UP Scholars Undergraduate Journal of Psychology

www.upscholars.com

Volume 1, Issue 1, 2017

The manuscript was finally accepted on June, 13 2017

Author's Note: Questions regarding this article should be addressed to Weiwen Nie, weiwennie1960@gmail.com, who is now at the Psychology Department of theVirginia Polytechnic Institute and State University --Virginia Polytechnic Institute and State University Blacksburg, VA 2406.

Positive Psychology In the Workplace: An Integrative Model of Psychological Empowerment, Psychological Capital and Explanatory Style

Weiwen Nie

Baruch College REU Program

Erin Eatough

Baruch College

Abstract

An integrative conceptual model, that linked concepts of psychological empowerment, psychological capital and explanatory style in the workplace, was hypothesized and tested in two studies. For Study 1, we conducted a survey on Amazon Mechanical Turk, for which 288 reports from full-time employees across the US were collected. For Study 2, we conducted a 6-week long longitudinal study on a master Occupational Health course, which involved 13 students who worked more than 20 hours per week. These students were surveyed on a weekly basis for the duration of the study. In line with previous research, data from both studies suggested that psychological empowerment was significantly, positively related to psychological capital. Data from Study 1 suggested an explanatory style for positive events in the workplace was significantly related to both psychological empowerment and psychological capital. Explanatory style did not moderate the relationship between psychological empowerment and psychological capital in Study 1. Data from Study 2 supported the idea that the explanatory style for negative events in the workplace moderated the relationship between psychological empowerment and psychological capital.

Keywords: Positive Psychology, Psychological Empowerment, Psychological Capital, Explanatory Style

Positive Psychology In the Workplace: An Integrative Model of Psychological Empowerment, Psychological Capital, and Explanatory Style

Positive psychology is a newly emerging trend in the study of the workplace. Three distinctive themes, namely psychological capital (PsyCap), psychological empowerment, and explanatory styles have drawn intense attention from workplace researchers. In 2014, there were more than 66 published papers on PsyCap, including the first meta-analytical review and a review of the psychometric properties of the PsyCap Questionnaire (PCQ; Newman, Ucbasaran, Zhu & Hirst, 2014). Psychological empowerment has been used as a major industrial tool to motivate workers and increase workers' performance in recent decades. In fact, research suggests that more than 70% of organizations across a variety of industries are using some form of empowerment with their employees (e.g., Lawler, Mohrman, & Benson, 2001). Explanatory style practices have also been widely applied in the workplace -- especially with employee selection processes in sales since 1986 (see Seligman & Schulman, 1986).

Most studies about PsyCap, psychological empowerment, and explanatory style focus on establishing positive correlations between these psychological states and desired outcomes, such as higher job satisfaction and higher job performance satisfaction (PsyCap: Luthans, Avolio, Avey & Norman, 2007; psychological empowerment: Ashforth & Chen, 2006; Maynard, * D'Innocenzo & Dean, 2014; Bartram, Karimi, Leggat & Stanton, 2014; Wilson, 2015). Research has also found a negative correlation between positive psychology variables and undesired outcomes, such as higher work stress and higher retention rate (Avey, Reichard, et al., 2011; Avey, Luthans, & Jensen, 2009; Pines, et al. 2012; Li, Chen & Kuo, 2008). However, research in this field has not yet integrated the concepts of PsyCap, psychological empowerment, and explanatory style in predicting desired outcomes. Furthermore, research has not explored how psychological empowerment and explanatory style predict PsyCap. Thus, the aim of this work is to integrate all three concepts together.

PsyCap

PsyCap is conventionally conceptualized as a state consisting of "self-efficacy, optimism, hope and resilience" (Luthans, et al., 2007b). This multidimensional construct has been defined as "an individual's positive psychological state of development" and is characterized by:

(1) Having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks.
(2) Making a positive attribution (optimism) about succeeding now and in the future.
(3) Persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed.
(4) When beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success". (Luthans et al., 2007b, p. 3)

Over the past decade, a large number of studies have investigated the relationship between PsyCap and employee attitudes, behavior, and performance at the individual-level (Newman, Ucbasaran, Zhu& Hirst, 2014). Among these studies, researchers have successfully demonstrated a positive correlation between PsyCap and job performance as well as job satisfaction (Luthans, Avolio, Avey & Norman, 2007). Researchers have also found a negative correlation between PsyCap and work stress and turnover intention (Avey, Reichard, et al., 2011; Avey, Luthans, & Jensen, 2009).

Psychological Empowerment

Psychological empowerment is defined as a process of enhancing feelings of self-efficacy among organizational members through the identification of conditions (Conger & Kanungo, 1988, p. 474). Thomas and Velthouse (1990) extend this definition by specifying a more complete set of task assessments (meaningfulness, competence, choice, and impact) that determine intrinsic task motivation in workers.

Drawing on both Conger and Kanungo (1988) and Thomas and Velthouse (1990), another researcher, Spreitzer (1995), defined psychological empowerment as a process or psychological state manifested in four cognitions:

(1) Meaning (value of work goal or purpose)
(2) Competence (self-efficacy)
(3) Self-determination (autonomy in initiation and continuation of work behaviors)
(4) Impact (influence on work outcomes).

Later, based on Conger and Kanungo's definition of psychological empowerment (1988), and a broad review of psychological empowerment literature, Menson (2001) redefined psychological empowerment in a set of three categories. In contrast to Thomas and Velthouse's psychological empowerment theoretical framework, which focused on increased intrinsic task motivation manifestations, Meson's psychological empowerment framework was developed upon the premise that the psychological experience of power underlies feelings of empowerment. The three components of Menon's psychological empowerment theory are:

(1) Perceived control, as a result of empowering strategies such as delegation, increased participation, and providing information and resources and feeling confident and in control of their environments
(2) Perceived competence (self-efficacy)
(3) Goal internalization (meaning of work goals).

The major difference of psychological empowerment structures that Menson and Spreitzer promoted is perceived control. Instead of looking at perceived control as a unitary concept, Spreitzer separated it into self-determination (autonomy) and impact dimensions. Therefore, the subscales "self-determination" and "impact" (both subscales are included in Spreizer's psychological empowerment scale) should correspond to the subscale "perceived control" (from Menson's psychological empowerment scale). Taken together, our study relies on Spreizer's

definition and scale of psychological empowerment as it correlates highly with other scales, but offers more precise measurement of the underlying psychological states.

Research based on Spreitzer's definition of psychological empowerment (which uses motivational approaches to define psychological empowerment) has demonstrated links between psychological empowerment and many desirable employee outcomes. For example, a positive correlation between psychological empowerment and workplace performance has been supported by Ashforth & Chen (2006), Maynard, D'Innocenzo & Dean (2014), Bartram, Karimi, Leggat & Stanton (2014) and Wilson (2015). Psychological empowerment was significantly correlated with stress resiliency among baccalaureate nursing students (Pines, et al. 2012). Psychological empowerment was also found to help employees deal with work stress (Li, Chen & Kuo, 2008) and protect them from burnout (Jacobs, 2006, Boudrias, Morin & Brodeur, 2012).

Psychological Empowerment and PsyCap

The relationship between PsyCap and psychological empowerment has been previously explored. Avey et al. (2008) found a correlation ($r=0.61$, $p<0.001$) between psychological empowerment and PsyCap. Avey et al. (2008) argued that high PsyCap employees should be more likely to perceive a sense of self-determination in their work environment where they are able to confidently execute their own work responsibilities, because 1) individuals who are higher in PsyCap see alternate ways to solve problems (hope) and pursue those paths with confidence without waiting for permission (hope, efficacy); 2) these processes seem related to empowerment in that when individuals high on PsyCap operate in their environment, they experience a sense of personal control and autonomy, a component of psychological empowerment, over their work environment and 3) individuals high in PsyCap tend to conceptualize more options to achieve the same goal (hope) and are more likely to exercise those options in the work environment (efficacy) with positive expectations (optimism) and be able to bounce back from adversity (resilience). Based on the same rationale, the same result is predicted to repeat when conducting similar research on a different sample. Also, both PsyCap and psychological empowerment are psychological states (Luthans, et al., 2007b; Spreitzer,1995). In other words, they are influenced by external factors and fluctuate on a daily basis. It is possible that they are not only correlated at one point of measurement but also across time, where relationships may be evident on a weekly basis as well.

Therefore, we hypothesize:

Hypothesis 1a. *Psychological empowerment is positively related to PsyCap*.
Hypothesis 1b. *Weekly psychological empowerment will positively predict weekly PsyCap.*

Explanatory Style

Optimism has been a major topic for positive psychology scholars for the past 20 years. Over time, two distinct approaches have emerged within the field of optimism research. The first approach, which views optimism as an explanatory style is the definition we chose to implement in the current study. The second approach, views optimism as a "life orientation" (also called dispositional optimism). In the studies of dispositional optimism, optimism is defined as a

relatively stable generalized expectation that good outcomes will occur across important life domains and across time (Scheir, Carver, & Bridges, 1994). Other than generally positive expectancy in life, the major difference between pessimists and optimists is the use of coping strategies when dealing with daily events. Scheirer et al (1994) state that, "Optimists tend to use more problem-focused coping strategies than do pessimists, and when problem-focused coping is not a possibility, optimists turn to more adaptive emotion-focused coping strategies such as acceptance, use of humor, and positive reframing of the situation; on the opposite, pessimists tend to cope through overt denial and by mentally and behaviorally disengaging from the goals with which the stressor is interfering, regardless of whether something can be done to solve the problem or not" (p. 1064).

Contrary to Scheier's dispositional optimism which focuses on the future, Seligman employs the explanatory style approach to optimism, which focuses on the past and the present. Seligman has discussed optimism as a stable positive explanatory style of current and past events. Positive explanatory style is defined as explaining positive events and negative events in terms of personal (internal or external), permanence (stable or temporary) and pervasiveness (specific or global; Seligman 2891). An optimistic person will explain the cause of positive events internally (they cause the event), stable (it always happens) and globally (it happens in every aspect of life) and the cause of negative events externally (others cause the event), temporarily (it only happens once) and specifically (it only happens with a specific part of life (Seligman 1991).

The two definitions of optimism, as either a dispositional trait or as an explanatory style are two sides of the same coin. The problem-focused and emotional-focused coping strategies, partially align with Seligman's three different explanatory styles approach of optimism. Scheier and Carver (1993) argued that dispositional optimism and explanatory style theories are conceptually linked. Following Scheier and Carver's argument, an expectation of a future outcome is not generated in a vacuum but generated from previous life experience. A tendency to assess both past and the current state should generate a relative expectation of how the future develops.

In terms of positive psychology in the workplace, whether employees explain positive events and negative events as two individual cognitive processes or just one single psychological process with two different facets, is still heavily debated. Some researchers measure explanatory style by combining explanatory styles for both positive and negative events (e.g., Martin-Krumm, Sarrazin, Peterson, & Famose, 2003; Manzo 1999; Baum 2011). This approach allows a person to have three possible explanatory styles, one each for good and bad scenarios, and a composite of both (Smith, Caputi, & Crittenden, 2013). On the other hand, some researchers who have measured explanatory style limit the definition only to explanations of negative events (e.g., Dykema et al. 1996; Seligman, Nolen-Hoeksema, Thornton &Thornton, 1990).

The findings of positive explanatory style for positive and negative events are contradicting. Furnham et al. (1992) found a significant relationship between positive explanatory style for work-related events and organizational status, salary, job satisfaction and motivation. These findings contradict those by Seligman and Schulman (1986) that explanatory style for negative events, but not positive events predict positive work-related outcomes. Peterson (1991) argued against the use of a single explanatory style that combines the scores for explanatory style of both positive events and negative events, as there is strong evidence indicating that they are two different cognitive processes. Thus, we adopted the two different cognitive process of explanatory style

approach in the current study as we separately measure individuals' explanations for why positive events and negative events happen.

Explanatory Style and PsyCap

How we explain positive and negative events in life carries over into the workplace and should affect psychological states at work. Indeed, studies suggest positive explanatory style (or high optimism) negatively correlates to burnout (Fineburg, 2011) and psychological distress (Clarke & Singh, 2005) in the workplace. Positive explanatory style also positively correlates with self-efficacy in the workplace (Fineburg, 2011). When predicting PsyCap in the workplace, explanatory style is relevant.

Explanatory Style and state-optimism

One of the dimensions of PsyCap is state optimism. Luthans (2007) describes two examples illustrating how different explanatory styles affect mental states in the workplace when he introduced state optimism as one of the components in PsyCap. Luthans (2007) stated:

> Optimistic employees who received some positive feedback and recognition from their supervisors will attribute this positive feedback to their work ethic and will assure themselves that they will always be able to work hard and be successful, not only in this job but in any endeavor they choose…on the other hand, if optimistic employees receive negative feedback regarding, say, a report they presented, they will probably use rationalizations, such as they were not themselves when they worked on or presented the report, that their colleagues did not provide the necessary information to enhance the quality of the report (p 91).

Since PsyCap includes a dimension reflecting state optimism, explanatory style should predict PsyCap. Based on the stable characteristic of explanatory style and the way it affects our daily thinking, it must have an influence on the way we use optimism as a psychological strategy to approach different events in the workplace. Therefore, positive or optimistic explanatory style should be positively related to the optimism component in PsyCap.

Explanatory style, resilience, and hope

Explanatory style should also correlate with two psychological states that are dimensions of PsyCap, resilience and hope. Seligman (1991) explained that the reason why optimistic explanatory style positively correlates to higher sales performance is that an optimistic explanatory style increases chances of success in sales because it leads to greater determination and resilience. Later, a study supported Seligman's explanation by examining the United States' longest detained American prisoners of war, those held in Vietnam in the 1960s through early 1970s. This study confirmed that optimistic explanatory style acts as a protective factor for confronting trauma. Individuals with optimistic explanatory style viewed detrimental past events

as an important (yet negative) part of their life but only as temporary (Segovia et al, 2012). They also believed that therapy would be beneficial to process traumatic events.

Moreover, sports studies suggest that explanatory style is linked to resilience. In a study on members of highly ranked US university swimming teams, results showed that after a failure feedback from a swimmer's coach, in this case a bad swim time, times on a second swim 30 min later were poorer for the swimmers who had a pessimistic explanatory style bad events, but not for the swimmers who had an optimistic explanatory style bad events (Seligman, Nolen-Hoeksema, Thornton, & Thornton, 1990).

In another study (Martin-Krumm, Sarrazin, Peterson& Famose, 2003), sixty-two participants (mean age 14 years) who performed a basketball dribbling trial also showed the same effect when they received negative feedback. When the participants were given false feedback indicating that they had failed in the first trial, the optimistic participants were less anxious, more confident, and performed better than pessimistic participants on the second trial. Even though all the aforementioned studies were conducted under the context of sport psychology, the stress and the competitive nature of these contexts are shared with the modern workplace. The same effect that explanatory style has on resilience is likely to happen in the workplace.

A recent study about optimism as a predictor of the effects of laboratory-induced stress on hope suggests that 1) a higher level of optimism was associated with a lower level of fear and a higher level of hope following the exposure to a video depicting political violence and 2) optimistic people have fewer fears and more hope compared to less optimistic people when they are facing stress (Kimhi, Eshel, & Shahar, 2012). The result of this study partially supported the ideas that, optimistic people continue to believe that they will achieve their goals even when they are facing obstacles and people use optimism as an effective tool when they are coping with stress. This evidence suggested that optimistic explanatory style relates to state hope.

Explanatory style and self-efficacy

The final dimension of PsyCap is self-efficacy. Explanatory style should also relate to self-efficacy. Studies suggest that explanatory style correlates with self-efficacy on two fronts: the way we deal with successful events (mastery experiences) and the way we deal with setbacks (Fineburg, 2011). Bandura (1982) believed that mastery experiences are one of the most powerful factors in developing a person`s efficacy. Explanatory style influences how a person attributes the reason for his success of events. If a person attributes the success of the events to be caused by more internal, global and stable sources, she's more likely to gain more efficacy from these successful events. On the other hand, if the person attributes the success of the events to external, specific and temporary sources, she's likely to gain less efficacy from these successful events (Kasouf, Morrish and Miles 2013).

Explanatory style also influences how a person attributes the reason of his/her failure of events. When a person performs a new task that requires skills this person has not learned, this person may have low efficacy toward the required skills of this task. With a lack of true ability, this person will likely fail a lot at the beginning of performing this task. In this case, an optimistic explanatory style toward negative events would help this person persevere through the setbacks and continue performing this task until he/she succeeds from it. In a study on the

correlation between teachers' explanatory style and self-efficacy, Fineburg (2011) found positive explanatory style toward positive events was positively related to self-efficacy.

Based on the above paragraphs in this section, we hypothesize:

Hypothesis 2a. *Optimistic explanatory style for the positive events in the workplace is positively related to PsyCap.*
Hypothesis 2b. *Optimistic explanatory style for the positive events will positively predict weekly PsyCap.*
Hypothesis 3a. *Optimistic explanatory style for the negative events in the workplace is positively related to PsyCap.*
Hypothesis 3b. *Optimistic explanatory style for the negative events will positively predict weekly PsyCap*

Explanatory Style and Psychological Empowerment

Explanatory style should also predict psychological empowerment. Explanatory style plays a role in how much control we perceive toward specific tasks. Since perceived control is a large component of psychological empowerment, I expect that explanatory style will predict psychological empowerment.

Research suggests this as well. Baum (2011) used a computer program to test how much control optimistic versus pessimistic participants felt when they completed different computer tasks. He found that participants with optimistic explanatory styles provided accurate control judgments for some conditions and overestimated control in other conditions. On the other hand, participants with pessimistic explanatory styles underestimated control in some conditions. This finding could also be generalized for the workplace, where employees with different explanatory styles will react to the same environment differently by perceiving different levels of control and thus experiencing higher levels of psychological empowerment at both 1 point of measure and multiple points of measure in a specific period of time.

Therefore, we hypothesize:

Hypothesis 4a. Optimistic explanatory style for the positive events in the workplace is positively related to psychological empowerment.
Hypothesis 4b. Optimistic explanatory style for the positive events will positively predict weekly psychological empowerment.
Hypothesis 5a. Optimistic explanatory style for the negative events in the workplace is positively related to psychological empowerment.
Hypothesis 5b. Optimistic explanatory style for the negative events will positively predict weekly psychological empowerment.

The Interaction between Explanatory Style and Psychological Empowerment in Predicting PsyCap

Finally, we expect that explanatory style moderates the relationship between psychological empowerment and PsyCap. When employees are high in psychological empowerment, the employees who have optimistic explanatory style will perceive the high control they enjoy (self-determination and autonomy) is due to their capacity (internal), that it will last forever (stable),and will spill over all aspects of their jobs (global). This experience (high psychological empowerment with high optimistic explanatory style) will, in turn, lead to high PsyCap. However, when employees have a pessimistic explanatory style, which is represented by low optimistic explanatory style, they will perceive the high control they enjoy (self-determination and autonomy) to be due to external factors (external), it will only last shortly (temporal), and it is specific aspect of their jobs (specific). This experience (high psychological empowerment with high pessimistic explanatory style) will, in turn, lead to low PsyCap.

On the other hand, when employees are low in psychological empowerment, the employees who have an optimistic explanatory style will perceive the low control they have in their job as not due to their ability of carrying out of the job but rather due the external forces like a bad economy (external), only as temporary (temporal) and affecting only one aspect of their job (specific). In turn, it will moderate the decrement of PsyCap so that the low psychological empowerment state will lead to low PsyCap.

However, employees who have pessimistic explanatory style (low optimistic explanatory style), will perceive the low controls over their jobs is due to their incapacity (internal). They will also perceive it as a permanent state (stable) that will spill over all aspects of their jobs (global). In turn, the low psychological empowerment state will lower PsyCap even more. Given explanatory style interacts with both PsyCap and psychological empowerment, explanatory style will moderate the relationship between psychological empowerment and PsyCap at both one point of measure and multiple points of measure in a specific period of time.

Therefore, we hypothesize:

Hypothesis 6a. *Explanatory style for the positive events in the workplace moderates the relationship between psychological empowerment and PsyCap such that when explanatory style for the positive events is high, the link between psychological empowerment and PsyCap will be stronger.*

Hypothesis 6b. *The positive relationship between weekly PsyCap and weekly psychological empowerment will be moderated by explanatory style for the positive events such that when optimistic explanatory style is high, the link between psychological empowerment and PsyCap will be stronger.*

Hypothesis 7a. *Explanatory style for the negative events in the workplace moderates the relationship between psychological empowerment and PsyCap such that when optimistic explanatory style is high, the link between psychological empowerment and PsyCap will be stronger.*

Hypothesis 7b. *The positive relationship between weekly PsyCap and weekly psychological empowerment will be moderated by explanatory style for the negative events such that*

when explanatory style for the negative events is high, the link between psychological empowerment and PsyCap will be stronger.

Overview of Study 1 and Study 2

The main objective of this work is to integrate the popular workplace positive psychology theories, explanatory style, PsyCap, and psychological empowerment to create a new integrative understanding of these positive psychology factors. These variables have been heavily studied and applied to employee selection and training programs and have achieved variable success. An integrative theoretical framework of these three theories will better guide the designs of these applications in the workplace. An integrative view of these three theories will shed a new light on how employees utilize different psychological resources in the workplace. In addition to the main objective, we will also look for evidence to support the separate use of the measurement of explanatory styles. The measurement of explanatory style has been varied in the past studies. Often, studies have overlooked the fact that explanatory style can vary for positive events versus negative events. Some studies use a composite score that combines the explanatory styles of both positive events and negative events, whereas other studies only measure explanatory styles for negative events. The current studies contribute to the academic literature by exploring the correlations between psychological empowerment, PsyCap, and explanatory style for positive workplace-related events, as well as negative workplace-related events.

To achieve the aforementioned objectives, study 1 focused on finding evidence to build an integrative theoretical framework of these variables, by measuring these variables at one point in the participants' life. These single time point measures test hypotheses 1a, 2a, 3a, 4a, 5a, 6a and 7a (See Table A); Study 2 furthers the same agenda by conducting a repeated measures study to look into the week to week fluctuation in psychological states by testing hypotheses 1b, 2b, 3b, 4b, 5b, 6b and 7b (See Table A). We measured participants' PsyCap and psychological empowerment each week for a duration of 6 weeks. Participants' explanatory styles were measured at the beginning of the study.

Method for Study 1

Participants in this study included a heterogeneous sample of 288 employees, with an average 5.53 years (S.D=4.6) of working experience. Of the 288 participants, 103 were males and 95 were females. Participants worked an average of 39.87 hours per week (S.D=6.451). Most subjects were employed in the retail or service industry (e.g. restaurant, server, cashier, salesperson), followed by professional industry (e.g. accounting, law), Healthcare (e.g. nurse, physical therapist) and technical industry (e.g. mechanics, computer programming), and multiple other miscellaneous industries.

To recruit participants, a link was posted on MTurk, which was only visible to North American users. We included a screening question, "Are you working in an organization that employs more than 50 employees?" Most of the workplace studies previously referenced were conducted at large organization. To keep the sample as constant as possible with previous studies, we decided to put the inclusion criteria in place. Once the MTurk users passed the screening question, another link was provided to direct them to the actual survey, which was deployed

through Qualtrics. After the participants finished the survey, Qualtrics gave them a random code. The participants could use the code to redeem a total of $0.90 of Amazon gift card points as compensation.

MTurk is a one-stop shop for recruitment, compensation, and data collection. Individuals in the general population can register as ‘‘workers’’ (paid task completers). Workers can browse available tasks, such as taking surveys, and are paid upon successful completion of each task (Buhrmester, Kwang, & Gosling, 2011). MTurk is a relatively new means for social scientists to collect data. Its quality and reliability have been demonstrated in linguistic (Sprouse, 2011), behavioral (Mason, & Suri, 2012) and personality (Holden, Dennie, & Hicks, 2013) research. Participants from MTurk can be slightly more demographically diverse than standard internet samples and American college samples (Buhrmester, Kwang, & Gosling, 2011).

Table A

Study 1	Study 2
Hypothesis 1a. Psychological empowerment is positively related to PsyCap.	Hypothesis 1b. Weekly psychological empowerment will positively predict weekly PsyCap.
Hypothesis 2a. Optimistic explanatory style for the positive events in the workplace is positively related to PsyCap.	Hypothesis 2b. Optimistic explanatory style for the positive events will positively predict weekly PsyCap.
Hypothesis 3a. Optimistic explanatory style for the negative events in the workplace is positively related to PsyCap.	Hypothesis 3b. Optimistic explanatory style for the negative events will positively predict weekly PsyCap.
Hypothesis 4a. Optimistic explanatory style for the positive events in the workplace is positively related to psychological empowerment.	Hypothesis 4b. Optimistic explanatory style for the positive events will positively predict weekly psychological empowerment.
Hypothesis 5a. Optimistic explanatory style for the negative events in the workplace is positively related to psychological empowerment.	Hypothesis 5b. Optimistic explanatory style for the negative events will positively predict weekly psychological empowerment.
Hypothesis 6a. Explanatory style for the positive events in the workplace moderates the relationship between psychological empowerment and PsyCap such that when explanatory style for the positive events is high, the link between psychological empowerment and PsyCap will be stronger.	Hypothesis 6b. The positive relationship between weekly PsyCap and weekly psychological empowerment will be moderated by explanatory style for the positive events such that when optimistic explanatory style is high, the link between psychological empowerment and PsyCap will be stronger.
Hypothesis 7a. Explanatory style for the negative events in the workplace moderates the relationship between psychological empowerment and PsyCap such that when optimistic explanatory style is high, the link between psychological empowerment and PsyCap will be stronger.	Hypothesis 7b. The positive relationship between weekly PsyCap and weekly psychological empowerment will be moderated by explanatory style for the negative events such that when explanatory style for the negative events is high, the link between psychological empowerment and PsyCap will be stronger.

Measures

Psychological empowerment

Psychological empowerment was measured by Spreitzer's (1995) scale, which combines four subscales: meaning, competence, self-determination, and impact. Spreitzer's psychological empowerment scale has been widely used in most of the psychological empowerment research in recent years. The 12-item scale as manifested in four dimensions of 4 items each: meaning, competence, self-determination, and impact. Example items include, "The work I do is meaningful to me" (meaning); "I am confident about my ability to do my job" (competence); "I have significant autonomy in determining how I do my job" (self-determination), and "I have a great deal of control over what happens in my department" (impact). The 12 items instrument included a 5-point Likert type scale ranging from strongly agree to strongly disagree. The reliability of the scores for psychological empowerment has been found to be acceptable (α=0.91) in the current study.

PsyCap

To assess PsyCap, the 12 Item Psychological Capital Questionnaire was used (Luthans, Avolio, Norman& Avey, 2007). Like the full scale (the 24 Item Psychological Capital Questionnaire), the shorter 12 items instrument includes a 6-point Likert type scale ranging from strongly agree to strongly disagree. Example items are, "I feel confident analyzing a long-term problem to find a solution" (efficacy), "There are lots of ways around any problem" (hope), "I usually take stressful things at work in stride." (resilience), and "I always look on the bright side of things regarding my job"(optimism). The reliability of the scores for PsyCap has been found acceptable (α=0.93) in the current study.

Explanatory style

To assess explanatory style, we used the Workplace Attributional Questionnaire (WAQ; Smith, Caputi, & Crittenden, 2013). Each respondent then gave a rating from 1 to 7 on internality, stability, and globality for each of the 16 hypothetical workplace scenarios, 8 negative scenarios and 8 positive scenarios. This was achieved by having the same three question and response scales following each scenario. Internality was assessed with the question: How much are you responsible for causing this situation? The Likert response scale was 1 = Not due to me to 7 = totally due to me. Stability was assessed with the question: Will the cause again be present in the future? The response scale was 1 = Never to 7 = Always. Globality was assessed with the question: Does this cause affect other parts of your life? The response scale was 1 = Only this situation to 7 =All areas of my life. Two scale reliabilities for explanatory style toward positive and negative events were tested by combining all the scores in each dimension. The reliabilities of the scores are acceptable (explanatory style toward positive events α=0.88; explanatory style toward negative events α=0.851).

Results for Study 1

Correlations and moderated regressions as specified in the PROCESS macro for SPSS 21 were used to test hypotheses. Hypothesis 1a predicted that psychological empowerment is positively related to PsyCap. In line with the expectations, the two variables were strongly

correlated, r(288) = .739, p < .01 with Psychological Empowerment M= 4.25 SD.= 0.82 and PsyCap M= 4.64 SD.= 0.82.

Hypotheses 2a, 3a, predicted that explanatory style for the positive events in the workplace (Hypothesis 2a), and explanatory style for the negative events in the workplace (Hypothesis 3a) are positively correlated to PsyCap respectively. The result is in line with Hypotheses 2a. Explanatory style for the positive events and PsyCap are strongly correlated, r(288) = .45, p< .01with explanatory style for positive events M= 5.11 SD.= 0.70. However, the correlation between explanatory style for the negative events in the workplace and PsyCap (Hypothesis 3a) is not significant (288) = .13, p < .08 with explanatory style for negative events M=3.80 SD.= 0.64. See Table 1.

Hypotheses 4a, 5a predict that explanatory style for the positive events in the workplace (Hypothesis 4a), and explanatory style for the negative events in the workplace (Hypothesis 5a) are positively correlated to psychological empowerment respectively. Results were in line with Hypotheses 4a. Explanatory style for positive events and psychological empowerment are strongly correlated, r(288) = .36, p < .01. However, the correlation between explanatory style for the negative events (Hypothesis 5a) in the workplace and psychological empowerment was not significant r(288) = .08, p= .29. See Table 1.

Table 1 (study 1)

Correlations Result for All Variables

Measures	1	2	3	4	5	6	7
1. Psy_Empower	-	.779**	.451**	-0.026	.410**	.188**	0.112
2. PsyCap	.779**	-	.446**	-0.125	.484**	.172*	0.098
3. Explanatory_Positve	.451**	.446**	-	.277**	.640**	0.115	0.126
4. Explanatory_Negative	0.026	0.125	.277**	-	-.561**	-0.073	0.09
5. Hours_per_week	.188**	.172*	0.115	-0.073	.157*	-	.184**
6. Work_Years	0.112	0.098	0.126	0.09	0.037	.184**	-

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

For Hypothesis 6a (Figure 1), it was expected that explanatory style for positive events in the workplace moderates the relationship between psychological empowerment and PsyCap such that when optimistic explanatory style is high, the link between psychological empowerment and PsyCap will be stronger. Results indicated a non-significant interaction between psychological empowerment and explanatory style for the positive events in the workplace on PsyCap (indicated by the coefficient of the interaction term). See Table 2.

Figure 1 (study 1)

Psychological Empowerment Predicts PsyCap Moderated by Explanatory Style for Positive Events

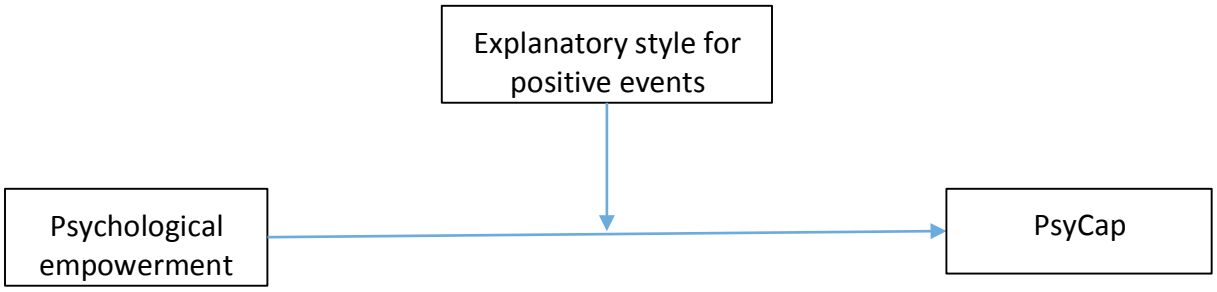


Table 2 (study 1)
Regression Result for Psychological Empowerment Predicts PsyCap Moderated by Explanatory Style for Positive Events

	coeff	se	p	LLCI	ULCI
P_Explanatory Style	.0703	.2494	.7784	-.4216	.5621
Psychological empowerment	.5381	.2408	.0266	.0632	1.0131
Interaction	.0133	.0466	.7748	-.0785	.1052

The hypothesized moderation effect was proposed in Hypothesis 7a (Figure 2). For Hypothesis 7a, it was expected that Explanatory style for the negative events in the workplace moderates the relationship between psychological empowerment and PsyCap such that when explanatory style is high, the link between psychological empowerment and PsyCap will be stronger. Results indicated a non-significant interaction between psychological empowerment and explanatory style for the positive events in the workplace on PsyCap (indicated by the coefficient of the interaction term). See Table 3.

Figure 2 (study 1)
Psychological Empowerment Predicts PsyCap Moderated by Explanatory Style for Negative Events

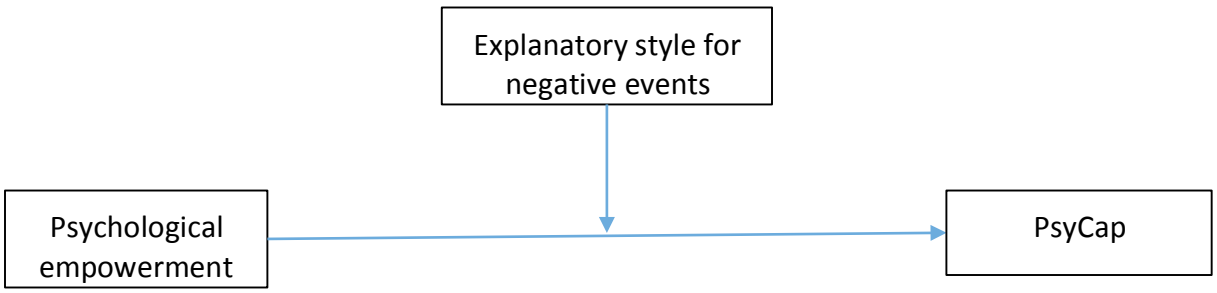


Table 3 (study 1)
Regression Result for Psychological Empowerment Predicts PsyCap Moderated by Explanatory Style for Negative Events

	coeff	se	p	LLCI	ULCI
N_Explanatorystyle	.1672	.3110	.1660	-.7806	.4463
Psychological empowerment	.6209	.2452	.0121	.1372	1.1045
Interaction	.0065	.0566	.9094	-.1052	.1181

Method for Study 2

Participants in this study included a sample of 13 master students in an occupational health class with average 34.11 working hours per participant per week (SD=10.38) during the 6 weeks of measurement. 2 were males and 11 were females.

Participants were recruited from a master's level occupational health class at Baruch College through a face-to-face study information presentation in-class and a circulated recruitment email. In the face-to-face study information presentation, participants were notified by the main researcher about the basic background of this study including the objectives of this study and the methodology of this study. After the in-class presentation, all of the students in the class received an email detailing the schedule and the requirements for the study. Participants were awarded 5 extra course credits for the occupational course upon the end of the study.

Participants were required to report their explanatory style, PsyCap, psychological empowerment, working hours per week, and demographic data during the first week of the study. For the following five weeks, participants were required only to report their PsyCap, psychological empowerment and working hours for the week. Surveys were administered once per week on Saturdays.

Measures

We used the same measurement tools as those used in Study 1 to measure the variables for Study 2 with the exception of two small modifications at the beginning of the survey and in the Psychological Capital Questionnaire. For the reminder, we ask the participants to think about the work experience for the past week before the participants answered the questions in the Psychological Capital Questionnaire and Psychological Empowerment Scale. The reminder for Study 2 was "Please think about your experience at work this week. Below are statements about you with which you may agree or disagree. Using the scale shown below to indicate the response

that best describes YOUR EXPERIENCE AT WORK THIS WEEK". We put the term "this week," in front of every measurement question in the Psychological Capital Questionnaire to guide participants to focus on last week's work experience. Example items are "This week, I felt confident analyzing a long-term problem to find a solution" (efficacy), "This week, there were lots of ways around any problem." (hope), "This week, I usually took stressful things at work in stride." (resilience), and "This week, I always looked on the bright side of things regarding my job." (optimism).

Because this study used a within-person design where multiple measurement occasions were nested within each person, hierarchical linear modeling (HLM) was employed to account for the non-independence of the data.

Results for Study 2

Correlations and moderated regressions as specified in the HLM were used to test all the hypotheses. Hypothesis 1b predicted that weekly psychological empowerment will positively predict weekly PsyCap. In line with the expectations, weekly Psychological empowerment predicted weekly PsyCap at a significant level (b = .37, p= 0.004).

Hypotheses 2b, 3b, predicted that explanatory style for the positive events in the workplace (Hypothesis 2b), and explanatory style for the negative events in the workplace (Hypothesis 3b) would positively predict weekly PsyCap respectively. Results did not support Hypotheses 2b and 3b. Explanatory style for the positive events did not positively predict PsyCap at a significant level (b = .08, p= 0.58). Explanatory style for the negative events did not positively predict psychological empowerment at a significant level either (b = .0.25, p= 0.20).

Hypotheses 4b, 5b predicted that explanatory style for the positive events in the workplace (Hypothesis 4b) and explanatory style for the negative events in the workplace (Hypothesis 5b) would positively predict psychological empowerment respectively. Results did not support Hypotheses 4b and 5b. Explanatory style for positive events did not positively predict psychological empowerment (b = 0.12, p= 0.59). Explanatory style for negative events did not positively predict psychological empowerment either (b = .37, p= 0.14).

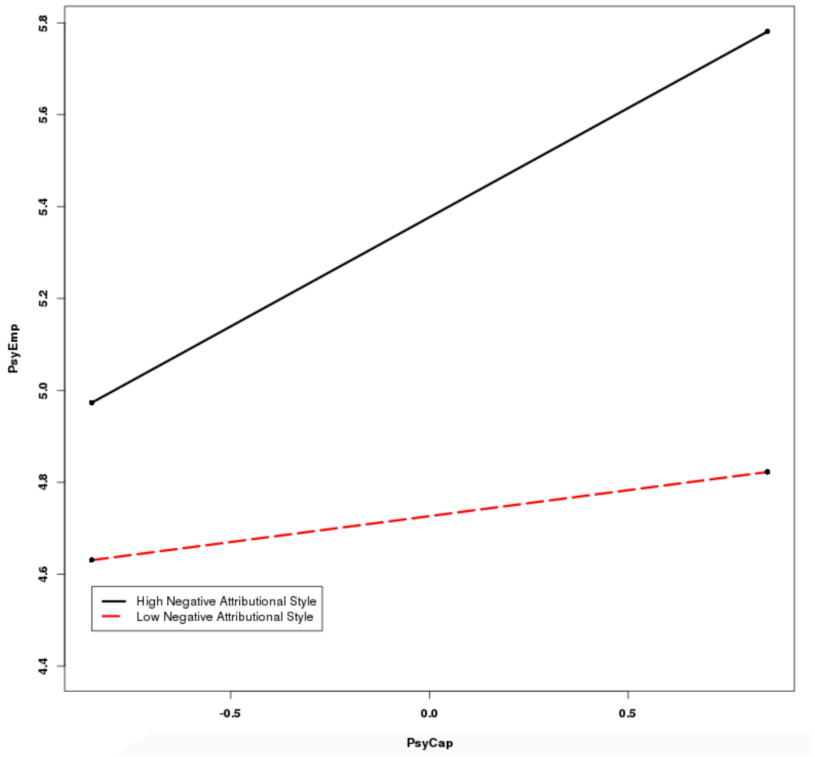
The hypothesized moderation effect proposed in Hypothesis 6b can be seen in Figure 1. For Hypothesis 6b, it was expected that explanatory style for positive events in the workplace moderates the relationship between weekly psychological empowerment and weekly PsyCap such that when optimistic explanatory style is high, the link between weekly psychological empowerment and weekly PsyCap would be stronger. Results indicated a non-significant interaction between psychological empowerment and explanatory style for the positive events in the workplace on PsyCap (indicated by the coefficient of the interaction term) (b =0.02 p =0.76).

The hypothesized moderation effect proposed in Hypotheses 7b can be seen in Figure 2. For Hypotheses 7b, it was expected that explanatory style for the negative events in the workplace moderates the relationship between weekly psychological empowerment and weekly PsyCap such that when explanatory style is high, the link between weekly psychological empowerment and weekly PsyCap would be stronger. Results indicated a significant interaction between psychological empowerment and explanatory style for the negative events in the workplace on PsyCap (indicated by the coefficient of the interaction term) (b =0.22 p =0.05). Data indicated people with high negative explanatory style for negative events are more sensitive to weekly

changes in PsyCap than those with low negative explanatory style for negative events. Those with low negative explanatory style for negative events have about the same level of PsyCap regardless of psychological empowerment that week (Figure 3).

Figure 3 (study 2)

Psychological Empowerment Predicts PsyCap Moderated by Explanatory style for Negatives Events on Weekly Basis



Discussion

The purpose of these two studies was to integrate the popular workplace positive psychology constructs: explanatory style, PsyCap, and psychological empowerment, to create a new integrative conceptual understanding of the relationships between these factors. Overall, support was found for some of the hypothesized relationships. First, consistent with prior research findings (Avey et al, 2008), psychological empowerment was found to have a positive relationship with PsyCap. Also, even in a small sample size, weekly psychological empowerment positively predicted weekly PsyCap. Thus, this finding further supports the notion that psychological empowerment is related to psychological capital. This underscores the importance of managers and leaders empowering their employees and supports the efforts of many empowerment trainings currently being adopted by organizations.

In study 1, explanatory style for the positive events but not for negative events in the workplace emerged as strong predictors for both psychological empowerment and PsyCap. Thus, it appears that explanatory style of positive events may be a more powerful predictor of PsyCap

than explanatory style for negative events. In study 2 explanatory styles for both positive and negative events did not predict weekly psychological empowerment and weekly PsyCap.

On a practical level, research has already suggested both psychological empowerment and PsyCap are correlated with the desirable outcomes in the workplace such as higher job satisfaction (PsyCap: Luthans et al., 2007a; psychological empowerment: Amundsen & Martinsen, 2015) and organizational commitment (PsyCap: Youssef & Luthans, 2007; psychological empowerment: Macsinga et al., 2015). However, both psychological empowerment and PsyCap are state-like in nature. In other words, they are susceptible to the workplace environment. Having a stable positive explanatory style for both positive events and negative events is likely to help employees obtain higher psychological empowerment and PsyCap in the general workplace environment. Therefore, considering the positive explanatory styles of both positive events and negative events as the predictors in an employee selection process could have positive implications.

Explanatory is also changeable by cognitive therapy-like intervention (Seligman 1991). Given that PsyCap and psychological empowerment have a variety of positive outcomes at the workplace, the current study casts a new light on future research and practices in organizational-psychology. Training and interventions could be used to adjust explanatory styles as a new way to improve PsyCap and psychological empowerment.

Methodologically, the current study supports Peterson's argument (1991) that explanatory style for positive events and negative events are different cognitive constructs. Only explanatory style for positive events in the workplace was significantly correlated with psychological empowerment. Explanatory style for negative events in the workplace predicted weekly PsyCap and weekly psychological empowerment. The implication is that on a methodological level, researchers studying explanatory style should take into account the possibility that explanatory style for positive and negative events could have differential predictive power and thus should measure these constructs separately.

The moderator role that explanatory style of both positive and negative events played in the correlation between psychological empowerment and PsyCap was not supported. However, the moderator role that explanatory style of negative events played in the correlation between weekly psychological empowerment and PsyCap was supported even in a small sample size. These results suggest that in dealing with day-to-day challenges at work, people who have an optimistic explanatory style for negative events might be at an advantage when facing challenges.

Limitations

In study 1, we did not ask that the participants focus on a specific time duration of their work experience before they took the Psychological Capital Questionnaire. In study 2, we asked the participants to think about their work experience for the past week when they took the Psychological Capital Questionnaire and also tweaked the items in the Psychological Capital Questionnaire to focus more on last week's work experience. The different results in these two studies suggested that it is possible that when the participants thought about their work experience in general, they thought more about the positive events and factors that they encounter in the workplace than the negative ones. However, when the participants thought about their work experience within a more specific timeframe, in this case, last week, they tend to report on negative events or factors that they encounter in the workplace. By doing this,

participants possibly leveraged different explanatory styles when thinking of different time duration of work experience to gain PsyCap and psychological empowerment. Explanatory style for positive events emerged as a strong predictor for PsyCap and psychological empowerment when measuring work experience in general. Explanatory for negative events emerged as a potential predictor for the weekly PsyCap and weekly psychological empowerment. More research is needed to find out why this may be the case.

Because a single methodology was used (self-report), there may be some concerns about the role of common method bias in the results. Further, a small sample size (n =13) for study 2 is another notable limitation to this study. We expect as we collect more data, explanatory style for negative events will positively predict weekly PsyCap and weekly psychological empowerment on a significant level. We also plan on extending the data collection effort to full-time workers, to find evidence directly from the workforce population to support our findings for the studies discussed in this paper by directly conducting a field study in the workplace.

Future Research

In the current studies, we only look at three psychological variables (PsyCap, psychological empowerment, and explanatory style), which are usually used as predictors in most studies for building an integrative model. To have a higher application and practical value, future studies should consider using the current integrative model to predict desirable workplace outcomes like performance, job satisfaction, work engagement, and organizational citizenship for instance. Already a handful of studies suggested a positive explanatory style and psychological empowerment have negative correlations with work stress (explanatory styles: Fineburg, 2011; psychological empowerment: Li et al. 2008) and burnout (explanatory styles: Clarke & Singh, 2005, psychological empowerment: Tian et al. 2015) at work. Future studies should apply this integrative model to predict not only PsyCap but also more distal outcomes such as work stress and burnout. The hope is to build a more comprehensive understanding of the implications of the integrative model.

References

Amundsen, S., & Martinsen, Ø. L. (2015). Linking empowering leadership to job satisfaction, work effort, and creativity: The role of self-leadership and psychological empowerment. Journal of Leadership & Organizational Studies, 22(3), 304-323. doi:10.1177/1548051814565828

Aryee, S., & Chen, Z. X. (2006). Leader-member exchange in a Chinese context: Antecedents, the mediating role of psychological empowerment and outcomes. Journal of Business Research, 59, 793-801. doi: 10.1016/j.jbusres.2005.03.003

Ashforth, B. E., & Fugate, M. (2006). Attributional style in work settings: Development of a measure. Journal of Leadership & Organizational Studies, 12, 12–29.

Avey, J. B., Luthans, F., & Jensen, S. M. (2009). Psychological capital: A positive resource for combating employee stress and turnover. Human Resource Management, 48(5), 677-693.

Avey, J. B., Hughes, L. W., Norman, S. M., & Luthans, K. W. (2008). Using positivity, transformational leadership and empowerment to combat employee negativity. Leadership & Organization Development Journal, 29(2), 110-126.

Bandura, A. (1982). Self-efficacy mechanism in human agency. American Psychologist, 37(2), 122-147. doi:10.1037/0003-066X.37.2.122

Baum, S. (2011). Perception of Control: Accuracy among Optimists and Pessimists on Noncontingency and Contingency Tasks.

Bartram, T., Karimi, L., Leggat, S. G., & Stanton, P. (2014). Social identification: Linking high performance work systems, psychological empowerment and patient care. The International Journal of Human Resource Management, 25(17), 2401-2428.doi:10.1080/09585282.201 4.880152

Boudrias, J., Morin, A. S., & Brodeur, M. (2012). Role of psychological empowerment in the reduction of burnout in Canadian healthcare workers. Nursing & Health Sciences, 14(1), 8-17. doi:10.1111/j. 14422018.2011.00650.x

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data?. Perspectives on Psychological Science, 6(1), 3-5. doi: 10.1177/1745691610393980

Clarke, D., & Singh, R. (2005). The influence of pessimistic explanatory style on the relation between stressful life events and hospital doctors' psychological distress. Social Behavior and Personality, 33(3), 259-272. doi:10.2224/sbp.2005.33.3.259

Conger, J.A., & Kanungo, R.N. (2888). The empowerment process: Integrating theory and practice. Academy of Management Review, 13, 471-482.

Dykema, J., Bergbower, K., Doctora, J. D., & Peterson, C. (1996). An attributional style questionnaire for general use. Journal of Psychoeducational Assessment, 14, 100–108.

Fineburg, A. C. (2011). Examining explanatory style's relationship to efficacy and burnout in teachers. Dissertation Abstracts International Section A, 71, 2342.

Furnham, A., Brewin, C. R., & O'Kelly, H. (1994). Cognitive style and attitudes to work. Human Relations, 47, 1509–1521.

Holden, C. J., Dennie, T., & Hicks, A. D. (2013). Assessing the reliability of the M5-120 on Amazon's Mechanical Turk. Computers in Human Behavior, 29(4), 1749-1754. doi:10.1016/j.chb.201 3.02.020

Ipeirotis, P. G. (2010). Analyzing the amazon mechanical turk marketplace. XRDS: Crossroads, The ACM Magazine for Students, 17(2), 16-21.

Jacobs, N. J. (2006). From divine calling to holy burnout: The relationship between social interest, empowerment, and burnout among episcopal clergy. Dissertation Abstracts International, 67, 3454.

Kasouf, C. J., Morrish, S. C., & Miles, M. P. (2013). The moderating role of explanatory style between experience and entrepreneurial self-efficacy. International Entrepreneurship and Management Journal, 11(1), 1-17.

Kimhi, S., Eshel, Y., & Shahar, E. (2013). Optimism as a predictor of the effects of laboratory induced stress on fears and hope. International Journal of Psychology, 48(4), 641-648. doi:10.1080/00207594.2012.676181

Lawler, E. E., Mohrman, S. A., & Benson, G. (2001). Organizing for high performance: Employee involvement, TQM, reengineering, and knowledge management in the Fortune 1000: The CEO report. San Francisco: Jossey Bass.

Li, I., Chen, Y., & Kuo, H. (2008). The relationship between work empowerment and work stress perceived by nurses at long-term care facilities in Taipei city. Journal of Clinical Nursing, 17(22), 3050-3058. doi:10.1111/j.1365-2702.2008.02435.x

Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007a). Positive psychological capital: Measurement and relationship with performance and satisfaction. Personnel Psychology, 60(3), 541-572.

Luthans F, Youssef CM, Avolio BJ. (2007b). Psychological capital: Developing the Human Competitive Edge. New York: Oxford University Press.

Macsinga, I., Sulea, C., Sârbescu, P., Fischmann, G., & Dumitru, C. (2015). Engaged, committed and helpful employees: The role of psychological empowerment. The Journal of Psychology: Interdisciplinary and Applied, 149(3), 263-276. doi:10.1080/00223980.2013.874323

Manzo, L. G. (1999). The relationship between sources of mathematics self-efficacy, mathematics self-efficacy, and explanatory style: A structural analysis. Dissertation Abstracts International, 60, 0864.

Martin-Krumm, C. P., Sarrazin, P. G., Peterson, C., & Famose, J. P. (2003). Explanatory style and resilience after sports failure. Personality and Individual Differences, 35(7), 16851695.

Mason, W., & Suri, S. (2012). Conducting behavioral research on Amazon's mechanical Turk. Behavior Research Methods, 44(1), 1-23. doi:10.3758/s13428-011-0124-6

Maynard, M. T., Luciano, M. M., D'Innocenzo, L., Mathieu, J. E., & Dean, M. D. (2014). Modeling time -lagged reciprocal psychological empowerment–performance relationships. Journal of Applied Psychology, 99(6), 1244-1253. doi:10.1037/a0037623

Menon, S. T. (2001). Employee empowerment: An integrative psychological approach. Applied Psychology: An International Review, 50(1), 153-180. doi:10.1111/1464-0597.00052

Newman, A., Ucbasaran, D., Zhu, F., & Hirst, G. (2014). Psychological capital: A review and synthesis. Journal of Organizational Behavior, 35(Suppl 1), S120-S138. doi:10.1002/job.2816

Oettingen, G. (1996). Positive fantasy and motivation. In P. M. Gollwitzer & J. A. Bargh (Eds.), The psychology of action: Linking cognition and motivation to behavior (pp. 236-259). New York: Guilford Press.2896-98326-011

Peterson, C. (1991). The meaning and measurement of explanatory style. Psychological Inquiry, 2, 1–10.

Peterson, C. (2000). The future of optimism. American Psychologist, 55(1), 44-55. doi:10.1037/0003-066X.55.1.44

Pines, E. W., Rauschhuber, M. L., Norgan, G. H., Cook, J. D., Canchola, L., Richardson, C., & Jones, M. E. (2012). Stress resiliency, psychological empowerment and conflict management styles among baccalaureate nursing students. Journal of Advanced Nursing, 68(7), 1482-1493. doi:10.1111/j.1365 2648.2011.05875.x

Scheier, M. F., & Carver, C. S. (1993). On the power of positive thinking: The benefits of being optimistic. Current Directions in Psychological Science, 2, 26-30.

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.

Segovia, F., Moore, J. L., Linnville, S. E., Hoyt, R. E., & Hain, R. E. (2012). Optimism predicts resilience in repatriated prisoners of war: A 37 year longitudinal study. Journal Of Traumatic Stress, 25(3), 330-336. doi:10.1002/jts.21691

Seligman, M. E. P., (1991). Learned optimism. New York: Knopf.

Seligman, M. E. P., &Schulman, P. (1986). Explanatory sytle as a predictor of performance as a life insurance agent. Journal of Personality and Social Psychology, 50, 832-838.

Seligman, M. E. P., Nolen-Hoeksema, S., Thornton, N., & Thornton, K. M. (1990). Explanatory style as a mechanism of disappointing athletic performance. Psychological Science, 1(2), 143-146. doi:10.1111/j.1467-9280.2890.tb00084.x

Seligman, M. E. P., & Schulman, P. (1986). Explanatory style as a predictor of productivity and quitting among life insurance sales agents. Journal of Personality and Social Psychology, 50, 832–838.

Smith, P., Caputi, P., & Crittenden, N. (2013). Measuring optimism in organizations: Development of a workplace explanatory style questionnaire. Journal of Happiness Studies, 14(2), 415-432. doi:10.1007/s10902-012-9336-4

Spreitzer, G.M. (1995). Psychological empowerment in the workplace: Construct definition, measurement, and validation. Academy of management Journal, 38, 144-146.

Sprouse, J. (2011). A validation of Amazon Mechanical Turk for the collection of acceptability judgments in linguistic theory. Behavior Research Methods, 43(1), 155-167. doi:10.3758/s13428-010-0039-7

Strutton, D., & Lumpkin, J. (1992). Relationship between optimism and coping strategies in the work environment. Psychological Reports, 71(3, Pt 2), 1179-1186. doi:10.2466/PR0.71.8.1179-1186

Thomas, K.W., & Velthouse, B.A. (1990). Cognitive elments of empowerment: An “interpretive” model of intrinsic task motivation and personal interpretation. Journal of Management Systems, 6(2), 1-13.

Tian, X., Liu, C., Zou, G., Li, G., Kong, L., & Li, P. (2015). Positive resources for combating job burnout among Chinese telephone operators: Resilience and psychological empowerment. Psychiatry Research, 228(3), 411-415. doi:10.1016/j.psychres.2015.05.073

Wilson, J. H. (2015). Empowering excellence: The relationship of employee self-leadership and psychological empowerment with performance and job satisfaction. Dissertation Abstracts International Section A, 76.

Youssef, C. M., & Luthans, F. (2007). Positive organizational behavior in the workplace the impact of hope, optimism, and resilience. Journal of Management, 33(5), 774-800.

Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. Academy of Management Journal, 53(1), 107-128. doi:10.5465/AMJ.2010.48037118