

COGNITIVE APPRAISAL, WORKPLACE SOCIAL COURAGE, AND PSYCAP

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## ABSTRACT

This study responds to calls for empirical investigation of courage as well as the discovery of positive psychological capital (PsyCap) antecedents. Courage and PsyCap are considered positive constructs associated with beneficial workplace outcomes. As an example, Workplace Social Courage (WSC) predicts organizational citizenship behavior (OCB). PsyCap is robustly correlated with performance outcomes, well-being, and sustainability. For its societal appeal, courage is not yet robustly validated. Further, interventions have demonstrated resultant increases in PsyCap, yet little is known of its antecedent variables. Also, to be discovered, are what variables mediate WSC. These gaps in research present opportunity for additional empirical investigation of WSC and PsyCap as acts of framing and priming (cognitive appraisal) for formation, regulation, and maintenance of potent WSC and PsyCap. Mainstay motivation theories of Expectancy-, Goal-, Future Time Perspective-, and Self Determination-Theory are examined and intertwined with PsyCap variables reiterating the valid call for study of WSC and PsyCap antecedents, while emphasizing the need to unify motivation theories for composite research efforts which increase the prevalence of WSC and PsyCap in the individual and therefore the workplace. Pragmatic methodology able to serve diverse industries and cultures is required to surpass anecdotal quasi-impactful shortcomings. Results showed that Behavioral WSC and PsyCap are acts of positive cognitive appraisals and predictive of PsyCap, which partially mediated between WSC and Behavioral WSC.

*Keywords:* cognitive appraisal, motivation theory, positive psychological capital, PsyCap, courage, social courage, workplace

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### **Dedication**

This dissertation is dedicated to all individuals who in mid-life find themselves broken-hearted in their work, to those who reach a point of unsettling personal dissonance sufficient to initiate radical transformation and resulting exponential growth. May you take courage, increase your positive psychological capital, and in resilient hope, pursue and achieve your true vocations.

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## CHAPTER 1: INTRODUCTION TO THE STUDY

### **Introduction**

The positive psychology movement, which focuses on the positive aspects of human functioning has initiated positive constructs as focus of workplace study. Known as positive organizational scholarship. A core purpose of positive organizational scholarship is to measure the positive psychological aspects within the individual which can be developed for workplace performance outcomes (Diener, 2000; Luthans, 2002; Seligman 1999). Positive organizational scholarship works to address the gap between research and its practical application in the workplace (Luthans, 2002). Two constructs represent promise for advancing practical research applications of positive individual latent constructs, courage and positive psychological capital (PsyCap). Bockorny (2015) noted that courage may not require fear, but it certainly possesses perceptions of potential personal loss of some kind on an individual level. Courageous acts reinforce or alter self-concept (Koerner, 2014). Choosing to behave courageously, to a great extent, reflects the inner person. Courage is acting upon personally perceived potential benefit despite the perceived risk that might materialize. Underlying motivation involves varying proportions of intrinsic and extrinsic motivating factors. Likewise, PsyCap also involves inner workings of the self.

PsyCap is a valid psychometric measure rooted in scientific theory, a composite of established study using measures of self-efficacy (Bandura, 1997), hope (Snyder, 1991), resilience (Masten, 2001), and optimism (Seligman, 1998). These subfactors are easily recalled using the acronym HERO. Considering these internal individual-based constructs, the person-centered approach states that people have a deep-seated desire to actualize themselves (Joseph, 2020; Rogers, 1959; Rogers, 2008). PsyCap is, “a reliable predictor of an individual’s potential

for becoming a ‘new self’” (Whatley, 2016, p. 64). Both courage and PsyCap are constructs offering the discovery of practical means by which to actualize positive person development and performance outcomes in the workplace.

### **Background**

Here follows a research background overview of courage, and WSC, along with PsyCap. The goal of this brief overview is to establish courage and PsyCap as definitive mental (latent) constructs, define the four lower order factors of PsyCap, and share the value of courage and PsyCap as they exhibit themselves in positive outcomes.

### **Courage**

Courage, for its societal appeal and admiration has received minimal quantitative attention. Perhaps one of the reasons is that akin to PsyCap, courage is domain specific and requires a focal context for study. As example, what context is courage measured in? Is it on the battlefield, in the workplace, in sports, in the counselor’s office, in the classroom? Further then, what represents measurable courage in each of these contexts? Is courage transferrable from one domain type to another? Rate (2010) extrapolated varying dimensions of courage such as physical, moral, and psychological (vital courage), pointing out that implicit schemas of courage are rooted in history, culture, and gender stereotypes. That qualitative study set the foundation for the empirical pursuit of courage.

Norton and Weiss (2008;2009;) developed a 12-item scale grounded in the definition of courage as the propensity to act despite fear, “The Courage Measure” (p. 214; Chockalingam & Norton, 2019). Participants were studied in relation to their fear of spiders. This scale views courage as an approach-avoidance mechanism. In other words, courageous acts are behavioral outcomes heavily influenced by individual desires to approach and avoid fear stimuli. Other

examples of this methodology include the study of bomb squad personnel and physiological responses, showing that danger exposure and mastery, impact elements of approach and avoidance (Rate et al., 2007, p. 81). Others, have pursued courage research in the workplace.

Tkachenko et al. (2018;2020;) developed a 6-item behavioral courage scale. Findings indicate the value of behavioral courage at all levels of the organization. As well, behavioral courage and job performance were positively associated. Along the lines of courage and gender stereotypes mentioned by Rate (2010), results revealed that employees were less forgiving of male leaders who failed to behave courageously in the workplace showing that cultural concepts of gender roles and courage exhibit influence. Courage is a broad dimension and as such some have begun to focus on acutely labelled courage types.

### **Workplace Social Courage**

Howard et al. (2017) articulately justified social courage as a dimension of courage most prevalent and required in the workplace. An 11-item scale to measure social courage in the workplace was developed and validated, the “Workplace Social Courage Scale” (Howard et al., 2017, p. 688). This scale showed predictive validity, those who were strong in workplace social courage were increasingly likely to engage in organizational citizenship behaviors (OCBs; Howard et al., 2017). The total sample set used to validate this scale was “1,412” participants (Howard et al., 2017, p. 685). Undoubtedly, news media continually highlights the need for WSC through high profile ethical shortcomings prevalent in modern organizations such as corporate scandals where revenues and spending are misreported or misappropriated, or medical products falsely certified. In these cases, WSC can deter and even eliminate deviant work behavior. Like WSC, PsyCap also predicts positive behaviors in the workplace such as OCBs (Erdem et al., 2017; Shaheen et al., 2016).

## **Positive Psychological Capital (PsyCap: HERO)**

PsyCap has been empirically substantiated over twenty years since its introduction; a plethora of research demonstrates that it is measurable across industry, culture, individuals, groups, and group levels (Agarwal, 2019; Agarwal, 2019b; Agarwal & Avey, 2020; Avey et al., 2011; Burhanuddin et al., 2019; Cavus, 2014; Görgens-Ekermans & Herbert, 2013; Grobler & Joubert, 2018; Khandelwal & Khanum, 2017; Lorenz et al., 2016; Nolzen, 2018). PsyCap is an overarching mental state marked by positivity. It is characteristic of thinking and responding to circumstances with overall positive affect and innovative behavior. It is a higher order construct, with subfactors of hope, self-efficacy, resilience, and optimism (Avey et al., 2011; Burhanuddin et al., 2019; Cavus, 2014; Khandelwal & Khanum, 2017; Lorenz et al., 2016; Nolzen, 2018). Yet, for all the validation of its subfactors, PsyCap has been critiqued for weak psychometric quality.

**PsyCap as a higher order construct.** The subject of critique is mostly focused on the construct validity and convergent validity of PsyCap as a higher order construct. To arrive at an individual PsyCap score, the total scores from the subfactors of hope, self-efficacy, resilience, and optimism are summed. Dawkins et al. (2013) notes studies containing regression analyses showing that adding PsyCap as a covariate to its subfactors produced no significant results in explaining job performance, whereas adding subfactors after PsyCap explained an additional 9% of attributable variance in job performance. Further, Dawkins et al. states that because the higher order construct is summed, its subfactors should be included in analyses because two individuals may score the same PsyCap value but the compositions of their scores on subfactors may represent very different predictive models considering the dependent variable and its relationship to the predictive subfactors of hope, self-efficacy, resilience, and optimism. Grobler and Joubert

(2018) investigated the psychometric quality of PsyCap as a higher order construct, and in their results, combined hope and optimism into one factor.

**Hope and optimism.** Both hope and optimism are positive ways of thinking about the present state and the future (Dawkins et al., 2013; Grobler & Joubert, 2018). Hope is ability to exercise forethought, recognizing possible obstructions to success and constructing means to overcome them (Avey et al., 2011; Burhanuddin et al., 2019; Cavus, 2014; Khandelwal & Khanum, 2017; Lorenz et al., 2016; Nolzen, 2018). Optimism is an overall positive expectation, persistently envisioning ultimately beneficial outcomes (Avey et al., 2011; Burhanuddin et al., 2019; Cavus, 2014; Khandelwal & Khanum, 2017; Lorenz et al., 2016; Nolzen, 2018).

**Self-efficacy.** Self-efficacy is confidence in one's ability to perform, to produce an outcome (Avey et al., 2011; Burhanuddin et al., 2019; Cavus, 2014; Khandelwal & Khanum, 2017; Lorenz et al., 2016; Nolzen, 2018).

**Resilience.** Resilience is capacity to recoil from adversity and detriments, ascending to new mastery which overshadows previous competency (Avey et al., 2011; Burhanuddin et al., 2019; Cavus, 2014; Khandelwal & Khanum, 2017; Lorenz et al., 2016; Nolzen, 2018).

**PsyCap outcomes.** PsyCap is associated with positive outcomes such as employee well-being, summative personal well-being, and life satisfaction (Avey et al., 2010; Cilliers & Flotman, 2016; Çimen & Özgan, 2018; Imran & Shahnawaz, 2020; Kanengoni et al., 2018; Kim et al., 2019; Rodriques & Pieters, 2019; Santisi et al., 2020; Selvaraj & Bhat, 2018; Ukeh & Hassan, 2018; Youssef-Morgan & Luthans, 2015). Further, resilience is correlated with several dimensions of well-being, even in childhood (Chen et al., 2019). PsyCap inhibits stress, promotes positive social behaviors, and combats employee turnover (Aderibigbe & Mjoli, 2018; Baron et al., 2016; Çelik, 2018; Gupta et al., 2017; Kim et al., 2019; Leon-Perez et al., 2016; Pu



et al., 2017, Tian et al., 2020; Virgă et al., 2020). PsyCap is socially permeable (Agarwal, 2019; Agarwal, 2019b; Agarwal & Avey, 2020; Chen et al., 2017; Rebelo et al., 2018). PsyCap is indicative of performance in both workplace and academic environments (Avey et al., 2011; Carmona-Halty et al., 2019; Carter & Youssef-Morgan, 2019; Luthans et al., 2016). There is appreciable evidence showing PsyCap operates as a mediator between multiple independent variables and their corresponding dependents.

### **PsyCap as Mediator**

PsyCap is increasingly studied in academic environments and there is initial evidence that PsyCap mediates Grit (Luthans et al., 2019). Grit is thought to be more trait-like, such mediation may indicate that PsyCap can aid to amplify positive personality traits and inhibit negative ones. The Big Five personality traits are mediated by PsyCap in relation to their influence on burnout, all Big 5 traits mediate except for neuroticism (GÖKÇEN, 2018). PsyCap mediates between students' positive emotions and their academic performance (Carmona-Halty et al., 2019). Further, academic institutions indicative of high desire for Academic Press (being known for scholarly prowess), are environments also indicative of increased student pressure. In the case of resilience, PsyCap has fully mediated between students' pressure and their academic engagement (Fati et al., 2019). PsyCap mediates between supervisory support and PhD students' engagement (Ahmed et al., 2017). PsyCap also is beneficial in student's problematic smart phone use and academic burnout (Zhang et al., 2021). PsyCap shows itself a mediator in workplace constructs also.

PsyCap mediates between the work/non-work interface (Farhan et al., 2021; Mishra et al., 2019). PsyCap was shown to mediate between leadership and dependent variables of perceived organizational support, job performance, voice behavior, job insecurity, and OCBs (Baig et al.,

2021; Baykal & Zehir, 2018; Olaniyan & Hystad, 2016; Qian et al., 2020; Wang et al., 2018).

Voice behavior and organizational citizenship behaviors are often acts of courage which may indicate that courage is an antecedent to PsyCap. One study showed that the cognitive processes which act as precursors to quality sleep in seafarers were non-significant until PsyCap mediated between them (Sabot et al., 2020).

PsyCap is developable and slow to degrade, unlike ingrained personality traits and the volatility of emotions, it demonstrates plasticity; also evidenced in interventions (Choi & Lee, 2014). For its benefits, discovery of PsyCap antecedents has been less researched, yet PsyCap interventions (PCIs) have provided strong evidence that antecedents exist and that they can be manipulated in an orderly manner to develop PsyCap in individuals. The next section addresses workplace social courage, PsyCap, and biblical worldview.

### **Problem Statement**

Courageous behaviors serve to resolve dissonance in self-concept and situations that are non-congruent with identity (Luthans et al., 2015). Like PsyCap, courage is thought to be malleable (state-like; Luthans et al., 2015). Where persons resolve identity dissonance by exercising courageous behavior it provides for future courage solidifying a congruence between self- and group-identity, whereas when persons fail to act courageously it results in depreciated courage and the future likelihood of diminished courageous behavior (Luthans et al., 2015). Therefore, courage, in large extent is identity work (Koerner, 2014). As well, there is noticeable reference in PsyCap research to Fredrickson's Broaden and Build Theory (Fredrickson, 2013) which emphasizes positive cognition and resultant behavior as a connected series and cycle of reinforcing feedback loops (cognition-action-feedback); these feedback loops build additional positive affect and positive cognition-behavior strength. Certainly, courage involves confidence

to act. PsyCap and courage have the component of confidence in common. The commonalities between courage and PsyCap are strong, showing a good fit in that courage is theory-based, state-like, measurable, agentic, and involves positive appraisals (Luthans et al., 2015). Courage, however, does seem to possess increased emotional activation compared to PsyCap. Foremost, the strongest commonality between courage and PsyCap is here believed to be that both are acts of cognitive appraisal. Luthans and Youssef-Morgan (2017) clearly describe a dimension of PsyCap as an act of positive cognitive appraisal leading to the willingness to pursue desired outcomes. Mohanty and Kolhe (2016) summed up PsyCap as positive appraisal incorporating resultant motivation. Rate (2010) included “cognitive processes” as a dimension of courage, perceived danger and risk assessment, and the ability to envision solutions to challenges (p. 55). The latter is distinctly like the PsyCap subfactor of hope and optimism, envisioning ways to circumvent possible threats to reach the envisioned positive outcome and making a positive assessment of the present state’s potential. It takes mental fortitude to exercise courage. Research has indicated that courage may act both as a fifth PsyCap subfactor and as a PsyCap antecedent depending on constructs and circumstance (Bockorny, 2015; Bockorny & Youssef-Morgan, 2019). This relationship between courage and PsyCap is not completely understood.

Considering workplace social courage, Luthans et al. (2015) noted that whistleblowing is the most salient form of workplace courage in research literature. In fact, whistleblowing is a form of WSC. WSC requires going against the group when the momentum of the situation with its cultural, social, and power differential facets hold strong influence over most individuals in the impacted group. Mert et al. (2021) found that organizational justice potently impacted WSC, WSC positively influenced life satisfaction and happiness, with WSC mediating between

organizational justice and life satisfaction and happiness. Considering past research, this study addresses three research gaps.

The first gap is the scant empirical research on courage by using WSC as the domain specific focal point. Second, this study answers the call to pursue discovery of PsyCap antecedents and a process-based understanding of PsyCap development, justified by continuing success of PCIs. The study examines WSC as an act of cognitive appraisal involving perceived benefits and perceived risks related to engaging in behavioral workplace social courage (BWSC). Last, this study contributes to the youthful but valuable research established thus far in the examination of the relationship between courage and PsyCap by testing for PsyCap mediation between courageous cognitive appraisals and BWSC.

### **Purpose of the Study**

The purpose of this quantitative research design using multiple linear regression analysis and mediation analysis is to examine WSC as an act of cognitive appraisal predicting socially courageous behavior in the workplace mediated by PsyCap.

### **Research Question(s) and Hypotheses**

The following are applicable research questions.

#### **Research Questions**

RQ1: Do perceived WSC benefits predict behavioral BWSC?

RQ2: Do perceived WSC risks predict BWSC?

RQ3: Do perceived WSC benefits predict PsyCap?

RQ4: Do perceived WSC risks predict PsyCap?

RQ5: Does PsyCap predict BWSC?

RQ6: Does PsyCap mediate between perceived WSC benefits and BWSC?

RQ7: Does PsyCap mediate between perceived WSC risks and BWSC?

RQ8: Is PsyCap best predicted by measuring perceived WSC benefits and perceived WSC risks as covariates?

RQ9: Is the PsyCap subfactor of hope and optimism primarily responsible for mediating between WSC benefits and BWSC?

RQ10: Is the PsyCap subfactor of self-efficacy primarily responsible for mediating between WSC risks and BWSC?

### **Hypotheses**

Hypothesis 1: Higher perceived WSC benefits predict higher BWSC.

Hypothesis 2: Higher perceived WSC risks predict lower BWSC.

Hypothesis 3: Higher perceived WSC benefits predict higher PsyCap.

Hypothesis 4: Higher perceived WSC risks predict lower PsyCap.

Hypothesis 5: Higher PsyCap predicts higher BWSC.

Hypothesis 6: PsyCap partially mediates between perceived WSC benefits and BWSC.

Hypothesis 7: PsyCap fully mediates between perceived WSC risks and BWSC.

Hypothesis 8: Perceived Workplace Social Courage benefits and perceived Workplace Social Courage risks, as covariates, best predict PsyCap.

Hypothesis 9: The PsyCap subfactor of hope & optimism is the premiere mediator between perceived WSC benefits and BWSC.

Hypothesis 10: The PsyCap subfactor of self-efficacy is the premiere mediator between perceived WSC risks and BWSC.

### **Assumptions and Limitations of the Study**

This study operates on specific assumptions, as prevalent in all studies, it has limitations.

## **Assumptions**

This study assumes that survey method is a valid methodology to assess latent constructs. Furthermore, Amazon's MTurk is viewed as a sufficiently large and heterogeneous population to justify generalizability across diverse business industries, gender, and cultures. MTurk is assumed to be a stronger collection tool to reassure the confidentiality of participants to procure honest responses as participation in research is one of its main purposes. Despite being cross-sectional, the use of ordered scales is thought to be at least substantial in inferring causality, not to be misconstrued with the weight given experimental deduction. This study has limitations.

## **Limitations**

The foremost limitations of this study may be social desirability and threat to self-concept. While it is positive to possess PsyCap, it is likely that the lay population has truly little knowledge as to what PsyCap is and why it is beneficial. In contrast, courage is a ubiquitous, global, and esteemed construct. Odds are that one does not desire to be identified with cowardice. Viewing oneself as less courageous may threaten self-concept in addition to self-esteem, lowering core self-evaluation. Third, the data sample is cross-sectional, the research design itself does not guarantee causality, only inference. With cross-sectional samples, there may exist other influential factors which only reveal themselves longitudinally.

## **Theoretical Foundations of the Study**

Having addressed assumptions and limitations of this study, discussion of its theoretical foundations follows. Many PsyCap studies are rooted in Conservation of Resources Theory, Broaden and Build Theory, and Social Exchange Theory. However, to date there are fewer studies which approach courage and PsyCap as acts of cognitive appraisal. This study is rooted in the concepts of courage and PsyCap as acts of cognitive appraisal which either decrease or

increase volition. Undoubtedly, Conservation of Resources Theory and Broaden and Build Theory are highly applicable to courage and PsyCap. Still, evidence that persons attempt to procure and retain resources, and that positive emotions lead to additional positivity and action do not fully explain the mental mechanics in formulating, sustaining, and regulating courage and PsyCap. Affective Events Theory, Cognitive Appraisal Theory, and mainstay motivation theories are suitable for these mental mechanics.

### **Affective Events Theory and Cognitive Appraisal Theory**

Affective Events Theory (AET) states that persons are influenced emotionally through events that in themselves induce positive or negative valence, consider events that are celebratory or memorial in nature (Ohly & Schmitt, 2015;2013;). Emotionally charged events can potently influence behavior (Wijewardena et al., 2017). Cognitive assessments regarding events can determine whether someone experiences negative or positive emotions in relation to the assessed meaning and value of overall context, this is Cognitive Appraisal Theory (CAT; Kiffin-Petersen et al., 2012). In tandem, these theories illustrate the interaction between framing a situation and the resultant emotional priming for subsequent behavior; a cycle between environment response, additional framing, priming, and responsive behavior completing an ongoing loop. AET and CAT are not far removed from mainstay motivation theories. Motivation theories add the component of a resulting inner drive based on framing and priming. That drive (motivation) being a composite of latent factors and indication of potential behavior away or toward an envisioned outcome. There is convincing empirical validation of these functional cognitive processes of framing and priming (Alamri et al., 2019; Brandstätter et al., 2019; Chopra, 2019; Datu et al., 2018; Denovan et al., 2019;2020; Donald et al., 2020;2019; Eassey et al., 2019; Flake et al., 2015; Galvin et al., 2018; Gul & Shehzad, 2012; Kinnafick et al., 2014;

Koo & Fishbach, 2008; Koole et al., 2019; Lloyd & Mertens, 2018; Locke & Latham, 2002; Moors & Fischer, 2018;2019; Stolarski et al., 2020; Strough et al., 2016; Sull & Sull, 2018; Sytine et al., 2019; White & Jha, 2018; Yang, 2019;2020).

### **Mainstay Motivation Theories**

In this section core motivation theories are discussed and then unified, argument is, their modalities are inextricably related and therefore invite an inclusive future. This list is exclusive of some motivation theories, still it is sufficiently substantive to convince the reader that unification is both conceivable and attainable. Four core theories are discussed: Expectancy-, Goal Setting-, Future Time Perspective-, and Self Determination-Theory. After sharing some of the intricacies in each motivation theory, they are simplified via an inferred and straightforward explanative process.

**Expectancy Theory.** Expectancy Theory possesses three core constructs: expectancy, instrumentality, and valence. The mathematical notation for the relationship among these three is noted as “ $Motivation = Expectancy * Instrumentality * Valence$ ” (Lloyd & Mertens, 2018, p. 25). Expectancy is one’s strength of expectation that effort will produce the targeted result (Lloyd & Mertens, 2018). Instrumentality is less platonic compared to expectancy, where expectancy is belief that types of effort will produce the result, instrumentality is the personal belief that one’s personal effort of that effort type will produce the result (Lloyd & Mertens, 2018). Valence is the perceived value of the result; it is how the person feels in relation to it (i.e., something one approaches or avoids; Lloyd & Mertens, 2018). Expectancy Theory was the first motivation theory to assign emphasis to cognitive processes of motivation (Lunenburg, 2011).

**Findings.** Where persons cognitively assess and assign a positive value and positive affect with an outcome, and the tasks required to achieve it, they are more motivated (Alamri et



al., 2019; Steel, 2007). When exerting effort toward a task, the satisfaction in completing the task impacts the person; both the difficulty of the task and the satisfaction of doing and completing the task create a feedback loop which dynamically interacts with expectancy, instrumentality, and valence (Chopra, 2019). Persons evaluate effort and likelihood of achieving an outcome as a matter of gain and loss (cost); this is what one must give up and what one will gain, where the summed result favors a perceived gain, motivation is higher (Flake et al., 2015). In total, Expectancy Theory states that one must believe an outcome is possible as correlated to specific efforts, that one is capable of personally performing or contributing to those efforts, and one must feel good about the outcome and its prerequisite tasks, the last being an assessed value. The relationship to one's assessment and feeling regarding outcome is strongly correlated to whether the outcome is achieved (Assarroudi et al., 2017; Matusovich et al., 2010).

**Goal Setting Theory.** Goal Setting Theory focuses on the effect that goals have on behavior. The way that one thinks about the goal/s possesses several key components. In their review of 35 years' research Locke and Latham (2002) state that goals help focus attention in directed behaviors. Goals inspire excitement (affect; Locke & Latham, 2002). Perceived difficulty of goals influence effort intensity and duration, especially where goals are time-bound (Locke & Latham, 2002). Assigned importance, confidence pertaining to goal achievement, satisfaction in pursuit, and progress feedback modulate effort and persistence (Locke & Latham, 2002). Like Expectancy Theory, Goal Setting Theory emphasizes the cognitive process of assessment and assigned value.

**Findings.** Sull and Sull (2018) stated that where goals are FAST (frequently discussed, ambitious, strategic, and transparent) they are more often achieved. Attention is given to frequently discussing goals and to making them transparent, visible to others as a mechanism

which holds goals salient for effort. The way a person assesses the value of a goal's outcome, coupled with a corresponding affect, positive or negative, sways the effort and commitment to the goal (Brandstätter et al., 2019). Interestingly, the closer one is to achieving the outcome, the more regulated the effort based on the attractiveness (approach mindset) or undesirability (avoidance mindset) assigned to the goal (Brandstätter et al., 2019). In their qualitative study of Grit and long-term goal acquisition, Datu et al. (2018) found three themes inherent to success, they are focus, continuous effort, and adaptation to change. In relationship to adaptation, students who were intrinsically driven, mastery-based, versus performance-based (extrinsically driven, e.g., by peer-comparison) performed better academically (Gul, & Shehzad, 2012; Van Yperen & Leander, 2014). Assessments of progress, what has been accomplished toward a goal and what has yet to be done impact motivation and valence (Koo & Fishbach, 2008). This leads to Future Time Perspective Theory.

**Future Time Perspective Theory.** Persons perceive time differently. For some, their focus is on the present with less interest in long-term behavior-outcome projections, while others view several years minimally and present behavior as increasingly paramount for acquiring targeted outcomes (Simons et al., 2004). Future Time Perspective (FTP) is not a theory of actual time but the person's interpretive perception of time, correlated inferences based on these time interpretations, and resultant impacts to motivation (Simons et al., 2004). As with Expectancy- and Goal Setting-Theory, value and valence is placed against the imagined outcome and moderated by one's interpretive time framework. Topics tied closely with FTP are delayed gratification and instant gratification, the ability to self-regulate distance perceptions marked by time which represent behavior-reward cycles (Simons et al., 2004). Focus is placed on the type of motivation that is involved in FTP, intrinsic versus extrinsic, for example, "I do this because I

have to” versus “I do this because I want to, it is who I am, and who I am becoming” (Simons et al., 2004, pp. 128-129).

**Findings.** In a study of high-performance work systems, FTP and PsyCap exhibited a positive correlation along with a dyadic moderation (Abubakar et al., 2019). One’s general hope, efficacy, resilience, and optimism coupled with their perspective of time and outcomes appear intertwined. Abubakar et al. (2019) diagram this interaction, noting FTP in their study as having feeling-based dimension, resultant of valenced perspectives on the “future” and “life” (p. 1101). Denovan et al. (2019;2020;) cite Fredrickson’s (2001) attention to positive affect and the role it plays with positive emotions fostering executive cognition for dynamic decision making and skill acquisition instilling a positive growth-execution cycle, where the person increases their perspective and skillset affording ever increasing advantage and opportunity (Broaden-and-Build Theory). Indeed, quality FTP increases positive affect which in turn generates executive functioning for more strategic- and pliable-efforts invested in outcomes (Denovan et al., 2019;2020). One’s time perspective is a complex matrix of environmental, cognitive, and biological mixes and a predictor of well-being and successful outcomes (Stolarski et al., 2020). As with Expectancy- and Goal Setting-Theory, FTP echoes an interplay of constructed mental perspectives and affect. The fourth major motivation-based theory in this section is Self Determination Theory.

**Self Determination Theory.** The three core constructs in Self Determination Theory (SDT) are based on what researchers believe to be three foundational well-being needs in every person, those of autonomy, competency, and social connection (Koole et al., 2019). The fundamental underpinning philosophy of SDT is a belief that persons desire to grow and to become more than they perceive themselves to be at present until they have touched the limit of

their potential (Koole et al., 2019). Autonomy is the need to have influence over one's outcomes in acknowledgement of a sentient and independent psyche, it is both perceived and actual in scope, meaning it is a factor of environmental realities and the way one responds to those realities. Competency is a mastery need. Competency needs are marked by a need to do what one does well, with skill and confidence. A need for social connection is what Self Determination theorists term relatedness. The idea that every person, even those with extreme preference for introversion, desire and need to have social affiliation and care to benefit from social contribution/feedback and social identity. Koole (2019) summed up the intent and theme of SDT as the making of choices which cater to intrinsic motivation rather than extrinsic motivation if one desires increased well-being and promotion of future potential.

**Findings.** Traditionally, SDT autonomy has been thought of as the ability to make decisions and direct one's course. In addition, Eassey et al. (2019) showed that patients facing severe asthma needed not only the autonomy dimension of decision-making, but also autonomy was a preservation of self-concept. When engaging difficult activity, such as a steep growth curve from physical inactivity to a physically active life-style, strides in competency fostered positive feedback loops which promoted self-concept; participants in a walking regimen who relapsed and rebounded, along with those who adhered throughout the walking regimen study, both expressed their boost in confidence in competency gains and environments marked by acceptance representative of promotion of autonomy within their groups (Kinnafick et al., 2014). Results show the impact of cognitive-effort-evaluation cycles. SDT constructs appear culturally robust while, as to be expected, relatedness is a more prevalent and favored need among collectivistic cultures (White & Jha, 2018). Akin with Expectancy-, Goal Setting-, and Future Time Perspective-Theory, SDT also shares the content of schematic cognition and affect marked

by feedback loops. What can be ascertained from this common cognition-thought pattern inherent in all four of these mainstay motivation theories as well as AET and CAT?

### **PsyCap as Perspective...Motivation Theory Unification**

It is clear from this brief review of these fundamental motivation theories that each, while possessing unique construct labels, all share a cohesive pattern. They are the product of the study of schematic cognition, resulting affect, and the interaction of these two with resulting effort and subsequent environmental feedback. If one doubts the validity of the kinship between Expectancy-, Goal Setting-, Future Time Perspective-, and Self Determination-Theory there are other theories not reviewed here, but potentially applicable, such as Mindfulness Theory. Mindfulness is the act of metacognition, thinking about one's thinking, it is a state of awareness of present thought streams and their affective results (Donald et al., 2020;2019). Donald et al. (2019;2020) in their meta-analytic study noted the complexities of metacognitive motivational factors, vis-à-vis extrinsic and intrinsic interactions which produce or inhibit quality mental well-being (PsyCap). In line with calls for reporting effect sizes as encourage by Cohen (1994) for more confident applications of research, Donald et al. (2020;2019) reported an effect size of mindfulness intervention across 89 studies (N = 25,176) showing  $d = .47 (.10)$  95% CI = [.28, .67], with motivational results. Further, mindfulness application showed effect size  $d = .54 (.11)$  95% CI = [.33, .76] pertaining to intrinsic motivation (Donald et al., 2020;2019). These four motivation-based theories and their findings included in this article with mindfulness findings are a salient indicator that one's self-awareness, schematic cognitions, and affect demonstrate themselves in output effort (behavior) causing tangible results. No behaviorists and few cognitive theorists ought to argue that behavior and its environmental results are immeasurable. Donald et al. (2018;2019) emphasize, theirs' is a call not to the value of mindfulness as a

phenomenon (i.e., what it is), rather how it works (process) so people can behave the evidence-based process having already substantiated construct value. For a thorough but non-exhaustive visual of motivation theory and PsyCap commonalities please see Figure A1.

**PsyCap as Perspective Making.** A key purpose in the theoretical foundation here is that research strongly suggests that at the core, PsyCap is the product of a cognitive process which induces perspective in a respective domain such as the workplace or academic pursuit. Four core motivation theories have been described and their primary findings extrapolated. Their commonalities were illuminated: schematic cognition, affect, and their dyadic interaction with effort (behavior). Note that simply anchoring PsyCap as an act of perspective making using the well evidenced PsyCap research accomplished to date creates a foothold in pre-existing validity against which to perform research, it provides an error correcting mechanism. The same can be said of the established motivation theories mentioned in this study. In other words, both qualitative and quantitative PsyCap and courage studies which investigate these two constructs as process-based acts of cognitive appraisal (framing and priming) for perspective will show themselves valuable.

Certainly, there is difficulty in bridging constructs from separate theories, no matter how similar. However, it is not impossible as noted by Bauer and Hussong (2009). A read through the research literature makes visible the common cross-citations and the use of similar terms between motivation-based theories. These are indications that universal processes are at play across theories and therefore in heterogenous populations as well. What then would PsyCap and courage, as acts of perspective making, contain that the other theory constructs do not already possess?

The interest here is in an increasingly process-based construct. Meaning, the outcomes and measurability of PsyCap as related to manipulating PsyCap as perspective making is an initial search for cognitive appraisal as an antecedent, but more, how to use this natural process consciously for formation, sustainment, and regulation of PsyCap. As mentioned, the discovery need not be a tabula rasa inception. As the research demonstrates, the act of framing and priming are native to performance outcomes; the motivation based on cognitive schemas (value in perceived outcome) and the way one is valenced in those cognitive schemas (i.e., aggregate positive feeling) determine effort (Carmona-Halty et al., 2019b). Therefore, PsyCap is the resultant act of framing and priming, intentionally and strategically terraforming perspective and thereby regulating resultant affect (emotion). This interplay between perspective and affect, based on current research, demonstrates that emotion is a regulator of effort (behavior), and it acts as a dyadic feedback loop impacting future effort and framing (Strough et al., 2016). This is what it means to depict perspective making as a process-based antecedent to PsyCap.

Up to this point researchers have established plenty of what motivation is, and how they have witnessed it working, but scant attention has been given to intense operationalization of methods by which to affect how one masters these motivational variables for high quality, potent output (effort). Present studies, some longitudinal, stop short of the intricate and dynamic process that framing and priming play in goal-acquisition, a tapestry explicitly noted by Moors and Fischer (2018;2019). For certain, Expectancy-, Goal Setting-, Future Time Perspective- and Self Determination-Theory show framing and priming as ingrained human mechanisms; in addition, there are other convergent and valid theories, specifically Locus of Control- and Power Distance-Theory (also housing framing and priming effects; Galvin et al., 2018; Yang, 2019;2020). Seeing PsyCap as resultant of perspective making, is a justifiable approach capable of unifying

motivation-theory constructs into a more pragmatic and utilitarian utilization. PsyCap is an empirically vetted construct associated with performance outcomes. The commonality between motivation theories considering PsyCap as result of perspective making (framing and priming) could serve as method to test and unify motivation theory. One can test against valid measures of PsyCap while rooted in motivation constructs/processes.

### **PsyCap Perspective as Applied-Construct (Pragmatic Methodology)**

The hope of this study is to present evidence for perspective making toward an agnostic and pragmatic methodology universally suited for use across diverse people groups. In agreement with Luthans' (2002) scientific counter-response to anecdotal performance literature, PsyCap as perspective making, is to be operationalized for real-world outcomes. The benefit of anecdotes is their versatility while their disadvantage is their lack of specificity and validity. In kind, PsyCap perspective making needs to be generic enough to encapsulate variables such as individual nuances, a spread of industries, and cultural variety. A pragmatic method is concerned with the how (process). It is aware of constant variables such as value (extrinsic/intrinsic motivation), instrumentality, goal specificity, time perspective, and extrinsic promoting/prohibiting environmental factors. This will allow the individual to make use of universal thought-behavior mechanisms (i.e., framing-priming-effort-feedback). In parallel, the methodology must be specific and measurable in these universal variables and the subfactors of PsyCap. On the other hand, PsyCap perspective making must not lose itself in the granularity of objects that are part of its variables such as the particulars of a culture, industry, and trait-environment debates. Picture a mechanical engineer who aids the golfer with their golf swing. The engineer can traverse any sport because the physical laws of motion apply everywhere. In contrast, the golf pro instructor is limited to the golf domain. In essence, PsyCap perspective making is a practical way of



consciously choosing how one is framed, influencing how one is primed, and putting forth strategic effort based on positive affect and goal-directed behaviors that provide for a cyclic momentum of increasing optimistic valence and confidence built by skill; and this without being tethered too closely to the life events and circumstances of the individual because framing, priming, and effort are universal cognitive activities used by humans. A description of this evidence-based research composite is included here.

Gathering from social psychology and cognitive psychology with motivation theory as a backdrop the practical and dynamic flow of PsyCap perspective making process is easily mapped for study and validation. Framing is the act of comparative thinking regarding a topic or goal, as a system, with all its benefits and costs. As highlighted, the value of a desired outcome and the effort (sacrifice in time and other perceived lost opportunity;  $\text{Perceived Value} - \text{Perceived Effort} = \pm \text{PsyCap Perspective}$ ) determines the valence ( $\pm$  aggregate emotion) correlated with the outcome. The present summative emotion, as has been shown, is like an energy or fuel which impacts performance ( $\text{effort} * \text{time} * \text{direction}$ ). In turn, the results of effort provide a feedback loop against which the performer modifies framing resulting in priming and the decision to decrease, maintain, or intensify effort. Like most latent phenomenon, one can approach any one of these with intelligence and effort to facilitate a rising positive momentum, as they are in dyadic and cyclic relationship (see Figure B1).

A pragmatic methodology will teach persons how to master PsyCap perspective to wield psychological capital. They can perform ongoing self-micro-interventions. This will entail mastery over value alignment such as extrinsic/intrinsic motivation, personality, and belief systems. It also involves attaining procedural knowledge which requires the act of manipulating PsyCap as individual perspective making. This process-based approach follows PCI success with

an individually applicable and universally useful psychological tool established in evidence, rather than fads, and intertwined with PsyCap; less glorious and emotionally stimulating than present self-help best sellers but far more impactful and sustainable. Having established a theoretical foundation for this study a foundation for its biblical study is presented. What is a biblical perspective of courage and PsyCap?

### **Biblical Perspective on Courage and PsyCap**

The Bible possesses substantial instances of courage. The word courage is used early in the Old Testament in Joshua 2:11, “When we heard these reports, our hearts melted and no courage remained in anyone any longer because of you; for the LORD your God, He is God in heaven above and on earth below” (New American Standard Bible, 1971/2020). This was Rahab’s explanation to the Israelite spies, describing the impact of past news regarding the acts of God on behalf of the Israelites, an overall loss of courage. Like the theoretical research foundation reviewed, the Bible demonstrates that courage is developable and a state to be intentionally manifested. In describing the end of the days before His return, Jesus said, “These things I have spoken to you so that in Me you may have peace. In the world you have tribulation, but take courage; I have overcome the world” (New American Standard Bible, 1971/2020, John 16:33). There are sufficient verses that include this wording, “take courage”. Based on a biblical worldview, it is because of the Fall of humankind, that courage is a prerequisite to overcoming challenge and especially challenges requiring moral fortitude. It was with the Fall that fearful tendency and risk perception were introduced to the human psyche. Adam responded to God in the garden of Eden after having partaken from the forbidden tree, “I heard the sound of You in the garden, and I was afraid because I was naked; so I hid myself” (New American Standard

Bible, 1971/2020, Genesis 3:10). Paraphrase, “I am now self-conscious, at risk, in fear... I wrestle with confidence and shame”. As it speaks to courage, the Bible speaks also to PsyCap.

Good examples of PsyCap are found in Genesis and Philippians. There are others, these two are highlighted. At the rejection of his offering, Genesis 4:5 describes Cain as angry, his facial expression as downcast. God tells him that if he will do what is right his mental state will shift to one of positivity. Simply, if Cain were to behave in the way God required, he would initiate a positive PsyCap-behavior cycle. The apostle Paul stated, “Finally, brothers and sisters, whatever is true, whatever is honorable, whatever is right, whatever is pure, whatever is lovely, whatever is commendable, if there is any excellence and if anything worthy of praise, think about these things” (New American Standard Bible, 1971/2020, Philippians 4:8). Paraphrase, fill your cognitions with encouraging facts (truth), with commendable behaviors, things worthwhile and without shame; develop thinking that is godly, dignified, optimistic, and full of hope.

This theoretical foundation section has served to encourage the unification of motivation theory and a process-based pursuit of perspective making (PsyCap perspective). As Luthans et al. (2007b) describe PsyCap as a “motivational propensity to accomplish tasks and goals”, the theoretical foundation here contributes to and warrants the use of strong “theoretical commonalities” inherent in motivation theories that apply to cognitive appraisals, courage, and PsyCap (p. 548). These commonalities can be integrated from motivation theories for a pragmatic approach to formulating, sustaining, and regulating PsyCap. In essence, to use motivation theory to study the best methods for increasing PsyCap universally. Two examples from the Bible, one Old Testament and one New Testament have been illustrated from among many others that demonstrate courage and PsyCap, were presented from a biblical perspective.

This study begins humbly and acutely by attempting to create a synthetic cognitive appraisal, one which demonstrates its impact on courage and PsyCap. Now follows a definition of terms.

### **Definition of Terms**

The terms used in this study are cognitive appraisal, PsyCap (HERO subfactors: hope, self-efficacy, resilience, and optimism), and courage. The broad nature of courage is confined to Workplace Social Courage (WSC). The following is a list of these terms and their definitions as used in this study.

**Cognitive Appraisal** – Cognitive Appraisal is defined as the mental framing of domain specific perceived benefits and perceived risks whereby the resultant framing primes the individual affectively and physiologically (Howard et al., 2019).

**Workplace Social Courage** – WSC is defined as perceived beneficial workplace behavior which may result in a decrease or ultimate loss in one or more of the following: frequency and positivity in social exchanges in one’s workplace, one’s group identity, one’s material resources (Howard et al., 2017).

**PsyCap** – PsyCap is defined as a higher order construct that is,

“an individual’s positive psychological state of development that 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; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success” (Luthans et al., 2007, p. 3)

### **Significance of the Study**

This study contributes to existing research literature and science practitioners in significant ways.

## **Research**

Howard and Holmes (2020) noted that there is scant research regarding mediators between social courage and its outcomes (Howard & Holmes, 2020; Mert et al., 2021). This study contributes to this need by examining the role of PsyCap in social courage and behavioral outcomes. Furthermore, this study adds to the search to tease apart the nuances in the relationship between courage and PsyCap. Detert and Bruno (2017), in describing the possible antecedents of courage, cite multiple instances in literature where hope, resilience, positivity, and foremost, efficacy are key themes as they are in PsyCap; the need to study courage and PsyCap was noted by Luthans et al. (2015) and thus far pursued by Bockorny (2015) and Bockorny and Youssef-Morgan (2019). In answer to Avey (2014) calling for the discovery of PsyCap antecedents, this study examines the process of developing PsyCap through the lens of cognitive appraisal rooted in motivation theory. Just as there was a notable absence in research literature regarding PsyCap antecedents there is now an obvious call to PsyCap as a product of cognitive appraisal (perspective making) and resultant motivation wrought in behavioral outcomes (Avey, 2014; Burns et al., 2019; Fredrickson & Joiner, 2018; Meyers & van Woerkom, 2017; Prem et al., 2017; Srivastava & Maurya, 2017; The & Nguyen Thuy, 2020). In sum, this study contributes to the investigation of the relationship between cognitive appraisal (framing, priming... perspective making), WSC, and PsyCap. The findings in this study provide practitioners applicable value. Confident in the results of PCIs, this study contributes to practice

by encouraging research that examines the process (cognitive appraisal) whereby courage and PsyCap are developed.

### **Practice**

This study suggests that practitioners can develop and train effective processes of cognitive appraisal (framing, priming... perspective making). Practitioners can pay close attention to the physiological and affective components of cognitive appraisal and cognition-behavior-environment cycles. This study promotes putting the evidence-based research into the hands of the workplace individual, evidence-based self-help. The implication is that practitioners can teach the individual how to formulate, sustain, and regulate their own perspectives to increase their courage and PsyCap. This evidence-based process extends beyond laypeople “positive thinking” into true operationalization of tangible cognitive-behavioral cycles which are not recklessly rooted in ad hoc material but calculated scientific factors tailored to the individual and their workplace. Neuroscience is progressing rapidly to the point that brain scans indicate positive mental states and abilities, one of which is the ability to self-regulate, which is described as part of PsyCap (McCraty et al., 2009; Yadav & Kumar, 2017). It is this type of measurable accountability this study suggests is possible in practice, especially as the process of developing courage and PsyCap are increasingly understood.

### **Summary**

The constructs of courage and WSC were discussed. Presently utilized scales of courage were overviewed. The infancy of courage research was noted in addition to the gap in the relationship between courage and PsyCap. This chapter has introduced PsyCap with its subfactors of hope, self-efficacy, resilience, and optimism. The empirical quality of PsyCap as a research construct was reviewed with its beneficial outcomes. The need to pursue PsyCap

antecedents as a process-based methodology was expressed. Ten research questions and hypotheses were listed. Assumptions concerning the study's data collection were shared and limitations were presented.

A theoretical foundation was laid. This theoretical foundation consisted of CAT and AET in addition to mainstay motivation theories of Expectancy-, Goal Setting-, Future Time Perspective-, and Self Determination-Theory. Findings highlighted for each of these motivation theories and the commonalities of cognitive appraisal (framing and priming) were illuminated. A recommendation to unify motivation theories as perspective making (PsyCap perspective), as a process-based methodology was conceptually proposed. A biblical perspective on courage and PsyCap was shared using two examples from the Bible. The terms cognitive appraisal, PsyCap, and WSC were defined. Lastly the research and practice significance of this study were stated as participating with the ongoing pursuit of PsyCap antecedents and increased understanding regarding the relationship between courage and PsyCap. Practice significance was expressed as the eventual ability to bring evidence-based self-help directly to the individual in the workplace. Next, the subsequent literature discusses in detail the antecedents of courage, PsyCap, the relationship between these, and a biblical foundation for the study.

## CHAPTER 2: LITERATURE REVIEW

### Overview

This chapter provides an overview of social courage, the antecedents of PsyCap and PCIs present at the date of submission. Antecedents covered are environmental, social, and individual level factors. As a form of quasi-experimental and pragmatic antecedent methodology, PCIs are included in the antecedent section. The importance of PsyCap antecedents as an ongoing research need is stressed and five years of antecedent research is summarized. Further, PsyCap is addressed from a biblical perspective as witnessed in Bible narratives and viewed through the lens of the established framework of motivation theory. Articles were reviewed with specific search strategy and the inclusion-exclusion criteria are described next.

### Description of Search Strategy

To gather peer-reviewed research on social courage, PsyCap antecedents, and PCIs, an All EBSCO, All ProQuest, and Science Direct search were performed, four searches per database, one for social courage, a second for antecedents, a third for interventions, and a fourth for PsyCap and courage. Research incorporated was peer-reviewed. Search results were limited to English translations only. The abstracts of all resulting articles were reviewed for applicability to the literature review, circa 400 – 450 articles. Where the abstracts were unclear or lacked explicit mention of search terms, article content was vetted for variables/results and discussions pertaining to subject matter. Atlas.ti version 22.0.5.0 was utilized to import and document articles (ATLAS.ti GmbH, 2022). While documenting articles and grouping their findings, the snowball technique was used to review each article's references for additional applicable articles applying to search terms. Articles were categorized into groups. Categories consisted of social courage (n = 17), PsyCap antecedents (n = 199), and PCIs (n = 30). The addition of substantial



antecedent and PCI articles shows that PsyCap research interest is increasing exponentially. Wu and Nguyen (2019) included 105 primary research articles published between the years 2000 – 2018 in their meta-analysis. The search used for this manuscript indicates that 229 PsyCap articles were published since 2016 to the time of this study. This is considerable growth since that meta-analytic analysis. Two articles, not included in the article counts were discarded. One because statistical analysis was correlational only and not able to imply causality. The second because the translation to English was uninterpretable. Regarding PsyCap studies (including interventions), articles were discarded if measures were unrelated to the PCQ-24 or PCQ-12 instruments (Psychological Capital Questionnaires). As example, studies which examined subfactors rooted in these instruments were included but not measures that were independently derived where subfactors did not consist of items within the PCQ-24 or PCQ-12.

### **Social Courage Search**

The exact phrase “social courage” had to exist anywhere in the article text for consideration. Due to the dearth of social courage research, a search for PsyCap and courage was conducted. One article, due to its insightfulness into workplace courage through qualitative method was added via snowballing technique (Koerner, 2014).

### **PsyCap and Courage**

The terms PsyCap or psychological capital and courage had to exist in the title or abstract for inclusion.

### **Antecedent Search**

Inclusion criteria for the first search specified that psychological capital or PsyCap had to exist in the title of the article along with the word antecedent anywhere in the text.

### **PCI Search**

Like the antecedent search, psychological capital or PsyCap had to exist in the title of the article. Different than the antecedent search, the word intervention had to exist in the abstract.

### **Biblical Study**

In the examination of scripture for the constructs of PsyCap, its subfactors, and social courage, the expository scholarly recommendation of Robinson (2014) was referenced. Dr. Robinson's recommended method is the use of lexicons, concordances, grammars, word-study books, and bible dictionaries, bible encyclopedias, commentaries, bibliographies, and other tools such as online knowledge stores. In this case, lexicons and an exhaustive concordance are primary tools used for study of the original Hebrew and Greek root word meanings. Based on search results and final inclusion the following literature review is derived.

### **Review of Literature**

This review covers courage, social courage, and PsyCap antecedents and PCIs.

### **Workplace Courage**

Even though courage is difficult to define, vis-à-vis, courage is in the eye of the beholder, and empirical pursuit of courage is worthwhile in a world marked by increasing frequent change (Rate et al., 2010). Courageous behavior benefits the organization at all levels with a positive association with job performance (Tkachenko et al., 2018;2020;). Like PsyCap antecedents, the construct of courage is in the youth of its empirical investigation. Despite the longevity of interest in courage and society's esteem for the construct, a clinical universally applicable definition is yet illusive. The present scoping definition of courage possesses four criteria. Courage is the result of cognitive appraisal, it is volitional and agentic, when it is exercised there is real potential risk to self, and there is an envisioned positive outcome (Rate, 2010; Rate et al., 2007). Some scholars question whether courage requires an element of fear (Bockorny, 2015).

Another more qualitative and valuable definition of behavioral courage (courageous acts) was put forth by Koerner (2014) and states courage, “as a cluster of behaviors, cognitions, and emotions” (p. 64). Mert et al. (2021) in describing traditional components of courage stated, “courage involves emotion, cognition and action in which individual risks harm in pursuit of a noble purpose” (p. 4). These two latter definitions aptly describe components of cognitive appraisals resulting in goal-directed and effortful behaviors. Certainly, multiple scholars agree that courage involves some level of risk as it pertains to a possible outcome (Bockorny & Youssef-Morgan, 2019; Detert & Bruno, 2017). Bockorny (2015) noted that risk represents loss, so whether fear is present there is potential for loss of some kind; it might be social support, material resources, or threat to self-concept, etcetera. As example, entrepreneurial courage is not full hardy abandonment (lack of risk/fear), it is hopeful and goal-directed behavior in consideration of perceived risk (Bockorny & Youssef-Morgan, 2019). Bockorny (2015) emphasized that agency (volitional choice), one of the four courage criteria, is a key facet of courage. Courage is willful action in response to challenge and risk as compared to behaviors characterized by automaticity. An element of courage is the ability to behave toward an envisioned outcome that is not yet actualized, pursuing that envisioned outcome despite risk/fear and uncertainty (Bockorny, 2015). It is added here, in review of Rate et al.’s (2007) article and its initial review of prior studies, courage is implicitly describing not only risk involved in courage, but the effort required to gain what are believed to be positive courageous outcomes; this brings into consideration expectancy value theory and other motivational theories. Perceived effort may help to tease apart the ambiguous nature of fear/risk involved in courage as mentioned by Rate et al.; Rate et al. noted the nuanced nature of linking cognitively courageous functions (the courageous actor’s cognitive appraisal) and courageous behavior. Is a courageous act

indicative of courage without the underlying cognitively courageous mechanisms present in the actor? For instance, does the same exemplary behavior represent courage in two actors if one of them is behaving out of reckless cognition? This rationale also suggests that an act itself might be courageous for one actor and not another. Consider Rate et al.'s second core criteria for the present operational definition of courage, it is, "executed after mindful deliberation" (p. 95). Indeed, part of the social esteem of observed behavioral courage is the actor's behavior as an indication of successful cognitive prowess (i.e., overcoming internal mental processes which afforded their exemplary behavior, such as willingness to sacrifice and instrumentality). The observer may rate courageous behavior by engaging in perspective taking, asking themselves how personally difficult (mentally forbidding) it would have been had they faced such a challenge. Attribution Theory substantiates that persons seek to ascribe meaning for the reasons behind the actor's behavior. How and why did the actor arrive at performing the behavior? Reed (2020) made the point that Socrates' courage included an actor's intent, "Hence what the common understanding of courage neglects is the underlying psychological condition, including motivation, for the courageous action" (p. 122). Rocha (2017) practically describes Expectancy Value Theory in depicting a methodological cognitive process of the courageous actor, the depiction has elements of goal value and instrumentality. Further, Rocha makes the point that situational and cultural factors along with moral valence impact perceptions of courage, in the case of that article physical (martial) courage is the focus. These multifaceted elements illustrate courage is both a noun and a verb and as a criterion of courage both might need to be present, courageous cognitive mechanisms and corresponding behavior (i.e., trait or state courage & behavioral courage; Howard & Cogswell, 2019). One possesses courageous cognition and actualizes it through courageous behaviors.

Like PsyCap, courage is domain specific, Howard (2019) lists domains of physical-, moral-, and social-courage and Rate et al. (2010) noted that courage is often labelled based on the context in which it occurs. Considering PsyCap, one research gap noted by Luthans et al. (2015) is the relationship between courage and PsyCap. A core question regarding courage and PsyCap is whether courage is an additional subfactor to be included with hope, self-efficacy, resilience, and optimism, or is courage primarily an independent or dependent variable in relation to PsyCap? In their qualitative study, Dhir and Sharma (2020), observed courage as a theme in a sample set of employees in diverse industries in India. They suggest that courage is a likely subfactor within employees' PsyCap in workplaces in India. Bockorny (2015) performed factor analyses supporting courage as a fifth subfactor of PsyCap in a sample of entrepreneurs; also, there is evidence that PsyCap predicts courage. In a later study, Bockorny and Youssef-Morgan (2019) showed that entrepreneurial courage significantly impacted entrepreneur PsyCap, where their PsyCap mediated between courage and life satisfaction. On the other hand, Santisi et al. (2020) showed that courage mediated between employee PsyCap and the quality-of-life dimension of flourishing. This is another instance where variables might be reflexive, or boundary conditions may exist. Does courage predict PsyCap, but only as a tipping point, say when perceived risk is high?

Some believe courage to be trait-like, individuals might be characteristically courageous but there is evidence that courage might be a state "to the right" of personality (Howard, 2019, pp. 735 & 744). As PsyCap is considered state-like in nature, and like courage, rooted in positive cognitive appraisals, it makes sense to investigate the association between courage and PsyCap. It is fair to say that courage involves dissonance, a tension between a perceived beneficial and ethical outcome and the cost of effort and associated loss. Koerner (2014) studied the accounts of

workplace courage in 89 business professionals, the results show that courageous acts were related with conflicts between self- and social-identity facilitated by work situations that required courageous acts to resolve the cognitive dissonance. As courage is a broad construct and challenging to define, for the purpose of this dissertation a more acute focus is given to the domain of WSC as measured by Howard (2019).

### **Social Courage**

Howard (2020), while including the accepted courage criteria of volitional agency, objective risk, and positively perceived outcome, furthered the definition of social courage as a domain specific courage by including the risk of damage to “social esteem” (p. 2). Social courage is affiliated with Social Identity Theory, which posits that threats to self-esteem increase the need for identification with an ingroup, the promotion of ingroup affiliation enhances self-esteem (Kassin et al., 2017). Social identity is stronger when one associates self-concept with a group, more so than individual characteristics; it is through self-categorization that the individual’s characteristics versus shared group characteristics are more salient (Chadee, 2011). Therefore, social courage can be thought of as behavior which the individual views necessary, but threatens to go against social norms, rules, and culture. This counter-group behavior by the individual can be said to threaten elements self-concept and therefore self-esteem. Furthermore, true threats to survival needs (employment) and career trajectory exist as a repercussion of WSC; in the U.S. freedom of speech is legal, however, in many workplaces unspoken social norms exist which penalize the courageous (Detert & Bruno, 2017). Akin to the discovery of PsyCap antecedents, social courage antecedents are also in early discovery. Social courage is a predictor of positive workplace outcomes.

*Social courage benefits.* Across a diverse set of participants, social courage positively predicted beneficial voice behavior while negatively predicting detrimental voice behavior (Howard & Holmes, 2020). Furthermore, this relationship was not moderated by top leadership and supervisory attitudes, nor was it moderated by organizational structures that would preclude open communication channels such as distributed workgroups (Howard & Holmes, 2020). Study also shows that acting courageously in congruence with one's identity and convictions promotes positive mental states and predicts future courageous acts (Koerner, 2014). What are the predictors of social courage?

*Social courage antecedents.* Like PsyCap, social courage is thought to be somewhat influenced by personality traits. Howard (2021) used the widely validated HEXACO measure created by Lee and Ashton (2018) to examine the relationship between HEXACO traits, approach/avoidance framework, and social courage in the workplace. Trait factors of emotionality, extraversion, agreeableness, conscientiousness, and openness to experience showed significant correlation with WSC. Further, approach mindset, but not avoidance mindset, fully mediated between agreeableness and WSC and conscientiousness and WSC. Approach mindset partially mediated between emotionality and WSC and extraversion and WSC. These findings are akin to many of the PsyCap mediation studies where higher levels of PsyCap mediate the independent variable as compared to lower levels of PsyCap which afford for more main effect between the independent and dependent variable. This phenomenon suggests presence and absence of, as well as potency of cognitive functions (cognitive appraisals). Perhaps the more positive and skillful the cognitive appraisal the stronger the mediation. Studies which show relationship between personality traits and constructs like social courage and PsyCap do not necessarily infer that social courage and PsyCap are in fact not state-like, simply that

predispositions make shaping these constructs less or more effortful. This can be stated such that it is likely more difficult for those, who trait wise, favor an avoidance mindset compared to those who favor an approach mindset, to facilitate creation, maintenance, and development of WSC and PsyCap. Other research provides additional antecedents for study.

Howard and Cogswell (2019) showed that grit, proactive personality, job characteristics, empowering leadership, power distance, and age significantly predicted WSC. What is interesting is that ethical leadership, abusive supervision, gender, and workplace tenure were not significantly predictive. The fact that this list was nonsignificant is also highly valuable. It suggests that ethical leadership is not enough to promote WSC and that abusive leaders represent no significant loss to followers when behaving courageously in social domains. What is more, this finding helps to dissolve gender stereotypes associated with courage. Howard and Cogswell suggest that stronger male-courage associations might be correlational with societal norms rather than gender itself. Tkachenko et al. (2018;2020;) found that where leaders exhibited low levels of behavioral courage, raters were more critical of male leaders versus female leaders. In a later study, Howard & Fox, 2020 showed that both male and females behave in a socially courageous manner; they differed however, in that females tended to arrive at socially courageous behavior through prosocial orientation and males through risk orientation. While the Howard and Cogswell (2019) study illuminated significant antecedents to workplace social courage, Howard and Cogswell noted that only proactive personality significantly and partially mediated between perceived benefits and socially courageous behavior. A common theme that emerged in Koerner's (2014) study was that courageous actors were high in self-efficacy (96% of sample); in general, courageous actors were described as having strong beliefs and strong self-concept. In other words, a potent locus of control. These studies indicate that courage is not solely rooted in



personality. Much of courage may be driven by identity work, the creation, preservation, and development of self-concept (Koerner, 2014). Further, as self-efficacy is a subfactor of PsyCap, it is with these findings that PsyCap makes a promising mediator for testing. Additionally, Koerner's (2014) qualitative study of real-life accounts of courageous acts in the workplace make perfectly clear that courageous acts involve personal and inter-personal conflict. Koerner (2014) also noted that 93% of the qualitative narratives included relationships (social aspects) that promoted or inhibited courageous behavior. Considering the prevalence of workplace situations requiring social courage and PsyCap, the study of the relationship between these two is warranted. PsyCap, is like courage in that it has been shown to positively mediate conflict inducing antecedents, such as the impacts of abusive supervision and ambiguous leadership and environments. However, unlike courage, research literature makes no mention of conflict as a core theme in PsyCap. Resilience comes close as a response to hardship. For this reason, this study perceives the cognitive aspects of workplace social courage to be to the left of PsyCap, and behavioral aspects of workplace social courage to be to the right side of PsyCap. Social courage is impacted at the individual level. Additionally, like PsyCap social courage is also impacted at social and environmental levels.

Mert et al. (2021) found that perceptions of organizational justice significantly predicted WSC; social courage in this study mediated between perceptions of organizational justice and life satisfaction dimensions. The finding shows that organizations play a role in fostering just climates which promote social courage and the well-being of members. There appears to be an affective aspect of social courage as well.

*Emotions.* Detert and Bruno (2017) noted that anger is thought to incite courageous acts. For instance, when one perceives strong moral and ethical violation anger may operate as a

tipping mechanism, whereby perceived threats become less consequential considering the increased perception of trespass. Anticipatory regret related to the outcomes of failing to engage a courageous act might also contribute to workplace courage antecedents (Detert & Bruno, 2017). PsyCap antecedents are now discussed.

### **PsyCap Antecedents**

In review of existing research literature there are clear categories of PsyCap antecedents, many of which have been classified at various levels, like job characteristics and leadership or organizational, team, and individual (Avey, 2014; Davis et al., 2018; Kim et al., 2017; Newman et al., 2014; Vilariño del Castillo & Lopez-Zafra, 2021). While this structure affords for analysis in organizations, PsyCap continues to expand its influence. As such, the three categories of environmental, social exchange, and individual level antecedents are used herein. As the study of PsyCap now includes collective phenomenon it seems prudent to stand on the shoulders of social psychology where the domains of person and situation are utilized (Kenrick et al., 2014) to frame behavior, and in the case of collective PsyCap, the group. This method makes way for other insightful theories to include in the study of PsyCap, Social Impact Theory is one example. Munificent leadership creates a positive affect in followers and leads to improved performance (Karakitapoğlu-Aygün et al., 2020; Luthans & Youssef-Morgan, 2017). Transforming organizational level to environmental level provides for context factors outside of formal organization structures, this helps by affording for extra-work contexts as exemplified by Luthans et al. (2005). This categorical structure provides an inclusive, growth friendly framework by which to discuss PsyCap antecedents from the three perspectives of internal cognition (cognitive psychology), social interaction (social psychology), and inanimate factors (environmental influence). This structure also seems conducive to cognitive appraisals by affording them as

spatial mechanisms where variables may reside anywhere in these three dimensions and exert force on one another based on distance (perceived value and salience) and schemas (cognitive associations). Following this strategy, PsyCap antecedents are reviewed as environmental, social, and individual.

**Environmental antecedents.** Environmental antecedents are here defined as the more platonic (context) characteristics which may elicit affective responses from organization members. They are considered extrinsic potential motivational influencers. Yet these characteristics are not in themselves emotionally valenced. Examples include an organization's procedures, policies, resources, reward systems, HR practices, and work structures such as distributed and virtual teams. While persons with strong perceptions of internal locus of control pay conscious attention to environmental impacts on themselves, individuals, particularly in individualistic societies, underestimate the power of the environment's influence. A review of environmental antecedents follows.

**Work/Non-Work interface.** It is commonly accepted that work and nonwork domains possess spillover effects in the life of an employee. Some research has focused on the ways in which work enhances nonwork domains and vice versa. Family to work enrichment and work to family enrichment both had positive impact on PsyCap which fully mediated between both types of enrichment and innovative work behavior (Mishra et al., 2019). In extreme work environments, such as underground mining, work to family conflict negatively relates with coal miner PsyCap resulting in anxiety and depression (Yu & Li, 2020). PsyCap moderated the relationship between work-family conflict and job burnout in a sample of university teachers where those with low PsyCap were more at risk for burnout (Pu et al., 2017). These findings are

beneficial in that to remain competitive organizations must promote constant innovation and employee well-being.

**HPWS.** For example, HPWS (High Performance Work Systems) can predict positive or negative outcomes across work populations based on the quality of HPWS design (Abubakar et al., 2019). A derivative of HPWS, and perhaps better, is HCWS (High Commitment Work Systems), where the work system is categorized by high levels of PsyCap and engagement; these work systems also positively impact PsyCap and performance and appear to be resilient to environmental volatility while strengthening work engagement (Chen, 2018; Chen et al., 2019). HPWS impact job satisfaction and affective organizational commitment directly but more significantly by increasing PsyCap and the relationship between HPWS and PsyCap is moderated by perceptions of interactional justice (Miao et al., 2021; Witasari & Gustomo, 2020). Another environmental predictor is CSR (Corporate Social Responsibility).

**CSR and moral identity.** CSR policies and practices are those which an organization engage to care for both their members and society at large. Examples include care for the employees' psychological health through internal services such as childcare and self-improvement workshops and external services such as community service and environmental care. CSR is correlated with increased levels of PsyCap and subsequent career satisfaction and this is moderated by moral identity; in other words, CSR seems to promote PsyCap, appearing enhanced in those with strong and centralized moral identity (Al-Ghazali & Jumaan, 2021).

**Perceived organizational support and eco-initiatives (POS-E).** Taking CSR to a more focused study, Bhatnagar and Aggarwal (2020) demonstrated that POS-E had positive impact on PsyCap as well as meaningful work; meaningful work mediated the relationship between POS-E and PsyCap. Perceived organizational support in general improves individual PsyCap (Bilgetürk

& Baykal, 2021). Also impactful to the future is flexible labor, gig work, and increased use of consultants. These types of labor are likely to rise as globalization increases and organizations flatten their structures. Contributors to the organization who are not considered traditional employees exhibit lower organizational commitment, their social identities are not as intertwined; perceived organizational support positively impacts PsyCap in the flexible labor pool (Shaheen & Krishnankutty, 2018).

***Organizational justice (distributive and procedural).*** Organizational justice has three commonly accepted components. They are distributed-, procedural-, and interpersonal-justice. Some include informational justice. Of these, distributed-and procedural-justice can be considered environmental PsyCap antecedents impacting PsyCap; where organization members perceive their environments as unfair, they are more likely to engage in dissenting behaviors (Ashraf et al., 2020; Kong et al., 2018).

***Human resource management (HRM) practices.*** HRM practices that enhance work conditions, skill levels, and opportunity positively influence employee PsyCap and therefore work engagement through partial mediation and main effects (Aybas & Acar, 2017). Both HRM practices and leadership structures which afford for autonomous work environments showed relationship with self-directed behaviors in employees (Choi, 2020).

Counterintuitively, human resource development (HRD) practices may be minimally related to employee performance and employee PsyCap and more related to perceived organizational support with small effect on contextual performance and more so on task-based performance (Dhaubhadel, 2021); an indication that leadership plays a more potent role in employee PsyCap which certainly reflects Social Impact Theory. Furthermore, constructs like POS showed a significant but weaker relationship to PsyCap as compared to Authentic

Leadership, another indicator that Social Impact Theory may apply (Slåtten et al., 2019). HRD may act as a more distant background against which employees frame the immediacy of leadership behavior.

***Industry and market influence.*** Chipfupa and Wale (2020) discovered that social grants provided to farmers had a negative influence on farmer PsyCap in Africa and that the more grant money and provisional time seemed to result with increased external locus of control where farmers were less motivated to increase earned income viewing their ability to generate revenues as outside themselves.

***Job characteristics.*** Job characteristics seems a promising antecedent. Job autonomy plays a significant role in predicting employee PsyCap along with many other job characteristics whose impacts invite further study (Sameer et al., 2019). Do persons have decent work, which is perceived as fulfilling, providing opportunities and autonomy? The way persons perceive their work impacts motivation on a spectrum from strong intrinsic motivation to amotivation, the person-job fit is crucial in PsyCap which influences work engagement (Ferraro et al., 2018). As is the case multiple times in this dissertation's findings, longitudinal studies are needed to track impacts to PsyCap with antecedent variables over time; Vilariño del Castillo and Lopez-Zafra (2021) specifically call out job characteristics as a complex set of influences which can improve or damage PsyCap with prolonged exposure.

***Job resources.*** Job resources are positively associated with life balance satisfaction and partially mediated by work to family enrichment, where work has a positive impact on an employee's perspective of the work-life balance; further, job resources such as autonomy, flextime, and leadership support enhance PsyCap (Farhan et al., 2021). PsyCap and work to family enrichment serially mediated between job resources and work life balance perceptions

(Farhan). Other studies validate the relationship between life domains and their ability to impact PsyCap positively and negatively (Shaheen et al., 2019). When employees perceive lack of resources or threats to resources, they may experience occupational stress.

*Occupational Stress.* Occupational stress and PsyCap have a negative association as do PsyCap and depressive/distress symptoms; organizations that do their part to alleviate occupational stress through good design of job characteristics and provision of job resources can inhibit depletion of employee PsyCap and impede disadvantageous outcomes like depression and distress (Mazzetti et al., 2016; Guan et al., 2017; Wang et al., 2017; Han et al., 2019; Kan & Yu, 2016; Mensah et al., 2016; Wang et al., 2017b). The relationship between occupational stress and PsyCap offers potent help in the medical field where it can reduce the relationship between distress and patient focused empathy as well as fatigue and turnover intention (Jin et al., 2020; Tian et al., 2020; Yim et al., 2017). Also, understanding the impacts of stressors such as safety perceptions on worker PsyCap can help avoid work related accidents (Wang et al., 2018).

*Over arcing organizational characteristics.* Raj et al. (2019) found a significant difference between schoolteachers PsyCap subfactor of self-efficacy in school organizations denoted by their organization type. This suggests that the over arcing organizational characteristics may have an aggregate impact on PsyCap. In this case the authors believe the differences to be education levels and opportunities for advancement as compared to counterpart organizations. Nonetheless, it invites future study where the organization is measured against its members' PsyCap.

*Organizational climate.* Aspects of Organizational Climate are PsyCap antecedents (Kong et al., 2018; Luthans et al., 2008; Suifan, 2016). Several types of organizational climate are present in the research literature: learning, innovative, and service climates.

*Learning climate.* Heled et al. (2016) linked learning climate with team members' PsyCap. Results indicated that learning climate and especially the subdimension of learning value had positive and significant impact on team members' PsyCap at both individual and social levels (job satisfaction and organizational citizenship behavior).

*Innovative climate.* As is a common theme in the environmental antecedents, innovative climates impact the outcome variable indirectly by promoting collective and individual PsyCap. Innovative climate does not impact innovative behavior directly, but its strong contribution is through its positive impact on PsyCap (Hsu & Chen, 2017). Innovative climates seem to benefit those higher in PsyCap as they tap into the positive nature of PsyCap and its use of executive-based cognition (Liu et al., 2020).

*Service climate.* Service climate which contains components of autonomy and supervisory support impacts service personnel PsyCap; surprisingly, PsyCap and perceived quality of work life predicted turnover intention (Kang et al., 2018). This finding is novel as compared to other studies which seem to indicate PsyCap as able to predict turnover intention by itself. Future study can tease out this finding.

*Physical context.* A unique finding showed that teachers were negatively impacted by environmental cues such as poor classroom environments where room temperatures were uncomfortably warm and there was lack of materials such as proper computer labs (Çimen & Özgan, 2018). This means that organizations need to pay attention to such details as lighting, decoration, and the images they display; individuals can be aware of the way they configure and decorate their workspaces, these physical cues are likely to reflect trends in their PsyCap levels. What of the more affect-based antecedents, those which are of the social dimension?

### **Social Exchange (Interpersonal) Antecedents**



Also, an extrinsic influencer and motivationally impactful are interpersonal interactions or social exchanges. Both micro and macro appraisals of interpersonal interactions over time are thought to influence PsyCap (Agarwal, 2019; Luthans & Youssef-Morgan, 2017).

**Leadership.** One mainstay social interaction which is highly influential is leadership-follower social exchanges and perceptions of leadership. This is due to the power dynamics of leader-follower structures and related to reality of theories such as COR (Conservation of Resources), Locus of Control, Power Distance, and Social Exchange. Prolonged exposure to negative social interactions with leaders lends itself to demotivation and cynicism which are marked by a perceived external locus of control (Agarwal, 2019; Agarwal & Avey, 2020).

***Transformational leadership.*** In contrast, transformational leadership which is marked by positive emotion and a call to conjoined causes invites strong group identity shown in relation to the PsyCap subconstruct of hope, which in turn is related positively with employee work engagement through a mediating relationship (Agrawal, 2020). Some teachers have noted transformational leadership behaviors as most crucial in their PsyCap and teaching satisfaction, as well as in personal motivation (Çimen & Özgan, 2018). Transformational leadership plays a strong role in levels of follower confidence and PsyCap overall (Hui & Phong Ba, 2020; Huo et al., 2020; Phong Ba, 2020; Zhu & Mu, 2016). Darvishmotevali et al. (2020) emphasized transformational leadership (and servant leadership) as an antecedent to moderate against the negative impact of job insecurity on subjective employee well-being. In a study including transformational-, transactional-, and laissez faire-leadership, transformational leadership had direct impact on follower PsyCap, practically twice that of transactional leadership; when mediated by PsyCap, the relationship between transactional leadership and employee performance became nonsignificant (Baig et al., 2021). Transformational leadership creates benefits for followers by

seeking to increase confidence, competency, and autonomy while leading by example, this environmental shaping behavior inspires team learning (Rebelo et al., 2018). Transformational leadership increases employee voice behavior indirectly through PsyCap (Wang et al., 2018b). Considered a subdimension of transformational leadership and yet negatively framed in many contexts, transactional leadership receives less attention in PsyCap literature.

*Transactional leadership.* Li et al. (2018) found that both transformational leadership and transactional leadership had positive impacts on PsyCap among knowledge workers. While transactional leadership was not as pronounced as transformational leadership it nonetheless had noteworthy influence. As quality transactional leadership is an indication of effort reward balance and objective give-and-take, these results may indicate that transactional leadership plays a role in perceptions of organizational justice thereby contributing to the dimension of distributive justice. Li et al. (2018) suggest the pursuit of both excellent transactional and transformational leadership to insight follower PsyCap through dimensions of intrinsic and extrinsic motivation. This seems beneficial, as other evidence indicates that transactional leadership has no significant impact on follower PsyCap (Şeşen et al., 2019). There is evidence that between transformational leadership and authentic leadership, authentic leadership has more of an impact on certain outcomes (Schuckert et al., 2018).

*Task-oriented leadership.* Although not classified as a sub- dimension of transformational leadership, task-oriented leadership is mentioned here, as it is, like transactional leadership, more platonic in nature. The et al. (2020) examined the impacts of task-oriented leadership on follower PsyCap. While results paralleled other research regarding the impact of PsyCap on job satisfaction, what was a unique finding is that task-oriented leadership showed significant positive impact in the PsyCap subfactor of self-efficacy while the higher order factor of PsyCap

and the subdimensions of hope, optimism, and resilience showed no significant relationships with task-oriented leadership. This finding is keen, it teases out what research literature states, PsyCap involves positive cognitive appraisals. Positive appraisals are representative of what research literature states regarding the association of PsyCap and positive emotions. Self-efficacy is logically benefited by the successful completion of tasks, the more tasks completed, and the more difficult those tasks the greater the confidence boost. However, hope, optimism, and resilience are different mechanisms, they look at present circumstances and envision an aggregate outcome compared to task completion; self-efficacy is the belief that one can tackle the present task or future task, but it is more singular in nature rather than strategic in nature. This study represents future opportunity to examine positive emotions evoked by leadership and their relationship to PsyCap. This is likely why transformational leadership, authentic leadership, and +LMX are highly impactful to follower PsyCap.

Last, as transformational leadership has been esteemed suitable to environments marked by needed and imposed aspects of change, study examining transformational leadership, PsyCap and outcomes of change may extend the literature.

***Authentic leadership.*** Authentic leadership has both a direct positive association with employee work engagement and employee PsyCap (Du Plessis & Boshoff, 2018); what is more, authentic leaders who build their employees positive psychological capacities enhance employee engagement, more so than direct influence alone (Ciftci & Erkanli, 2020). Authentic leadership, which is marked by leader self-regulation and humility, consistent behavior, and employee empowerment partially mediated the relationship between POS and follower PsyCap (Bilgetürk & Baykal, 2021). Authentic leadership also plays a role in promoting PsyCap as it relates to creativity and innovation (Muhammad et al., 2019). The dimensions of creativity (ability to

conceptualize new and novel competitive ideas) and innovation (ability to implement those ideas in practical ways for results) are highly valuable assets in a globalized market. Authentic leadership's direct impacts to follower PsyCap, and indirect impacts via organizational climate, relate to team commitment and intention to stay; moreover, hope and optimism relate most strongly with team commitment (Munyaka et al., 2017). Authentic leadership contributes to POS directly and indirectly through its contributions to PsyCap, suggesting a possible additive effect (Mustika et al., 2020; Niswaty et al., 2021). Authentic leadership promotes follower PsyCap and its outcomes in the way that organizations retain and discard valued knowledge for competing in their markets (Mohammadpour et al., 2017). It is obvious that authentic leadership is a predictor of follower PsyCap, and new indirect effects as mediated by PsyCap are emerging such as job insecurity (Olaniyan & Hystad, 2016). Interestingly, Rego et al. (2016) studied the impacts of authentic leadership on the sub factors of PsyCap, finding that authentic leadership positively impacts hope, self-efficacy, and optimism but there were no significant impacts on follower resilience. Further, they found as opposed to other studies, that resilience was negatively related with organizational commitment (Rego et al.). This finding has some novel implications. First, it highlights what Luthans et al. (2015) expressed when describing resilience as the reactive subfactor among the other three proactive subfactors of hope, self-efficacy, and optimism. Second, leaders are enamored with creating resilient organizations. This study indicates that resilient employees are more likely to attempt environmental crafting to improve their circumstances and may be more willing to leave the organization where their efforts are not fruitful. There may be a dark side to resilience, at least for the organization.

The relationship between authentic leadership and PsyCap is well-established. Authentic leadership has shown itself a contributor of follower PsyCap in meta-analytic analyses (Kong et

al., 2018). Authentic leadership is not a fix-all however, several studies have shown that authentic leadership can be less impactful in groups where members possess high levels of PsyCap (Adil & Kamal, 2016). The conceptual paper by Shahid and Muchiri (2019) provides 13 proposals based on a systematic review of authentic leadership literature. Their systematic review includes in-depth discussion regarding authentic leadership and PsyCap. In sum, there is substantial evidence that authentic leadership predicts employee PsyCap and is robust across industries and cultures (Kvasić et al., 2021).

***Servant leadership.*** In addition to transformational leadership and authentic leadership, servant leadership is an antecedent to PsyCap. Servant leadership showed itself impactful to follower PsyCap in a sample of salespeople and flight attendants (Bouzari & Karatepe, 2017; Karatepe & Talebzadeh, 2016). Servant leadership aids underpaid and undertrained teachers by offsetting disadvantageous socioeconomic factors (Mukti et al., 2021). Servant leadership is marked by high levels of concern for follower needs and follower empowerment. Servant leaders seek to actively provide for the ongoing well-being of individuals and teams.

***Positive LMX.*** Leader-member Exchange is deliberately listed last among influential leadership theories in this literature review as it is its own theory but also universally applicable among all leadership theories. LMX leaders seek to create a close-knit follower group marked by elevated levels of cohesion and enduring commitment and performance (Northouse, 2019). Whereas authentic leaders behave transparently and exercise balanced perspective, transformational leaders inspire to social identity and a greater cause, and servant leaders serve and meet the needs of their followers, LMX leaders focus particularly on the leader-follower relationship and the quality and strength of the social bond between them brought about via positive social exchanges. While this is a part of other leadership theories, for LMX Theory it is

central. Liao et al. (2017) found that LMX did not directly impact job satisfaction or life satisfaction in a group of high-tech Taiwanese employees, however it significantly impacted PsyCap mediation. No doubt, authentic leadership has received more research attention in relationship to PsyCap compared to LMX. Wang et al. (2018) showed that LMX was slightly more impactful than authentic leadership in their sample of entrepreneurs. Arguably, every leader should seek to improve their interpersonal exchanges with each of their people and corporately with their teams. Kong et al. (2018) listed LMX (along with Authentic Leadership) as one of the significant meta-analytic effect sizes impacting PsyCap in their study of 77 quantitative articles polling back to 1983. Authentic leadership and servant leadership might also be impactful on PsyCap because they contain elements of humility.

***Leader humility.*** Both authentic leadership and leader humility are described as having characteristics of self-awareness, approachability, and balanced decision-making. Humility may well serve as a mechanism for decreasing perceptions of power distance. Rego et al. (2017) states that while transformational leadership and authentic leadership share some commonality with humble leadership, they are sufficiently distinct to warrant categorization; an authentic leader can be authentically arrogant or narcissistic. Qian et al. (2020) showed that leader humility significantly impacted Chinese workers PsyCap which acted as full mediator between leader humility and withdrawal behavior and partially mediated between leader humility and organizational citizenship behavior (extra-role behavior marked by more frequent affective altruistic intent). Further, Rego et al. (2019), in a robust set of three studies increased confidence in the positive impact of humility across cultures; also, leader humility had no direct influence on task allocation effectiveness or team performance, but it did have a strong impact via PsyCap. Another study validates this finding, leader humility was impactful to team humility which in

turn influenced team PsyCap for performance outcomes; this effect is likened to a resulting stable learning environment (Rego et al., 2017). These findings suggest that leaders will benefit from focusing more on the psychological well-being of their followers while keeping apprised of the resulting work outcomes valued by key stakeholders. Authoritarian leadership is a contrast to authentic leadership and leader humility. In contrast to these findings, Whatley (2016) found no significant relationship between individual and team level cognitive humility regarding individual and team level PsyCap. These dichotomies suggest that power distance and leadership are promising constructs to examine alongside humility and impact to PsyCap.

***Paternalistic leadership.*** Paternalistic leadership is an Eastern-based leadership theory; it consists of three dimensions of leadership style which are benevolence, authoritarian, and authoritative (Karakitapoğlu-Aygün et al., 2020). Instructor support marked by positive socio-emotional exchanges and family support were impactful to PsyCap in a sample of business students with the outcome of student well-being (Nielsen et al., 2017).

***Benevolent leadership.*** Benevolent leadership shows an affective parental concern for followers through social support and the influence of positive emotions (Karakitapoğlu-Aygün et al., 2020). In a study, it was the only one of the three dimensions of paternalistic leadership to have significant direct effects on employee innovation in addition to positively impacting employee PsyCap (Karakitapoğlu-Aygün et al., 2020). Leadership also has a dark side in its relationship with PsyCap.

***Authoritarian leadership.*** Authoritarian leadership is marked by control over people where adherence to obedience is the premier objective (Karakitapoğlu-Aygün et al., 2020). Guo et al. (2018) researched the impact of authoritarian leadership leading to follower fear and inhibited creativity; follower PsyCap moderated the relationship between authoritarian

leadership and corresponding fear. While this study was not a pursuit of authoritarian leadership as an antecedent of PsyCap, there is plenty other empirical evidence to suggest that authoritarian leadership, an oft negative form of leadership, may decrease follower PsyCap (Karakitapoğlu-Aygün et al., 2020). As most studies are cross sectional in nature a longitudinal approach will likely show this negative relationship. Authoritarian leadership is not necessarily abusive, but abusive leaders often exhibit authoritarian leadership behaviors.

*Authoritative leadership.* Like authoritarian leadership, authoritative leadership establishes frameworks of control, but the focus of control is task-based versus people based; authoritative leadership welcomes leader-follower exchanges and exercises an explanatory style expressing the strategic beneficial reasons behind directives and rules; deviation from structure is allowed and even praised considering strategy intended to benefit organization members and the organization's outcomes (Karakitapoğlu-Aygün et al., 2020). Both benevolent and authoritative dimensions of parental leadership positively impacted employee PsyCap (Karakitapoğlu-Aygün et al., 2020).

*Abusive supervision.* Abusive supervision is characterized by abusive behaviors like attacks on identity versus constructive feedback regarding follower behavior. It can represent an undue criticism and the failure to provide positive feedback and coaching. Abusive supervision negatively impacts PsyCap. It is particularly harmful to the subfactor of hope and strongly related to turnover intention (Seo & Chung, 2019). There are indications that abusive supervision reduces the individual's ability to engage in OCBs and voice behavior (Ahmad et al., 2019; Khan & Siddiqui, 2019). Where individuals are high in PsyCap they can avoid deviant work behavior, whereas those low in PsyCap are more vulnerable to abusive supervision (Raza et al., 2019). Abusive supervision is especially dangerous in that it can erode individual PsyCap within



groups, impeding trust and open communication channels (Wu & Lee, 2016). Practically, this looks like decreases in tacit knowledge sharing, and in one study the subfactor hope was most negatively impacted (Zhang et al., 2017). This is of concern to many organizations as hope is indicative of creativity and innovation, a highly needed mechanism considering globalization. Future study is needed to examine longitudinal relationship between abusive supervision and PsyCap. Whether negative or positive, leadership has potent and longitudinal impacts at the individual and group levels; those who do not leave their organization may act passively by disengaging from their work or by actively working against leader initiatives (Agarwal, 2019).

*Liaise fair leadership.* Many do not consider Liaise fair leadership as leadership at all, but it does refer to leaders who are so by formal title (positional power) yet fail to exercise positive and effective leadership. Laissez fair leaders rarely exert effort for their followers and when they do it is commonly in the dimension of management by exception, where the exception is some negatively perceived failure to perform on the part of followers; this abandonment of followers creates excessive ambiguous instability and lack of predictability for followers resulting in negative impact on follower PsyCap (Şeşen et al., 2019). Some leaders may confuse this hands-off approach to leadership as an indication that they provide followers job autonomy. Such is not the case, this despondent leadership approach showed that where transformational leadership improved employee PsyCap, laissez fair leadership was almost twice as damaging to employee PsyCap compared to the positive effect of transformational leadership as noted in contrasting effect sizes (Baig et al., 2021). Leaders that are effective at promoting job autonomy also provide ample constructive and encouraging feedback at acceptable intervals. Despondent leaders are likely to produce perceptions of job insecurity, which is directly related to psychological contract breach and reduces employee PsyCap and innovation (Costa & Neves, 2017; Kim et al.,

2017;2018;). Longitudinal studies are needed to observe the relationship between antecedents that boost or deter PsyCap over time in relation to outcome variables such as job performance; present evidence suggests that those who can regulate PsyCap are able to endure job insecurity (Probst et al., 2017). There are other antecedents to job insecurity, but the point is that ambiguity negatively impacts aspects of PsyCap, like self-efficacy (Etehad et al., 2019). Laissez faire is not the most damaging type of leadership, however.

*Neurotic leadership behavior.* What is likely the most harmful type of abusive leadership and parallels abuse study in other domains, is neurotic leadership. Agarwal (2019b) showed that where followers had high LMX (positive interaction) with abusive leaders, followers exhibited more stress. Agarwal likens this increased stress to higher cognitive dissonance; followers do not know what to expect from their leader. This mimics the instability and lack of predictability found in laissez faire leadership. Neurotic leadership heightens perceptions of helplessness. In counseling fields, this is referred to as “walking on eggshells” or “waiting for the other shoe to drop”. Whether negative or positive, leadership in general is not a serial effect but multidimensional and exponential. As such, interest in other forms of leadership and PsyCap is expanding. One of these is ethical leadership.

*Ethical leadership.* Shadi and Atan (2018) rightly note that leadership theories share commonalities, such as positive interaction with followers and providing resources. Ethical leadership has been traditionally studied as a subset of transformational- and authentic-leadership; however, new research is focusing on ethical leadership as a distinct construct (Shadi & Atan). Ethical leadership positively predicts PsyCap (Shadi & Atan). Ethical leadership may act as LMX does in that it possesses a universal function and therefore quality. Where LMX is applicable to leader-follower interactions in all organizations, ethical leadership creates a

behavioral standard, interpersonal trust, and increased perceptions of organizational justice. Ethical leadership may enhance +LMX. Strong ethics and morality can be rooted in spiritual leadership.

***Spiritual leadership.*** Spiritual leadership was shown to positively impact employee PsyCap, while PsyCap fully mediated between spiritual leadership and employee performance (Baykal & Zehir, 2018). Spiritual leadership inspires employees through a vision of work that is more than an occupation, more a vocation (Baykal & Zehir, 2018). The differentiation between vocation and occupation was also noted by Smith (2011). Spirituality can be defined as one's worldview, the overall meaning that an individual ascribes to life. When work aligns with vocation (calling), intrinsic motivation is more likely to drive subjective well-being and job performance. Spiritual leadership increases PsyCap and work engagement as related with calling in work (Wu & Lee, 2020).

***Leadership and social contagion effects.*** There is evidence that the way leaders express themselves and interact with their followers creates a social PsyCap contagion in followers (Agarwal, 2019; Agarwal & Avey, 2020; Chen et al., 2017; Upadhyay & Kumar, 2020; Xu et al., 2017). University professors can impact student PsyCap through Pygmalion effects raising academic engagement through efficacy and resilience (Ahmed et al., 2017; Fati et al., 2019). Shared leadership, team members who lead from their areas of expertise as needed, positively impacts team PsyCap (Wu & Chen, 2018). Study shows that the way leaders impact their environments contributes to perceived perceptions of psychological safety promoting PsyCap (Gonçalves & Brandão, 2017). He et al. (2021) showed that construction worker PsyCap was impacted both by the quality of exchange with leaders (+LMX) and perceptions of safety climate created by those same leaders. The positive effects of leader PsyCap and quality LMX on

follower PsyCap were echoed by Chen et al. (2019b). Authentic leadership moderated negative impacts of social undermining to employee PsyCap (Jang & Kim, 2021). This contagion effect is most visible during times of widespread organizational change where perceptions of leaders' response to change initiatives impact employee's readiness to change and is significantly mediated by PsyCap (Kerrane et al., 2017; Li et al., 2016). This certainly stresses social contagion effects of leadership. Along with quality social exchange, empowerment is thematic in leadership and PsyCap.

***Empowering leadership.*** Park et al. (2017) found that empowering leadership had a main effect on employee job engagement but not employee psychological well-being. PsyCap partially mediated between empowering leadership and job engagement while it fully mediated between empowering leadership and employee psychological well-being. Other study demonstrates that leadership that supports the followers job autonomy impacts innovative behavior but only indirectly by impacting follower PsyCap (Terje Slåttenrbara & Lien, 2020). Further, empowering leadership impacted employee PsyCap in relation to the outcome of knowledge sharing which is critical for innovative organizations challenged with fast paced competition in a global market (Wu & Lee, 2017). What is exciting about these discoveries are that mainstay leadership theories such as transformational-, authentic-, and ethical-leadership all contain components of empowerment. Leaders who operationalize empowering behaviors may not necessarily have to be experts in traditional leadership theories known for market performance; empowerment may lead the way to a more utilitarian and behavioral focused research approach to leadership. A novel way of looking at traditional leadership theories was the discovery that managerial coaching impacted both team commitment and job performance strongly mediated by follower PsyCap (Hsu et al., 2019). Carter and Youssef-Morgan (2019), in one of the few experimental

and longitudinal research designs, showed the impact of mentoring on mentees' PsyCap with performance outcomes. Implication is that organizations should not only train in leadership but also train leaders in coaching-mentoring methodologies. Leadership in general influences follower PsyCap and the way that leaders behave shapes POS (Marashdah & Albdareen, 2020). Lastly, given that LMX has indicated a positive impact on follower PsyCap it has also mediated fully between ethical leadership and employee innovation implying that ethical leadership enhances LMX but is not in itself the main effect of innovation in organizations (Masood et al., 2020). A component of empowering leadership is distributed control, or at least shared input.

*Inclusive leadership.* Open communication channels between leaders and followers and shared strategic vision boost followers PsyCap (Fang et al., 2019). Inclusive leadership involves high levels of organizational justice (fairness) and encouragement to followers despite setbacks; Fang et al. (2019) showed that inclusive leadership impacted followers' innovative cognition and behavior mediated through PsyCap.

Rego et al. (2019b) opened opportunity for measuring PsyCap from the cognitive appraisals of followers. What was different in their study from prior studies is that the authors compared self-reported leader PsyCap compared to followers' perceptions of leaders' ability to convey their self-reported PsyCap to followers. Their findings may indicate why leadership dimensions of authentic leadership, transformational leadership, and LMX have been found so beneficial to follower PsyCap. These leadership dimensions exhibit themselves in the ability to positively receive and interact with follower behaviors. This study encourages the movement toward more behavioral focused measures which are representative of positive aspects of all leadership theories. Overall, leadership is a strong predictor of follower PsyCap.

**Social capital.** Organizational structures, such as department functions and organizational charts along with any policies and procedures which impact social interaction and social connection influence psychological resilience within organization members; three dimensions of social capital, consisting of structural, relational, and cognitive are positively related to employee psychological resilience (Asghar et al., 2020). Interactions among colleagues can have positive and negative impacts on PsyCap, one such example is organizational cultures marked by division and complaining versus positive cultures where there is healthy rivalry and teamwork (Çimen & Özgan, 2018; Mazzetti et al., 2016; Nawaz et al., 2018). Newman et al. (2018) showed that POS and family support positively impacted PsyCap and refugee well-being; surprisingly, supervisory support showed no significant impact on refugee PsyCap. This poses opportunity for nuances between PsyCap and Social Impact Theory. Social Impact Theory states that it is not only authority structures that influence individuals, but it is the number of individuals and their proximity and frequency of interaction. Social capital shows some influence on entrepreneurial intentions and an indirect effect through its influence on PsyCap (Mahfud et al., 2020). As there are many studies which show the impacts of leadership on follower PsyCap, and PsyCap acting as a partial mediator, the takeaway is that organizations need to use an additive approach to improving desirable outcomes by investing in their leaders' PsyCap directly as well as impacting followers through environment level frameworks (Sepeng et al., 2020). Some teams can operate not just as colleagues but also consider one another friends.

**Friend support.** In a pursuit to help resolve conflict in findings regarding PsyCap and creative behaviors, Nurfaizal et al. (2019) investigated friend support as a predictor of PsyCap and found it significant. The study suggests that not only does the support of friends positively

impact PsyCap, but it may also develop it as well. Additionally, there is another novel antecedent like friend support. How does workplace fun impact PsyCap?

**Workplace fun.** Service industries are marked by high competition, often the experience between workplace staff and the customer is the sole differentiating mechanism between competition. Service workers also face the disadvantages of surface acting which has been known to increase stress levels and decrease well-being. Sheng-Hsiung et al. (2019) showed that workplace fun had a significant positive impact on hotel industry worker PsyCap; PsyCap partially mediated between workplace fun and work engagement.

**Social identity.** Perceptions of the person-organization fit, resulting in organizational identity and group identity among law enforcement officers in collectivistic cultures demonstrate increased PsyCap offsetting high work demands; strong associations of self-concept and work are termed psychological ownership (Chen et al., 2021). Study indicates that individuals' PsyCap is impacted by those closest to them (Tüzün et al., 2018). Again, not seen in the literature, Social Impact Theory and PsyCap is another theoretical foundation waiting to be researched.

**Deviant work behavior.** Deviant work behaviors are those which reflect disregard for organization policy and rules as well as interpersonal and distributive injustices. A form of deviant work behavior, and interpersonal injustice, workplace bullying is a dysfunctional social exchange marked by mistreatment of coworkers either overtly or covertly and is negatively related to individual PsyCap (Ali et al. 2019; Yun & Kang, 2018). Ostracism is another deviant work behavior and thought to be especially harmful to PsyCap as it impacts self-concept, social identity, and need for meaningful work simultaneously (Zheng et al., 2016). This parallels Self-Determination Theory, leaders that create environments marked by encouraged growth,

competency building, and autonomy with minimal bureaucracy facilitate teams willing to participate in voice behaviors (Han & Hwang, 2019; Yun & Kang, 2018).

***Social undermining.*** Another prevalent form of deviant work behavior is social undermining. Social undermining consists of intentionally inhibiting or sabotaging another's work performance. Along the lines of environmental influence, performance pressure has a positive association with social undermining, which in turn possesses a negative association with individual PsyCap (Jang & Kim, 2021). Another deviant work behavior is incivility.

***Incivility.*** Incivility can be overt or covert and is often difficult to control; and in its covert forms, intent can be ambiguous. One study showed that PsyCap can moderate between coworker incivility and psychological distress (Al-Zyoud & Mert, 2019). Authentic leadership discourages incivility, and that relationship is strengthened by team PsyCap (Megeirhi et al., 2018). The fact that other studies show negative impact to PsyCap from negative social behavior suggests that incivility also negatively impacts PsyCap. The longer the exposure the more likely PsyCap is to decline. Incivility and other deviant work behaviors can be offset by organizational justice.

***Workplace violence.*** Deviant work behavior at its worst can manifest in workplace violence. Workplace violence is considered in two dimensions, violence that is physical and violence that is psychological; workplace violence has a negative impact on PsyCap and professional identity (Qiu et al., 2019).

***Organizational justice.*** Interactional justice fits underneath social antecedents of PsyCap. The way in which organizations interact with their members, such as perceptions of performance management systems and the process and intent behind decisions impact organization members' PsyCap resulting in participation or dissension (Ashraf et al., 2020).



Procedural justice relates to policies and rules in the way the organization adheres to them, giving employees input into decisions; procedural justice has an impact on employee PsyCap as well (Hur et al., 2016). An additional outcome related to organizational justice along with policies and the way an organization communicates to its employees results in strength of POS.

**Perceived organizational support (POS).** Perceptions of the way the organization feels for and cares for the individual are associated with PsyCap as shown among teachers (Clarence et al., 2021). Supportive organizational climates contribute to employee PsyCap even in the most competitive environments, enhancing well-being (Kim et al., 2019). Nikhil and Arthi (2018), proposed that POS be studied in relationship to its positive impacts on the subfactors of PsyCap; they also propose that PsyCap possibly mediates between POS and work engagement. POS is plainly stated as an antecedent of PsyCap (Wang et al., 2017). PsyCap appears to mediate between POS and healthy problem-focused job stress coping as well as OCB in both OCBs directed at other individuals and the organization (Erdem et al., 2017; Shaheen et al., 2016). Yang et al. (2020) showed that the relationship between physician POS and work engagement was significantly mediated by physician PsyCap. Indeed, emergent studies are now showing PsyCap as a mediator between varied predictor variables and the outcome of work engagement. Although POS, is a more distant perception of the personified organization regarding care for the individual, interpersonal exchanges impact this perception. An example is compassion between organization members.

**Compassion.** Compassion and job performance are related by positively driving PsyCap, work identity and self-esteem, mediated by PsyCap (Ko & Choi, 2019). This gives further encouragement for examining PsyCap through the lens of social psychology when it comes to interpersonal dynamics.

**Perceived social norms.** Along the lines of social support, Ephrem et al. (2019) showed that perceived social norms pertaining to entrepreneurial intention impacted PsyCap which in turn acted as a mediator between perceived social norms and entrepreneurial intention. Coupled with the influence of leadership and POS this implies that overall social influence sifts itself into individual PsyCap aside individual antecedents, possessing varying responsibility in contributing to or inhibiting individual PsyCap.

**Ambidextrous organizational culture.** It is widely accepted that organizational culture plays a potent role in the attitudes and behaviors of its members with performance implications. Ambidextrous organizational culture is one marked by exploitive strategy (refining current processes and products/services) and exploratory strategy (creating new processes and products/services). With increasing globalization and shallow organizational structures, ambidextrous organizational culture is change compatible. It also impacts individual-level PsyCap positively (Lee et al., 2019).

**Organizational democratic culture.** In line with empowering leadership, organizational cultures marked by democracy enhance employee PsyCap (Geçkil et al., 2016). These environments are not just empowering in the sense of giving employees control over their job responsibilities, they are environments where all organization members are invited to exhibit voice behaviors, share in organization returns, and contribute a quantitative vote in strategy and decision-making (Geçkil et al.). This could be thought of as organization as a nation. For certain, the days of hierarchical and bureaucratic laden organizations in public industry are nearing extinction; in a global market marked by visible salaries, immediate access to transformational technological resources, and strong followership, employees are rapidly becoming intelligent participants (Ki-Soon & Garg, 2018). Thriving future workers will possess and promote their

own PsyCap and demand environments that invest in their efforts and meaningful congruence between all their life domains. With decreases in power distance and increases in employee locus of control organizations will navigate between democracy and action (Ki-Soon & Garg, 2018). To afford for employee PsyCap and competitive performance, increased levels of transparency regarding decision-making process and intent will be paramount. Democratic culture places emphasis on fairness, and all aspects of organizational justice impact PsyCap as evidenced in meta-analytic findings (Kong et al., 2018). Organizational culture in general has an impact on member PsyCap (Nawaz et al., 2018). Environmental and social antecedents are strong predictors of workplace PsyCap. The individual also plays a key role in PsyCap.

### **Individual Antecedents**

Persons who are inherently high in PsyCap have low neuroticism, can self-correct their negativity, and self-motivate; they hang onto their goals and continue to behave toward goals regardless of setbacks (Agarwal, 2019; Agarwal & Avey, 2020). In addition, individuals who perceive or are in fact victims of low justice environments have shown reduced hope and optimism; perceptions of psychological contract breaches moderate PsyCap (Agarwal & Avey, 2020). Individuals with certain inherent traits such as creative-self-efficacy and tendency toward intrinsic motivation seem natively predisposed to higher levels of PsyCap (Ali & Qazi, 2018). Demographic characteristics of age and company tenure are significantly correlated with individual PsyCap across industry and culture (Wu & Nguyen, 2019). Education, like tenure, is correlated to PsyCap (Avey, 2014). Proactive personality and emotional intelligence play a part in PsyCap (Clarence et al., 2021). Emotions also influence PsyCap.

**Emotional intelligence.** Researchers are becoming increasingly aware of the affect-based components of PsyCap and their important contribution. The ability to encourage oneself and

self-regulate emotion has shown itself a positive predictor of PsyCap and job performance (Gong et al., 2019); lack of self-awareness and neuroticism are emotional aspects that are negatively related to PsyCap (Gomes da Costa et al., 2021). A few studies show that positive display rules benefit PsyCap in industries where emotional labor is required; interestingly, surface acting and PsyCap seem negatively related; it could be that high PsyCap individuals are increasingly self-aware and therefore more susceptible to unrest caused by cognitive dissonance (Hur et al., 2016; Yin et al., 2018). Emotional intelligence and locus of control foster PsyCap (Vermooten et al., 2021). What about one's culture and PsyCap?

**Regional and national culture.** Nasser et al. (2021) present a compelling paper overviewing team PsyCap research literature and make core observations regarding potential and highly impactful areas for the study of PsyCap in the business world. One of these is the overlooked role of regional and national culture which assuredly influence organizational structure and performance outcomes. This is a present research gap. Additionally, in the approach of life meaning and life satisfaction constructs such as culture, core worldview questions and their relation to PsyCap, implicitly and explicitly, are also another area for discovery.

**Positive emotions.** Positive emotions have a direct impact on student PsyCap, where those with more positive emotions elicit more PsyCap and subsequent academic performance; and this holds true for both low activation (positive emotions with less potent response) and high activation (those with potent response; Carmona–Halty et al., 2019c). In fact, main effects between positive emotions and academic performance were non-significant when removing academic PsyCap and academic engagement as mediators; further, the relationship between

PsyCap and academic engagement was stronger than that between academic engagement and academic performance (Carmona-Halty et al., 2019b).

**Positive cognitive appraisals.** Traditional cognitive appraisal models of benefits minus costs are inadequate. Burns et al. (2019) demonstrate that positive or negative emotion in themselves, are not predictive of subsequent behavior, instead desire plays a strong influence. In other words, the individual must perceive the future state, as compared to the present state, as worthwhile and possible. The parallels between these findings and motivation theories are astounding. Mentioned prior, there is much literature that describes PsyCap as positive cognitive appraisal. As example, relationships between Core self-evaluations and environmental feedback, and subsequent cognitive appraisals mediate PsyCap (Howard, 2017). The same is true for courage. Like courage, PsyCap appears to be a mental state that can be possessed but it is also a process, something that can be practiced. This study promotes cognitive appraisals as an antecedent process which impact PsyCap, through framing and priming. The sum of thoughts focused on domain specific schemas result in summative negative or positive conclusions impacting emotions. In a unique study, dysfunctional sleep beliefs were tied with negative influence on PsyCap related with decreased well-being (Sabot & Hicks, 2020). Work pressure in forms of deadlines, are impactful to work engagement and moderated by PsyCap and sleep (Xiaotian et al., 2019). Contrary to expectations, Bouzari and Karatepe, (2018), in their sample of salespersons faced with job insecurity, these individuals hope increased versus decreased. This shows that these salespersons appraise job insecurity differently than counterparts in other occupations. This may be because salespersons are granted much autonomy to grow organization revenues. Salespersons tend to be resilient, willing to pursue one yes for every nine rejections. Again, cognitive dissonance is a nemesis of PsyCap. A sample of university teachers in China

revealed that where PsyCap was high, the role-conflict between teaching and research was less impactful to potential job burnout (Li et al., 2019). This implies that teachers high in PsyCap can make positive cognitive appraisals in their job demands as opposed to counterparts with lower PsyCap and they are less likely to exhibit job burnout (Rehman et al., 2017). Counter to their expectations, Valdersnes et al. (2017) found that seafarers high in PsyCap slept better despite accident anxiety. This means that, exposed to the same objective risks, seafarers high in PsyCap, like teachers high in PsyCap, frame their circumstances differently. In a daily diary activity, university students participated in a savoring practice, focusing on positive aspects of their day, savoring acted as a moderator between the relationship of daily demands and student PsyCap (Sytine et al., 2019). From business domains to academic domains and even sleep domains, PsyCap indicates that it can be tailored to any desired foci. A novel and upcoming potential antecedent to be studied is humor.

*Sense of humor.* Srivastava and Maurya (2017) mention humor as a promising and universal human phenomenon, a possible PsyCap antecedent. Wijewardena et al. (2017) found that negatively perceived humor rapidly degraded follower PsyCap while quality leader-follower LMX predicted positive emotions resulting from leader humor. The impact of humor in the work environment and particularly with its relationship to PsyCap is a *tableau rosa*. The study of sense of humor and PsyCap makes sense as PsyCap is a positive appraisal, positive humor would seem to fall within the spectrum of positive appraisals. Humor frequently shows itself as the ability to exercise healthy detachment from difficult circumstances, appreciating ironic nuanced perspectives that serve to lighten seriousness and increase social bonds. Of present little research, yet a promising domain, is the relationship between spirituality and PsyCap.

***Spirituality.*** Fox et al. (2018) found that spirituality positively impacted PsyCap, and that spirituality indirectly influenced job performance through the same. The dimensions of job performance measured were OCB toward individuals and organization and the employees' task performance. As PsyCap has been considered a positive cognitive appraisal and some study has been done in relationship to life satisfaction, it is not a stretch to suggest that worldview is a cognitive appraisal for purpose and meaning in life. Paul and Saha (2016) stated, "Spirituality is reaching beyond or having a sense that things could be better" (p. 49). Study in this area seems nonexistent and yet this statement strongly reflects aspects of hope.

**Motivational traits.** Motivation theory and PsyCap theory are a burgeoning area for study. The conceptual correlations between expectancy, instrumentality, and value with the concepts of hope, self-efficacy, and optimism beg for the examination of universal cognitive processes which impact PsyCap. Rodríguez-Cifuentes et al. (2020) conducted a far-reaching investigation into motivational traits, orientations and predisposed reasons people are motivated to behave. Abbreviating here, a few key findings reveal valuable information into the inner workings between motivation and PsyCap. Notably, mastery-based motivation was positively impactful to all subfactors of PsyCap while a performance-based (competitive) motivation was not significantly correlated with PsyCap at all (Rodríguez-Cifuentes et al.). In line with this finding, persons who are socially oriented to compare their abilities with others versus self-referent improvement show the difference between performance-based mindsets and mastery-based mindsets; the former impacts their PsyCap negatively and exhibits poorer mental health (Yang et al., 2021). Furthermore, worry and neuroticism were bad for PsyCap and especially hope (Rodríguez-Cifuentes et al.). These findings are potent for this present study as they echo

cognitive processes such as cognitive appraisals inherent in courage (calculated risk) and PsyCap, both of which involve approach-mindsets characterized by positive emotions.

***Intrinsic motivation.*** Intrinsic motivation is inner-sourced motivation which results in satisfaction from the work tasks themselves; in other words, it is rewarding to accomplish said work regardless of extrinsic factors such as pay or healthcare benefits. In one study intrinsic motivation fully mediated the relationship between PsyCap and OCBs (El-Zohiry & Abd-Elbaqy, 2019). Entrepreneurial motivation has been classified in dimensions of approach-based and avoidance-based mindsets. Are entrepreneurs pursuing business success because they want to avoid an outcome or because they want to attain an outcome? Those of the approach mindset are more likely to experience increased business success due to impacts of their motivation on their PsyCap (Ephrem et al., 2021). Additionally, intrinsic motivation shows more impact on those high in PsyCap versus those lower in PsyCap (García et al., 2019). Wang et al. (2018c) found that followers need for growth enhanced the relationship between humble leadership and PsyCap, likely due to promoting preexistent intrinsic motivation. Perceptions of meaningful work also contribute to intrinsic motivation and positive outcomes. García et al. (2019) used job characteristics to examine intrinsic and extrinsic motivation as moderated by PsyCap. Notably, they found that their sample participants who were high in PsyCap responded positively to autonomy and information processing job characteristics whereas those low in PsyCap benefited less from them. Creative self-efficacy and intrinsic motivation are better predictors of service innovation than empowering extrinsic factors (Hsiao, et al., 2017). Costantini et al. (2017) demonstrated that their PsyCap intervention was able to significantly boost Italian public sector employee PsyCap for the benefit of increased work engagement.



*Growth mindset.* In one study of primary school teachers, growth mindset positively predicted PsyCap (Chen et al., 2019c). As mentioned above, growth mindset, as compared to a performance mindset, is a focus on mastery of information and skills versus an external focus on one's performance as related to others. Whereas intrinsic motivation and growth mindset are positive antecedents to PsyCap, lack of motivation negatively impacts PsyCap resulting in burnout. Growth mindset has been associated with intrinsic motivation. It is also a focus in religious study.

*Religious motivation.* Narsa et al. (2021) found that extrinsically motivated religiosity negatively predicted individual PsyCap whereas intrinsically motivated religiosity positively predicted individual PsyCap. In their study, PsyCap mediated between these two religious orientations and resultant job stress. This finding encourages religious organizations to tap into areas where members are motivated from within, to inspire them to participate in activities that energize them compared to activities that demotivate them. As person-job fit is critical in work, it is even more critical in volunteer situations. Addiction is another individual factor that influences PsyCap.

**Addiction.** Zhang et al. (2021) found that both undergraduate and postgraduate students in medical University experience a negative relationship between problematic smart phone usage and PsyCap resulting in learning burnout. Furthermore, postgraduate students exhibited less problematic smart phone usage than their undergraduate counterparts, indicating that motivation in postgraduate students is likely higher due to passion and career path alignment. This brings up potential for future research on the debated crowding effect, where intrinsic motivation is hampered by extrinsic motivation.

**Personality traits.** There is research indicating that facets of PsyCap are tethered to some degree to personality traits as a baseline predictor, factors such as extraversion and conscientiousness (Luthans et al., 2007). For instance, Luthans et al. (2019) found that grit and PsyCap shared a medium correlation with PsyCap partially mediating between grit and academic performance (GPAs). In examination of the five-factor model (The Big Five), known with the acronym OCEAN (openness to experience, conscientiousness, extraversion, neuroticism), Bozgeyikli (2017) used linear regression which suggested that the positive dimensions of OCEA positively predicted a significant portion of all PsyCap subfactors while showing that neuroticism negatively predicted PsyCap subfactors. A mediation model was examined by Dewal and Kumar (2017) and by GÖKÇEN KAPUSUZ (2018) with like results.

*Dark Triad.* Zhu & Geng (2021) performed a longitudinal study examining the Dark Triad personality traits of primary psychopathy (genetic and inherent, low emotional activation), secondary psychopathy (environment induced, high emotional activation), Machiavellianism, narcissism, and the recently added subcomponent of sadism. The researchers found that Dark Triad measures and PsyCap measures, with respect to one another remained stable over a 10-month time in a sample of college students. Secondary psychopathy, through structural equation modeling, was found to coexist with PsyCap as a more state like construct, giving credence to PsyCap as a state like variable which other research supports. Primary psychopathy and Machiavellianism negatively predicted PsyCap. While narcissism was a positive predictor. The findings suggest that secondary psychopathy might be helped by therapy induced increases in PsyCap. This finding also indicates that measures of high PsyCap (as other research indicates) are useful in predicting prosocial behavior rather than antisocial behavior and sustainable individual performance.

Finally, in relation to personality traits, taken together these studies suggest that certain personality traits may predict higher levels of PsyCap. The implication is not that PsyCap is more trait-like, instead that the less predictive an individuals' personality traits are of inherent high PsyCap, more intervention, maintenance, and development is beneficial. Another area open for exploration is the impact of exercise on individual PsyCap.

**Exercise.** Exercise is known to elevate mood and improve cognitive function, there is considerable research in this area. It follows that exercise is likely to increase PsyCap. Chirag et al. (2022) found that yoga-based practices significantly impacted PsyCap. Both self-transcendence and subjective vitality were impactful on PsyCap. The research indicated that yoga-based practices influence OCB indirectly as mediated by PsyCap. This research is promising in that it provides the ability to create additional experimental designs which can facilitate both the measurement of latent constructs as well as physiological longitudinal measures. The meaning found in work is also of interest.

**Meaningful work.** Kim et al. (2019) found that employees in Division I sport organizations had increased PsyCap from their perceptions of meaningful work and what is more, their PsyCap fully mediated the relationship between perceptions of meaningful work and psychological well-being. This expresses that both individuals and organizations should attempt to job craft work in such a way that it provides the highest level of perceived meaningful work both on an individual level and at the organizational level. Those with entrepreneurial orientation benefit from increases to their PsyCap which corresponds to the strength of their intention to start their own businesses (Mahfud et al., 2020). To remain balanced, Tan et al. (2019) showed that social workers, who typically show strong intrinsic work motivation may still burnout from dimensions of depersonalization and emotional exhaustion indicating that meaningful work alone

is not sufficient to prevent burnout. Still, perceiving one's work as part of one's identity and development goes a long way. Spiritual cognitive aspects are impactful.

**Spiritual intelligence.** Teachers who reported higher levels of spiritual intelligence exhibited increased PsyCap and positive appraisals of quality of work life (Singla et al., 2021). This means that teachers who view their work as part of a bigger picture, overall life-meaning, interpret their work life more positively and thus have a greater impact in their students' lives. Paul and Saha (2016), in a more qualitative article, suggest that spirituality increases academic performance and resilience among business students. In finance and manufacturing industry employee PsyCap subfactors were positively impacted by spirituality with all subdimensions significantly mediating between individual spirituality and non-violence in the workplace (Sarkar & Garg, 2020). The strongest mediation was found in the subfactor of resilience. This indicates that underlying belief systems (worldviews) provide an established framework against which the person is inoculated for hardship, allowing one to quickly assign meaning and appropriate responsive behavior to specific challenging situations. Shrestha et al. (2021) linked workplace spirituality with reduction in organizational cynicism and turnover intention. As with the findings above, PsyCap was positively impacted by workplace spirituality. It mediated between workplace spirituality and turnover intention. Individuals who view their work as part of their bigger life picture benefit from such a view.

**Protean career orientation.** An exciting and just-in-time concept is Protean Career Orientation (PCO). This orientation classifies individuals who view their work as part of their life meaning rather than a compartmentalized domain; a study of knowledge workers in China showed that PCO was predictive of PsyCap and psychological well-being (Li, 2018). It is probable that the future workforce will look more like the trading frameworks of professional

sports organizations versus their present structure of serial onboarding processes and preventative employee retention mechanisms such as extrinsic factors designed to provide stability. Future organizations may need to master rapid alignment of individual intrinsic motivation with organizational outcomes.

**Self-leadership.** Self-leadership is a social cognitive process of examining environmental feedback against individual effort and thought processes. It is leading oneself by evaluating one's performance results based on desired outcomes. Self-leadership was studied in the context of the global COVID-19 pandemic and its ability to incite PsyCap for protective-health behaviors (Maykrantz et al., 2021). Self-leadership impacted PsyCap and job embeddedness while PsyCap partially mediated between the two (Pillay et al., 2020). Although not listed as a separate category, self-starting behavior positively impacts PsyCap, such that the additive effect of self-starting behavior and PsyCap together were a better predictor of self-employment among Nigerian graduates (Yonla et al., 2018). Self-leadership and mindfulness impacted PsyCap in Kotzé's (2018) study where PsyCap fully mediated between self-leadership and the work engagement dimension of dedication while partially mediating between self-leadership and the work engagement dimension of vigor. The study is yet another indicating that PsyCap is an antecedent of work engagement, and the author rightly notes that future interest in this relationship as well as reigniting self-leadership is warranted (Kotzé, 2018).

**Work engagement.** Vigor, dedication, and absorption are undoubtedly related to PsyCap with some studies showing engagement as an antecedent and PsyCap as a mediator (Martínez et al., 2019; Mazzetti et al., 2016; Tan, 2021). Work engagement in emergency healthcare workers positively impacted their PsyCap and partially mediated between five dimensions of quality of work life while exhibiting full mediation with the dimension of control at work (Gupta et al.,

2019). Work engagement appears instrumental in boosting PsyCap of healthcare workers to create positive patient experiences (Shaheen et al., 2018). In general, work engagement seems to possess the additive effect of negatively predicting employee turnover while positively predicting employee PsyCap (Gupta & Shaheen, 2017). Still other study demonstrates that PsyCap predicts work engagement and that it is through PsyCap that employee performance is more impacted (Witasari & Gustomo, 2020). Future study may show that the two are dyadically related and situationally influenced wherein they trade influential weight per key factors, or they vary in the magnitude of their reciprocal impacts. Up to this point, individual antecedents have been positively impactful. Yet, like leadership there are individual dimensions which negatively impact PsyCap.

**Workaholism.** Lanzo et al. (2016), in a sample of highly educated eastern U.S. workers discovered that workaholism negatively impacted PsyCap. What is more, PsyCap fully mediated between workaholism and incivility (Lanzo et al.). Also, there was a positive correlation between workaholism and management positions; it is noted that organizational climate and culture influence perceptions regarding work expectations (Lanzo et al.). Likewise, Moyer et al. (2017) note that workaholism is a mix of internal and external influential factors; where PsyCap was negatively impacted by workaholism, it was positively related with personal accomplishment in contrast to workaholism which was not significantly related to personal accomplishment. This highlights a counterintuitive relationship for research. Are components of workaholism related to poor person-job fit and person-organization fit? Why are those suffering from workaholism exhibiting sunken costs into work they loath? Last, considering leadership impacts on PsyCap, research in this area between workaholism and PsyCap is much needed. How are leaders

working to shape healthy environments which promote both work and life domains? The need for PCI's becomes apparent.

The next section provides an overview of the PCIs within the last five years (2016 – 2021). These studies mostly represent infield experimental and quasi-experimental designs. They are important as they shed light on developing processes which are influential in increasing PsyCap and its beneficial performance outcomes.

### **PCIs (Psychological Capital Interventions)**

Bonner (2016) showed a strong correlation between PsyCap and work engagement; the results of one-way ANOVA calculations indicate that PsyCap is an antecedent to work engagement. Bonner recommended future interventions to demonstrate experimentally the PsyCap impacts on nurse work engagement.

**Goal-oriented.** PCIs have shown empirical evidence and future promise in their ability to influence PsyCap increases in individuals. The studies have reiterated that PsyCap is domain specific, and interventions focus on specific focal domains through which to increase PsyCap. One of which is the setting and acquisition of goals. For example, Fontes (2021) used goal setting as a theoretical framework for coaching subjects in measuring longitudinal effects showing that coaching increased PsyCap as compared to a control group. Sharp (2019) showed that a PCI can be used to increase PsyCap for developmental outcomes; notably, the treatment group showed significant increases in PsyCap at the posttest measure with the comparison group ( $d = .79$ , large effect size). Corbu et al. (2021) showed comparable results in a micro-coaching intervention as well as finding that goal-related efficacy predicted goal acquisition. Self-learning through online methods showed promising results with an increase in PsyCap across a heterogeneous sample; also, the sample set was of collectivistic culture showing that PCIs appear

globally relevant (Da et al., 2020). Computerized methods for PCIs ensure a level of control that is not possible between trainers. Along the lines of using technology for PCIs, gamification is also gaining influence for positive motivation and exponential outcomes (Luthans & Youssef-Morgan, 2017). These have the common theme of motivation.

**Job seeking.** PCIs appear to aid in job acquisition. A PCI for job seekers indicated that the intervention group did not receive more job interviews but when they did were more likely to acquire the job; the author shares that PsyCap played a role in job seeking behavior as well as person-job seeking fit (Georgiou, 2021). Job stress and job insecurity have been positively impacted through PCI as well.

*Job stress and job insecurity.* Patnaik et al. (2021) were able to significantly increase PsyCap while significantly decreasing job stress and job insecurity in a treatment group as compared to their control group which received a decision-making training.

**Job satisfaction.** Soares Marques et al. (2021) studied the impact of a micro-intervention to influence the PsyCap of flexpatriates, workers who travel back and forth overseas but remain in either location less than six months typically. PsyCap was significantly increased in the treatment group. The researchers went a step further and performed a moderation model indicating that PsyCap is indeed an antecedent in job satisfaction. Furthermore, the authors noted that PsyCap subfactors of self-efficacy and hope increased more at moment one, while resilience increased more at moment two, and finally optimism showed the most increase at moment three. The study does not describe the intervention sessions in high detail which might explain why the each subfactor increased at which time. This may be the first study to hint at teasing apart the synergistic effect of PsyCap. Are PsyCap subfactors antecedents to one another? Perhaps they are reflexive in nature? The implications are promising and offer a range of applicable findings



suitable for people and domain specific applications. This study also illustrates the benefit of combining group comparisons and causal inferences. The authors note that adding qualitative research to their study would have further benefited it. Mixed-methods research designs will undoubtedly and substantially increase insights in PsyCap research.

**Service industries.** A study was done to test the efficacy of online career counseling and its impact on career decision making. The authors showed that the online method was effective, more importantly, they show that PsyCap and hardiness were predictors of higher scores regarding career decision-making (Pordelan & Hosseinian, 2021). The takeaway is that PCIs can be incorporated into services where opportunity, growth, and transformation are desired. Where the customer receives not only the service/product but also increased PsyCap.

**Marginalized communities.** As with the social mechanisms of organizations, community-based organizations with the strategic goal of developing community members hold promise for increasing PsyCap. Sports-based community has shown qualitatively that it creates a social mechanism whereby PsyCap is increased and developed (Morgan, 2018; Morgan, 2019).

A study in Chinese university students who faced the hardships of single parent homes and economic challenges showed that brief intervention raised PsyCap level; furthermore, the sample who endured hardship showed significantly higher resilience than the general population (Liang et al., 2018). Strong resilience was quantitatively evident in marginalized youth in London UK, providing convergent validity that hardship seems to predict resilience (Morgan, 2018) and that resilience can also be developed via sports organizations (Souto-Otero et al., 2016).

Rew (2017) helped homeless female youth showing the promise of PCIs to increase PsyCap overall and subfactors of self-efficacy and hope. Most participants were able to set and acquire proximal goals. Therapies hold promise too.

**Therapies.** There is evidence that types of therapies may also increase individual PsyCap. Using ACT (Acceptance and Commitment Therapy), Fang & Ding (2020) showed that a treatment group of adolescents' PsyCap was increased with large effect size ( $d = .80$ ). ACT was helpful in battling depression and increasing PsyCap for patients with IBS (Irritable Bowel Syndrome; Mirsharifa et al., 2019). Fu (2020) studied the impact of music education on student PsyCap with significant increases in a posttest measure both within and between groups, however, alpha values and effects sizes are not included which limits the strength of the study. Rinkoff (2017) demonstrated the promising impacts of exercising mindfulness to increase PsyCap. PCI focused on building PsyCap to decrease clinical depression showed positive results with large effect sizes (Song et al., 2019). A promising area for research is longitudinal measures and trending of PsyCap in counseling practices. Papi et al. (2017) indicated that bibliotherapy increases PsyCap. Zarean and Latifi (2020) used self-healing therapy and practice of prayer to increase both PsyCap and distress tolerance in a sample of females whose husbands exhibited SUD (substance use disorder). In a yoga-based experimental design, participants showed significant shifts in self-transcendence, PsyCap, and subjective vitality with PsyCap as a mediator (Chirag et al., 2022). Both spirituality and exercise-based interventions may show themselves useful in promoting PsyCap. PCI meta-analysis has revealed results.

**Meta-analysis.** Lupsa (2020) performed a meta-analysis of PCIs. Some key findings emerged. First, overall effect size was small, indicating room for improvement in the structure and execution of PCIs. The ability of PCIs to increase overall PsyCap was not as noticeable as

their ability to increase single subfactors. Of the subfactors most susceptible to influence, hope was the least. Lupsa (2020) states the lack of hope focused interventions as a possible cause. Further, studies with a waiting list control group versus passive and active control groups demonstrated larger effect sizes, this is to be expected, as has been expressed in this manuscript PsyCap is also a social contagion. Active and passive control groups may still experience influences on their PsyCap, something also speculated by Lupsa. Of the four PsyCap subfactors, resilience seems to be most impacted by PCIs. Lupsa noted several types of PCIs, for the complete list please see the article. Worth noting, the JD-R model interventions did not appear impactful in any of the studies. A major take away emerged.

Lupsa (2020) stated the following, “It is really important to emphasize the circumstances that are indicated for an intervention to work and to trigger the necessary mechanisms, to understand those mechanisms and how the outcome evolves in pattern” (p. 1544). Stratman and Youssef-Morgan (2019) performed a PCI to reduce safety cynicism resulting in increased work safety across industries; further, it is believed that using a specific methodological process in PCIs is applicable to any goal (p. 18). As another example, an undergraduate study was successful in significantly increasing hope in a treatment group as compared to a control group where the salient focus in the treatment group was goal setting (O’Reilly, 2016). This hints that the intervention’s title and salient focus predict PsyCap increase and the impact to subfactors specifically; and this is especially noticeable as the total sample size was 26% of the recommended a priori sample. As has been demonstrated in many of the cross-sectional mediation models, PsyCap appears to have a reflexive nature. For instance, where PsyCap is high, authentic leadership has less impact. While PsyCap has been shown to be a predictor of well-being, well-being appears to predict PsyCap as well (Chen et al., 2019c). Research

demonstrates that a multidimensional approach has the best odds at increasing PsyCap. In other words, PCIs need to incorporate validated measures of environment, social, and individual factors as key predictors of ROI (return on investment) and ROI longevity. A PCI will fizzle out if environmental and social aspects of the organization preclude an ongoing support mechanism, otherwise individuals are likely to return to their natural PsyCap levels. Levels which are indicative of individual and organizational zeitgeist. Where organizations are characterized by high PsyCap members this is not an issue, but it is the very organizations that need PCIs which are representative of a needed multidimensional approach. This is yet another reason for additional longitudinal research to tease apart PsyCap antecedents, time, and PsyCap trends. Most PCIs follow the traditional PCI model and consist of micro-interventions versus longitudinal interventions; while they are significant the average effect sizes are small and range from 2% – 4% on average and these increases have been visible anywhere from two weeks to six months post intervention (Salanova & Ortega-Maldonado, 2019). While the effect sizes have been small, the fact that the micro interventions produce a significant impact should encourage discovery of increasingly proficient and potent methods to generate larger effect sizes. If micro-interventions which require between 1 – 2 hours over 1 – 3 instances are capable of significant increases and sustainability, then longitudinal approaches that impact the individual level, social level, and environmental level should produce significant increases in average effect size and duration. In close of PCI review, Guangyi and Shanshan (2016) present a balanced view of PsyCap, expressing that it is not reckless, such as the difference between self-efficacy and arrogance or optimism and ignorant positivity; they make a valid point that PCIs can benefit organizations by producing measurable results, professional accountability. Lastly, Le Blanc and Oerlemans (2016), in reflection on PCIs focused on strengths-based and happiness-based

interventions, share there are prerequisites for best results. These are a belief by both leadership and employees that investment in the well-being of the individual is worthwhile which is exhibited in willingness to invest in and maintain environments conducive to employee well-being (Le Blanc & Oerlemans, 2016).

**Academics.** PsyCap intervention is also beneficial for students. College students appear to gain PsyCap and added confidence to learn via well-designed interventions (Zhao, 2020).

### **Antecedent and PCI Summary**

It needs to be noted that the bulk of these studies are not experimental in design and therefore rely primarily on structural equation modelling, regression analysis, and boot strapping methods rather than conditional group comparisons. This is not so much a critique as it is an observation and points out that additional studies are required of an experimental design. The mainstay of PsyCap antecedents here are inferred rather than deduced. Most of the data collection is cross sectional rather than longitudinal. Still, the mirth of research here represents a massive opportunity to take almost any of these studies and convert them to experimental forms which would provide both researchers and practitioners a plethora of empirical findings by which to revolutionize organizational health and performance.

The article titled, “Psychological Capital: An Evidence-Based Positive Approach”, authored by Luthans and Youssef-Morgan (2017) is considered seminal on the state of PsyCap. Of its valuable insights, a persistent and salient foci is the need for environments where the HERO within and the HERO’s environment without, cooperate synergistically to promote the aggregate effect of PsyCap. The environment with its culture, policies, climate, leadership, and the individual with positive appraisals, play a dyadic-effortful and positively reinforcing role (Luthans & Youssef-Morgan, 2017). Luthans and Youssef-Morgan (2017) review the value of

PsyCap as an evidence-based construct which produces concrete ROIs, a new level of accountability brought by practitioners.

One of the most exciting aspects of PsyCap which is possible due to its empirical quality is the move toward a pragmatic and process-based grouping of antecedents. Pitichat et al. (2018) examines several environmental and social antecedents to leader PsyCap development. In one of the handful of qualitative studies, one participant partaking in a PCI training intervention suggested more practice-based activities (Kalman & Summak, 2017). Research in grouped antecedents will help practitioners to engage in effective additive approaches to increase PsyCap based on direct and indirect effects between variables. To date, group interventions show their value as reviewed in the prior section. Many authors have mentioned the escalating rate of change in the workplace will require future workers who are high in PsyCap. As such, individuals who can intentionally intervene, boost, and monitor their own PsyCap proactively will be of premiere competitive advantage. Pillay et al. (2020) suggest integrating professional psychologists who can offer cognitive behavioral therapies to transform embedded negative schemas. This promising vision for the future is beyond the scope of this dissertation, but this study hopes to inspire pursuit of process-based antecedents which people can leverage to contribute to their workplaces and their overall well-being. PCIs will help lead the way with validation, refinement, and innovation by teaching persons to execute their own personalized PCI programs.

It is not surprising that PsyCap frequently shows itself as a full or partial mediator between antecedents and performance related outcomes. In fact, it can be no other way, this is embodied cognition, the individual is inextricably tied to their own psyche and their experience of the environment through neurological mechanisms (Anderson, 2015). Thought itself is the

subject of study and what is more, metacognition. PsyCap has tapped into the native neurological functions of the brain and the deep human need to thrive. The same can be said of courage. Here follows the biblical foundation for this study.

### **Biblical Foundations of the Study**

All scripture used is taken from the New American Standard Bible (1971/2020), which is classified in a group of translations from the original texts as a word for word translation (Bickel & Jantz, 1998). Such a translation is important in this study as the original meaning of the word is crucial considering the specific meaning of hope, self-efficacy, resilience, and optimism in PsyCap subfactor definitions.

The biblical narrative is replete with themes of courage (including social courage), hope, efficacy, resilience, and optimism. But why is a biblical foundation worthy of merit considering the constructs in this study? The Bible is an accurate depiction of the history it documents (Bickel & Jantz, 1998). Bickel and Jantz (1998) noted the following regarding this magnificent piece of literature. Of the “ancient” manuscripts, 5,000 copies of the New Testament in the Greek language exist (p. 29). McDowell (1977), one of the great Christian apologists of the 20<sup>th</sup> century explains that per secular standards which deem a literature authentic and trustworthy, the Bible outperforms the meager number of manuscripts and wide scoping gaps between copies in other commonly accepted literatures such as the history of Thucydides and Herodotus, Aristotle’s poetics, and Caesar’s history of the Gallic wars. Of special note, the commonly accepted Iliad is representative of 643 copies as compared to all the discovered manuscripts of the New Testament in various languages...20,000 copies as of 1974 (McDowell, 1977). In addition to being an accurate account of the past, the most critical portion of the Bible is the historical account of the identity, birth, death, and resurrection of Jesus Christ. Strobel (2005), a

professional investigative journalist before his ministry career, expressed the following after a two-year in-depth investigation of the life of Jesus Christ.

“I became convinced that if you drill down to its core, Christmas is based on historical reality—the incarnation: God becoming man, Spirit taking on flesh, the infinite entering the finite, eternal becoming time-bound. It’s a mystery backed up by facts that I now believed were simply too strong to ignore” (Strobel, 2005, pp. 98-99).

Considering all these facts, the Bible is unique in that it contains both fulfilled prophecy and future prophecy. In the Old Testament there are multiple instances where Jesus’ birth and death were predicted thousands of years prior. Hundreds of prophecies regarding Jesus’ life, including details such as His birth and lineage were fulfilled. One of many instances is Isaiah 53:5, “But He was pierced for our offenses, He was crushed for our wrongdoings; The punishment for our well-being was laid upon Him, And by His wounds we are healed (New American Standard Bible, 1971/2020). This prophecy was an indication to the type of sacrificial death Jesus would endure. Waterhouse (2003) cited that 25% of the books in the Bible and 1/5 of the Bible’s content is prophetic. Taking then as a subsequent conclusion that the Bible is truth and based on the documented resurrection of Jesus, it predicts the future of humanity. Its authority has been positively argued here for discussion of the constructs from a biblical foundation. Having set forth the Bible as authoritative, the biblical worldview is discussed to facilitate the value of the constructs of social courage, hope, efficacy, and resilience as exhibited within the biblical narrative.

Contemporary theologian Sproul (2000) stated that since the origination of philosophy humanity’s quest to explain its beginning is present. The late Sire (2015) stated that every person has a worldview, that which they believe to be “really real” (p. 127). Worldview is the way that one explains life and its meaning and what is ultimate reality. It answers such questions as how



humankind came into existence, how humankind should behave, and is there existence post physical cessation? The Bible answers these worldview inquiries through what Wolters (2005) termed the “grand narrative” of the Bible (The Biblical Story, para. 6). Simply, God created the world and everything living on and within it (Creation). Humankind disobeyed God bringing suffering (ultimately physical and spiritual death), confusion (darkened minds), and wickedness (desire to act contrary to God’s moral law) into the world, subjugating future generations (The Fall). Jesus then came incarnate into the world, fully human and fully God, and sacrificed Himself as a substitute to fulfill the just demand of being the Holy God; He rose from the dead and ascended into heaven, after which sending the Holy Spirit to indwell all who believe in Him, granting as gift, life everlasting starting immediately with a renewed mind (John 3:16; Romans 12:2; Salvation, Redemption, and Sanctification). Jesus will return to abolish evil and forever establish a perfect new world and corresponding existence free of the aspects of the Fall for all who believe in Him. At present, humanity lives with the offer of salvation in the fallen world. This context is the essential backdrop within which to discuss the constructs of social courage, hope, efficacy, resilience, and optimism based on ultimate reality and eternity. From the biblical worldview, the Fall, Salvation, Redemption, Sanctification, and Eternity bring prolific meaning to the constructs of social courage, hope, efficacy, resilience, and optimism.

### **Biblical Social Courage**

The Bible does not specifically mention social courage as a term, but it does exhibit ample accounts of behaving courageously despite social pressure. The word courage was used for the biblical word study in this section. The word exists in the form of “courage” or “courageous” in 40+ instances in total in the Old and New Testaments (The Strongest NASB Exhaustive Concordance, 2000). Like some of the other constructs in this biblical word study,

the root definition of courage in the Greek language shares some root words associated with the other constructs. Namely Hupostasis and Parrhesia in the category of efficacy. For a detailed listing of Hebrew and Greek words entailing courage please see Table C1. A synthesized definition of courage in the Bible is a resolute, formidable, determination as that of a horn on an animal that defends itself. It is the idea of a positive mental state of good cheer, joyfulness, and conscious moral grounding. Biblical courage is a mental state that is often proactively instituted, to intentionally embolden/strengthen oneself, it is something deliberately acquired (e.g., 1 Samuel 4:9; 2 Chronicles 15:8; 2 Chronicles 32:5; Psalms 27:14; Isaiah 35:4; Mark 10:49). Courage is something one actively takes.

“And he said, ‘You who are treasured, do not be afraid. Peace be to you; take courage and be courageous!’ Now as soon as he spoke to me, I felt strengthened and said, ‘May my lord speak, for you have strengthened me.’” (New American Standard Bible, 1971/2020, Daniel 10:19)

Like efficacy, courage in the Bible is often tied to a centered belief in the righteous character and omnipotence of God. Consider Moses words to the Israelites in the Exodus, “Be strong and courageous, do not be afraid or in dread of them, for the LORD your God is the One who is going with you. He will not desert you or abandon you” (New American Standard Bible, 1971/2020, Deuteronomy 31:6). Biblical social courage is to exhibit courageous behavior boldly, pressing through fear with confidence in an outcome dependent upon God. For the Christian in many circumstances, a positive outcome in the present life is not assured, but it is the Christian’s duty to act courageously nonetheless, having confidence in eternity. What are some examples of social courage in the Bible?

There are many examples, such as Shadrach, Meshach, and Abednego facing the fiery furnace because of their refusal to comply with the social pressure to worship the image of

Nebuchadnezzar (Daniel 3). Another is the account of the resolute preaching of the gospel by Christians in the New Testament despite being subjected to imprisonment and maltreatment (Hebrews 11:38). While these are potent examples, modern WSC, unless in the fields of emergency service, law enforcement, and military industry involves more subtle and less salient forms of courage such as voice behavior and pursuing an endeavor when the social majority does not believe in it (Detert & Bruno, 2017). Therefore, a prime example of social courage in a workplace like environment is found in Daniel 1:8-21, where once in captivity, Daniel refused to eat food that compromised his belief system. He exercised courage through prayer and the willingness to communicate his needs despite the real potential for loss. In a modern setting, imprisonment is an unlikely consequence in most scenarios, however loss of social affiliation, prestige, and pay for adhering to one's moral underpinnings is relevant. In the Bible, social courage is most often witnessed in the form of adhering to God's moral standard and in the New Testament, professing a biblical worldview with Jesus Christ as the Savior of the world. Like hope, efficacy, resilience, optimism, and overall PsyCap, social courage is substantial in the biblical narrative. Having discussed biblical social courage via spiritual framing this discussion now turns to the biblical PsyCap subfactors and then biblical PsyCap as a whole.

### **Biblical Hope**

Noticeably, many of the antecedent articles cited in this dissertation revealed hope and efficacy as strong predictors of PsyCap. Fox et al. (2018) stated in their study of spirituality, hope, PsyCap, and employee performance, "An ability to more clearly diagnose and solve problems is critical in helping to achieve goals and understand what type of behavior is needed to achieve goals, thus providing a foundation for the development of pathways necessary for the PsyCap facet of hope" (Fox et al., 2018, p. 198). The word in the form of "hope", used as either

noun or verb, is found in 130+ instances spanning the Old and New Testaments (The Strongest NASB Exhaustive Concordance, 2000). The Old Testament is written in Hebrew and the New Testament primarily in Greek (Bickel & Jantz, 1998). Discussing all instances of hope found in scripture is beyond the scope of this study, still attention is paid to the root meaning of both Hebrew and Greek language. Key passages that highlight hope from the biblical worldview themes are incorporated. For each construct, the original root meaning of most of the Hebrew and Greek words are analyzed except where they are names of cities or historical figures.

Utilizing an online Bible study portfolio, mainly Old Testament and New Testament lexicons, each construct was examined (biblestudytools.com, n.d.). There were 12 Hebrew derivatives of hope and four in Greek. For a detailed listing of Hebrew and Greek root words of hope please see Table D1. The overall meaning of hope is summarized here. Nullens (2018) shows hope is core to the Christian's open-system worldview, citing the Apostle Paul, "Now may the God of hope fill you with all joy and peace in believing, so that you will abound in hope by the power of the Holy Spirit" (New American Standard Bible, 1971/2020, Romans 15:13). On the whole, hope as portrayed in the Bible means to wait, to expect. Nolzen (2018) described PsyCap hope as having agency, one's ability to look forward and recognize paths by which to achieve goals. Similarly, while the Bible definition of hope involves waiting, it is not a despairing helpless kind of waiting. Many of the root meanings denote to wait expectantly, confidently, in security, grounded in belief of a positive outcome. In other words, through belief, to maintain a joyous attitude and exercise reflective behaviors of such attitude. One definition rendered hope as the absence of care or worry. "Perikephalaia" is hope as the idea of a helmet, metaphorically guarding the soul in its hope rooted in salvation. Within the New Testament the word in Greek often denotes a strong theme of hope placed in the person of Jesus Christ for

salvation and eternal life. It is trust, confidence in the biblical narrative, the themes of salvation, redemption, and sanctification. It is looking forward to release from the Fall into eternity. The biblical definition of hope mirrors that of the hope subfactor of PsyCap in that it is agentic-active hope. An added aspect is that biblical hope is rooted not just in accomplishing a positive future (outcome), but it is rooted in trust and confidence in the character and promises of God.

“Tiqvah” describes hope as a cord, it is hope attached to the biblical worldview of a holy, just, and gracious God. This is not a view far removed from focusing on positive organizational scholarship in the workplace. It is to say that God so valued humanity and the original reflection of His character that He died to redeem and repossess that positive reflection (John 3:16). As it pertains to PsyCap, when Christians put their hope in perspective, they can show great biblical hope manifest in joyous positive behaviors despite obstacles to ideal life and dignified goals.

One of the definitions of hope mentioned above was trust and confidence.

### **Biblical Self-efficacy**

The Bible has much to say regarding pride and self-worship (1 Peter 5:5; Isaiah 14:12-14). Perhaps no other area is so confusing within Christian circles for lay parishioners than the integration of self-efficacy, the value of one’s efforts, and the maintenance of a humble mind. Simply, self-efficacy can be confusing for the Christian. Extremes typically range between self-deprecation and grandiosity. As example, statements like, “It had nothing to with me” and “God helps those who help themselves.” Self-deprecation is seemingly more acceptable socially and oft confused with humility. However, both extremes are pride manifest in opposites ends of a spectrum. Both avoid vulnerability and relational connection with God. It is easy to exercise extremes but much more difficult to balance effort and submission to participating in God’s plan for the individual. This balanced obedience and effort requires vulnerability and involves real

potential gain and loss. What does the Bible say regarding self-efficacy? First, a summative meaning of confidence in the Hebrew and Greek language is reviewed. From this summation and the use of an example narrative, a substantive and balanced view of self-efficacy can be established.

Like PsyCap subfactors, hope and confidence appear synergistically related in the Bible. In fact, five Hebrew words and one Greek word hold shared meaning between hope and confidence with strong themes of trust. For a detailed listing of Hebrew and Greek root words of confidence please see Table E1. In total, the word is used 50+ times in the Bible in the form of confidence, confident, and confidently (The Strongest NASB Exhaustive Concordance, 2000). The biblical definition of efficacy (confidence) in the Bible connotes and immovable mental resolve, a formidable trust and assurance in the character and work of God. Such biblical efficacy is marked by direct and clear communication and bold (not prideful but unashamed) behavior congruent with underlying belief. Most confidence instances found in the Bible refers to trust and reliance in God as noted by the Hebrew word “Besodeiah” and the Greek word “Pistis”. Is self-efficacy versus generic efficacy evident in the Bible?

Yes...and no. Efficacy is not present in the sense that one is ever to be completely self-sufficient, one’s own origin, one’s own god, one’s own confidence. On the other hand, biblical figures are shown to be confident in their abilities and subsequent actions as tied to their origin in God. Knowing full well that it is God who has supplied them the intellect, physical prowess, or whatever resources necessary to reflect His glory in their lives. Two examples from the Old Testament are available to illustrate the difference between a purely humanistic efficacy and godly self-efficacy.

In Judges 13 -16 the story of Sampson's life is told. Sampson was gifted with extraordinary physical prowess. So much so that he could not be bound by any earthly material, he effortlessly broke any restraint. Yet, to keep him from a humanistic self-sufficiency, which would not be good for him, God tied Sampson's strength to his hair. Sampson's hair was not to be cut or he was to lose his strength. This weakness was a blessing in that it was designed to ensure Sampson remained in reliance on God, using his strength to serve God and God's people; ultimately what would have made Sampson the most fulfilled. The account tells how Sampson used his strength for self-serving and immoral purposes, caring little for the reflection of his hedonistic behavior exhibited in the strength that God had blessed him with. After being subjugated to the Philistines in the form of imprisonment and disfiguration Sampson reaches out to God and God grants Sampson one last act of strength to bring justice on his captors. The story is an example of self-efficacy the Bible does not esteem. In contrast to this purely humanistic confidence, King David provides an example of the balance between effort and submission to God as the origin and director of one's talents and abilities.

As a shepherd, before his ascent to king, David encountered a lion and a bear both of which he was able to slay to ensure the safety of his father's sheep (1 Samuel 17). However, unlike Sampson, David did not confuse his God-given athleticism as a solo manifesto. This is evident in David's own words. He describes that he was the one that killed the lion and bear, yet at the same time he describes killing the lion and bear as a saving act by God on his behalf (1 Samuel 17:34-37). David was confident in his ability on the battlefield because he had participatory experience when he witnessed God work with and through him for victory. This is reflected in another statement made by David.

“Blessed be the LORD, my rock, Who trains my hands for war, And my fingers for battle; My faithfulness and my fortress, My stronghold and my savior, My

shield and He in whom I take refuge, Who subdues my people under me” (New American Standard Bible, 1971/2020, Psalms 144:1-2).

At this moment in his life David demonstrates godly self-efficacy, a confidence in the way God had shaped him from birth (genetically) and the experiences he had while shepherding. These two accounts, Sampson and David, help illuminate a conclusion regarding biblical self-efficacy.

The conclusion regarding biblical self-efficacy is that it is always rooted in the “Besodeiah” and “Pistis”, trust and assurance in God as ultimate source and sovereign over all creation and the promise of salvation, redemption, and eternity. The Christian exercising godly self-efficacy can take joy in the ability and belief to impact an outcome according to the way God has fashioned them without excluding God or stealing the credit ultimately due Him. Godly self-efficacy brings joy resulting in participation in one’s purpose in God’s kingdom as a reflection of His greatness. It is confidence in cooperating with God and His unique design of each individual (Psalm 139:14). It is not self-deprecation nor grandiosity, instead it is humility, and accurate view of oneself and role to play in God’s bigger picture of the Fall, Salvation, Redemption, Sanctification, and Eternity. Next, the discussion moves to biblical resilience.

### **Biblical Resilience (Perseverance)**

In searching the Old Testament and New Testament lexicons (biblestudytools.com, n.d.) no results were returned for searches of “resilience” or “resilient”. The online Merriam-Webster dictionary lists the word perseverance as a synonym or near synonym for resilience (Merriam-Webster, n.d.). Perseverance may not denote the dimension of “bouncing back” as noted in the definition of PsyCap resilience, “when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success” (Luthans et al., 2015, p. 2). It does, no doubt, contain the dimension of sustaining for attaining success. Perseverance is not a stretch for a biblical foundation of PsyCap resilience and shares characteristics with grit, a toughness.



Perseverance denotes forward effort in the face of difficulty. There were no results for perseverance in searching the Old Testament lexicon, however there were results in searching the New Testament Greek lexicons. For a detailed list please refer to Table F1. In general, the New Testament definition of perseverance is a patient enduring through hardship. It is a collected mental fortitude, a constancy that is unwavering, determined. What are a few biblical examples of resilience?

There are many, two are immediately salient. The first is found in the Old Testament in first Samuel 30 where King David and his army returned to the city of Ziklag. Upon their return they discovered that an enemy force had burned the structures and abducted the women and children. David's company of warriors appeared imminently willing to engage in stoning him in response. Yet, the narrative states that, "David was in great distress" because of the events and the men's response, "But David felt strengthened in the LORD his God" (New American Standard, 1971/2020, 1 Samuel 30:6). Like biblical confidence, this example of biblical resilience is rooted in the belief of God, God capable of a restorative outcome. David found resilience in his belief in God and the past experiences where he had witnessed God's outcomes. Consequently, King David and his men pursued, overcame their looters, and recovered everyone and everything.

The second instance that comes to mind is that of Jesus himself as described in the New Testament in Hebrews.

"Therefore, since we also have such a great cloud of witnesses surrounding us, let's rid ourselves of every obstacle and the sin which so easily entangles us, and let's run with endurance the race that is set before us, looking only at Jesus, the originator and perfecter of the faith, who for the joy set before Him endured the cross, despising the shame, and has sat down at the right hand of the throne of God. For consider Him who has endured such hostility by sinners against Himself, so that you will not grow weary and lose heart" (New American Standard Bible, 1971/2020, Hebrews 12:1-3).

Jesus, God incarnate, it was He Himself who created the world and all it contains (Psalms 24:1-2). In patient endurance (perseverance) He remained steadily situated in time and space (incarnate) while His own creation, in wicked mercilessness assaulted Him physically and psychologically. This account illustrates that resilience can also be bouncing forward, pressing through real time in present intense difficulty. Jesus, being in very nature God, did not recoil from the task of the cross, but in calculated cognitive appraisal as demonstrated in His prayer to God the Father in the garden of Gethsemane pursued “the joy set before Him” (New American Standard Bible, 1971/2020, Hebrews 12:2). So far, hope, efficacy, and resilience (perseverance) have been discussed, next is biblical optimism.

### **Biblical Optimism**

A search of biblestudytools.com Old and New Testament lexicons returned no results for optimism. However, the definition of optimism is two-fold, “a doctrine that this world is the best possible world” and “an inclination to put the most favorable construction upon actions and events or to anticipate the best possible outcome” (Merriam-Webster, n.d.). The latter definition practically mimics the dimension of the PsyCap definition of hope which incorporates Seligman’s (2006) explanatory style, where good outcomes are the result of what one can control and poor outcomes are temporary and due to external factors. A synonym or near synonym for optimism is hopefulness (Merriam-Webster, n.d.). Therefore, biblical optimism here is expressed from the biblical worldview grounded in hopefulness. An explanatory style that views the world and its past, present, and future events both at the global and individual level grounded in the hopefulness of the themes of the Creation, Fall, Salvation, Redemption, Sanctification, and Eternity (Romans 8:28). From a secular perspective the biblical worldview may appear fatalistic. For certain, legalism may have engendered a sense that biblical worldview is consumed with

humanity's sin giving a sense that humankind is worthless and purposeless. This relates to the accurate conception of the Christian's identity in God as mentioned in the biblical efficacy section regarding extremes of pride, self-deprecation on the one extreme and grandiosity on the other. The Fall gives the account of humankind's descent into separation from God, both psychologically and physically. It is a Shakespearean tragedy no doubt...minus the tragic ending; Creation, and the Fall that is, the beginning scenes, not the ending. The good news (gospel) of the biblical worldview is not a focus on humankind's separation from God because of sin, as serious as its consequences are (Romans 6:23; psychological and physical death). Rather it is the account of Jesus' crucifixion and resurrection, the forgiveness of sin and the restoration of personal relationship between humankind and the Creator. It is the promise of a new heavens and new earth and heavenly bodies equipped to the task of eternal existence (Hebrews 1:12; Revelation 21:1-5; 1 Corinthians 15:42-44). The biblical worldview knows that this is not the best possible world, but the new world to come is. This is the assured fate of all who believe, this is the biblical optimism of Christians who span the globe. As with all worldviews, life meaning, and all life events are synthesized in view of a righteous God redeeming His creation unto eternal life (2 Corinthians 5:19). At this point biblical-hope, - efficacy, -resilience (perseverance), and -optimism (hopefulness) have been discussed. What does a general definition of biblical PsyCap look like?

### **Biblical PsyCap**

Chapter one detailed the overarching definition of PsyCap and its subfactors. Luthans et al. (2006) also stated the following regarding PsyCap, "However, PsyCap goes beyond human ('what you know') and social ('who you know') capital, and is more directly concerned with 'who you are' and more importantly 'who you are becoming' (i.e., developing one's actual self)" (p.

388). In psychological terms this is labeled self-actualization, achieving in life one's full identity and potential. Self-actualization is viewed negatively by many Christians. Rightly so if it is rooted in grandiosity as mentioned earlier as a facet on the spectrum of pride. Yet, pride and confidence are not synonymous but different states of mind. Actualization, biblical PsyCap, is something different as well, it is achieving, with the Holy Spirit's work in the inner person (2 Corinthians 4:16), one's potential identity tied into the historical and future biblical worldview; it is knowing who one is as God's creation and fully participating in the purpose for which one has been designed (Isaiah 45:9). It is to glorify God through one's personality, talents, resources, and resulting behavior; it is to participate with God's design in the individual which in return facilitates immense fulfilling joy. This biblical actualization is called sanctification. Lewis (1976) illustrated a profoundly sober contrast between sanctification and its counterpart damnation. It could be considered outlandishly offensive...unless it is reality.

“It is a serious thing to live in a society of possible gods and goddesses, to remember that the dullest and most uninteresting person you can talk to may one day be a creature which, if you saw it now, you would be strongly tempted to worship, or else a horror and a corruption such as you now meet, if at all, only in a nightmare. All day long we are, in some degree, helping each other to one or other of these destinations. It is in the light of these overwhelming possibilities, it is with the awe and the circumspection proper to them, that we should conduct all our dealings with one another, all friendships, all loves, all play, all politics. There are no ordinary people. You have never talked to a mere mortal. Nations, cultures, arts, civilisations—these are mortal, and their life is to ours as the life of a gnat. But it is immortals whom we joke with, work with, marry, snub, and exploit—immortal horrors or everlasting splendours.” (pp. 45-46).

Biblical PsyCap is to become increasingly Christlike reflecting hopefulness, confidence, and perseverance. A summary of chapter two follows.

### **Summary**

Social courage, with its benefits and antecedents stemming from personality traits and influenced by moral dimensions and strong emotion were discussed. This literature review has

investigated the PsyCap antecedents prevalent in research literature these past five years (2016-2021). Antecedents were classified in three dimensions rather than traditional hierarchical levels (i.e., organization, leadership, individual). They are dimensions of environmental, social exchange, and individual. The purpose was to align with a cognitive- and social-psychology approach. Indeed, more than half of the cited articles include Social Exchange Theory as a theoretical grounding and Social Cognitive Theory is likewise frequently included. In addition, PsyCap is growing in popularity outside the workplace domain and this dimensional classification makes it readily adaptable to future research configurations. PsyCap interventions within the last five years (2016-2021) were also reviewed as focal episodic instances where researchers positively influenced participant PsyCap showing promise for lasting impact although more longitudinal studies are required. For a visual summary of PsyCap antecedent dimensions and PCIs please see Table G1. Social courage and PsyCap along with its subfactors of hope, efficacy, resilience, and optimism were examined from a biblical perspective by illuminating root word meanings in the Hebrew and Greek languages. To date there are a handful of studies breaching the relationship between courage and PsyCap. Further, there appear to be no studies which examine the relationship between social courage and PsyCap. As such this dissertation shortens this chasm in examination of this relationship. Next, chapter three details the research method.

## CHAPTER 3: RESEARCH METHOD

### Overview

This chapter will detail the research approach leveraged in this study. Research questions and hypotheses are reiterated from chapter one. I define the research design. Participant recruitment along with inclusion/exclusion criteria are included. Study procedures are detailed for replicable research. Instruments with validity evidence pertinent to the population are cited along with operationalized definitions of measured variables. Data analysis and statistical application is reviewed. The delimitations, assumptions, and limitations of the study are discussed before summarizing this chapter.

### Research Questions and Hypotheses

The following ten research questions and ten hypotheses were formulated and tested.

#### Research Questions

RQ1: Do perceived WSC benefits predict BWSC?

RQ2: Do perceived WSC risks predict behavioral BWSC?

RQ3: Do perceived WSC benefits predict PsyCap?

RQ4: Do perceived WSC risks predict PsyCap?

RQ5: Does PsyCap predict BWSC?

RQ6: Does PsyCap mediate between perceived WSC benefits and BWSC?

RQ7: Does PsyCap mediate between perceived WSC risks and BWSC?

RQ8: Is PsyCap best predicted by measuring perceived WSC benefits and perceived WSC risks as covariates?

RQ9: Is the PsyCap subfactor of hope and optimism primarily responsible for mediating between WSC benefits and BWSC?

RQ10: Is the PsyCap subfactor of self-efficacy primarily responsible for mediating between WSC and BWSC?

### **Hypotheses**

Hypothesis 1: Higher perceived WSC benefits predict higher BWSC.

Hypothesis 2: Higher perceived WSC risks predict lower BWSC.

Hypothesis 3: Higher perceived WSC benefits predict higher PsyCap.

Hypothesis 4: Higher perceived WSC risks predict lower PsyCap.

Hypothesis 5: Higher PsyCap predicts higher BWSC.

Hypothesis 6: PsyCap partially mediates between perceived WSC benefits and BWSC.

Hypothesis 7: PsyCap fully mediates between perceived WSC risks and BWSC.

Hypothesis 8: Perceived WSC benefits and perceived WSC risks, as covariates, best predict PsyCap.

Hypothesis 9: The PsyCap subfactor of hope & optimism is the premiere mediator between perceived WSC benefits and BWSC.

Hypothesis 10: The PsyCap subfactor of self-efficacy is the premiere mediator between perceived WSC risks and BWSC.

### **Research Design**

This study is a quantitative research design using simple and multiple linear regression analysis and mediation analysis to examine WSC as an act of cognitive appraisal predicting socially courageous behavior in the workplace mediated by PsyCap. Data were collected using survey method. Survey method is an appropriate methodology to study large populations. Survey method can provide for rigorous scientific analysis when rooted in balanced sampling techniques and psychometric validation (Ponto, 2015). Although survey method can be vulnerable to bias

such as social desirability and common method variance, survey method also limits researcher bias by controlling for contextual influences and bounded rationality which are more prevalent when interacting directly with participants. Cross-sectional samples aid to increase sample heterogeneity demographics such as participant gender, age range, education level, culture, and work industry. Experimental longitudinal studies provide the best design for deducing causality. Nonetheless, some researchers are incorporating a time lagged approach to data collection which is not quite longitudinal in nature but an improvement from single data point collection while remaining less vulnerable to attrition and inhibiting robust research costs associated with longitudinal study (Jang & Kim, 2021; Karatepe & Talebzadeh, 2016; Schuckert et al., 2018). Although data in this study were not time lagged, measures were taken in specific order to adhere to the research model. This research design affords for a large heterogeneous sample sufficient to justify inferred causality while avoiding unrealistic longitudinal timelines ill-suited to dissertations.

### **Participants**

Participants were recruited from Amazon MTurk. For inclusion, participants had to be at least 18 years of age, possess English as their native language, and be a U.S. citizen. Each participant was compensated \$5 U.S. dollars. The Liberty University IRB (institutional review board) provided research permission prior to recruitment and data collection, see approval in Figure H1. G\*Power 3.1.9.4 was utilized to perform multiple linear regression a priori power analyses using  $\beta = .80$  power and a medium standardized effect size .30 (Faul et al., 2009). Further, a second a priori analysis for multiple linear regression analysis with  $\beta = .80$  power and medium effect size .15 using “Free Statistical Calculators” version 4.0 was used (Soper, n.d.). Considering all a priori analyses and the six independent variables present in this study a sample



set of equal to or greater than 250 participants was considered more than safely adequate to detect effects.

### **Study Procedures**

All interaction with participants was remote and initiated indirectly via MTurk infrastructure. All materials were delivered and accessed electronically. Participants completed the informed consent form assuring compensation for completing the study, anonymity, and freedom to exit the study for any reason at will using Google Forms, see Figure I1. After completing informed consent, the participants read an intro to the study containing a brief overview of the purpose and the procedure of the study which included terms, instructions to complete surveys and contact information in case of participant questions, see Figure J1. Data-collection was facilitated with one data collection point using four instruments. The following were collected in order: Demographic info, perceived WSC benefits, perceived WSC risks, PsyCap, and BWSC. This order is deliberate to imitate the order of measures per the study design to infer causality. Descriptions of instruments and their measures follows.

### **Instrumentation and Measurement**

Two instruments were used, one for the measurement of WSC and one for PsyCap. To measure WSC the Workplace Social Courage Scale (WSCS-11), designed and validated by Howard et al. (2017), was modified for this study's aims. To measure PsyCap, the Luthans et al. (2007b), Psychological Capital Questionnaire was used (PCQ-24).

#### **Workplace Social Courage Scale (WSCS-11)**

The Workplace Social Courage Scale is a unidimensional measure consisting of 11 items which participants rate on a Likert scale with a range of 1 to 6, one being strongly disagree and six being strongly agree. As an example, item 2 states, "Although my coworker may become

offended, I would suggest to him/her better ways to do things” (Howard et al., 2017, p. 688). This instrument has demonstrated “internal consistency, factor structure, convergent validity, concurrent validity, discriminant validity, and utility”, vetted in three studies in four samples consisting of three student groups (n = 116, n = 257, & n = 148) and one adult group (n = 408; Howard et al., 2017, p. 686). It also showed strong correlations with voice behavior and OCBs (Howard et al., 2017). Modifications of the instrument for use with this study are overviewed next.

**WSCS-11 modifications.** To measure dimensions of WSC as perceived benefits, perceived risks, and behavioral commitment, items were modified to adjust the participants’ salient referent. This method works by retaining the instrument’s items but making modifications to the original scale or part of the item’s original wording to shift the perspective in which the participant is focused (framed). This method has been successfully employed in past research with demonstrations of psychometric quality (Foster et al., 2009; Dawkins et al., 2015; Dawkins et al., 2021; Howard & Cogswell, 2019; Moore & Gullone, 1996; Zhang et al., 2016). For this study, the original workplace rating scale is retained for all items while framing for the referents of perceived benefit, perceived risk, and commitment to exercise WSC behavior. Using item 2, here is an example of each modification. For perceived benefit of WSC, “Although my coworker may become offended, it is beneficial to suggest to him/her better ways to do things”. For perceived risk of WSC, “It is risky to suggest to my coworker better ways of doing things because my coworker may become offended”. For BWSC, “Although it may damage our friendship, I will tell my superior when a coworker is doing something incorrectly”. For complete exhibits see Figures K1, L1, and M1. While benefit and risk are more noticeably

straight forward as far as reframing the items in these two perspectives the adjustment for BWSC is more intricate.

Tkachenko et al. (2018;2020;) developed and validated a behavioral social courage scale where participants rated observable courageous behaviors in the workplace. This study was valuable because it incorporated a behavioral aspect of courage. This aspect is discussed in courage literature. Is one considered courageous without courageous behavior? Truly, the latent and behavioral aspects are likely both required. As such, the items on the original Workplace Social Courage Scale were modified from envisioning a future scenario requiring social courage in the workplace toward a more present tense, “I will” versus the original “I would”. The goal in this shift is to make the statement increasingly referent to self-identity and the identity work in courage as noted by (Koerner, 2014). Changing “I would” to “I will,” ideally brings the participant closer to the envisioned situation as both a future and present commitment to behave social courage. It mimics a more potent measure of behavioral courage in this study without observing actual behavior. Further, considering identity work involved in courage, it invokes salient self-concept and promotes the participant to work through cognitive dissonance resulting from what they would want to do compared to what they believe they can do when faced with the scenario. This adjustment leverages Cognitive Dissonance Theory and Balance Theory and incorporates components of motivation theories, and especially involves confidence. For a cohesive view, Cognitive Dissonance Theory and Balance Theory state that people desire congruity between the concept of self and the concept of the world as they pertain to perceived reality. It is believed that this intricate but slight referent refinement to this valuable instrument, further promotes its predictive validity of individual “propensities to perform social courage behaviors” (Howard et al., 2017, p. 678). The PsyCap measure is described next.

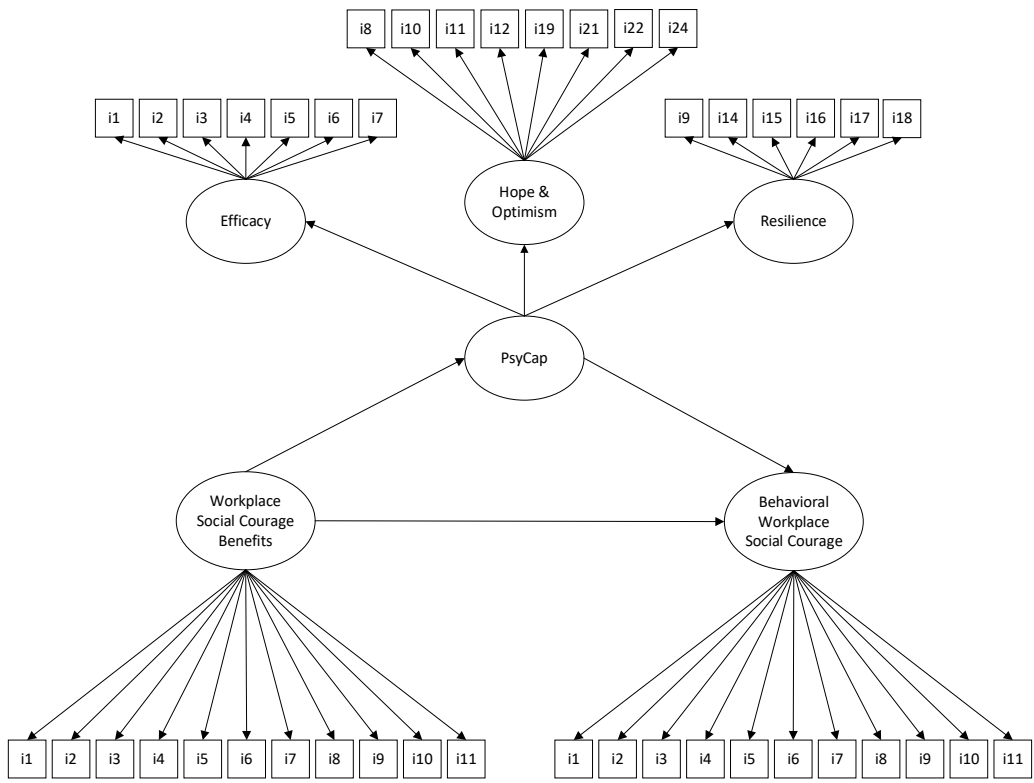
### **Psychological Capital Questionnaire (PCQ-24)**

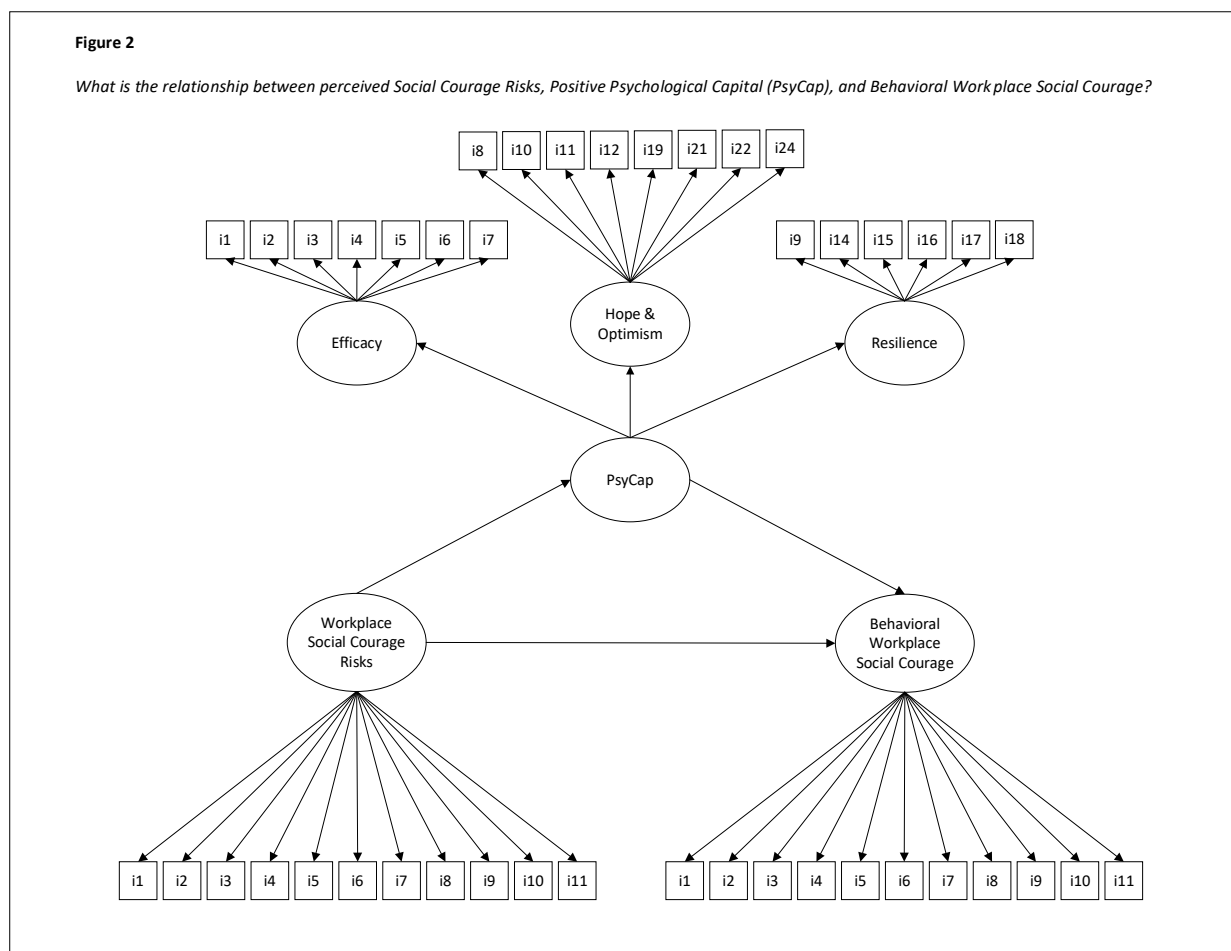
The PCQ-24 is a synergistic and multidimensional measure consisting of 24-items distributed equally into the four scales of HERO (hope, self-efficacy, resilience, and optimism). The subfactors are rooted in established positive psychology constructs and instrument aspects from prior research (Luthans et al., 2006). PsyCap is a resulting measure of these for subfactors containing components of each (synergistic) but distinct as a higher order factor (Luthans et al., 2007b). As an example, one item is, “If I should find myself in a jam at work, I could think of many ways to get out of it”. A full exhibit of this instrument can be obtained by permission from mindgarden.com and is not included here in adherence to copyright. This instrument has been used with diverse populations and industries and has been upheld under independent rigorous empirical investigation (Dawkins et al., 2013). The PCQ-24 has been translated and validated in multiple languages. Participants score each item on a 6-point Likert type scale from strongly disagree to strongly agree. The PCQ-24 is predictive of robust beneficial performance outcomes. The PCQ-24 is also modified for use in this proposed study.

**PCQ-24 modifications.** Grobler and Joubert’s (2018) modified form of the PsyCap instrument is used to replicate factorial loadings on 3-factors versus four (hope and optimism, self-efficacy, and resilience) and its evidence measuring PsyCap as a higher order factor. Figures 1 and 2 below are visuals of the research model.

**Figure 1**

*What is the relationship between perceived Social Courage Benefits, Positive Psychological Capital (PsyCap), and Behavioral Workplace Social Courage?*





The WSCS-11 and the PCQ-24 are operationalized in this study as follows.

### Operationalization of Variables

The variables in this study are perceived WSC benefits, perceived WSC risks, PsyCap with its subfactors of hope and optimism, self-efficacy, and resilience, and BWSC.

**Workplace Social Courage benefits** – this variable is a ratio variable and will be measured by participants' total scores on the modified WSCS-11 (Howard et al., 2017). The higher the score the higher the perceived WSC benefits. Maximum score is 66.

**Workplace Social Courage risks** – this variable is a ratio variable and will be measured by participants' total scores on the modified WSCS-11 (Howard et al., 2017). The higher the score

the higher the perceived WSC risks. Maximum score is 66.

**Hope & Optimism** – this variable is a ratio variable and will be measured by participants' total scores on the hope scale (8 items) within the modified PCQ-21 (Grobler & Joubert, 2018).

Higher scores represent higher hope and optimism. Maximum score is 48.

**Self-efficacy** – this variable is a ratio variable and will be measured by participants' total scores on the self-efficacy scale (7 items) within the modified PCQ-21 (Grobler & Joubert, 2018).

Higher scores represent higher self-efficacy. Maximum score is 42.

**Resilience** – this variable is a ratio variable and will be measured by participants' total scores on the resilience scale (5 items) within the modified PCQ-21 (Grobler & Joubert, 2018). Higher scores represent higher resilience. Maximum score is 30.

**PsyCap** – this variable is a ratio variable and will be measured by the sum of participants' total scores on the hope and optimism, self-efficacy, and resilience scales (21 items) within the modified PCQ-21 (Grobler & Joubert, 2018). Higher scores represent higher PsyCap. Maximum score is 120.

**Behavioral Workplace Social Courage** – this variable is a ratio variable and will be measured by participants' total scores on the modified WSCS-11 (Howard et al., 2017). The higher the score the higher the Behavioral Workplace Social Courage (willingness to act). Maximum score is 66.

To investigate the relationships between these variables, I describe the following data analyses next.

## **Data Analysis**

### **Factor Analysis**

Following the present trend in the literature review performed post data collection, confirmatory factor analyses were performed. This serves two purposes. One, it demonstrates that the factor structure of the scales is similar between the original sample and this current sample. Where items and loadings were not ideal, as witnessed in tests of goodness of fit, we could investigate model-data misfit to determine if a different model (i.e., theory) was supported. Two, it serves to further validate the tools' external validity for the confidence of others who will make use of it in future research.

### **Correlation**

After the factor analysis is completed, correlational statistic Spearman's rho was utilized to discover the strength in relationship between all variables in the non-parametric distribution. While it does not provide for inference of causation it does serve to reveal the degree to which the variables in the study are associated. Reasonable associations justify regression analysis.

### **Regression**

Regression is used to infer (suggest versus deduce) causal relationships among variables. These are the following types of regression analyses in this study. SLR (simple linear regression) and MLR (multiple linear regression) are used to test direct and covaried relationships between the independent variables and the dependent variable. MLR is applied to perceived WSC benefits and perceived WSC risks examining their relationship with PsyCap. Hayes (2016) PROCESS macro is included to further examine PsyCap mediation between perceived WSC benefits and WSC risks as they each relate to BWSC.

### **Sampling Techniques**

Data were scrubbed for quality, controlling for outliers and erroneous data entry. Bootstrapping is used in mediation analyses.



## **Common Method Variance**

Social desirability, which is a form of common method variance, is a threat to the findings of this study. Anonymity is assured to aid in the control of social desirability. Harman's single-factor test is used in three configurations; Harman's single-factor test is one of various methods for controlling and testing for common method variance described by Tehseen et al. (2017). Attention to standardized residuals plots was exercised in regressions.

In total these statistical analyses provide a robust view of the relationships between variables related to the research questions and hypotheses. Delimitations, assumptions, and limitations are covered next.

### **Delimitations, Assumptions, and Limitations**

Boundaries of this study, what is considered known in data collection, and possible threats to study findings are discussed next.

#### **Delimitations**

This study is limited to WSC. As courage is domain specific it seems best to exercise this acute focus, making the workplace and WSC the focal domains. The WSCS-11 is a quality psychometric tool. The participant population has also been limited to adult age. Intention is made to avoid a purposive sample and provide for strong heterogeneity by using a population recruited via online methods. Although there are many variables which research shows are undoubtedly related to courage and PsyCap this study limits the examination of relationships to the cognitive appraisal of the value of behaving in socially courageous ways in the workplace and the role of PsyCap amidst these two. This study makes assumptions.

#### **Assumptions**

Regarding sample data, it is assumed that online sampling such as the MTurk population is a valid population from which to study a wide range of constructs. Other research indicates the quality of MTurk populations as worthwhile and legitimate (Buhrmester et al., 2018; Chandler et al., 2019; Garrow et al., 2020/2018; Mortensen & Hughes, 2018; Robinson et al., 2019;). Online participation may increase confidence in anonymity and decrease possible perceived social consequences related to participation thus inhibiting social desirability. Limiting the participants to English as a native language is thought to increase the likelihood that the survey is correctly understood as it is validated in English. There are sufficient cultural differences in natively English regions to avoid cultural bias such as results preferential to individualistic or collectivistic populations. This study has limitations.

### **Limitations**

The data sample in this study is cross-sectional. Cross-sectional samples are not useful for confidently demonstrating causality between variables. The results of this study can only infer (suggest) causality between Cognitive Appraisal, PsyCap, and BWSC. This is the biggest limitation of the study. As the study is not experimental in design, any inferred predictive capability must be taken cautiously. Simply, there are no pre-test measures which are tethered to actual observed socially courageous behavioral outcomes. Furthermore, social desirability is a strong element. It is likely that participants on average experience inner conflict when reporting low levels of WSC, albeit a truthful response. Society does not reward cowardice behavior. Lastly, participants might respond with more focus on the incentive rather than item content. Therefore, this study may be limited in potency by common method variance. Having shared delimitations, assumptions, and limitations chapter three is summarized next.

### **Summary**

In this chapter, the characteristics of this research design were overviewed. It is a quantitative design. Survey method was used to collect data. Ten research questions and ten corresponding hypotheses were included. The population pool is MTurk. Inclusion and exclusion criteria for participants was described and IRB permission was shared. Sample size quantity was justified through power analyses. Study procedures, along with utilized instruments and measures with their modifications and scoring methods were detailed. Mainly, the modified use of the WSCS-11 and the modified use of the PCQ-24. Operationalized definition of the variables perceived WSC benefits, perceived WSC risks, PsyCap along with its subfactors of HERO, and BWSC were shared. Data analyses were overviewed.

The progression of data analyses was outlaid as factor analysis, correlation, regression analysis, sampling technique, and accounting for common method variance. Delimitations were described in the form of participant selection, the validity of online populations for research, and acute construct focus relegated to social courage in the workplace and PsyCap. Assumptions of the study were the need for native English speakers, the benefits of online anonymity, and its representative cultural diversity. Lastly, the vulnerability of limitations in the study were identified as common method variance in the form of social desirability regarding courage and the limitations of cross-sectional samples; mainly, cross-sectional samples are unable to confidently proclaim causality. Chapter four details study results.

## CHAPTER 4: RESULTS

### Overview

The purpose of this quantitative research design was to examine WSC as an act of cognitive appraisal predictive of socially courageous behavior in the workplace mediated by PsyCap. This examination consisted of 10 research questions which were the following.

### Research Questions

RQ1: Did perceived WSC benefits predict BWSC?

RQ2: Did perceived WSC risks predict BWSC?

RQ3: Did perceived WSC benefits predict PsyCap?

RQ4: Did perceived WSC risks predict PsyCap?

RQ5: Did PsyCap predict BWSC?

RQ6: Did PsyCap mediate between perceived WSC benefits and BWSC?

RQ7: Did PsyCap mediate between perceived WSC risks and BWSC?

RQ8: Was PsyCap best predicted by measuring perceived WSC benefits and perceived WSC risks as covariates?

RQ9: Was the PsyCap subfactor of hope and optimism primarily responsible for mediating between perceived WSC benefits and BWSC?

RQ10: Was the PsyCap subfactor of self-efficacy primarily responsible for mediating between perceived WSC risks and BWSC?

Participant data was collected using Amazon's MTurk. Participants completed five questionnaires. Questionnaires consisted of demographic data, perception of WSC benefits, perception of WSC risks, PsyCap, and BWSC (willingness to behave social courage in the workplace).

Three statistical software packages were used to perform study analyses, Analyse-it (version 6.15) which afforded a friendly GUI, R version 4.2.1 (R Core Team, 2022) with the Lavaan package, and IBM SPSS (version 29), the two latter software packages compensated with ability to perform data-fit analytics and mediation analyses (Rosseel, 2012; Analyse-it Software Ltd., 2023; IBM Corp., 2022). Where R and SPSS were utilized for analyses, they are specifically cited inline in the text. Otherwise, all other calculations were calculated using Analyse-it. This chapter four details descriptive results, study findings, and closes with a summary.

### **Descriptive Results**

The total number of participants was  $N = 291$ . These 291 data points were assessed for quality and subsequently scrubbed for a total of  $n = 237$  usable data points for hypotheses testing. The following ordered criteria were used to screen the data: existence of univariate outliers, responder bias, multivariate outliers, and corresponding implausible responses.

Step one in scrubbing data was the identification of items consisting of open fields that required a typed answer, responses were examined for correct answer type. As example demographic item four was, “If you are a leader/manager, how many direct reports do you lead/manage?”. Where participants provided responses such as “leader” or “manager” and other non-numerical responses, these non-numeric non-quantifiable data points were excluded which consisted of 47 total participant exclusions for step one resulting in  $n = 244$ . Step two involved identification of univariate outliers.

To identify univariate outliers, the method described by Martin and Bridgmon (2012) was utilized. This method removes data points with *z-scores* that reside above or below  $\pm 3.29$  values. For the measures of perceived WSC benefits, perceived WSC risks, PsyCap, and BWSC there

were a total of four data points scrubbed resulting in an  $n = 240$ . Next, the sample was examined for responder bias.

Responder bias was assessed by looking at high and low total scores in each variable instrument. Patterned responses were sought out. Of all the participant scores, only one data point represented possible bias as it showed the same rating for all items inside both perceived WSC benefits and perceived WSC risks, which was considered highly unlikely. Removing this one data point resulted in  $n = 239$ . Next the data was scrubbed for multivariate outliers, also using the method described by Martin and Bridgmon (2012) where any Mahalanobis distance values greater than the calculated Chi squared critical value are screened using a significance of  $p = .001$ ; one data-point met this criterion and was screened resulting in  $n = 238$ .

Lastly, implausible answers were sought out, one data point was removed because a participant reported age as 41 and work tenure as 450 months meaning the participant had to start working at three and half years of age which was implausible. The resulting tested sample was  $n = 237$ . Descriptives for  $n = 237$  are listed in Table 1 and 2 below.

**Table 1**

*Screened MTurk Sample Descriptives: Age, Tenure, Direct Reports, Levels Above*

Descriptive	n	Range	Mean	Median	Mode	SD
Age	237	18 – 69	36.23	34.00	25	11.29
Tenure (Months)	237	1 – 450	51.00	36.00	60	61.04
Direct Reports	198	0 – 1500	22.39	6.00	5	112.99
Levels Above	13	1 – 4	2.30	2.00	3	0.94

*Note.* SD = Standard Deviation; Tenure = Months.  $n = 237$ .

**Table 2**

*Screened MTurk Sample Descriptives: Leader, Big Decisions, Gender*

Descriptive	Yes	No	n
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Leader	198 (83.5%)	39 (16.5%)	237
Big Decisions	185 (93.4%)	13 (6.6%)	198
Gender	Female	Male	
	101 (42.6%)	135 (57.0%)	

*Note.* % = Relative Frequency in sample n = 237; For gender, one data-point reported “They”, R-Freq % = 0.4

Continuous descriptives showed participants ranged in age from 18 – 69 with a median age of 34, a mode age of 25, and an average age of 36.23, and standard deviation of 11.29 years. The median work tenure was 36 months while the work tenure mode was 60 months, and the average work tenure was 51 months; standard deviation in work tenure was 61.04 months. Of the 237 participants, 198 participants listed themselves as having direct reports. The mode of direct reports was 5, the median of direct reports was 6, and the average number of direct reports per leader/manager was 22.39 with a standard deviation of 112.99 direct reports. There were 13 leaders/managers that reported they did not make the big decisions, someone above themselves in the organizational structure made them. The average level above these 13 leaders where the big decisions were made was 2.30 levels, with median 2 levels, and mode 3 levels, standard deviation of 0.94 levels.

Nominal descriptives showed that there were 101 females, 135 males, and one data-point reported as “They”. Of the entire sample, 198 participants were leaders/managers in their organizations, while 39 were not. Of the 198 leaders, 185 reported they make the big decisions while 13 reported those decisions were made above them in the organizational structure. Here are study findings.

### **Study Findings**

A Confirmatory Factor Analysis (CFA) using R version 4.2.1 (R Core Team, 2022) with the lavaan package (Rosseel, 2012) was performed to investigate data fit with the sample set (n =

237) with the 21 item PCQ utilized by Grobler and Joubert (2018). The authors in that study, showed a three-factor model where hope and optimism loaded best as one factor, leaving the other two factors as self-efficacy and resilience. Note that the original item numbers from the PCQ-24 were utilized to provide clarity and ease for future researchers to identify items quickly in future psychometric quality investigations. PCQ-24 items 13, 20, and 23 were the reverse scored and negatively worded items not used in this study in data collection. Table 3 shows fit indices.

**Table 3**

*CFA Workplace Social-Benefit, -Risk, -Behavior, Psychological Capital Questionnaire*

CFA Statistic	WSCb (1-F)	WSCr (1-F)	PCQ21 (4-F)	BWSC (1-F)
CFI	0.921	0.980	0.862	0.915
SRMR	0.012	0.030	0.066	0.057
RMSEA	0.076	0.055	0.077	0.087
RMSEA 90% CI - L	0.058	0.034	0.068	0.069
RMSEA 90% CI -U	0.095	0.076	0.086	0.106
RMSEA P-value	0.031	0.315	0.000	0.001

*Note.* WSCb = Workplace Social Courage benefits perception. WSCr = Workplace Social Courage risks perception. BWSC = Behavioral Workplace Social Courage, willingness to behave. PCQ21 = 21-item Psychological Capital Questionnaire. F = factor. CI – L = Confidence Interval Lower. CI – U = Confidence Interval Upper. n = 237.

According to Bandalos (2018), when examining fit indices, it is recommended that multiple fit indices are utilized to determine estimations of model-data fit. General guidelines for SRMSR are that values are less than or equal to .08 for acceptable fit and less than or equal to .05 for good fit (Hu & Bentler, 1999). For RMSEA, values less than or equal to .06 or .05 are considered a good fit (Browne & Cudeck, 1993; Hu & Bentler, 1999). CFI values for good fit are close to or above .95 (Hu & Bentler, 1999). Taking each instrument's fit indices into consideration, perceived WSC benefits, perceived WSC risks, and BWSC showed good fit.



While the PCQ-21 showed some fit across indices, the RMSEA value was above .06 and the CFI below .95 not indicating an overall good fit.

To examine model-data misfit for the PCQ-21, I conducted an Exploratory Factor Analysis (EFA). IBM SPSS Statistics (Version 29) was used to examine factor loadings of a four-factor solution within the PCQ-21 using Principal Axis Factoring with Promax rotation (IBM Corp., 2022). Promax rotation was used based on the Grobler and Joubert (2018) study and this method is considered acceptable when factors are expected to correlate (Tabachnick & Fidell, 2007). Tables 4 shows factor loadings for the PCQ-21.

**Table 4**

*Principal Axis Factoring Psychological Capital Questionnaire 21-Items*

Factor	1	2	3	4
PCQ1	0.438	0.551	0.522	<b>0.561</b>
PCQ2	0.529	0.378	0.447	<b>0.827</b>
PCQ3	0.540	0.364	0.369	<b>0.542</b>
PCQ4	0.517	0.411	0.323	<b>0.590</b>
PCQ5	0.401	0.502	0.560	<b>0.587</b>
PCQ6	0.454	0.597	0.307	<b>0.645</b>
PCQ7	0.494	0.294	<b>0.619</b>	0.529
PCQ8	<b>0.711</b>	0.538	0.311	0.497
PCQ9	0.324	0.352	<b>0.600</b>	0.391
PCQ10	<b>0.731</b>	0.472	0.362	0.523
PCQ11	<b>0.683</b>	0.330	0.429	0.453
PCQ12	<b>0.713</b>	0.391	0.403	0.554
PCQ14	0.392	0.384	<b>0.641</b>	0.359
PCQ15	0.364	0.179	<b>0.435</b>	0.398
PCQ16	0.236	<b>0.714</b>	0.528	0.369

PCQ17	0.270	0.450	<b>0.682</b>	0.340
PCQ18	0.451	0.499	0.422	<b>0.546</b>
PCQ19	0.452	<b>0.701</b>	0.325	0.369
PCQ21	0.508	<b>0.612</b>	0.366	0.554
PCQ22	0.551	0.558	0.453	<b>0.579</b>
PCQ24	0.562	<b>0.660</b>	0.359	0.507

*Note.* Extraction Method: Principal Axis Factoring. Rotation Method: Promax with Kaiser Normalization. Items 1 – 6 = efficacy. Items 7 – 12 = hope. Items 14 – 18 = resilience. Items 19, 21, 22, and 24 = optimism. n = 237. Bolded factor loadings were the highest for each item-factor pair.

The efficacy items, 1 – 6 loaded together. Of the hope items, 7 – 12, items 8, 10, 11, and 12 loaded together while items 7 and 9 grouped with resilience items. Resilience, consisting of items 14 – 18, contained items 14, 15, and 17 grouped together while item 16 grouped with optimism and item 18 with efficacy. Lastly, optimism, consisting of items 19, 21, 22, and 24 showed items 19, 21, and 24 loading together while item 22 loaded on efficacy. These cross-loadings likely explain the model-data misfit from the CFA analysis of the PCQ-21.

To improve factor purity, items 7, 9, 16, 18, and 22, were removed from the total 21 items because they loaded onto other factors than those with which they were expected to load. A subsequent Principal Axis Factoring with Promax rotation was executed (see Table 5).

**Table 5**

*Principal Axis Factoring Psychological Capital Questionnaire 16-Items Iteration 2*

Factor	1	2	3	4
PCQ1	0.452	0.518	<b>0.535</b>	0.446
PCQ2	0.523	0.441	<b>0.847</b>	0.407
PCQ3	<b>0.547</b>	0.433	0.534	0.280
PCQ4	0.512	0.469	<b>0.574</b>	0.298
PCQ5	0.400	0.501	<b>0.572</b>	0.499

PCQ6	0.440	0.629	<b>0.666</b>	0.310
PCQ8	<b>0.672</b>	0.647	0.470	0.337
PCQ10	<b>0.739</b>	0.568	0.495	0.360
PCQ11	<b>0.700</b>	0.437	0.429	0.369
PCQ12	<b>0.717</b>	0.476	0.530	0.358
PCQ14	0.434	0.366	0.361	<b>0.646</b>
PCQ15	0.368	0.223	0.382	<b>0.420</b>
PCQ17	0.290	0.398	0.361	<b>0.787</b>
PCQ19	0.429	<b>0.679</b>	0.368	0.355
PCQ21	0.488	<b>0.626</b>	0.537	0.381
PCQ24	0.514	<b>0.747</b>	0.479	0.363

*Note.* Extraction Method: Principal Axis Factoring. Rotation Method: Promax with Kaiser Normalization. Items 1 – 6 = efficacy. Items 8 and 10 – 12 = hope. Items 14, 15, and 17 = resilience. Items 19, 21, and 24 = optimism. n = 237. Bolded factor loadings were the highest for each item-factor pair.

After the second iteration, one item remained cross loaded, item 3 loaded onto hope verses efficacy. Item 3 was subsequently removed and the second iteration of Principal Access Factoring using Promax rotation is shown in Table 6.

**Table 6**

*Principal Axis Factoring Psychological Capital Questionnaire 15-Items Iteration 3*

Factor	1	2	3
PCQ1	<b>0.586</b>	0.451	0.479
PCQ2	<b>0.636</b>	0.516	0.474
PCQ4	<b>0.569</b>	0.524	0.349
PCQ5	<b>0.592</b>	0.405	0.535
PCQ6	<b>0.728</b>	0.451	0.354
PCQ8	0.617	<b>0.688</b>	0.357
PCQ10	0.579	<b>0.743</b>	0.397

PCQ11	0.460	<b>0.688</b>	0.406
PCQ12	0.536	<b>0.716</b>	0.402
PCQ14	0.393	0.430	<b>0.667</b>
PCQ15	0.317	0.362	<b>0.450</b>
PCQ17	0.423	0.305	<b>0.723</b>
PCQ19	<b>0.575</b>	0.461	0.348
PCQ21	<b>0.651</b>	0.511	0.401
PCQ24	<b>0.675</b>	0.547	0.374

*Note.* Extraction Method: Principal Axis Factoring. Rotation Method: Promax with Kaiser Normalization. Items 1 – 2 and 4 – 6 = efficacy. Items 8 and 10 – 12 = hope. Items 14, 15, and 17 = resilience. Items 19, 21, and 24 = optimism. n = 237. Bolded factor loadings were the highest for each item-factor pair.

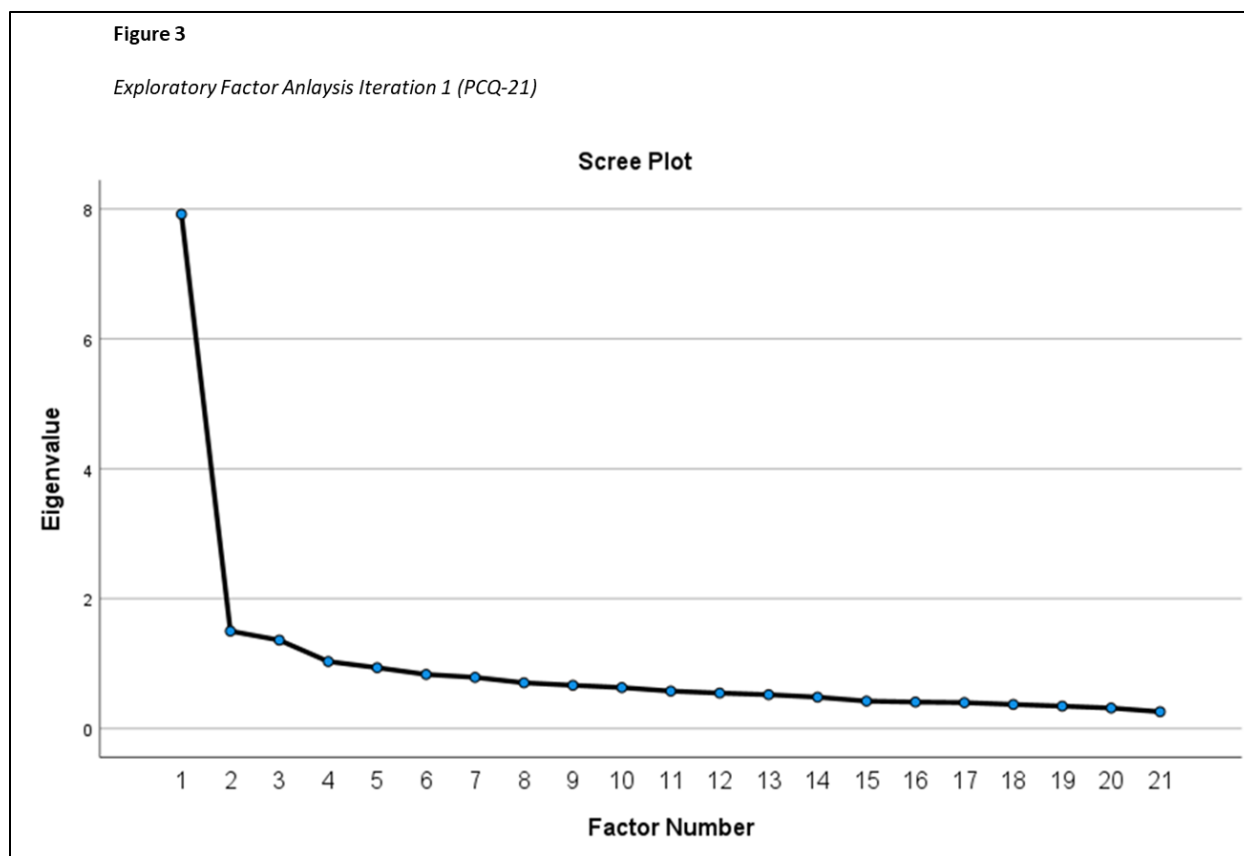
Akin to the Grobler and Joubert (2018) study, this two iteration EFA resulted in a 3-factor model. Unlike that study, rather than hope and optimism loading onto one factor, confidence and optimism loaded together. Hope and resilience loaded as the other two distinct factors. IBM SPSS Statistics (Version 29) was used to examine internal consistency reliability on PsyCap subfactor scales as well as PsyCap (IBM Corp., 2022). Table 7 depicts the 3-factor EFA outcome and internal consistency reliability statistic coefficient omega. The scree plot from the first EFA iteration is a graphical representation (see Figure 3).

**Table 7**

*PCQ-15: Factor and Item Designations*

Factor	Item Designations	$\omega$	Total Items
Confidence & Optimism	PCQ1, PCQ2, PCQ4 – PCQ6, PCQ19, PCQ21, PCQ24	.836	8
Hope	PCQ8, PCQ10 – PCQ12	.805	4
Resilience	PCQ14, PCQ15, PCQ17	.650	3
PsyCap	PCQ1, PCQ2, PCQ4 – PCQ6, PCQ8, PCQ10 – PCQ12, PCQ14, PCQ15, PCQ17, PCQ19, PCQ21, PCQ24	.886	15

*Note.* The PCQ-24 designates items 1 – 6 as self-efficacy, items 19 – 24 as optimism, items 7 – 12 as hope, and items 13 – 18 as resilience.



Score totals were standardized to a z-score metric and the sample ( $n = 237$ ) was analyzed for normality for each variable measured: perceived WSC benefits, perceived WSC risks, PsyCap, and BWSC. All distributions were non-parametric as recorded in Table 8 according to the Shapiro-Wilk test.

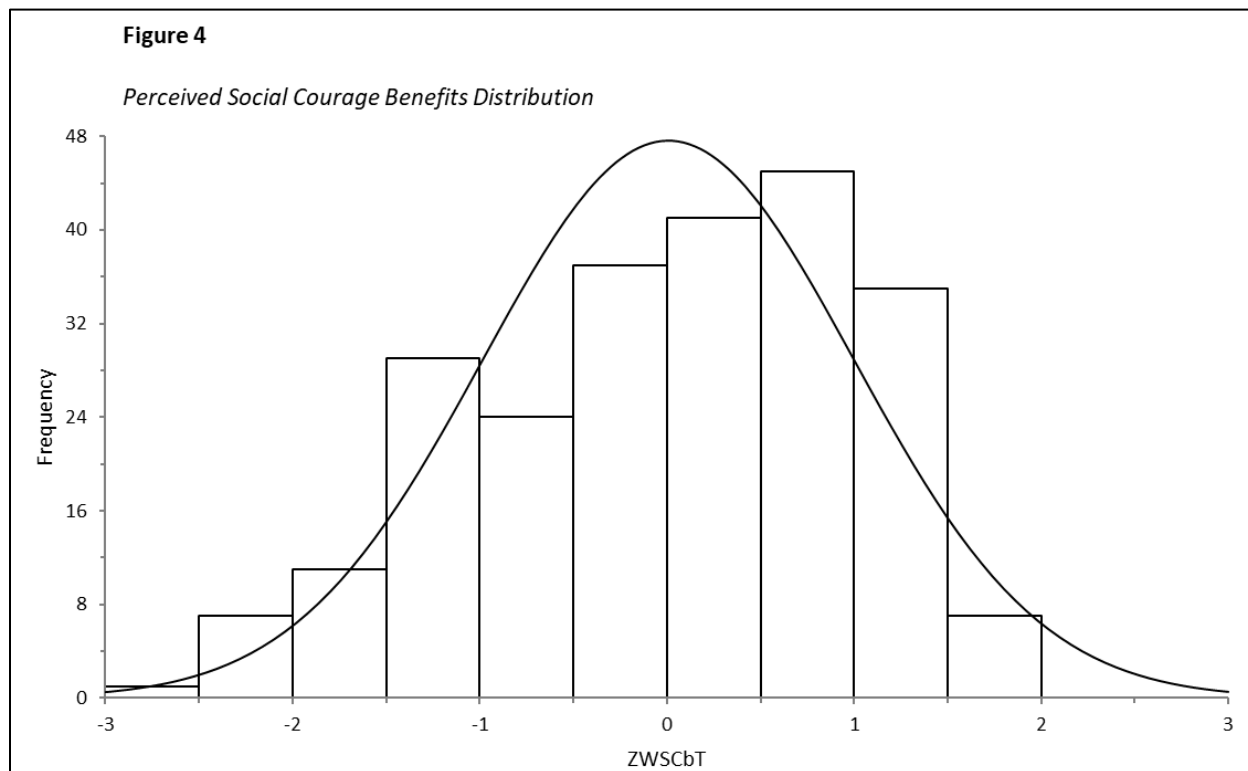
**Table 8**

*Shapiro-Wilk test*

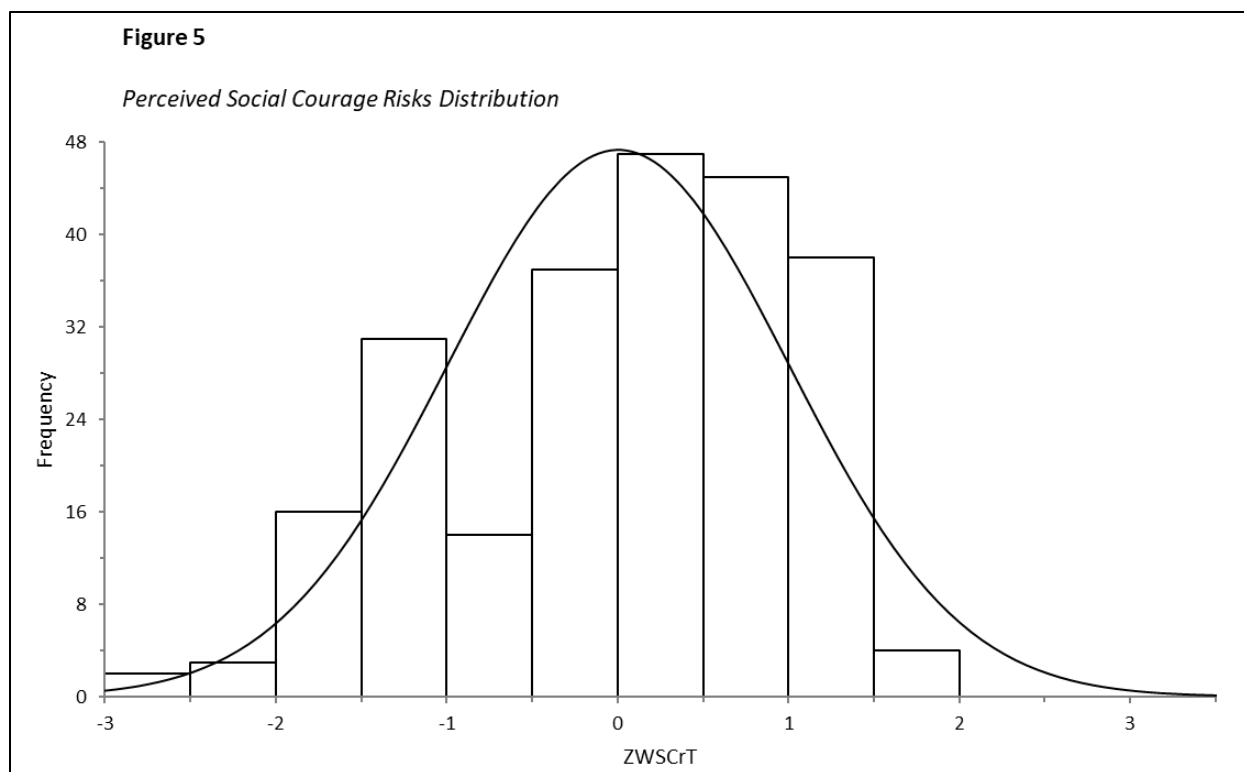
Variable	W-statistic	p-value
WSCbT	0.97	0.0002
WSCrT	0.95	< 0.0001
PCQ15T	0.98	0.00021
BWSCT	0.97	< 0.0001

*Note.* WSCbT = perceived Workplace Social Courage benefits. WSCrT = perceived Workplace Social Courage Perceived risks. PCQ15T = 15-item Psychological Capital Questionnaire. BWSCT = Behavioral Workplace Social Courage.  $n = 237$ .

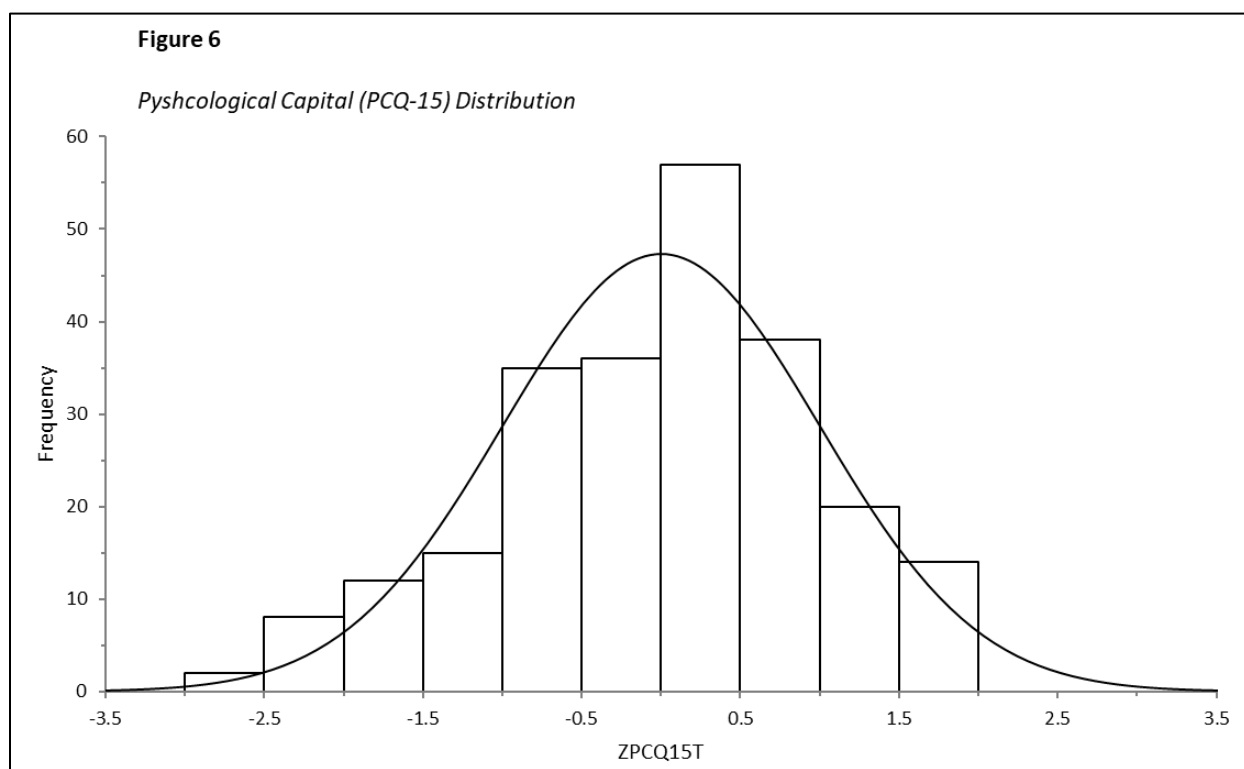
Distributions are depicted in Figures 4 – 7 below. Note that the perceived WSC risks distribution borders on a bi-modal distribution indicating that the sample ( $n = 237$ ) is somewhat juxtaposed into two groups pertaining to perceptions of risk when considering WSC (see Figure 5).



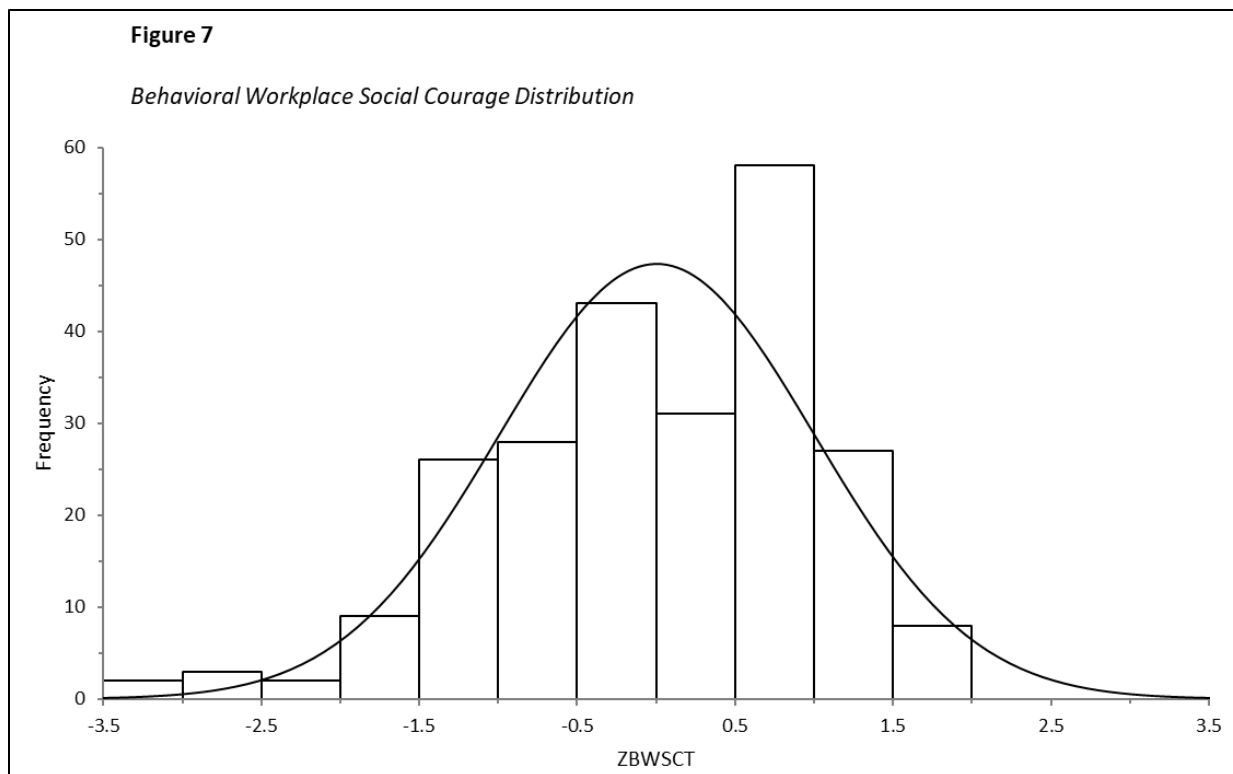
*Note.*  $n = 237$ ; ZWSCbT = perceived WSC benefits.



Note.  $n = 237$ ; ZWScrT = perceived WSC risks.



Note.  $n = 237$ ; ZPCQ15T = Psychological Capital



Note.  $n = 237$ ; ZBWSCT = Behavioral Workplace Social Courage

After analyzing the distribution for normality, a correlation analysis was utilized to determine justification for testing hypotheses using regression analysis. Table 9 depicts variable correlations.

**Table 9**

*Spearman's rho variable correlations*

Variable	1	2	3	4
1. ZWSCbT	—	0.248	0.679	0.849
2. ZWSCrT	0.248	—	0.284	0.324
3. ZPCQ15T	0.679	0.284	—	0.733
4. ZBWSCT	0.849	0.324	0.733	—

Note.  $n = 237$ ; ZWSCbT = perceived Workplace Social Courage benefits. ZWSCrT = perceived Workplace Social Courage risks. ZBWSCT = Behavioral Workplace Social Courage (willingness to behave). ZPCQ15T = Psychological Capital.

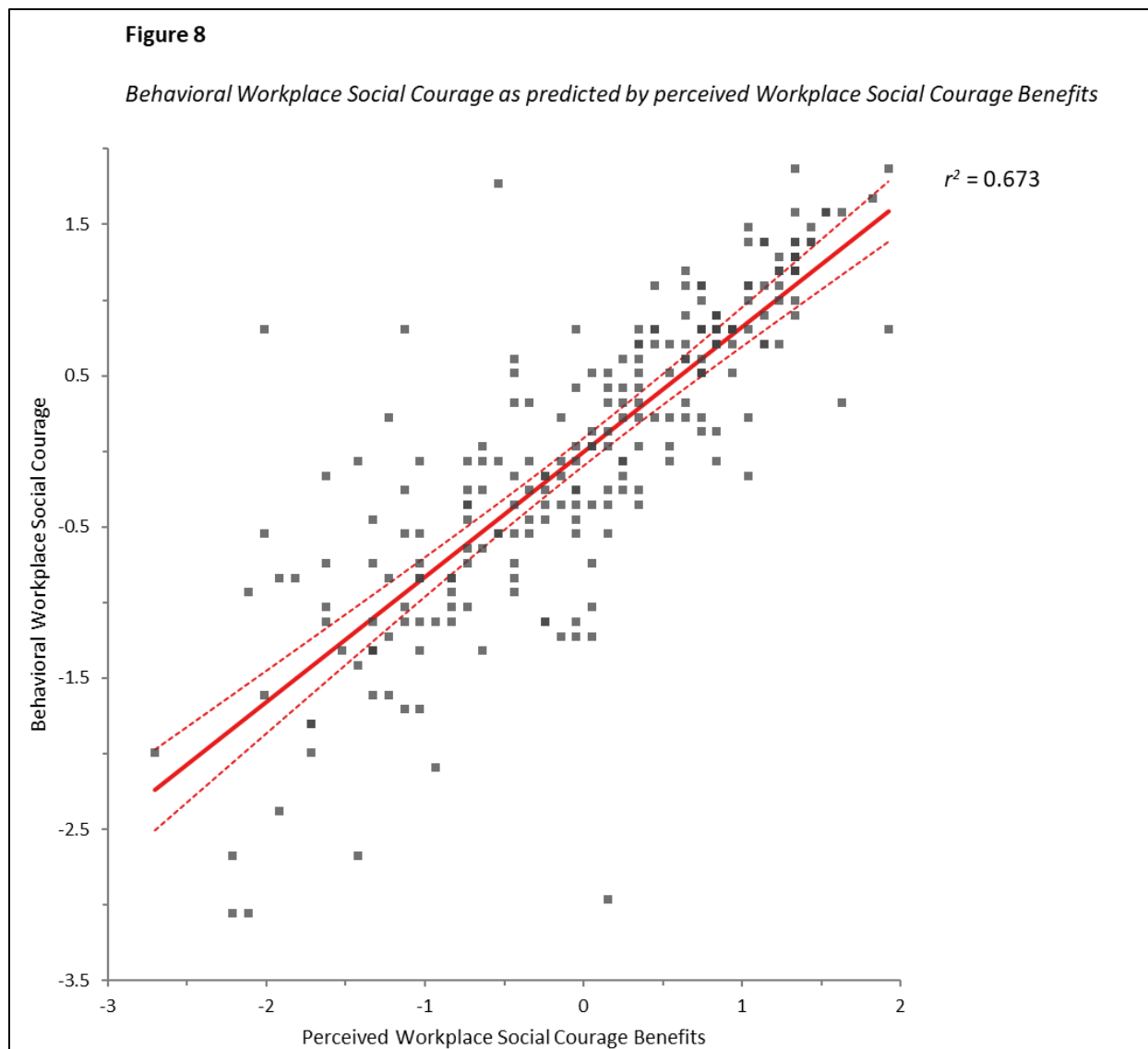
Effect sizes between the paired variables of perceived WSC benefits–perceived WSC risks, perceived WSC risks–PsyCap, and perceived WSC risks–BWSC were small. Effect sizes



between perceived WSC benefits–PsyCap, perceived WSC benefits–BWSC, and PsyCap–BWSC were large. Considering significant correlations between study variables, regression analyses were utilized to test hypotheses.

### **Hypothesis 1**

Hypothesis one stated that higher perceived WSC benefits would predict higher BWSC. A simple linear regression was calculated to predict BWSC based on perceived WSC benefits. A statistically significant regression equation was found  $F(1,235) = 484.20, p < .0001$ , with an  $r^2$  of 0.673, a moderate effect size. The regression equation for predicting BWSC was  $Y' = -0.002142 + 0.8261 * \text{WSC benefits}$ . The correlation between BWSC and perceived WSC benefits was  $\beta = 0.8205$ . Approximately 67.3% of the variance of BWSC was accounted for by its linear relationship with perceived WSC benefits. Figure 8 depicts the result. Hypothesis one was supported.



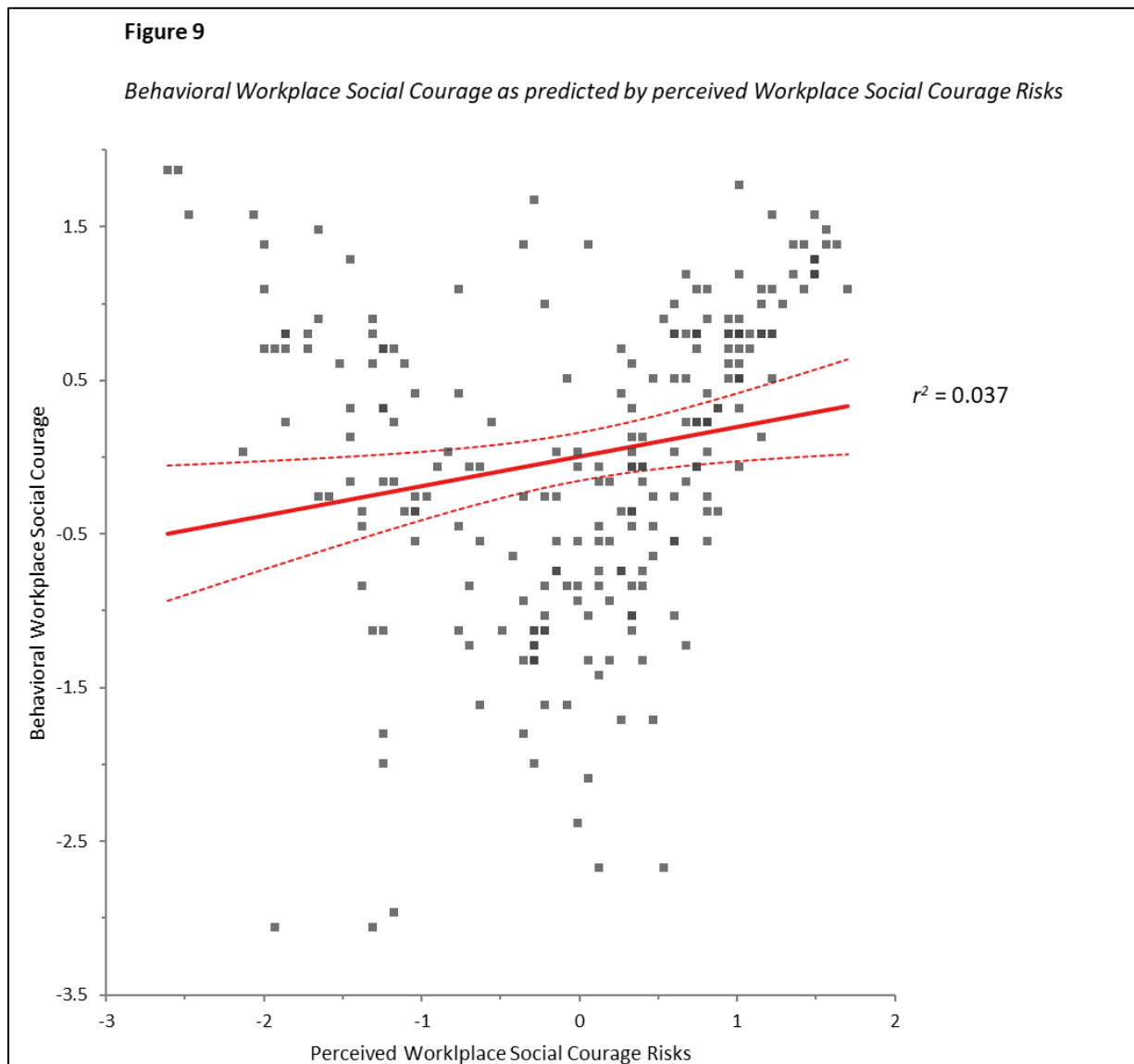
Note.  $n = 237$

## Hypothesis 2

Hypothesis two stated that higher perceived WSC risks would predict lower BWSC. A simple linear regression was calculated to predict BWSC based on perceived WSC risks. A significant regression equation was found  $F(1,235) = 8.93, p = .0031$ , with an  $r^2$  of 0.037, a low effect size. The regression equation for predicting BWSC was  $Y^{\wedge} = 0.004564 + 0.1913 * \text{WSC risks}$ . The correlation between BWSC and perceived WSC risks was  $\beta = 0.1914$ , a positive association. Approximately 3.7% of the variance of BWSC was accounted for by its linear

relationship with perceived WSC risks. While this relationship was significant, hypothesis two predicted a negative relationship versus findings, a positive one. Figure 9 depicts the result.

Hypothesis two was not supported.

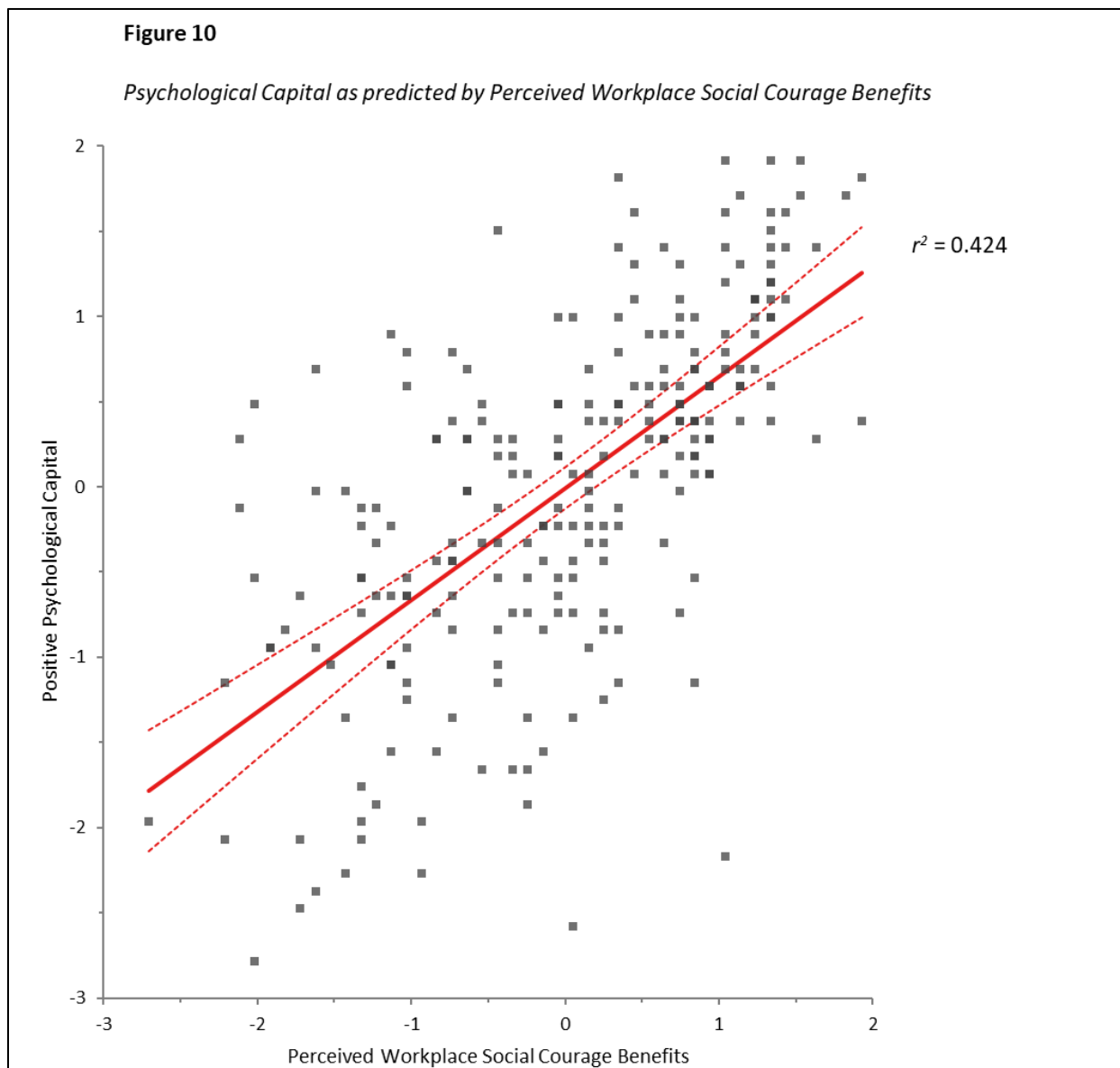


Note.  $n = 237$

### Hypothesis 3

Hypothesis three stated that higher perceived WSC benefits would predict higher PsyCap. A simple linear regression was calculated to predict PsyCap based on perceived WSC benefits. A significant regression equation was found  $F(1,235) = 173.23, p < .0001$ , with an  $r^2$  of 0.424, a

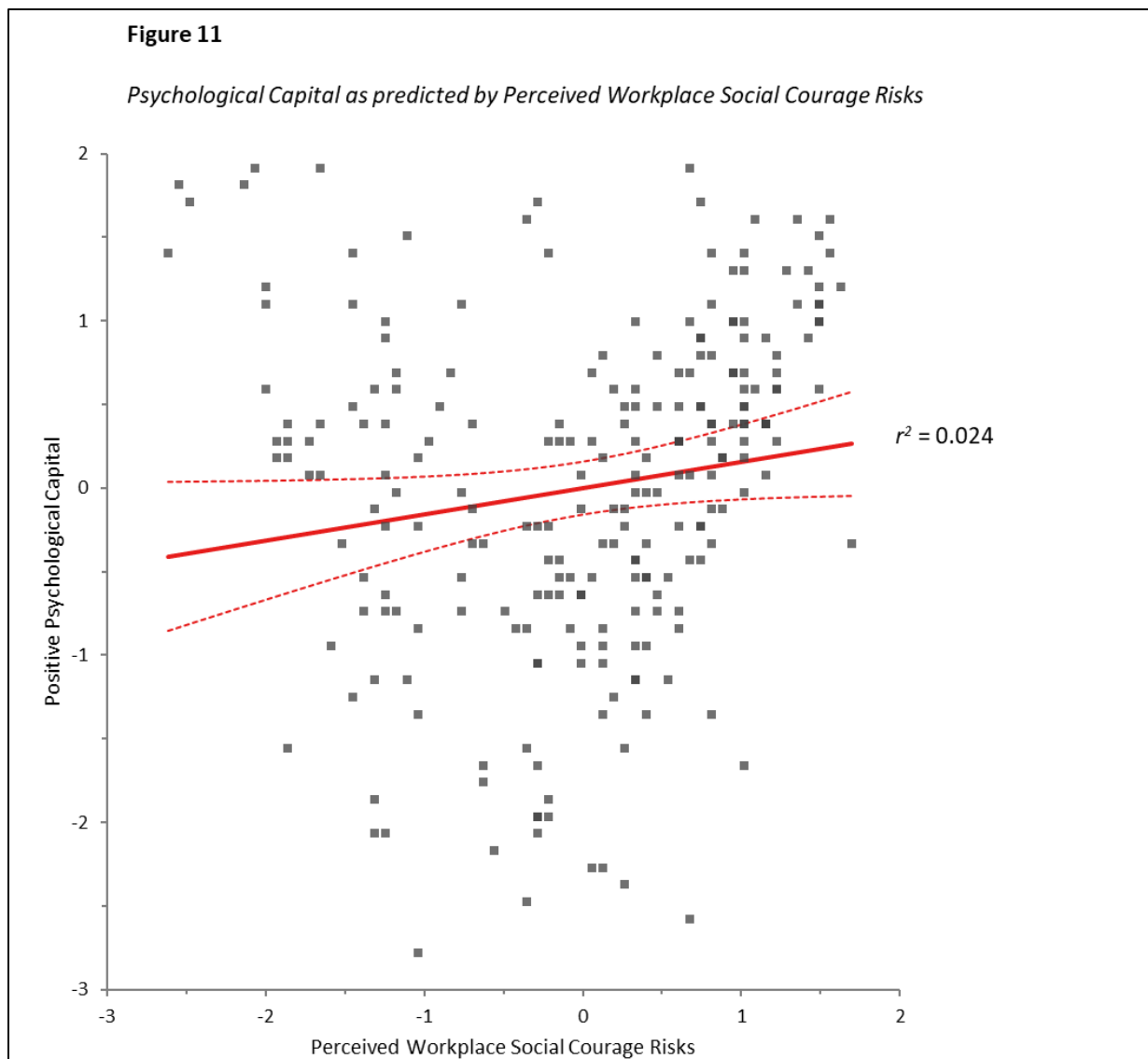
moderate effect size. The regression equation for predicting PsyCap was  $Y' = -0.006131 + 0.6569 * \text{WSC benefits}$ . The correlation between perceived WSC benefits and PsyCap was  $\beta = 0.6514$ . Approximately 42.4% of the variance of PsyCap was accounted for by its linear relationship with perceived WSC benefits. Figure 10 depicts the result. Hypothesis three was supported.



Note.  $n = 237$

#### Hypothesis 4

Hypothesis four stated that higher perceived WSC risks would predict lower PsyCap. A simple linear regression was calculated to predict PsyCap based on perceived WSC risks. A significant regression equation was found  $F(1,235) = 5.86, p = .0163$ , with an  $r^2$  of 0.024, a low effect size. The regression equation for predicting PsyCap was  $Y' = -0.00082 + 0.1561 * \text{WSC risks}$ . The correlation between PsyCap and perceived WSC risks was  $\beta = 0.1559$ , a positive association. Approximately 2.4% of the variance of PsyCap was accounted for by its linear relationship with perceived WSC risks. While this relationship was significant, hypothesis four predicted a negative relationship versus findings, a positive one. Figure 11 depicts the result. Hypothesis four was not supported.

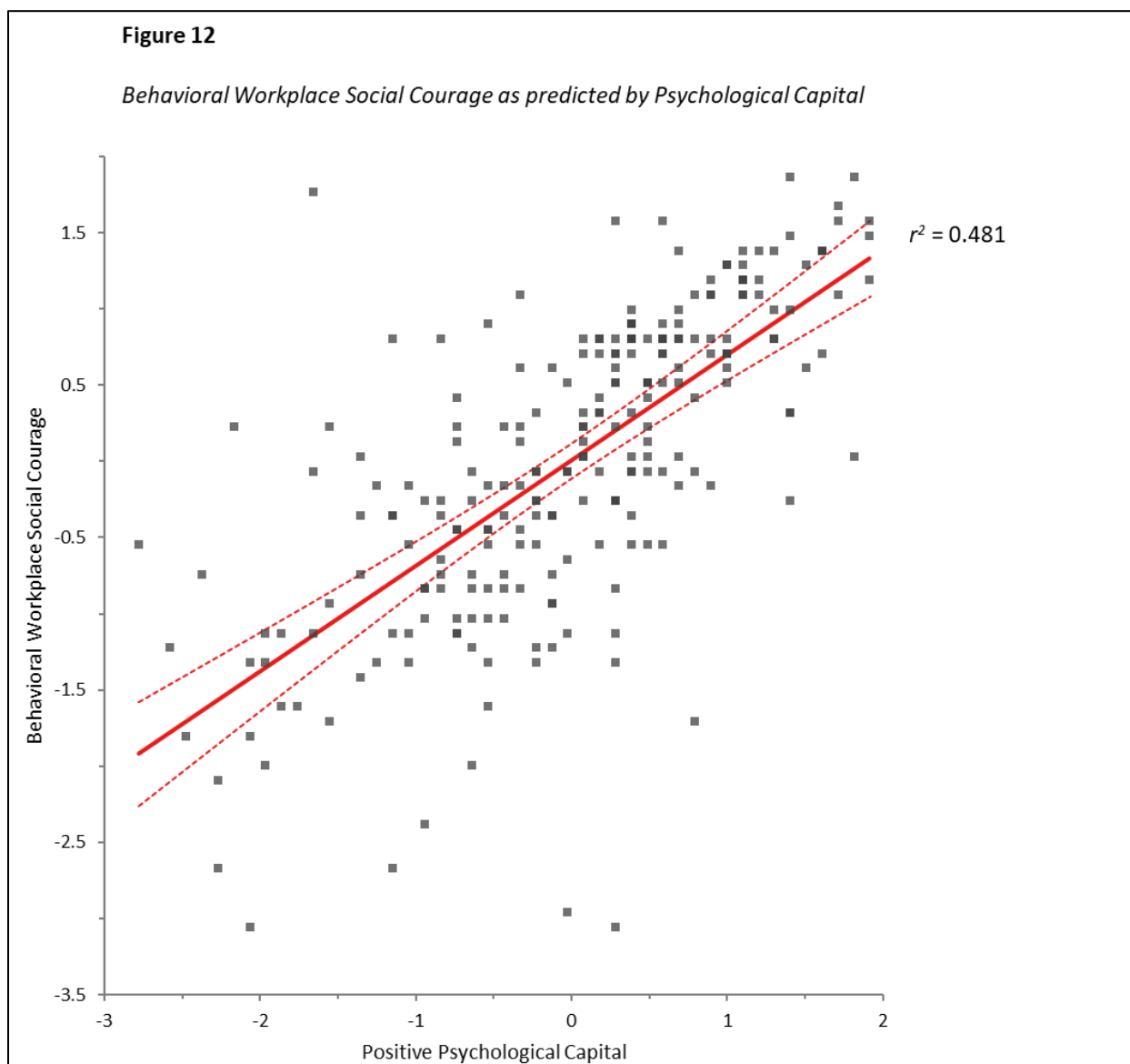


Note.  $n = 237$

### Hypothesis 5

Hypothesis five stated that higher PsyCap would predict higher BWSC. A simple linear regression was calculated to predict BWSC based on PsyCap. A significant regression equation was found  $F(1,235) = 217.82, p < .0001$ , with an  $r^2$  of 0.481, a moderate effect size. The regression equation for predicting BWSC was  $Y' = 0.005569 + 0.6925 * PsyCap$ . The correlation between BWSC and PsyCap was  $\beta = 0.6936$ . Approximately 48.1% of the variance

of BWSC was accounted for by its linear relationship with PsyCap. Figure 12 depicts the result. Hypothesis five was supported.

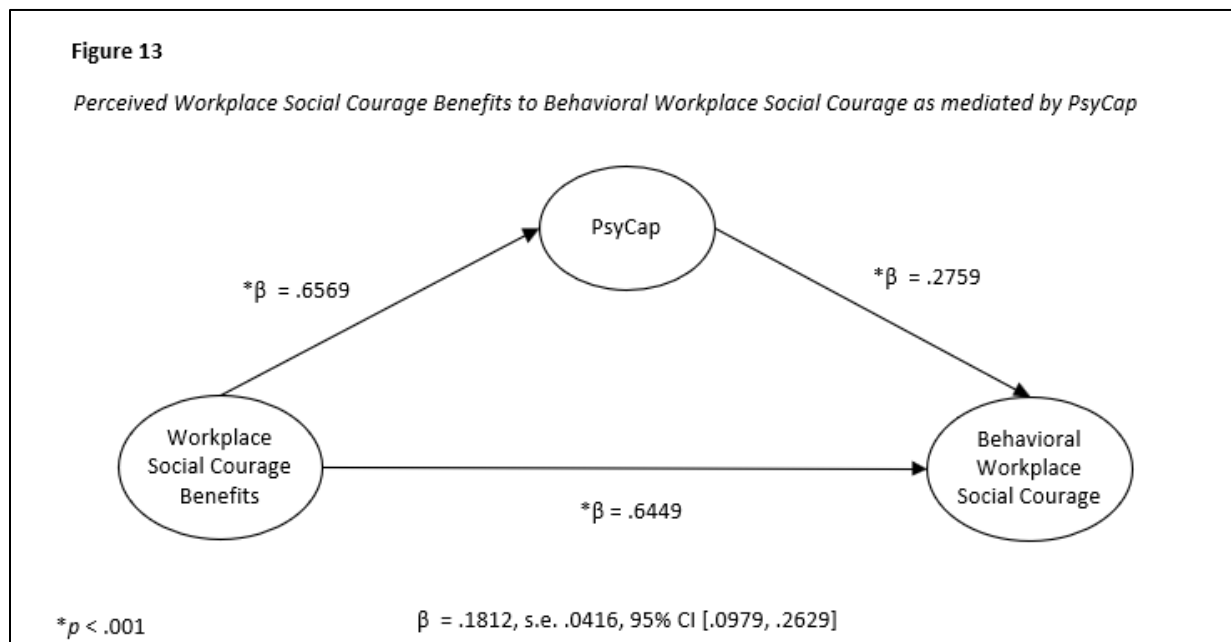


Note.  $n = 237$

### Hypothesis 6

Hypothesis six stated that PsyCap would partially mediate between perceived WSC benefits and BWSC. A mediation analysis was calculated with 5,000 bootstrap samples using Hayes Process Macro (version 4.1), a mediation capable add-on for SPSS (Hayes, 2016; Version 29; IBM Corp., 2022). The direct effect of perceived WSC benefits on PsyCap was positive and

significant,  $\beta = .6569$ ,  $s.e. = .0499$ ,  $p < .001$ . The direct effect of perceived WSC benefits on BWSC was positive and significant,  $\beta = .6449$ ,  $s.e. = .0461$ ,  $p < .001$ . The direct effect of PsyCap on BWSC was positive and statistically significant,  $\beta = .2759$ ,  $s.e. = .0457$ ,  $p < .001$ . The indirect effect of perceived WSC benefits on BWSC was positive and statistically significant,  $\beta = .1812$ , 95% CI [.0929, .2629]. Figure 13 depicts the result. Hypothesis six was supported.



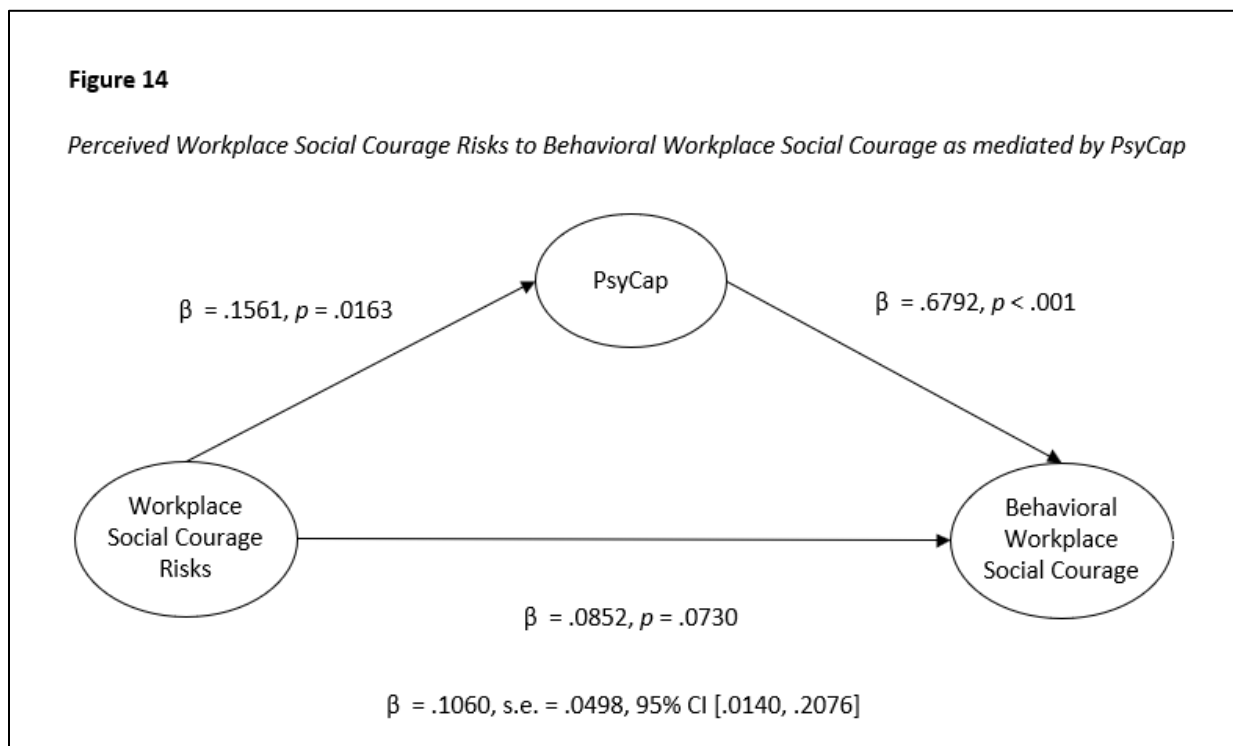
Note.  $n = 237$ ; bootstrap samples = 5,000

### Hypothesis 7

Hypothesis seven stated that PsyCap would fully mediate between perceived WSC risks and BWSC. A Hayes (2016) mediation analysis was calculated using Hayes Process Macro (version 4.1) inside SPSS (Version 29; IBM Corp., 2022) with 5,000 bootstrap samples. The direct effect of perceived WSC risks on PsyCap was positive and significant,  $\beta = .1561$ ,  $s.e. = .0645$ ,  $p = .0163$ . The direct effect of perceived WSC risks on BWSC was non-significant,  $\beta = .0852$ ,  $s.e. = .0473$ ,  $p = .0730$ . The direct effect of PsyCap on BWSC was positively and statistically significant,  $\beta = .6792$ ,  $s.e. = .0473$ ,  $p < .001$ . The indirect effect of perceived WSC risks on BWSC was positive and statistically significant,  $\beta = .1060$ , 95% CI = .0140, .2076.



Figure 14 depicts the result. However, because perceived WSC risks did not demonstrate a significant direct effect on BWSC (x on y), the requirements for mediation analysis were not met. Hypothesis seven was not supported.



Note.  $n = 237$ ; bootstrap samples = 5,000

### Hypothesis 8

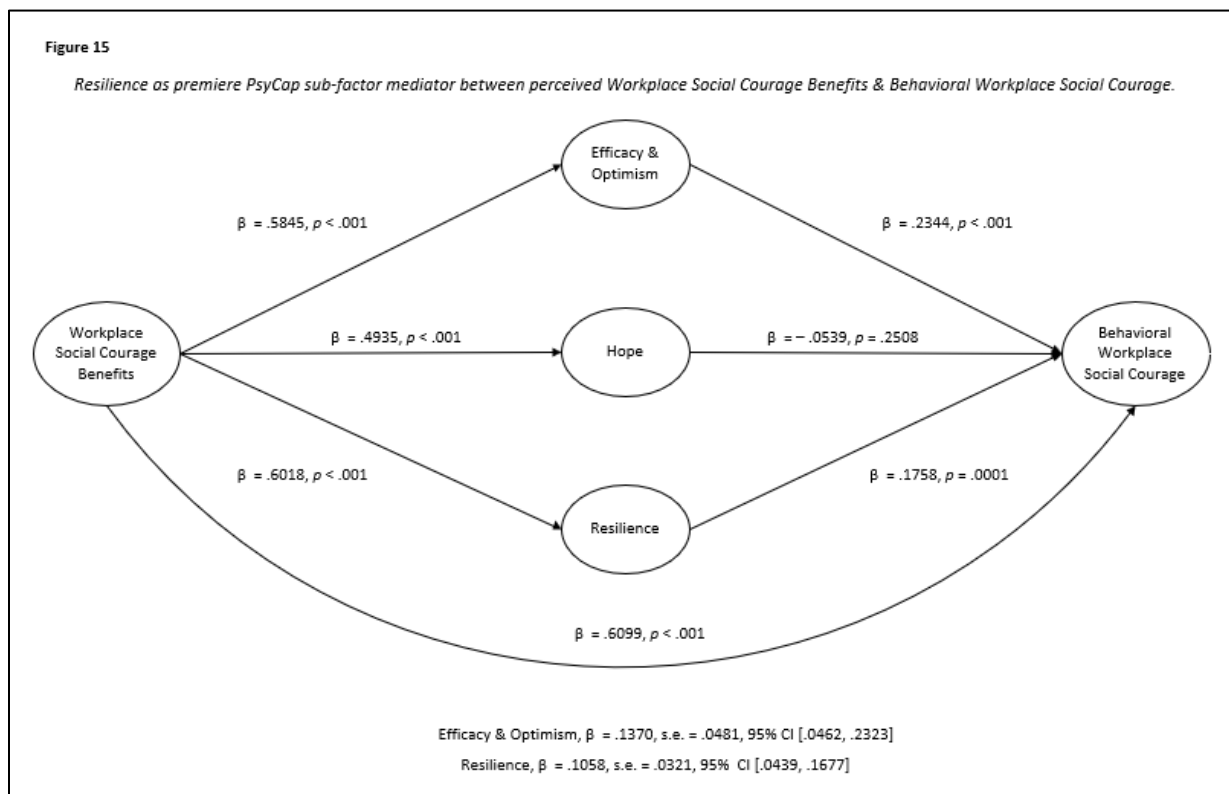
Hypothesis eight stated that perceived WSC benefits and perceived WSC risks, as covariates, would best predict PsyCap. A multiple linear regression was calculated to predict PsyCap based on perceived WSC benefits and perceived WSC risks. A significant regression equation was found  $F(2,234) = 250.99, p < .0001$ , with an  $R^2$  of 0.682, a moderate effect size. The regression equation for predicting PsyCap is  $Y' = -0.002532 + 0.8147 + 0.0945 * \text{WSC risks}$ . The correlation, as covariates, between perceived WSC benefits and Perceived WSC risks and PsyCap was  $\beta = 0.8092$  (benefits) and  $\beta = 0.0945$  (risks). Approximately 68.2% of the variance of PsyCap was accounted for by its colinear relationship with perceived WSC benefits

and perceived WSC risks. Prior, hypothesis three, a simple linear regression, showed that approximately 42.4% of the variance of PsyCap was accounted for by its linear relationship with perceived WSC benefits. Prior, hypothesis four, a simple linear regression, showed that approximately 2.4% of the variance of PsyCap was accounted for by its linear relationship with perceived WSC risks. Taken together, the result of the two simple linear regressions is 44.8%, while the covariate result was 68.2%. Hypothesis eight was supported.

### **Hypothesis 9**

Hypothesis 9 stated that the PsyCap subfactor of hope and optimism would be the premiere mediator between perceived WSC benefits and BWSC. In this study, hope and optimism did not load together as a factor, rather efficacy and optimism loaded together, therefore hypothesis nine could not be tested the way it was stated. A Hayes (2016) mediation analysis was calculated using Hayes Process Macro (version 4.1) inside SPSS (Version 29; IBM Corp., 2022) using 5,000 bootstrap samples. The direct effect of perceived WSC benefits on efficacy-optimism was positive and significant,  $\beta = .5845$ ,  $s.e. = .0536$ ,  $p < .001$ . The direct effect of perceived WSC benefits on hope was positive and significant,  $\beta = .4935$ ,  $s.e. = .0574$ ,  $p < .001$ . The direct effect of perceived WSC benefits on resilience was positive and significant,  $\beta = .6018$ ,  $s.e. = .0528$ ,  $p = .001$ . The direct effect of efficacy-optimism on BWSC was positive and significant,  $\beta = .2344$ ,  $s.e. = .0505$ ,  $p = .001$ . The direct effect of hope on BWSC was non-significant,  $\beta = -.0539$ ,  $s.e. = .0468$ ,  $p = .2508$ . The direct effect of resilience on BWSC was positive and significant,  $\beta = .1758$ ,  $s.e. = .0439$ ,  $p = .0001$ . As hope did not reveal a significant relationship directly with BWSC it did not qualify as a mediator between perceived WSC benefits and BWSC. The indirect effect of perceived WSC benefits on BWSC as mediated by efficacy-optimism and resilience were  $\beta = .1370$ ,  $s.e. = .0481$ , 95% CI [.0462, .2323] and  $\beta =$

.1058, s.e. = .0321, 95% CI [.0439, .1677]. Efficacy and optimism partially mediated between perceived WSC benefits and BWSC. Resilience fully mediated between perceived WSC benefits and BWSC. Figure 15 depicts the result. The PsyCap subfactor of resilience was the premiere mediator between perceived WSC benefits and BWSC. Despite the unexpected factor loadings (i.e., efficacy-optimism vs. hope-optimism), results logically demonstrated that hypothesis nine was not supported.

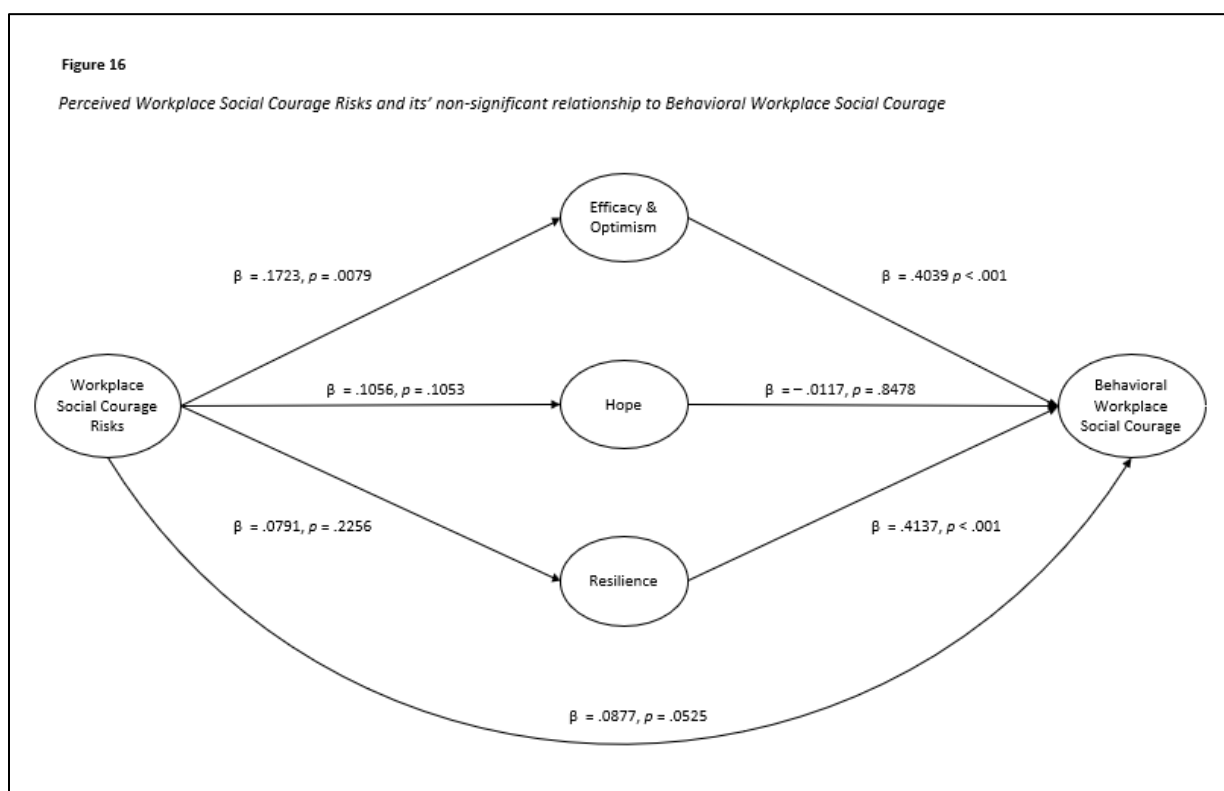


Note.  $n = 237$ ; bootstrap samples = 5,000

## Hypothesis 10

Hypothesis ten stated that the PsyCap subfactor of efficacy would be the premiere mediator between perceived WSC risks and BWSC. In this study, Efficacy did not load by itself as a factor, rather it loaded together with optimism, therefore hypothesis ten could not be tested the way it was stated. A Hayes (2016) mediation analysis was calculated using Hayes Process Macro (version 4.1) inside SPSS (Version 29; IBM Corp., 2022) using 5,000 bootstrap samples.

The direct effect of perceived WSC risks on efficacy-optimism was positive and significant,  $\beta = .1723$ , s.e. = .0643,  $p = .0079$ . The direct effect of perceived WSC risks on hope was non-significant,  $\beta = .1056$ , s.e. = .0649,  $p = .1053$ . The direct effect of perceived WSC risks on resilience was non-significant,  $\beta = .0791$ , s.e. = .0651,  $p = .2256$ . Because the direct effect of perceived WSC risks on BWSC (x on y) was non-significant, hypothesis ten failed to meet requirements for any partial testing of mediation analysis. Figure 16 depicts this outcome. Hypothesis ten was not supported.



Note.  $n = 237$ ; bootstrap samples = 5,000

### Perceived Workplace Social Courage Risks

Figure 5 hinted at a bi-modal distribution pertaining to perceived WSC risks. Figures 9 and 11 indicated a curvilinear function wherever perceived WSC risks was included in calculations. The curvilinear nature of the data was analyzed for additional order effects using polynomial regression which included all study variables as predictive of BWSC. A significant

regression equation was found. The regression equation for predicting BWSC was  $56.19 + 1.406 + 0.9115 + 2.128 + 0.5763 + 1.689 + 5.739$ ;  $R^2 = 0.751$ , a large effect size. Approximately 75.1% of BWSC was accounted for by its linear relationship with all study predictor variables. Table 10 shows variable significance and standardized beta effects. Additionally, Table 10 shows a second order relationship between perceived WSC risks and the PsyCap subfactor of hope. VIF (Variance Inflation Factor) values were in acceptable ranges, values above 10 indicate need for caution and values below 5 are more acceptable (Martin & Bridgmon, 2012).

**Table 10**

*Polynomial Second Order Fit: perceived Workplace Risks and PsyCap subfactor Hope*

Variable	Estimate	95% CI		SE	t	p-value	VIF	$\beta$
		Lower	Upper					
Constant	-0.1432	-0.2508	0.0355	0.054623	-2.62	0.0093	-	0
ZWSCrT	0.1357	0.05300	0.2185	0.041988	3.23	0.0014	1.63	0.1358
ZWSCrT <sup>2</sup>	0.08802	0.006693	0.1693	0.041274	2.13	0.0340	2.17	0.1035
ZPCQeo15T	0.2055	0.1199	0.2911	0.043454	4.73	< 0.0001	1.75	0.2058
ZPCQh15T <sup>2</sup>	0.05565	0.01430	0.0970	0.020987	2.65	0.0086	1.11	0.09209
ZPCQr15T	0.1631	0.07854	0.2477	0.042921	3.80	0.0002	1.71	0.1634
ZWSCbT	0.5542	0.4568	0.6516	0.049433	11.21	< 0.0001	2.22	0.5504

*Note.* n = 237. ZWSCrT = perceived Workplace Social Courage risks. ZPCQeo15T = PsyCap subfactor Efficacy-Optimism. ZPCQh15T = PsyCap subfactor Hope. ZPCQr15T = PsyCap subfactor Resilience. ZWSCbT = perceived Workplace Social Courage benefits.

Based on polynomial regression significance, demographic variables and their relationships to study variables were analyzed for significant correlations and variance.

### Demographic Variables

Table 11 summarizes the results of simple linear regression analysis between ratio demographic variables and study variables. Participant age accounted for approximately 4.2% of the variance in perceived WSC risks and approximately 1.7% of the PsyCap subfactor of

efficacy-optimism. Participant tenure accounted for approximately 5.8% of the variance in perceived WSC risks. Variable pairs that represented p-values greater than .05 were excluded from reporting. Participant age and perceived WSC risks showed a negative relationship, as did participant age and the PsyCap subfactor of efficacy-optimism. Participant tenure and perceived WSC risks showed a negative relationship. All effect sizes were low.

**Table 11**

*Simple Linear Regression between demographic continuous variables and study variables*

Variable Pair	DF	Error	F-value	p-value	$\beta$	$r^2$
Age - ZWSCrT	1	235	10.21	.0016	-.2040	.042
Age - ZPCQeo15T			4.03	.0460	-.1298	.017
Tenure - ZWSCrT	1	229	14.22	.0002	-.2418	.058

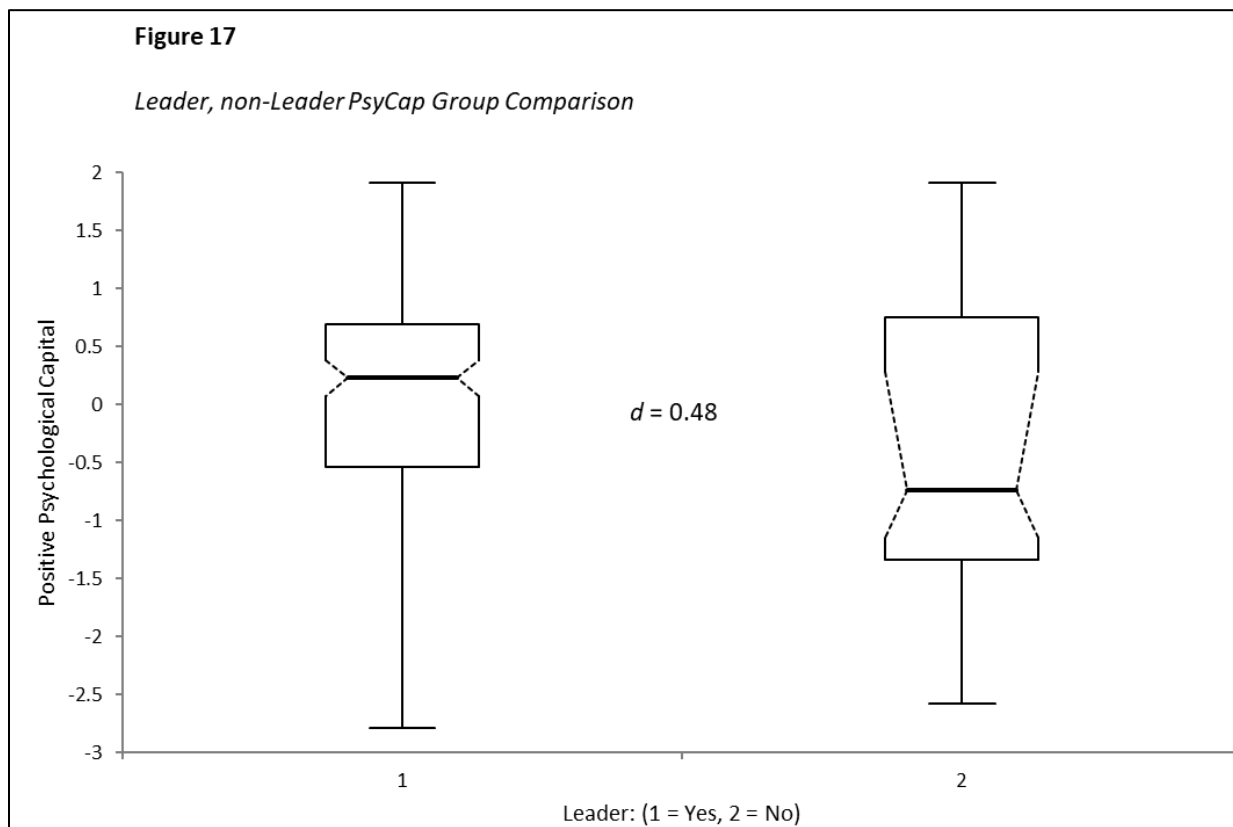
*Note.* Variable pairs resulting in p-values > .05 were excluded from this table. ZWSCrT = perceived Workplace Social Courage risks. ZPCQeo15T = PsyCap subfactor Efficacy-Optimism.

### Group Comparisons

Group comparisons were calculated for nominal variables of Leader/non-Leader, Gender, and whether the leader, at the time of participating in the study, made the big decisions in their role. These three groups of nominal variables were tested for statistically significant differences in group variance against all study variables using the Brown-Forsythe test which is more conservative in relation to making type I errors and robust against nonnormality. Significant findings are reported.

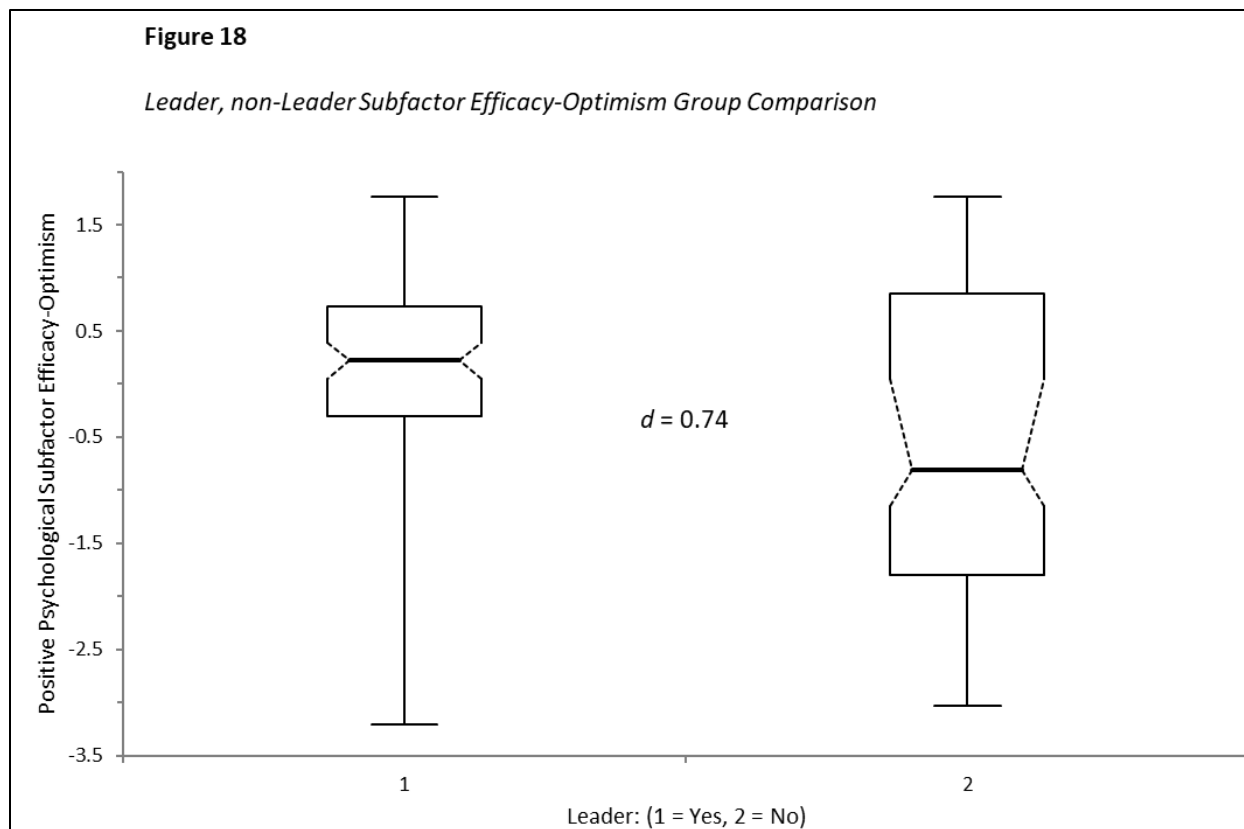
A Brown-Forsythe test was calculated examining homogeneity between participants who reported themselves as leaders and those that reported as non-leaders examining for PsyCap levels. A statistically significant difference between leader and non-leader PsyCap was found,  $F(1, 235) = 10.51, p = .0014$ ; a post hoc power analysis revealed  $d = .48, CI [0.1, 0.8]$ , a small to

medium effect size. Leader PsyCap was significantly higher than non-leader PsyCap as depicted in Figure 17.



Note. Leaders (n = 198); non-Leaders (n = 39)

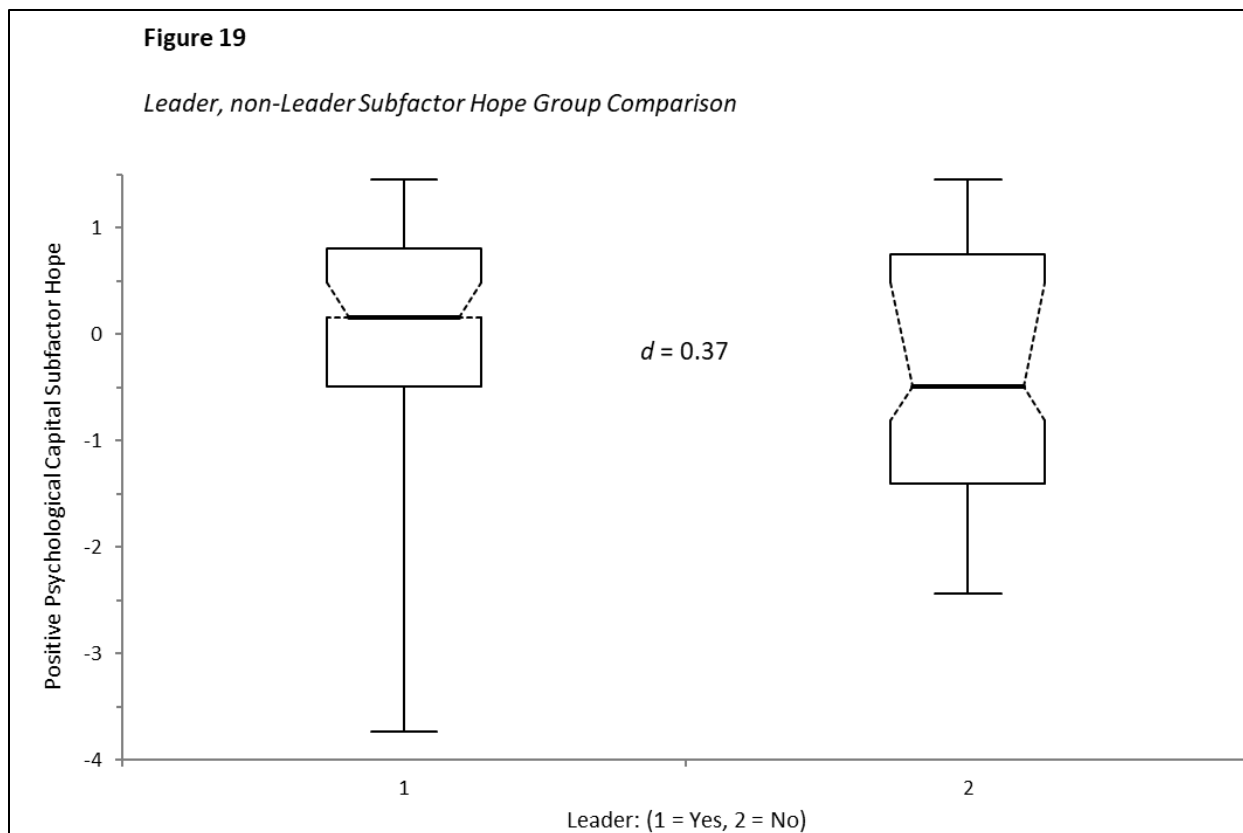
A Brown-Forsythe test was calculated examining homogeneity between participants who reported themselves as leaders and those that reported as non-leaders examining for the PsyCap subfactor of efficacy-optimism. A statistically significant difference between leader and non-leader PsyCap subfactor Efficacy-Optimism was found,  $F(1, 235) = 25.01, p < .0001$ ; a post hoc power analysis revealed  $d = .74, CI [0.39, 1.09]$ , a medium to large effect size. Leader PsyCap subfactor of Efficacy-Optimism was significantly higher than the non-leader efficacy-optimism as depicted in Figure 18.



Note. Leaders (n = 198); non-Leaders (n = 39)

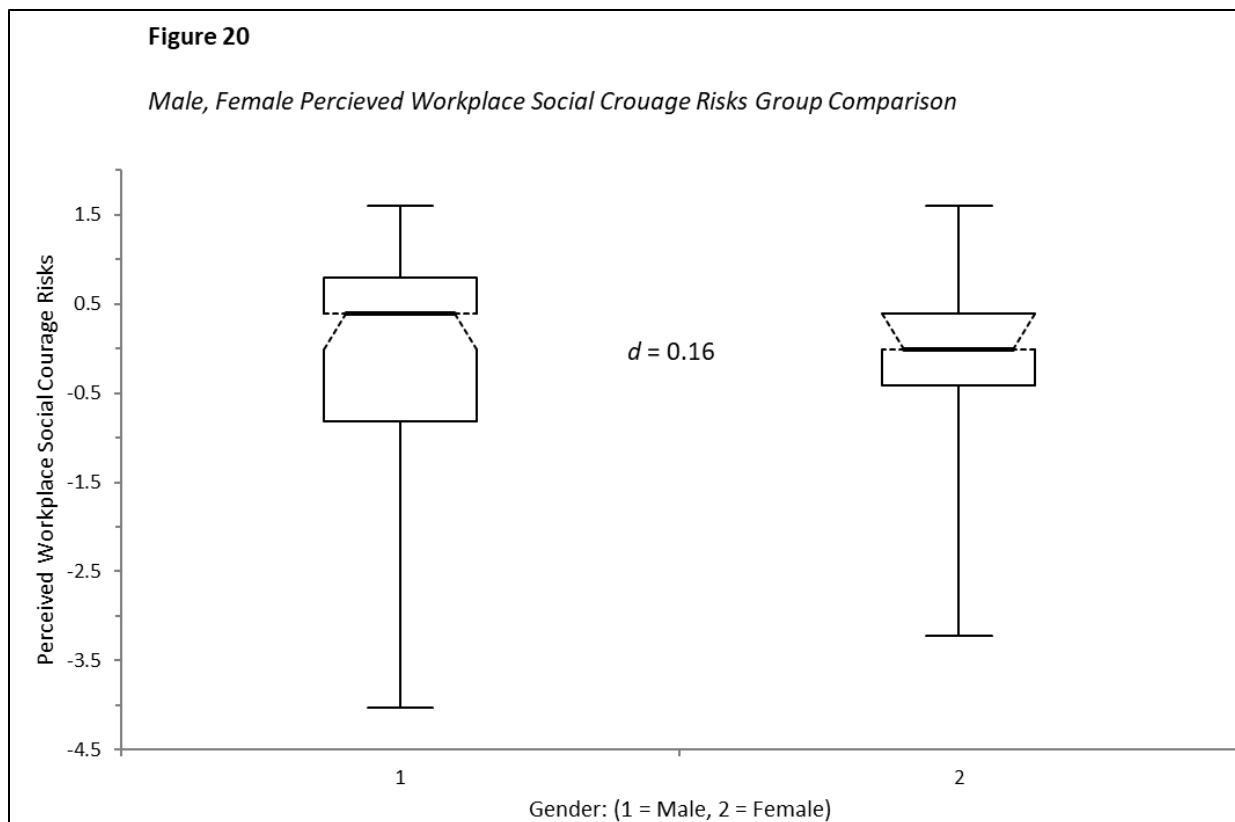
A Brown-Forsythe test was calculated examining homogeneity between participants who reported themselves as leaders and those that reported as non-leaders examining for the PsyCap subfactor of hope. A statistically significant difference between the leader and non-leader PsyCap subfactor of hope was found,  $F(1, 235) = 9.60, p < .0022$ ; a post hoc power analysis revealed  $d = .37, CI [.33, .72]$ , a small to medium effect size. The leader PsyCap subfactor of hope was significantly higher than the non-leader PsyCap subfactor of hope as depicted in Figure 19.





*Note.* Leaders (n = 198); non-Leaders (n = 39)

A Brown-Forsythe test was calculated examining homogeneity between participants who reported themselves as gender female or male when examining the PsyCap subfactor of hope. A statistically significant difference between female and male PsyCap subfactor of hope was found,  $F(1, 234) = 5.39, p < .0211$ ; a post hoc power analysis revealed  $d = .16, CI [.09, .42]$ , a small effect size. Females in the sample reported significantly higher perceived WSC risks than male participants as depicted in Figure 20. (The data-point reported as gender “They” was excluded to calculate Cohen’s  $d$ .)



Note. Males (n = 135); Females (n = 101)

The results are summarized next before concluding chapter four.

### Summary

The sample of this study was scrubbed for quality using techniques noted by Martin and Bridgmon (2012). The resulting participant count was 237 and the descriptive statistics for this sample were shared. A CFA revealed a poor fit to the data using the PCQ-21 items utilized by Grobler & Joubert (2018), with challenge to factory purity on multiple items in multiple scales. A conservative reductive approach was taken to remove ambiguous items until factor loadings solidified resulting in a 3-factor model absent of heavy cross-loading. This 15-item PsyCap model was efficacy-optimism, hope, and resilience. Total scores for study variables were standardized. Variable distributions were examined and found non-parametric in nature. A correlation analysis was executed to determine viability for regression analyses. Hypothesis one

was supported, simple linear regression revealed a moderate effect size (ES) between perceived WSC benefits and BWSC. Hypothesis two was not supported, simple linear regression revealed a low effect size between perceived WSC risks and BWSC, opposite predicted direction. Hypothesis three was supported, simple linear regression revealed a moderate effect size between perceived WSC benefits and PsyCap. Hypothesis four was not supported, simple linear regression revealed a low effect size between perceived WSC risks and PsyCap, opposite predicted direction. Hypothesis five was supported, simple linear regression revealed a moderate effect size between PsyCap and BWSC. Hypothesis six was supported, PsyCap partially mediated between perceived WSC benefits and BWSC. Hypothesis seven was not supported, perceived WSC risks did not demonstrate a direct effect on BWSC and therefore mediation analysis was not viable. Hypothesis eight was supported, perceived WSC benefits and perceived WSC risks, as covariates best predicted PsyCap as opposed to a simple regression model as shown through effect size differences. Due to CFA loadings, hypothesis nine could not be tested in its original configuration, however, results showed that the PsyCap subfactor of resilience fully mediated between perceived WSC benefits and BWSC. The PsyCap subfactor efficacy-optimism partially mediated between perceived WSC and BWSC. The PsyCap subfactor hope showed no direct effect on BWSC and was therefore not viable for mediation analysis. Hypothesis ten was not supported, there was no direct effect detected between perceived WSC risks and BWSC making mediation analysis nonviable. The variable perceived WSC risks hinted at a bi-modal distribution and the following additional analyses were performed.

Perceived WSC risks distribution showed a tendency to a bi-modal structure and curvilinear trajectory in simple regression. Polynomial regression including study variables revealed that perceived WSC risks and the PsyCap subfactor of hope were also second order fits.

Simple linear regressions were calculated between ratio demographic variables and study variables revealing significant relationships with low effect sizes between participant age-perceived WSC risks, participant age-PsyCap subfactor efficacy-optimism, and participant tenure-perceived WSC risks. Group comparisons showed significant differences in variance between leaders/non-leaders pertaining to PsyCap (medium ES) as a whole and PsyCap subfactors of efficacy-optimism (medium ES), and hope (small ES). Group comparison also revealed significant differences in variance between females and males in perceptions of perceived WSC risks (small ES). Having reviewed the study results, chapter five provides discussion of findings.

## CHAPTER 5: DISCUSSION

### Overview

The purpose of this quantitative study is to examine WSC as an act of cognitive appraisal predictive of socially courageous behavior in the workplace as mediated by PsyCap. As noted by Howard (2020) there is substantial evidence and establishment of theory suggesting that persons weigh perceived outcomes against approach/avoidance frameworks resulting in cognitive evaluations which are mental schemas regarding envisioned gains and consideration of possible losses. Courage does not require the absence of, or presence of fear (Brockorny, 2015). Courage is not recklessness, rather it is considered willingness to proceed in courageous behavior with calculated risk salient. This study affirms prior study on courage as a cognitive appraisal. Akin to courage, PsyCap has likewise been noted for its cognitive appraisal functions which lead to goal directed behaviors wrought in motivation (Luthans & Youssef-Morgan, 2017; Mohanty & Kolhe, 2016). Additionally, understanding regarding the relationship between courage and PsyCap is in early stages and some study has worked to tease apart whether the two are unique constructs that predict one another (Brockorny, 2015; Brockorny & Youssef-Morgan, 2019). Other study shows PsyCap as a strong mediator between various variables, and particularly PsyCap as mediating aspects of courage (Brockorny & Youssef, 2019), this study supplies additional insight into the ability to predict courage and examine the relationship between courage and PsyCap. From a biblical perspective, the Bible is rich in admonitions of both courage and PsyCap with its themes of confidence, optimism, hope, and resilience abounding. The study reveals these biblical themes using a lexical method. Findings from this quantitative study infer implications and study limitations are acknowledged before closing with suggestions for future research.

### Summary of Findings

This study adjusts versions of the unidimensional validated Workplace Social Courage Scale, namely, perceived WSC benefits, perceived WSC risks, and BWSC by adjusting the salient referent. This method has been a reliable psychometric approach in prior study (Dawkins et al., 2015; Dawkins et al., 2021; Foster et al., 2009; Howard & Cogswell, 2019; Moore & Gullone, 1996; Zhang et al., 2016). The strength of this approach is that it allows the researcher to provide content validity and it controls for possible confounds related to affective aspects which might bias the study due to differences between instruments and their measures (Howard & Cogswell, 2019). The modified PCQ-21 from the Grobler and Joubert (2018) study is examined for quality fit using CFA. After a conservative reductive factor analysis approach, the resulting PCQ-15 is utilized to perform analyses using these three WSC variables, perceived benefits and perceived risks of socially courageous behavior in the workplace, and individual willingness to exercise socially courageous behavior in the workplace. Both the higher order factor of PsyCap as well as the three subfactors of efficacy-optimism, hope, and resilience are incorporated in calculations based on the need for examining PsyCap subfactors as mentioned by Detert and Bruno (2017).

This is the second study, to my knowledge, between years 2016 – 2021, that demonstrated a 3-factor fit of PsyCap subfactors. The other study being Grobler and Joubert (2018) where hope and optimism were better fitted as one factor. Other studies have shown ambiguous fit and resolved to measure PsyCap at the higher order level noting its synergistic composition. In this study, efficacy and optimism are best fitted as one factor, while hope and resilience remain synergistic (correlated) and yet uniquely identifiable (factor pure). Regressions reveal more findings.

Perceptions of risk associated with WSC are far less influential than benefit perceptions. Surprisingly, significant associations between perceived risks are positive in relation to PsyCap and BWSC. Taken individually, benefit perceptions account for approximately 67.3% of willingness to behave in a socially courageous way in the workplace as compared to the meager 3.7% associated with risk perceptions, practically inconsequential. The same is true for benefit and risk perceptions pertaining to PsyCap outcomes, 42.4% versus 2.4%. Benefit and risk perceptions, taken together, show themselves better predictors of PsyCap with more effect size. A composite benefit-risk calculation is best. This shows that benefit-risk interactions are more intricate than benefits minus risks. The PsyCap subfactor of resilience fully mediates between benefit perceptions and willingness to behave with social courage in the workplace followed by efficacy-optimism. Hope is not a mediator. Perceptions of risk and hope, however, are not to be dismissed, the bi-modal and curvilinear nature of risk perception show that it operates as a second order fit, having effect at higher levels. Examining data points, this effect appears inoculated in its ability to inhibit PsyCap in those with the second order effect of hope. A portion of data points are positioned high in BWSC despite high-risk perception while those with less hope reside downward. Group comparisons also reveal some nuances.

Leaders and non-leaders report significant differences in their overall PsyCap with leaders possessing more PsyCap. Examined at a subfactor level, leaders are significantly higher in the subfactors of efficacy-optimism and hope. Resilience is not a differing factor between leaders and non-leaders. Notably, PsyCap differences in efficacy-optimism consist of medium effect size while differences in hope are of low effect size. Females report higher risk perceptions regarding WSC; however, these differences are low in effect size. These findings promote the following meaningful discussion.

## Discussion of Findings

The positive association between perceptions of benefit from WSC, PsyCap, and willingness to behave with social courage in the workplace are notably strong. This certainly coincides with Broaden and Build Theory, where positivity and resulting behavior create beneficial upward spirals (Fredrickson, 2013). The findings provide value by substantiating what past research has shown, that both PsyCap and courage are acts of perception making, framing and priming, which is core to Cognitive Appraisal Theory. Moreover, these findings support other studies (e.g., Flake et al., 2015), that it is not the absence of risk perception that proves itself a positive influence for acting beneficially, instead it is the summative mental appraisal itself that influences willingness and motivation to behave. The key takeaway is that this study adds to substantiation of benefit and risk perceptions as an act of cognitive appraisal. It further supports that both WSC and PsyCap are themselves acts of cognitive appraisal and predictive of BWSC. The strong tie to motivation theories such as Affective Events Theory, Expectancy Theory, and Self Determination Theory are noted here and deemed reasonable theoretical frameworks in which to root additional courage and PsyCap research. The second order functions of risk perceptions and PsyCap's subfactor of hope are discussed.

The second order function of risk perception in this study indicates that there is a tipping point at which the perceived risk of behaving with social courage in the workplace is deemed excessively risky, at which point it predicts an unwillingness to exercise WSC, a negative summative assessment. Unless, one has the second order function of the PsyCap subfactor hope. Efficacy and optimism have been described as more immediate states. Efficacy being what one believes one is capable of both now and moving into the future; and optimism, being the ability to positively frame present circumstances considering the future (Luthans, 2007). In the mediums



of news and entertainment, courage is often depicted as confidence. However, it is resilience that is most influential in mediating between perceived WSC benefits and BWSC in this study. Resilience, which is typically thought of as a reactive quality of PsyCap (e.g., post-hardship response), in the case of this study, may provide participants with a more future-based perspective of willingness to behave courageously in the workplace. While assessing perceptions of risk in response to behaving with social courage in the workplace, participants may not imagine what might happen, but more how they would respond to negative outcomes if they did happen. I suspect this is why resilience fully mediates between perceptions of benefit and willingness to behave with social courage as compared to the partial mediation found in efficacy-optimism. For example, imagine how one might bounce back when a certain circumstance occurs versus imagine if it is likely to happen at all. Hope is considered more of a future facing quality than resilience, being able to endure and overcome, go through and around hardships (Luthans, 2007). Hope is largely about perspective making. It is about envisioning an outcome not yet manifested and seeing one's way to it, despite present circumstances, albeit circumstances that are negative in nature. In the lexical examination of PsyCap in the Bible as part of this study, all aspects of PsyCap were addressed: biblical efficacy, optimism, and resilience, along with hope. Hope is emphasized next based on second order function revealed in study results.

Earlier in this dissertation it is noted that Fox et al. (2018) classified the making and sustaining of hope as key in spirituality, PsyCap, and work performance. Also noted, the word hope appears 130+ times across the Old and New Testaments (The Strongest NASB Exhaustive Concordance, 2000). In examining hope, these study results in mind, perhaps when one has spent one's efficacy, exercised continual optimism despite having to be resilient again and again

through persistent hardship, it is then that the second order function of hope kicks in to facilitate positive mental framing and strength of the proverbial heart to persevere. This study can be summed up as demonstrating the nature of WSC as an act of cognitive appraisal impacting PsyCap, with PsyCap mediating with its resilience and efficacy-optimism subfactors thereby predicting BWSC. The resilience and hope within PsyCap, are per this sample, at the center of relationship with WSC. The first predicts willingness to exercise WSC, while the second controls for increasing perceptions of risk. The nature of risk perception is not the opposite of benefit perception as noted by the unexpected significant and positive association with both PsyCap and BWSC. This unexpected result is possibly due to the second order fit between risk perception and hope. Implications of the study are next.

### **Implications**

The following study implications are included as practical applications for theorists and Science Practitioners. Both on a theorist level and practitioner level, the need to study and apply the benefit of positive cognitive appraisals is real and worthwhile. Consciously controlling cognitive appraisals is perspective making.

This study shows that it is not so much the avoidance of risk that impacts willingness to act, rather it is the way one is able to cognitively appraise that risk. Some participants possess both high perceptions of risk and at the same time high hope. The data indicates that despite strong perceptions of risk, participants are yet ready to behave their social courage in the workplace. Study and techniques further tease apart these relationships with PsyCap subfactors showing that both hope and resilience influence BWSC. Resilience in this case predicts BWSC while hope sustains it. Ability to predict when and how these subfactors are fostered will help leverage beneficial outcomes in the workplace and other domains. It appears a matter of

embracing both risk and benefit tactfully. Some authors have avoided teasing apart the subfactors of PsyCap when factor loadings are ambiguous referring to its synergistic nature, yet ability to influence its underlying composition is here thought to be of extreme value as it likely improves synergistic effects as demonstrated in PsyCap interventions. Activities that increase both resilience and hope among leaders and employees promise great benefit. Validated PsyCap and courage instruments can be used as pre- and post-tests to ensure a return on investment in training and team building activities.

Work initiatives that both train and reward cultures for WSC will increase benefit perceptions and social support thereby increasing the frequency of BWSC. Presently, there are sexual harassment trainings which are part of awareness and open-door policies that promote whistleblowing, a form of WSC as noted by Luthans et al. (2015). Whistleblowing and open-door policies are great, yet BWSC goes beyond ethical matters and extends into voice behavior in sharing creativity, innovation, and encouraging others in the workplace to do the same. Truly, it involves empowering workforces to speak up and act out constructively regarding their hopes and needs despite real risks to impression management and loss of resources.

This study showed that leaders possess significantly more PsyCap than non-leaders. This is tied to Conservation of Resources Theory, Broaden and Build Theory, and motivation theories. Leaders possess more positional-, distributional-, and procedural-power to control their environments through which they have increased autonomy, predictability, and stability in their workplace. Studies and programs that investigate the offset of PsyCap between leaders and non-leaders to decrease this discrepancy are presumed beneficial. Also, female participants perceive higher risks to behaving social courage in the workplace. Leaders can facilitate cultures that

promote open communication channels, and a policy of supportive social connections where social courage is rewarded and even celebrated as compared to berated and ostracized.

Dorling (2017) noted the increasing frequency of organization mergers and acquisitions because of the economic downturn in order to survive. In fact, some organizations acquire or merge because of economic downturn to survive. Staggeringly, Dorling (2017) emphasized that between 50% to 80% of mergers and acquisitions fail due to psychological resistance (reactance) to change. The results of this study are a strong solution for those work environments marked by frequent and intense change. Successful change management involves creating, hiring, and sustaining strong environmental, social, and individual dimensions of BWSC, PsyCap, and especially subfactors of resilience and hope. These outcomes are possible when persons can intentionally control the resulting perspectives of their cognitive appraisals which lend themselves to courageous behaviors in situations of change.

Lastly, practical, evidence-based methodologies are needed to help individuals in all their life domains learn how to skillfully navigate their individual metacognition, to perform their best perspective making. These methods need to be more than emotionally episodic. They need to be rooted in scientific rigor to produce repeatable methods for sustainable results. They need to be generalizable to large populations. Here is a great opportunity to incorporate motivation theory in a pragmatic way. Next, study limitations are noted.

### **Limitations**

This study has limitations. The data sample in this study is cross-sectional. Cross-sectional research designs are not useful for confidently demonstrating causality between variables. The results of this study strongly infer causality between cognitive appraisals, PsyCap, and BWSC, they do not deduce it. This study is not experimental in design, any inferred

predictive capability is provided conservatively. Simply, there are no pre-test measures which are tethered to actual observed socially courageous behavioral outcomes across time, only self-reported willingness to behave social courage in the workplace. With cross-sectional samples, there may exist other influential factors which only reveal themselves longitudinally.

Furthermore, social desirability and the threat to self-concept are elements to consider. It is likely that participants on average experience inner conflict when reporting low levels of WSC, albeit a truthful response. Courage is a ubiquitous, global, and esteemed construct. Society does not reward cowardice behavior. Therefore, this study may be limited in potency by common method variance (CMV) in the form of social desirability.

Attempting to control for CMV participation is anonymous. Further, attention is paid to standardized residual plots in every regression calculation, these plots result in no concerns. Three Harmon single-factor tests are performed using SPSS version 29 (IBM Corp., 2022). The first test examines all items together within perceived WSC benefits, perceived WSC risks, PsyCap and BWSC. Due to use of the salient referent approach, it is deemed necessary to test WSC by itself for CMV in two configurations. One test examines all items in the three WSC scales, perceived WSC benefits, perceived WSC risks, and BWSC. As perceived risks are likely to hold a negative valence, the last test examines only the more positively valenced items of perceived WSC benefits and BWSC. In all three Harmon single-factor tests, all sums of squared percent of variance for a 1-factor model are below 40%. For a detailed explanation of mainstay methods used to control for CMV through procedural and statistical methods, along with their methodological strengths and weaknesses, refer to Tehseen et al. (2017). The number of statistical analyses might be a concern.

There were a total of 10 hypotheses tested, with additional statistical analyses of demographic group comparisons and linear regressions, along with a polynomial regression of study variables. This made for a total of 16 statistical analyses performed. Under circumstances where many statistical analyses are performed against one sample it is often advisable to make the Bonferroni adjustment to avoid a Type I error. The Bonferroni adjustment was not performed in this study. Such adjustment would have represented an alpha-value of .003 increasing the likelihood of committing a Type II error. Given this small alpha-value it was determined that it was less likely to commit a Type I error versus a Type II error. Evidence suggests that the Bonferroni adjustment is not required nor advisable in all circumstances, especially when statistical analyses are predetermined as was the case with the 10 hypotheses in this study (Armstrong, 2014). Future research can incorporate testing this study's hypotheses with independent samples randomly assigned to a few statistical analyses each. The use of bootstrapping in this study for mediation analysis is also considered to have aided in the offset of risk in committing a Type I error. For the group comparisons, the Browne-Forsythe test is less likely to make a Type I error and is robust against nonnormality. Next are recommendations for future research.

### **Recommendations for Future Research**

Based on recent examinations of team-level PsyCap and its beneficial outcomes for both groups and individuals (Dawkins et al., 2021), future researchers might examine the impacts of team-level courage in relation to team-level PsyCap, a social dimension. Diedericks et al. (2019) showed that PsyCap and resistance to change were negatively correlated, experimental studies in hybrid courage-PsyCap interventions may prove fruitful in the effectiveness of future change model implementations.

Another area which is virtually untapped and potentially promising is the exploration of PsyCap Theory and courage as acts of metacognitive perspective making rooted in motivation theory frameworks. There is a parallel in the literature between positive cognitive appraisals and motivation theories. Specifically, the framing and priming of situations and outcomes ties closely with Expectancy Value Theory, noted strongly in the cognitive processes of courage depicted by Rocha (2017) with their obvious reflections of goal value and instrumentality. Future study might seek to ground promising PsyCap antecedents in Expectancy Value Theory as related to PsyCap.

Gomes da Costa et al. (2021) noted the domain specific aspects of PsyCap (i.e., Academic PsyCap, relational PsyCap, work PsyCap), future study can examine universal situational/environmental aspects in relation to PsyCap, specifically what types of situations seem to inhibit or promote PsyCap and why. Whereas Guo et al. (2018) showed that followers PsyCap moderated the negative impact of authoritarian leadership and follower fear, future study might examine longitudinal measures between followers PsyCap and prolonged exposure to authoritarian leadership. This further highlights the need for longitudinal study.

As PsyCap is state-like, and research shows that it can be strengthened or weakened, future research can tease out the possible curvilinear patterns between antecedents and PsyCap levels as demonstrated between perceived WSC risks and hope in this study.

Quality and consistency of sleep and PsyCap fluctuation is another area ready for exploration (Xiaotian et al., 2019). PsyCap is frequently described as the ability to self-regulate and there is plenty of research indicating that sleep deprivation negatively impacts self-regulation.

He et al. (2021) noted the impact of positive LMX on followers PsyCap coupled by the environment the leadership shaped. Future studies might investigate the relationship between leadership and follower courage. Another avenue of research is the examination of meaningful work, courage, and PsyCap.

PsyCap has become of increasing interest in academia. The two studies referenced in this dissertation (Ahmed et al., 2017; Fati et al., 2019) utilized academic PsyCap measures which are indicative of self-efficacy and resilience, not appearing to contain optimism and hope. Future study may incorporate these subfactors also. For instance, how does hope for future outcomes impact degree acquisition?

The bulk of antecedent research has been focused on antecedents that increase PsyCap, yet there is a growing body of research pursuing the examination of factors that damage it. Vilariño del Castillo and Lopez-Zafra (2021) have provided a start by noting the impact to PsyCap through prolonged exposure to negative stimuli. Some antecedents properly executed increase PsyCap, but poorly executed, decrease it (e.g., leadership & job design). Based on the JD-R Model, high work demands, and lack of resources cause increased job stress. Indeed, lack of control, shortsighted change communication, and frequent haphazardly executed change are inherent with high levels of ambiguity. As suggested by Jang and Kim (2021), ambiguity and its relationship to PsyCap is a prominent research opportunity. There are many types of ambiguity within organizations and traditional facets include role-ambiguity, despondent leadership, exclusivity, and shrouded work environments. A counterintuitive, novel finding, showed that occupational stress was positively correlated with PsyCap (Kong et al., 2018). Research might examine differential impacts of distress versus eustress on individual and collective PsyCap.



Considering the findings regarding WSC and PsyCap in this study it is apparent that individuals high in PsyCap execute quite different methodologies in their cognitive appraisals, especially as it pertains to benefit-risk analyses. Are there significant differences to be revealed in group comparisons between perceptions of occupational stress and PsyCap? The pursuit of both contributing and detracting antecedents affords organizations to increase the PsyCap of their members by incorporating both explorative and exploitative strategies.

Ubiquitously, the need for experimental designs within antecedent PsyCap literature is strongly required. There is a plethora of quantitative survey method study showing the benefits of PsyCap inferring causalities. Pursuit of antecedents is yet justified via these research methodologies. Convincing of the benefits of PsyCap and its aggregate nature on effect size is no longer the pressing matter. It is now teasing out the processes by which PsyCap is developed and its proportionate mix of subfactors encouraged and applied; knowing with which variables and under what circumstances outcomes are most impactful (recommended by Mensah et al., 2016, p. 192, para. 3). The relationships between PsyCap subfactors as independent/dependent variables along with PsyCap as an outcome variable is also a promising area of study. For instance, does boosting hope increase optimism? Do hope and optimism, as covariates, best predict resilience? This pursuit promises to produce valuable insight as PCIs have readily demonstrated their worth.

Another note, of 264 articles reviewed since 2016 up to the time this dissertation was manifested, there are only a handful of studies focused on the impact of spirituality on PsyCap. As a bridge, spirituality can lead to the study of worldview and PsyCap and courage.

During review of social courage research within the past five years (since 2016), there appear to be no studies examining the relationship between types of courage. For instance, it is

possible that individuals face situational factors which require more than one dimension of courage. An employee may face the need for both moral and social courage simultaneously. Future study might examine the interactions between physical-, moral-, and social-courage.

One final suggestion for future investigation. The PCQ-15 utilized in this study can be cross-examined in other populations comparative to the factor loadings Grobler and Joubert (2018) discovered. This has the potential to tease apart the relationships between hope, efficacy, and optimism as they seem to fluctuate concerning their factor loadings. Incorporation of the PCQ-12 may also be useful in such comparisons for convergent validity. Summarization of this study follows.

### **Summary**

This quantitative research study examines the relationship between WSC and PsyCap. WSC are used in the form of three variables, the perception of benefits of behaving with social courage in the workplace, the perceived risks of behaving with social courage in the workplace, and the personal willingness to behave social courage in the workplace. A CFA results in a 3-factor PsyCap model consisting of efficacy-optimism, hope, and resilience. Key findings demonstrate that perceived WSC benefits predict both PsyCap and BWSC. PsyCap predicts BWSC. The PsyCap subfactor of resilience fully mediates between WSC benefits and BWSC, while efficacy-optimism partially mediate between them. Taken together, perceived WSC benefits and perceived WSC risks best predict PsyCap. Perceptions of WSC risks are less impactful on PsyCap and BWSC compared to perceptions of WSC benefits. Perceptions of WSC risks and the PsyCap subfactor of hope show second order fit in polynomial regression. These findings present key implications.

PsyCap, best predicted by perceived WSC benefits and perceived WSC risks is the product of a synthetic cognitive appraisal using salient referent technique. This makes the ability to tactically appraise benefits and risks advantageous as WSC and PsyCap are predictive of many positive outcomes in domains of work, academia, and well-being. Further, the nature of perceptions of risk and hope as second order factors argue the need to be aware of risk perception levels and hope levels to maintain both positive mental states and ability to perform in one's life domains, especially during long-term adversity. The study presents key inquiries. Where are individual and team tipping points? Across how much time and in what specific circumstances does risk perception supersede hope? Lastly, this study shows that perceptions of risk are not consistently the antithesis of courage and PsyCap but are influenced by ability to institute and maintain hope amidst high-risk perceptions. The relationship between PsyCap subfactors of hope and resilience, and behaving courageously, invites additional discoveries.

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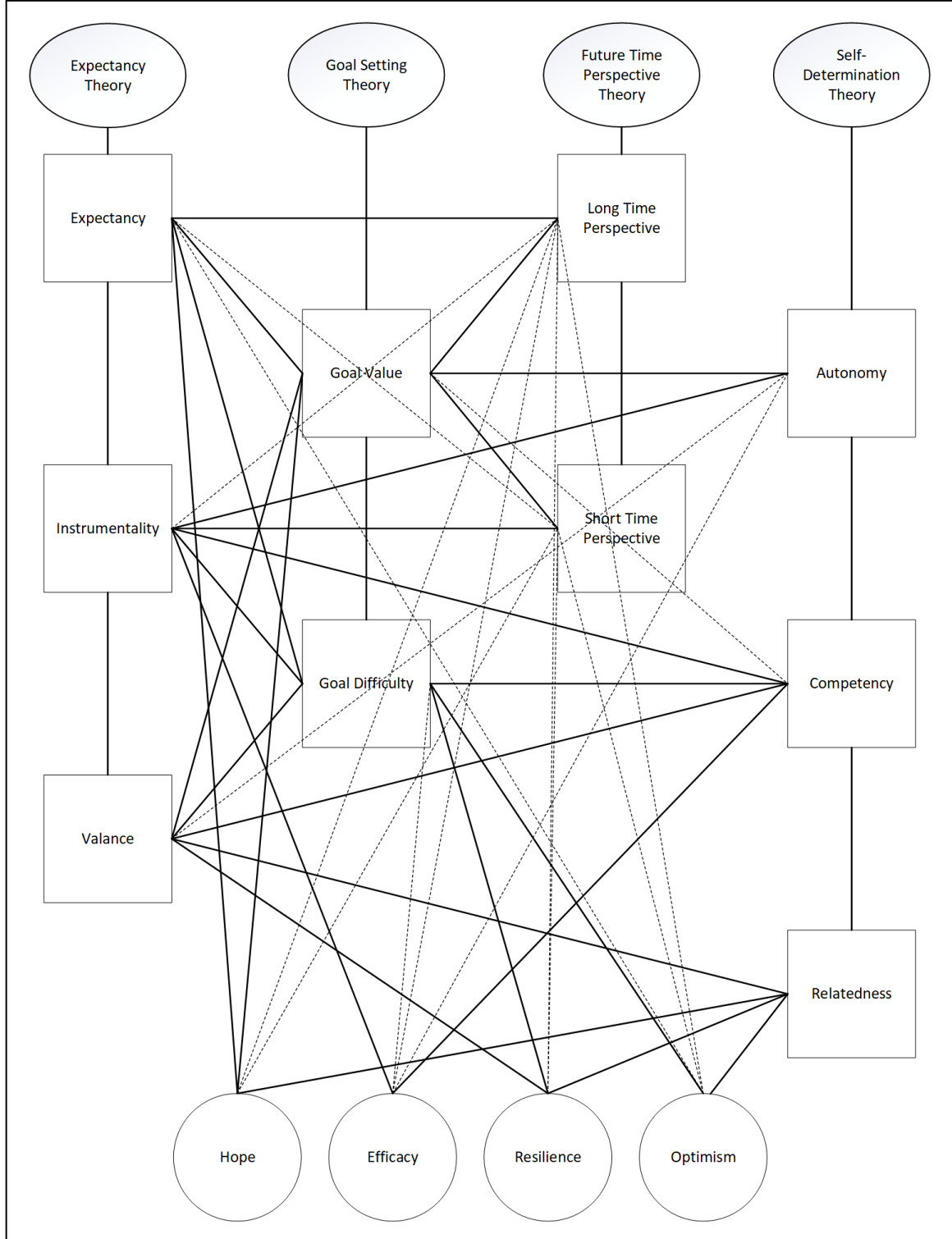
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APPENDIX A: MOTIVATION THEORY COMMONALITIES

Figure A1

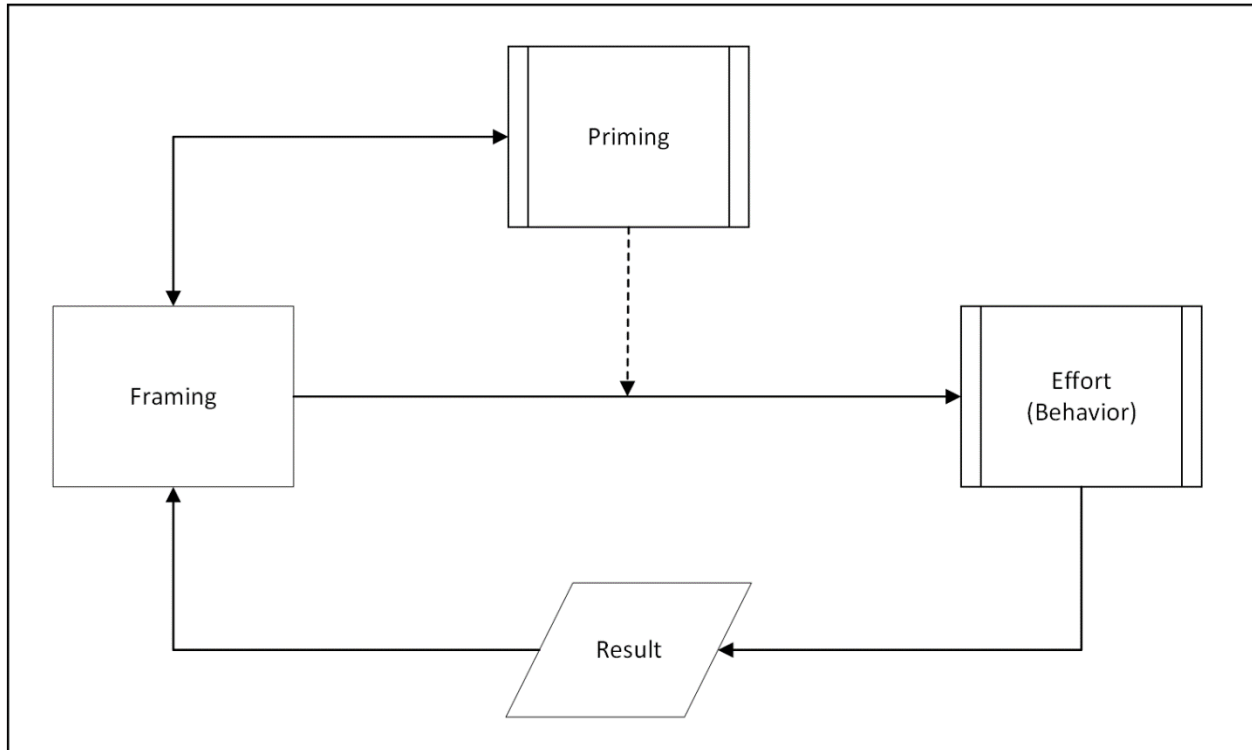
Synthesis of motivation theories into PsyCap as perspective (framing and priming).



## APPENDIX B: PSYCAP AND COURAGE AS APPRAISAL

**Figure B1**

*PsyCap Perspective AND Courage as Cognitive Appraisal, a conceptual visualization*



*Note.* Dashed arrow indicates suspected indirect moderation via dyadic Framing-Priming cycle.

## APPENDIX C: BIBLICAL WORD STUDY (COURAGE)

**Table C1***Bible study word analysis resilience (courage)*

<i>English</i>	<i>Hebrew</i>	<i>Greek</i>	<i>Root Meaning</i>	<i>Example Passage</i>
courage	—	—	mental or moral strength to venture, persevere, and withstand danger, fear, or difficulty	—
—	‘amats	—	Be strong, alert, courageous, brave, stout, bold, solid, hard, determined	Nahum 2:1
—	Chazaq	—	To strengthen, prevail, harden, be strong, become strong, be courageous, be firm, grow firm, be resolute, be sore	Joshua 1:6-7
—	Lebab	—	inner man, mind, will, heart, soul, understanding, knowledge, thinking, reflection, memory, inclination, resolution, determination, conscience, moral character	Joshua 22:5
—	Ruwach	—	Wind, breath, mind, spirit; Spirit of God	Proverbs 1:23
—	—	Eupsuchoe	To be of good courage, to be of a cheerful spirit	Philippians 2:19
—	—	Euthumeo	To put in good spirits, gladden, make cheerful; to be of good spirits, to be cheerful; to be joyful, be of good cheer, of good courage	James 5:13
—	—	Euthumos	Well disposed, kind; of good cheer, of good courage	Acts 24:10
—	—	Keras	A horn as a symbol of strength; a mighty and valiant helper, the author of deliverance, of the Messiah	Revelation 9:13
—	—	Parrhesia*	speaking freely, unreserved and frankly, with clarity, without the use of symbolism or metaphors; free, fearless confidence, cheerful courageous in this, assuredly bold; means of confidence by which one becomes publicly noticeable	John 7:26
—	—	Tharrheo	To be of good courage, give good cheer; to be bold	2 Corinthians 5:8
—	—	Tharseo	To be of good courage, be of good cheer	Matthew 9:22
—	—	Tolmao	Not to dread or shun through fear; to bear, endure; to bring oneself to; to be bold; bear oneself boldly, deal boldly	Luke 20:40

—	—	Hupostasis*	placing under, as in foundation or substructure; firm foundation of substance, realness; quality or essence of person or object; steadfast mind, firmness, courage, resolute; strong trust, assurance	2 Corinthians 11:17
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*Note.* “—” = null. \* = word possesses shared meaning between constructs. Root meanings retrieved from Bible Study Tools (Merriam-Webster, n.d.; biblestudytools.com, n.d.).

## APPENDIX D: BIBLICAL WORD STUDY (HOPE)

**Table D1***Bible study word analysis hope*

<i>English</i>	<i>Hebrew</i>	<i>Greek</i>	<i>Root Meaning</i>	<i>Example Passage</i>
hope	—	—	to want something to happen or be true and think that it could happen or be true	NA
—	Batach*	—	to trust in; have confidence in; to be bold; to be secure; to cause to trust, make secure; to feel safe, be careless	Habakkuk 2:18
—	Betach*	—	security, safety; securely	Ezekiel 28:26
—	Bittachown*	—	trust, confidence	Ecclesiastes 9:4
—	Chacah	—	to seek refuge, flee for protection; to put trust in God, confidence or hope in God	Proverbs 30:5
—	Kecel*	—	loins, flank; stupidity, folly; confidence, hope	Psalms 38:7
—	Mabbat*	—	expectation; object of hope or confidence	Zechariah 9:5
—	Machaceh	—	refuge, shelter from rain or storm, from danger or falsehood	Joel 3:16
—	Miqveh	—	ground of hope; things hoped for, outcome	Jeremiah 17:13
—	Qavah	—	to wait, look for, expect; to wait or look eagerly for; to lie in wait for; to wait for, to linger; to collect, bind together	Lamentations 3:25
—	Sabar	—	examined; to wait, wait upon	Isaiah 38:18
—	Tiqvah	—	cord; ground of hope; things hope for, outcome	Joshua 2:18
—	Yachal	—	to wait, hope, expect	Job 13:15
—	—	Elpis	expectation of evil, fear; expectation of good, hope in the Christian sense, joyful and confident expectation of eternal salvation; hope in the author of hope, or he who is its foundation, the thing hoped for	1 John 3:3
—	—	Elpizo*	in a religious sense, to wait for salvation with joy and full confidence; hopefully trust in	Hebrews 11:1
—	—	Perikephalaia	a helmet; metaphor for protection of the soul which consists in (the hope of) salvation	1 Thessalonians 5:8
—	—	Prosdokao	to expect (whether in thought, in hope, or in fear); to look for, wait for	Luke 7:19-20

*Note.* “—” = null. \* = word possesses shared meaning between constructs. Root meanings retrieved from Bible Study Tools online (biblestudytools.com, n.d.). English meaning of hope retrieved from Merriam-Webster’s online dictionary (Merriam-Webster, n.d.).

## APPENDIX E: BIBLICAL WORD STUDY (EFFICACY)

**Table E1***Bible study word analysis efficacy (confidence)*

<i>English</i>	<i>Hebrew</i>	<i>Greek</i>	<i>Root Meaning</i>	<i>Example Passage</i>
efficacy	—	—	the power to produce an effect	—
—	Batach*	—	to trust in; have confidence in; to be bold; to be secure; to cause to trust, make secure; to feel safe, be careless	Hosea 10:13
—	Besodeiah		confidence in the name of God (Yah)	Jeremiah 23:22
—	Betach*	—	security, safety; securely	Isaiah 26:3-4
	Bitchah		trusting confidence	Isaiah 30:15
—	Bittachown*	—	trust, confidence	2 Kings 18:19
	Kecel*		loins, flank; stupidity, folly; confidence, hope	Proverbs 3:26
—	Mabbat*	—	expectation; object of hope or confidence	Isaiah 20:5-6
—	Mibtach	—	trust, confidence, refuge; active confiding; object of confidence; state of confidence; security	Psalms 65:5
—	—	Elpizo*	in a religious sense, to wait for salvation with joy and full confidence; hopefully trust in	Philemon 1:22
—	—	Hupostasis*	placing under, as in foundation or substructure; firm foundation of substance, realness; quality or essence of person or object; steadfast mind, firmness, courage, resolute; strong trust, assurance	Hebrews 3:14
—	—	Parrhesia*	speaking freely, unreserved and frankly, with clarity, without the use of symbolism or metaphors; free, fearless confidence, cheerful courageous in this, assuredly bold; means of confidence by which one becomes publicly noticeable	1 Timothy 3:13
—	—	Peitho	to persuade, through speech to convince to believe; to win favor or goodwill to please another; to put at ease; to convince to action; to allow oneself to believe or have faith regarding something or someone; to	Romans 8:38



			listen to or obey, to comply with; to trust	
—	—	Pepoithesis	Trust, confidence, reliance	2 Corinthians 3:4
—	—	Pisteuo	to believe and be persuaded something is true; place confidence in belief; to trust in God for deliverance and accomplishment; to be trusted with something or a task	Ephesians 1:13
—	—	Pistis	Conviction of any given truth for belief, belief in God the father and Christ as having accomplished salvation, in God as Creator; fidelity, faithfulness, relying on the character of another	Revelation 14:12
—	—	Plerophoria	Full assurance, resolute confidence	1 Thessalonians 1:5
—	—	Tharrheo	Being of good courage, cheer; boldness	Hebrews 13:6
—	—	Tharsos	Courage, confidence	Acts 28:15

*Note.* “—” = null. \* = word possesses shared meaning between constructs. Root meanings retrieved from Bible Study Tools (Merriam-Webster, n.d.; biblestudytools.com, n.d.).

## APPENDIX F: BIBLICAL WORD STUDY (RESILIENCE)

**Table F1***Bible study word analysis resilience (perseverance)*

<i>English</i>	<i>Hebrew</i>	<i>Greek</i>	<i>Root Meaning</i>	<i>Example Passage</i>
perseverance	—	—	continued effort to do or achieve something despite difficulties, failure, or opposition; the action or condition or an instance of persevering; steadfastness	—
—	—	Hupomone	Steadfastness, constancy, endurance; unwavering dedication to God despite potent trials and hardships; patient enduring, sustaining	James 1:3-4
—	—	Proskarteresis	Perseverance	Ephesians 6:18
—	—	Makrothumia	Patience, endurance, constancy, steadfastness, perseverance, forbearance, long-suffering, slowness to avenge wrongs	1 Peter 3:20

*Note.* “—” = null. \* = word possesses shared meaning between constructs. Root meanings retrieved from Bible Study Tools (Merriam-Webster, n.d.; biblestudytools.com, n.d.).

## APPENDIX G: PSYCAP DIMENSIONS AND ANTECEDENTS

**Table G1***Individual, Social Exchange, Environmental PsyCap Antecedents*

Dimension	Category	Category Subdimension
Environmental	Work/non-work interface	
	High-performance Work Systems	
	Corporate Social Responsibility & Moral Identity	
	Perceived Organizational Support & Eco-initiatives	
	Organizational Justice	Distributive Procedural Informational
	Human Resource Management Practices	
	Industry and Market Influence	
	Job characteristics	
	Job resources	Occupational stress
	Overarching Organizational Characteristics (e.g., climate)	General Learning Innovative Service
Physical Context		
Social Exchange (interpersonal)	Leadership (Social Contagion)	Transformational Transactional Task-Oriented Authentic Servant +LMX Humble Paternalistic (benevolent, authoritarian, authoritative) Abusive (liaise fair & neurotic) Ethical Spiritual Empowering & Inclusive
	Social Capital	Friend Support Workplace Fun Social Identity

		Deviant Work Behavior (Social Undermining, Incivility, & Workplace Violence)
	Organizational Justice	Interpersonal
	Perceived Organizational Support	Compassion
	Perceived Social Norms	
	Organizational Culture	Ambidextrous Democratic
Individual	Motivational Traits	Intrinsic Growth Mindset Religious
	Emotional Intelligence	
	Regional & National Culture	
	Positive Emotions	
	Cognitive Appraisals	Sense of Humor Spirituality
	Addiction	
	Personality Traits	Dark Triad
	Exercise	
	Meaningful Work	
	Spiritual Intelligence	
	Protean Career Orientation	
	Self-Leadership	
	Work Engagement	
	Workaholism	
PCIs	Goal-oriented	Job seeking
	Job Satisfaction	Service Industries
	Marginalized Communities	
	Therapies	
	Academics	

## APPENDIX H: LIBERTY UNIVERSITY IRB

**Figure H1***IRB Study Approval*

June 24, 2022

Quinn Denny  
Benjamin Wood

Re: IRB Exemption - IRB-FY21-22-1039 COGNITIVE APPRAISAL, WORKPLACE SOCIAL COURAGE, AND PSYCAP

Dear Quinn Denny, Benjamin Wood,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(i). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).

The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

**Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB.** Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible

modifications to your protocol would change your exemption status, please email us at [REDACTED].

Sincerely,

**G. Michele Baker, MA, CIP**

*Administrative Chair of Institutional Research*

**Research Ethics Office**

## APPENDIX I: INFORMED PARTICIPANT CONSENT

**Figure I1***Participant Informed Consent Form*

## CONSENT

- > Title of the Project: Cognitive Appraisal, Workplace Social Courage, and PsyCap
- > Principal Investigator: Quinn Denny, MA, Liberty University

- > Invitation to be Part of a Research Study:

You are invited to participate in a research study. To participate, you must be 18 years of age or older, a U.S. citizen, and your native language must be English. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

- > What is the study about and why is it being done?

The purpose of the study is to study workplace social courage and positive psychological capital, which is a positive mental state. This study looks at how individuals think about workplace social courage and act socially courageous, taking into account their positive mental state.

- > What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:

1. Complete 5 short online questionnaires: a demographic questionnaire and four questionnaires related to workplace social courage and positive psychological capital. The estimated total time to complete the questionnaires is 40 minutes.

> How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include increased awareness of social courage in the workplace, helping to understand socially courageous behavior as an act of mental appraisal (weighing perceived benefits and risks). It will also highlight the need to inspire workplaces that are characteristic of social courage by fostering programs and culture that increase positive psychological capital. Positive psychological capital is a cause of job performance and job satisfaction.

> What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

> How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be anonymous.
- Data will be stored online on the MTurk infrastructure and the researcher's Liberty University Microsoft OneDrive/Office 365 account, and an encrypted hard drive. Data may be used in future presentations. After three years, all electronic records will be deleted.

> How will you be compensated for being part of the study?

Participants will be compensated for participating in this study. Participants that complete all of the questionnaires will receive \$5 distributed via Amazon MTurk.



> Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting these relationships.

> What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the questionnaire and close your internet browser. Your responses will not be recorded or included in the study.

> Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Quinn Denny. You may ask any questions you have now. If you have questions later, you are encouraged to contact him at [REDACTED]. You may also contact the researcher's faculty sponsor, Dr. Benjamin Wood, at [REDACTED].

> Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, [REDACTED] or email at [REDACTED].

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

> Your Consent

Before agreeing to be part of the research, please be sure you understand what the study is about before you proceed. You can print a copy of this document for your records. If you have any questions about the study later, you can contact the study team using the information provided above.

## APPENDIX J: PARTICIPANT STUDY INTRODUCTION

**Figure J1***Study Introduction***Study Introduction**

Welcome to the Cognitive Appraisal, Workplace Social Courage, and PsyCap study.

There are a total of five short questionnaires that you will take to complete the study. The total estimated time to complete the study is 40 minutes total. **Please answer all of the questions. There are no wrong responses.** Please respond to items as you interpret them, not as you believe others would have you interpret them. **Each questionnaire will include instructions** on how to complete it.

To participate, you must be 18 years of age or older, a U.S. citizen, and your native language must be English.

**If you have any questions**, please message Quinn Denny, MA, via Amazon MTurk or via email at **NULL**, I am happy to help.

You are contributing to research that will benefit yourself and others in the workplace.

Please leave this window open so that you can copy and paste the survey code in the field below to complete the MTurk task (HIT).

Please begin the study by clicking the survey link below (40 minutes).

*Thank You!*

## APPENDIX K: WORKPLACE SOCIAL COURAGE BENEFITS SURVEY

**Figure K1***Workplace Social Courage Benefits Scale Items and Instructions*

There are many benefits that could be involved in workplace interactions. These benefits could range from minor to major benefits, depending on the behavior. For the following, please rate your agreement that you would benefit from the following behaviors.

Use the scale below:

1 = Strongly Disagree

2 = Disagree

3 = Slightly Disagree

4 = Neutral

5 = Slightly Agree

6 = Agree

7 = Strongly Agree

You should NOT answer these questions with your current job or workgroup in mind. Instead, respond based on how you would act in a workplace after working there for five years.

1. Although it may damage our friendship, it is beneficial to tell my superior when a coworker is doing something incorrectly.
2. Although my coworker may become offended, it is beneficial to suggest to him/her better ways to do things.
3. If I think a question is dumb, it is still beneficial to ask it if I do not understand something at work.

4. Even if my coworkers could think less of me, it is still beneficial to lead a project with a chance of failure.
5. It is beneficial to NOT tolerate when a coworker is rude to someone, even if I make him/her upset.
6. Despite my subordinate disliking me, it is beneficial to tell him/her when they're doing something against company policy.
7. It is beneficial to let my coworkers know when I am concerned about something, even if they'd think I am too negative.
8. Even if it may damage our friendship, it is beneficial to confront a subordinate who had been disrupting their workgroup.
9. Although it makes me look incompetent, it is beneficial to tell my coworkers when I've made a mistake.
10. Despite appearing dumb in front of an audience, it is beneficial to volunteer to give a presentation at work.
11. Although it may completely ruin our friendship, it is beneficial to give a coworker an honest performance appraisal.

## APPENDIX L: WORKPLACE SOCIAL COURAGE RISKS SURVEY

**Figure L1***Workplace Social Courage Risks Scale Items*

There are many risks that could be involved in workplace interactions. These risks could range from minor to severe risks, depending on the behavior. For the following, please rate your agreement with the riskiness of the following behaviors.

Use the scale below:

1 = Strongly Disagree

2 = Disagree

3 = Slightly Disagree

4 = Neutral

5 = Slightly Agree

6 = Agree

7 = Strongly Agree

You should NOT answer these questions with your current job or workgroup in mind. Instead, respond based on how you would act in a workplace after working there for five years.

1. It is risky to tell my superior when a coworker is doing something incorrectly because it may damage our friendship.
2. It is risky to suggest to my coworker better ways of doing things because my coworker may become offended.
3. It is risky to ask a question I think is dumb when I don't understand something at work.
4. It is risky to lead a project with a chance of failure because my coworkers could think less of me.

5. It is risky to confront a coworker when they are rude to someone because I might make him/her upset.
6. It is risky to tell a subordinate when they are doing something against company policy because he/she might dislike me.
7. It is risky to let my coworkers know when I am concerned about something because they might think I am too negative.
8. It is risky to confront a subordinate who had been disrupting their workgroup because it may damage our friendship.
9. It is risky to tell my coworkers when I've made a mistake because it makes me look incompetent.
10. It is risky to volunteer to give a presentation at work because of appearing dumb in front of an audience.
11. It is risky to give a coworker and honest performance appraisal because it may completely ruin our friendship.

## APPENDIX M: BEHAVIORAL WORKPLACE SOCIAL COURAGE SURVEY

**Figure M1***Behavioral Workplace Social Courage Scale Items*

For the following, please rate your agreement that you will perform the following behaviors. Use the scale below:

1 = Strongly Disagree

2 = Disagree

3 = Slightly Disagree

4 = Neutral

5 = Slightly Agree

6 = Agree

7 = Strongly Agree

You should NOT answer these questions with your current job or workgroup in mind. Instead, respond based on how you would act in a workplace after working there for five years.

1. Although it may damage our friendship, I will tell my superior when a coworker is doing something incorrectly.
2. Although my coworker may become offended, I will suggest to him/her better ways to do things.
3. If I think a question is dumb, I will still ask it if I don't understand something at work.
4. Even if my coworkers could think less of me, I will lead a project with a chance of failure.
5. I will not tolerate when a coworker is rude to someone, even if I make him/her upset.



6. Despite my subordinate disliking me, I will tell him/her when they're doing something against company policy.
7. I will let my coworkers know when I am concerned about something, even if they'd think I am too negative.
8. Even if it may damage our relationship, I will confront a subordinate who had been disrupting their workgroup.
9. Although it makes me look incompetent, I will tell my coworkers when I've made a mistake.
10. Despite appearing dumb in front of an audience, I will volunteer to give a presentation at work.
11. Although it may completely ruin our friendship, I will give a coworker an honest performance appraisal.