are obligated to apply the same kind of rigor to online data collection as we would any other scientific study.

To abide by these "best practice" recommendations, trap questions were included in the present survey to identify participants who were not reading the items carefully as well as those who were using automated survey completion methods. First, participants were asked to record the current date from a drop down menu that listed the months in word for (e.g., March instead of 03). This word format prevented confusion as a result of the use of a United States or European standard (mm/dd/yyyy or dd/mm/yyyy). The date participants recorded was then compared to the date recorded by the survey platform. In addition, responses to questions such as

"have you ever had gestational diabetes?", "have you ever had a prostate exam?", and "have you ever been pregnant?" were cross-referenced with the participant's biological sex. Responses to these questions were only marked as failures if a female participant had stated she had received a prostate exam or if a male participant indicated that he had previously had gestational diabetes or had been pregnant. Female participants indicating they had not been pregnant or had gestational diabetes before and male participants who indicated they had not had a prostate exam were not considered "trap failures."

Procedure

Upon approval from the Institutional Review Board, the survey was hosted on Amazon MTurk. The survey began with demographic questions regarding the participant's age, sex, race, highest level of education completed, and marital status. Participants were presented with the LOT-R (Scheier et al., 1994), the implicit theories of well-being questionnaire (Howell et al., 2016), and selected subscales from the Brief COPE (e.g., planning, positive reframing, active coping, distraction, behavioral disengagement, and self-blame; Carver, 1997). Finally, throughout the survey participants completed a variety of trap questions.

Upon completion of the survey, participants were thanked for their participation, informed of the study's purpose, and asked to complete a captcha before being given a unique ID that they would then insert on MTurk to be compensated \$0.50 US for their participation.

Results

Participants

Based on an a priori decision, data collected from participants who did not complete the survey in its entirety ($n=12$) and participants who failed one or more trap questions ($n=18$) were excluded from data analysis. Four participants who failed one or more trap questions also failed

to complete the survey. As a result, data were analyzed from 68 of the original 94 participants¹.

Entity and Incremental Beliefs

Confirmatory factor analysis. Principal Components Analyses (PCA) with Varimax rotation was then used to investigate the structure underlying the implicit theories of well-being scale used in this study. This analysis revealed a two-factor structure with Eigenvalues greater than one. A subsequent examination found that each of the 8 items loaded on their expected entity or incremental factors. Factor 1 represented the incremental beliefs, and accounted for 44.44% of the variance. Factor 2 effectively comprised the entity items, accounting for an additional 40.94% of the variance. Reliability was high for the four entity items ($\alpha=0.93$) as well as for the four incremental items ($\alpha= 0.94$). Furthermore, a significant but moderate negative correlation was found between entity and incremental beliefs ($r(66) = -0.62, p < 0.001$). These findings suggest implicit theories are best understood through the lens of a two-factor structure.

Implicit Personality Descriptive Statistics

Each participant's entity belief score was calculated by totaling responses from the entity questions on the implicit theories of well-being scale. Responses from the incremental questions on the scale were totaled to create a corresponding incremental belief score. Each IPT (entity or incremental) score could range from 4 to 20. Entity scores ranged from 4-20 ($M = 8.96, SD = 3.63$). Incremental scores ranged from 6-20 ($M = 15.75, SD = 3.47$).

¹ The inclusion of these participants would not alter our conclusions; that is, no significant effects disappeared. One significant effect emerged, such that entity theorists were less likely to engage in self-blame ($r(85) = -.23, p = 0.03$). These findings are consistent with our conclusions. One could argue that because the results did not change substantially, the exclusion of participants is not necessary. However, we have a strong commitment to the current trend for deriving conclusions from online data that has met the most basic quality threshold for rigor.

Implicit Theories and Optimism

A high level of reliability was found within the LOT-R (6 items; $\alpha = 0.94$). As hypothesized, an incremental theory of well-being was found to be positively correlated with optimism ($r(65) = 0.28, p = .02$; see Table 2). Additionally, an entity theory of well-being was negatively correlated with optimism ($r(65) = -.31, p = .01$).

Implicit Theories and Coping Mechanism Selection

Reliability analysis showed a considerable amount of reliability within the select subscales from the Brief COPE: self-blame (2 items; $\alpha = 0.86$), self-distraction (2 items; $\alpha = 0.88$), behavioral disengagement (2 items; $\alpha = 0.86$), positive reframing (2 items; $\alpha = 0.79$), active coping (2 items; $\alpha = 0.90$), and planning (2 items; $\alpha = 0.95$). As anticipated, it was found that entity beliefs were positively correlated with the use of self-distraction and behavioral disengagement.

However, it was found that incremental beliefs were positively correlated with the use of self-blame. Self-blame was also found to be positively and significantly correlated with selection of the active coping mechanisms of planning, active coping, and positive reframing (see Table 2).

An exploratory analysis of coping strategies was conducted that included only those individuals with the most extreme entity and incremental scores. In this analysis, entity ($n = 21$) and incremental theorists ($n = 21$) did not differ with respect to their selection of the more active coping strategies [$F(3, 37) = .82, p = .49$]: positive reframing (entity $M = 4.20$, incremental $M = 4.14$), active coping (entity $M = 3.80$, incremental $M = 4.33$), and planning (entity $M = 2.95$, incremental $M = 3.90$).

However, the degree to which entity and incremental theorists reported engagement in the more passive coping strategies was marginally significant [$F(3, 38) = 2.34, p = .09$]: self-distraction (entity $M = 1.54$, incremental $M = 0.95$) and behavioral disengagement (entity $M = 1.29$,

incremental $M=.57$). This was particularly interesting in terms of the selection of self-blame as a coping strategy (entity $M=3.81$, incremental $M=4.76$).

Optimism and Coping Mechanism Selection

As expected, individuals who were more optimistic were more likely to engage in planning to cope with stressors (see Table 2). Additionally, optimism was found to be negatively related to the use of self-distraction to cope. There was no correlation between optimism and behavioral disengagement ($r(65) = -.06, p=.66$). Notably, optimism was positively correlated with the selection of self-blame ($r(65) = .40, p<.001$).

Discussion

Implicit Theories and Optimism

As anticipated, incremental beliefs were positively correlated with optimism. Incremental theorists could be more likely to hold an optimistic view because they may view setbacks as opportunities to develop their skills and change themselves for the better. Thus, incremental theorists would potentially be able to still find positive outcomes within negative events and view negative situations in a more positive light. Additionally, as expected, entity beliefs were found to be negatively correlated with optimism. This finding could be a result of entity theorists' inability to view setbacks as events that provide opportunity for change and growth. Implicit personality theories and optimism are two worldviews that seem to map onto some similar behavioral tendencies. However, due to only modest correlations, these are certainly not identical constructs.

Given the correlational nature of this survey, it is impossible to say whether implicit personality theories are causally related to optimistic views or if optimism makes incremental beliefs more likely. Nonetheless, there is some evidence to suggest that implicit theories can be experimentally manipulated through the use of fictitious readings (Chiu et al., 1997). Future

research is being developed to investigate a possible causal relationship between implicit personality theories and dispositional optimism.

Optimism and Coping Mechanism Selection

As hypothesized, optimism and the selection of planning were positively correlated. This relationship could stem from a confidence in the likelihood of a positive future outcome as a result of developing a plan. Support was also found for the hypothesized relationship between pessimism coping via self-distraction. Perhaps given the belief that life will turn out badly, a distraction would seem like a better alternative than trying to change the current situation. However, no support was found for the correlation between pessimism and likelihood of selecting behavioral disengagement as a coping strategy.

Implicit Theories and Coping Mechanism Selection

Research posits that incremental theorists would tend to use more active coping mechanisms, while entity theorists would tend to use more passive coping mechanisms (Dweck et al., 1995). However, the present results indicated that both entity and incremental theorists were equally likely to use active coping strategies. Thus, a global statement that entity theorists will not use active coping mechanisms was not supported by the present data. Instead, subjects as a whole tended to be likely to endorse active strategies. It was in the choice of passive coping mechanisms where we saw the differences between entity and incremental theorists begin to emerge. Those who endorse entity beliefs were more likely to avoid stressors through the use of behavioral disengagement and distraction than were incremental theorists.

Recall that self-blame has been traditionally considered to be a passive coping mechanism (Carver et. al, 1989). As a result, research suggests that incremental theorists would be less likely to use self-blame. Surprisingly, the incremental theorists who participated in this study were found to be significantly more likely to engage in self-blame. Consistent with this

finding, some previous studies suggest a potentially adaptive aspect of self-blame. Janoff-Bulman (1992) posits that self-blame can be adaptive. Blaming oneself for the occurrence of a stressor allows the individual to reconcile the fact that a seemingly random injustice occurred in their life with their belief in a just world. Self-blame allows the individual to derive a reason for the injustice happening to them, that reason being interpreted as either a direct result of the person's behavior or character, which provides an explanation for why the injustice occurred. Janoff-Bulman contends that this is particularly the case when it is behavioral self-blame (when one blames a behavior they have engaged in that they are able to modify) rather than characterological self-blame (blame placed on a stable personality trait). A 1977 study conducted by Bulman and Wortman found an association between self-blame in accident victims and positive adaptational outcomes throughout the months following the accident. That is, accident victims who coped via self-blame were better able to adapt to the outcome of their accident. This relationship was hypothesized to exist as a result of the belief that one has personal control over the outcomes of their life. It is important to note that the term "self-blame" fails to distinguish between characterological and behavioral self-blame. The loss of this measureable distinction could have important implications in terms of the clarity regarding the adaptivity of coping through the use of self-blame (Janoff-Bulman, 1979).

Given that self-blame involves self-criticism, it is certainly plausible that self-blame could be the first step in taking responsibility for change and adopting an active coping strategy. This interpretation is consistent with the work of Glinder and Compas (1999) who suggest a temporal aspect to engaging in self-blame; that is, these authors contend that self-blame could potentially be adaptive at some points in the coping process, and maladaptive at others. Future studies in this area could investigate the temporal nature of self-blame as a coping strategy,

specifically how long an individual typically engages in self-blame before transitioning to a more active coping strategy - if one moves to an active coping strategy at all.

It is also important to highlight that this is not an isolated finding in the present context. Self-blame was found to be correlated positively with the active coping mechanisms of planning, positive reframing, and active coping, suggesting that there is a relationship between the use of self-blame and the pervasive selection of more active coping strategies. The present study highlights the importance of continuing investigation of whether self-blame should be conceptualized as an active or passive coping strategy and whether self-blame is a precursor to the adoption of an active coping mechanism.

Limitations

These data are subject to the weaknesses inherent in any design that relies on self-report; however, explicit measures were taken to improve the rigor associated with this method by identifying participants who were not conscientious in completing the survey. Another limitation of this study is a lack of participant diversity. Nearly 87% of participants in this study reported that they were Non-Hispanic White compared to the US national statistics of 77.1%. However, this sample was similar in composition to those recruited in other online studies (DePalma et al., 2017; Berinsky, Huber, & Lenz, 2012).

Future Research

Rather than considering self-blame a passive coping strategy, future research could examine the classification of self-blame as a precursor to adopting an active coping strategy. In addition, given the present data, it is possible that implicit personality theories are causally related to optimistic views; alternatively, it could be that optimism makes incremental beliefs more likely. The nature of the causal relationship between implicit personality theories and optimism is another area of research worthy of exploration.

Summary

Despite the limitations, some interesting findings emerged regarding the relationship between implicit personality theories and generalized expectancies, and the coping strategy of self-blame – findings that have not been reported in other research. Incremental theorists and optimists were more likely to report the use of self-blame. Interestingly, the use of self-blame as a coping strategy was correlated with the use of other active, but not passive, coping strategies. Thus, this study identified a unique relationship between IPT and the selection of coping mechanisms. Additionally, results from this study indicate that self-blame may be an active strategy, or potentially a precursor to an active strategy. The implications of this correlational study could be applied to the practice of health care professionals working with patients diagnosed with chronic disease, such as diabetes. Does an individual believe that they are capable of managing their health setback, or is it something that is unmalleable that they cannot change (recognizing that their beliefs may be different than the reality of whether their behavior can actually be changed)? Are their expectations consistent with the reality of their situation? Health care professionals can then determine whether a patient endorses an incremental or an entity theory and can design an appropriate intervention to aid the patient in selecting more productive coping mechanisms. Implicit personality theory based programs could be created to better educate and help people manage their self-care of chronic diseases.

References

- Amazon Mechanical Turk. (2011). Requestor Best Practices Guide. Retrieved from https://mturkpublic.s3.amazonaws.com/docs/MTURK_BP.pdf
- Aspinwall, L. G., & Taylor, S. E. (1992). Modeling cognitive adaptation: A longitudinal investigation of the impact of individual differences and coping on college adjustment and performance. *Journal of Personality and Social Psychology*, 63(6), 989-1003. <http://dx.doi.org/10.1037/0022-3514.63.6.989>
- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis*, 20(3), 351-368. <http://dx.doi.org/10.1093/pan/mpr057>
- Bulman, R. J., & Wortman, C. B. (1977). Attributions of blame and coping in the "real world": Severe accident victims react to their lot. *Journal of Personality and Social Psychology*, 35(5), 351-363. <http://dx.doi.org/10.1037/0022-3514.35.5.351>
- Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine*, 4(1), 92-100. http://dx.doi.org/10.1207/s15327558ijbm0401_6
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267-283. <http://dx.doi.org/10.1037/0022-3514.56.2.267>
- Carver, C. S., Smith, R. G., Antoni, M. H., Petronis, V. M., Weiss, S., & Derhagopian, R. P. (2005). Optimistic personality and psychosocial well-being during treatment predict psychosocial well-being among long-term survivors of breast cancer. *Health Psychology*, 24(5), 508. <http://dx.doi.org/10.1037/0278-6133.24.5.508>

- Chen, P. S. D. (2011). Finding quality responses: The problem of low-quality survey responses and its impact on accountability measures. *Research in Higher Education, 52*(7), 659-674. <https://doi.org/10.1007/s11162-011-9217-4>
- Chiu, C. Y., Hong, Y. Y., & Dweck, C. S. (1997). Lay dispositionism and implicit theories of personality. *Journal of Personality and Social Psychology, 73*(1), 19.
<http://dx.doi.org/10.1037/0022-3514.73.1.19>
- DePalma M.T., Rizzotti M.C., Branneman M. (2017). Assessing diabetes-relevant data provided by undergraduate and crowdsourced web-based survey participants for honesty and accuracy. *JMIR Diabetes 2017, 2*(2):e11 URL:<http://diabetes.jmir.org/2017/2/e11>
<http://dx.doi.org/10.2196/diabetes.7473>
- Doron, J., Stephan, Y., Boiché, J., & Scanff, C. L. (2009). Coping with examinations: Exploring relationships between students' coping strategies, implicit theories of ability, and perceived control. *British Journal of Educational Psychology, 79*(3), 515-528.
<http://dx.doi.org/10.1348/978185409X402580>
- Dougall, A. L., Hyman, K. B., Hayward, M. C., McFeeley, S., & Baum, A. (2001). Optimism and traumatic stress: The importance of social support and coping. *Journal of Applied Social Psychology, 31*(2), 223-245. DOI: 10.1111/j.1559-1816.2001.tb00195.x
- Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Pennsylvania:Psychology Press
- Dweck, C. S., Chiu, C. Y., & Hong, Y. Y. (1995). Implicit theories and their role in judgments and reactions: A word from two perspectives. *Psychological Inquiry, 6*(4), 267-285.
http://dx.doi.org/10.1207/s15327965pli0604_1

- Eysenbach, G. (2004). Improving the quality of web surveys: the checklist for reporting results of internet E-surveys (CHERRIES). *Journal of Medical Internet Research*, 6(3).
<http://doi.org/10.2196/jmir.6.3.e34>
- Folkman, S., & Lazarus, R.S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, 219-239.
<http://dx.doi.org/10.2307/2136617>
- Folkman, S., & Lazarus, R. S. (1991). Coping and emotion. In A. Monat & R. S. Lazarus (Eds.), *Stress and coping: An anthology* (3rd ed., pp. 207-227). New York: Columbia University Press.
- Fournier, M., de Ridder, D., & Bensing, J. (2002). How optimism contributes to the adaptation of chronic illness. A prospective study into the enduring effects of optimism on adaptation moderated by the controllability of chronic illness. *Personality and Individual Differences*, 33(7), 1163-1183. [https://doi.org/10.1016/S0191-8869\(02\)00006-5](https://doi.org/10.1016/S0191-8869(02)00006-5)
- Glinder, J. G., & Compas, B. E. (1999). Self-blame attributions in women with newly diagnosed breast cancer: A prospective study of psychological adjustment. *Health Psychology*, 18(5), 475-481. <http://dx.doi.org/10.1037/0278-6133.18.5.475>
- Hong, Y. Y., Chiu, C. Y., Dweck, C. S., Lin, D. M. S., & Wan, W. (1999). Implicit theories, attributions, and coping: A meaning system approach. *Journal of Personality and Social Psychology*, 77(3), 588. <http://dx.doi.org/10.1037/0022-3514.77.3.588>
- Howell, A. J., Passmore, H. A., & Holder, M. D. (2016). Implicit theories of well-being predict well-being and the endorsement of therapeutic lifestyle changes. *Journal of Happiness Studies*, 17(6), 2347-2363. <https://doi.org/10.1007/s10902-015-9697-6>
- Janoff-Bulman, R. (1979). Characterological versus behavioral self-blame: Inquiries into depression and rape. *Journal of Personality and Social Psychology*, 37(10), 1798-1809.

<http://dx.doi.org/10.1037/0022-3514.37.10.1798>

Janoff-Bulman, R. (1992). Shattered assumptions: Towards a new psychology of trauma. New

York: Free Press. <https://doi.org/10.1080/00029157.1994.10403078>

McCrae, R. R., & Costa, P. T. (1986). Personality, coping, and coping effectiveness in an adult sample. *Journal of Personality*, *54*(2), 385-404. [http://dx.doi.org/10.1111/j.1467-](http://dx.doi.org/10.1111/j.1467-6494.1986.tb00401.x)

[6494.1986.tb00401.x](http://dx.doi.org/10.1111/j.1467-6494.1986.tb00401.x)

Noh, S., & Kaspar, V. (2003). Perceived discrimination and depression: Moderating effects of coping, acculturation, and ethnic support. *American journal of public health*, *93*(2), 232-

238. <http://dx.doi.org/10.2105/AJPH.93.2.232>

Rouse, S. V. (2015). A reliability analysis of Mechanical Turk data. *Computers in Human*

Behavior, *43*, 304-307. <https://doi.org/10.1016/j.chb.2014.11.004>

Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, *4*(3), 219-247.

<http://dx.doi.org/10.1037/0278-6133.4.3.219>

Scheier, M. F., & Carver, C. S. (1992). Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update. *Cognitive Therapy and*

Research, *16*(2), 201-228. <http://dx.doi.org/10.1007/BF01173489>

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life

Orientation Test. *Journal of Personality and Social Psychology*, *67*(6), 1063.

<http://dx.doi.org/10.1037/0022-3514.67.6.1063>

Stanton, A. L., & Snider, P. R. (1993). Coping with a breast cancer diagnosis: A prospective

study. *Health Psychology*, *12*(1), 16-23. <http://dx.doi.org/10.1037/0278-6133.12.1.16>

Sternberg, R. J. (1985). Implicit theories of intelligence, creativity, and wisdom. *Journal of Personality and Social Psychology*, 49(3), 607-627. <http://dx.doi.org/10.1037/0022-3514.49.3.607>

Tamir, M., John, O. P., Srivastava, S., & Gross, J. J. (2007). Implicit theories of emotion: Affective and social outcomes across a major life transition. *Journal of Personality and Social Psychology*, 92(4), 731. <http://dx.doi.org/10.1037/0022-3514.92.4.731>

Weiner, B. (2000). Intrapersonal and interpersonal theories of motivation from an attributional perspective. *Educational Psychology Review*, 12(1), 1-14.
<https://doi.org/10.1023/A:1009017532121>

Appendix

Table 1: Demographic Characteristics

Characteristics	N (%)
Race	
Non-Hispanic White	57 (83.82%)
Asian American, Native Hawaiian, or Other Pacific Islander	5 (7.35%)
Non-Hispanic Black or African American	1 (1.47%)
Hispanic or Latino American	2 (2.94%)
Multiracial	2 (2.94%)
Other	1 (1.47%)
Marital Status	
Single	28 (41.18%)
Married/Partnered	32 (47.06%)
Divorced	5 (7.35%)
Separated	2 (2.94%)
Widowed	1 (1.47%)
Educational Level	
Elementary, Middle, or High School (no diploma)	2 (2.94%)
High School Diploma, GED, or Equivalent	6 (8.82%)
Some College Credit	12 (17.65%)
Associate's Degree	12 (17.65%)
Bachelor's Degree	23 (33.82%)
Master's Degree	9 (13.23%)
Professional Degree	2 (2.94%)
Doctorate	2 (2.94%)
Total	68

Table 2: Correlation Matrix

Entity	Incremental	Optimism	Planning	Behavioral Disengagement	Self-Blame	Self-Distraction	Active Coping	Positive Reframing
Entity	1							
Incremental		1						
Optimism	-.62**							
Planning	-.31*	.28*	1					
Behavioral Disengagement	-.14	.09	.67**	1				
Self-Blame	.24*	-.45**	.21	.47**	1			
Self-Distraction	-.15	.28*	.40**	.01	.47**	1		
Active Coping	.22	-.40**	-.07	.35**	-.10	.35**	1	
Positive Reframing	-.11	.12	.64**	-.06	.76**	-.11	.29*	1

N=68

**p ≤ 0.01 *p<0.05