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# The Mediating Effects of Positive Psychological States on the Relationships Between Hindrance Stressors and Organizational Citizenship Behaviors: A Multi-Level Approach

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THE MEDIATING EFFECTS OF POSITIVE PSYCHOLOGICAL STATES ON THE  
RELATIONSHIPS BETWEEN HINDRANCE STRESSORS AND  
ORGANIZATIONAL CITIZENSHIP BEHAVIORS: A MULTI-LEVEL APPROACH

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Presented to  
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Clemson University

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Master of Science  
Applied Psychology

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by  
Kandice N. Goguen  
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## ABSTRACT

Organizational citizenship behaviors (OCBs) are informal and voluntary behaviors that positively contribute to organizational functioning (Organ 1997; Katz & Kahn, 1978). To better understand and encourage such behaviors, the present study investigated the influence of hindrance stressors and positive psychological states in the workplace. Responses from a sample of university employees were analyzed to examine the individual and unit-level effects of role ambiguity, organizational constraints, and lack of job control on individual-level supervisor-rated OCBs through individual and unit-level positive psychological states. Results showed that each hindrance stressor negatively influenced OCB participation directly and through decreased positive psychological states at the individual-level (Level 1). All unit-level (Level 2) hindrance stressors demonstrated negative relationships to OCBs directly, and lack of job control at the unit-level (Level 2) was also a significant direct predictor beyond the individual-level (Level 1). Hindrance stressors at the unit-level (Level 2) mediated by decreased unit-level (Level 2) positive psychological states predicted decreased OCBs above any individual-level (Level 1) effects of hindrance stressors and positive psychological states. These results provide evidence of incremental variance explained by unit-membership in the relationship between hindrance stressors and positive psychological states on OCB performance. Implications for the current literature, future research, and applied interventions to help diminish barriers and increase OCBs are discussed.

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## CHAPTER ONE

### OVERVIEW AND THEORETICAL FRAMEWORK

#### **Introduction**

Organizational citizenship behaviors (OCBs) are discretionary acts that support the climate, culture, and social interactions within the workplace. OCBs are not required, yet are essential for an organization to function smoothly and efficiently (Katz & Kahn, 1978). For instance, increased OCBs, such as treating other employees with respect, and reaching to provide guests with a positive experience beyond their expectations, have been shown to predict higher levels of unit profitability and organizational effectiveness (Koys, 2001). If organizations want to be able to positively encourage citizenship behaviors within the workplace, it is important to understand the facilitators of such actions, and the processes through which these facilitators operate.

Most OCB research to date has focused on predictors such as task characteristics, leader behaviors, or on the fairness perceptions, affect, and personality of the target. However, aspects of the work environment, namely job-related stressors, can also have a negative influence on OCB performance (Eatough, Chang, Miloslavica & Johnson, 2011). In addition, hindrance stressors may elicit decreased motivation, negative emotions, and lessened positive psychological states. According to the conceptual framework set by Kahn and Byosiere (1992), workplace stressors such as role ambiguity can lead to behavioral, psychological, and physiological responses, eliciting effects on aspects of employees' performance, motivation, and health. Past research has shown that hindrance stressors are related to the emotional reactions of employees, such as frustration,



dissatisfaction, and anxiety (Spector & Jex, 1998; Villanova & Roman, 1993). Further, previous findings demonstrate that lower levels of psychological states, motivation, and positive emotions decrease the likelihood of OCB participation, and lessen acts of cooperation (Avey, Luthans, & Youssef, 2010; Eatough et al., 2011; Luthans, Avolio, Avey, & Norman, 2007).

Although compelling, these relationships have not received much attention in the literature, and the set of variables being proposed in the present study have yet to be examined together. Therefore, the present study sought to enhance understanding of the relationships in this area through examining the influence of hindrance stressors, or factors that limit an employee's ability to perform optimally, on OCBs. In addition, the present study explored the mechanism by which hindrance stressors influence OCBs through clarifying the extent to which organizational constraints, role ambiguity, and lack of job control are each related to OCBs through positive psychological states comprised of self-efficacy, optimism, and hope.

Furthermore, due to the potential influences of an employee's unit membership on the perceptions of stressors and positive psychological states, the current study applied a multilevel approach in order to examine the contextual effects of unit-level hindrance stressors and positive psychological states on OCBs. OCB performance has been shown to vary based upon group membership (Podsakoff, Ahearne, & MacKenzie, 1997), and the importance of examining group level effects has been clearly established. Such approaches help to better explain predictive relationships, and to identify the possible emergent processes within a group (Bliese & Jex, 2002; Kozlowski & Klein, 2000). In

addition, the results presented may help to facilitate group interventions, which have been argued to be more effective for reducing stressors than individually targeted programs (Bliese & Jex, 2002; Tucker, Sinclair, & Thomas, 2005).

The current study presents value in examining relationships that explain barriers to OCB performance and the pathways through which these barriers predict lower OCBs for both individual employees and work units. Results can help to inform job design and ways to encourage OCB performance, facilitate individual and group interventions to increase OCB participation, and help researchers to better understand the pathways that affect OCBs.

**Theoretical Background.** The theoretical basis for the current study lies within *Conservation of Resources model* (COR). This theory proposes that people have a desire to acquire resources, and to keep and foster things of value. Resources may include material objects, such as owning a home, social support, such as a marital partner, or necessary tools for work, such as proper instruction, equipment, and autonomy. A lack of resources can induce stress, and may lead to employee strain (Hobfoll, 1989). Employees faced with hindrance stressors may need to devote additional resources to accomplish required tasks, thus lowering the resources available for OCBs. In addition, those who need to put forth more effort to accomplish job tasks under difficult conditions may need to conserve resources for future complications, and thus be less likely to engage in any extra-role behaviors. Furthermore, COR theory describes that in a situation of resource loss, there is a cognitive evaluation process and need for positive adaption (Hobfoll, 2002). Following this reasoning, those employees who are experiencing hindrance

stressors at work should feel they are lacking resources, and thus become dissatisfied, withdrawn, and experience stress, lowering their motivation to engage in OCBs.

Furthermore, factors such as efficacy, hope, and optimism may influence the way in which employees determine the pathways to conserve, maintain, and increase resources crucial to meet job demands (Wright & Hobfoll, 2004).

In addition, *Social Exchange Theory* (Blau, 1964) suggests individuals will work to repay those who benefit them. Past research suggests that when employees see the organization as rewarding or benefiting them, they will seek to return the favor, facilitating employees to work together and help one another (Koys, 2001; Podsakoff et al., 1997), and thus exhibiting more OCBs (McNeely & Meglino, 1994). In direct relation to this study, hindrance stressors may decrease the perceptions of rewards or benefits from the organization when an organization fails to supply employees with the proper amount of instruction (ambiguity), materials (constraints), or autonomy (job control) to meet their goals. Based on social-exchange theory, if organizational factors are hindering rather than benefiting performance, this would discourage employees to engage in extra-role behaviors, as they do not feel there is any need to reciprocate. In addition, these acts of reciprocation (or lack thereof) may develop into group norms, leading unit membership to influence OCB engagement (Whitman, Van Rooy, & Viswesvaran, 2010).

### **Purpose of the Current Study**

The current study is grounded on research that argues OCBs are important and necessary to organization functioning, through improving climate and effectiveness (Katz & Kahn, 1978; Koys, 2001). While there has been plenty of research documenting the

negative relationships between role stressors and task performance, there has been much less attention towards extra-role performance, and the relationship between stressors and OCBs (Eatough et al., 2011). The purpose of this study is to help to fill this gap in the current literature, and to investigate whether role ambiguity, organizational constraints, and lack of job control decrease OCBs directly and through mediating positive psychological states.

Further, as pointed out by Nielsen, Hrivnak, and Shaw (2009), while there have been many studies focused upon OCBs, there have been few at the group level. It has been stressed that there is a need for more research across levels to examine the individual and combined unit effects (Nielsen et al., 2009; Whitman et al., 2010), as employees often influence one another, and relationships may present different patterns and effects at different levels of analysis (Kozlowski & Klein, 2000; Nielsen et al., 2009). Therefore, in addition to individual-level analyses, the present study examined pathways at the unit-level for differential effects based upon group norms and collective experiences (Erhart & Naumeann 2004; Gonzalez-Roma, Peiro, & Todera, 2002).

The goal was to identify antecedents and mediators of OCB performance in order to help encourage and influence engagement in these behaviors in the future. It is important to present clear evidence for the negative relationship between hindrance stressors and OCBs in order to better inform organizations, and to encourage leaders to examine their workplace. Without such documentation, organizations may not put forth effort to address and reduce such stressors (Eatough et al., 2011; Jex, 1998).

The current study examined if the increased hindrance stressors of role ambiguity, organizational constraints, and lack of job control predicted decreased supervisor-rated OCBs. In addition, these relationships were analyzed for mediation by decreased positive psychological states, made up of self-efficacy, optimism, and hope. Lastly, relationships were examined at the unit-level (Level 2) to identify any effects associated with group membership beyond the individual-level (Level 1). Each of the aforementioned variables and proposed relationships are described in detail below, and are displayed in Figure 1.

## CHAPTER TWO

### ORGANIZATIONAL CITIZENSHIP BEHAVIORS

OCBs refer to helpful employee behaviors that contribute to organizational effectiveness, are not classified within formal job descriptions, and are not formally rewarded. These behaviors are distinct from employee performance because they are neither required nor evaluated, and therefore are dominantly discretionary (Organ, 1977; Organ 1988). Organ (1997) has further clarified this definition to explain that such acts may occur in the same environment as task performance, but are aimed towards supporting the social and psychological aspects of the environment. Although these behaviors are not formally mandated, they are still important and necessary to the organization (Katz & Kahn, 1978). Katz (1964) classified these extra-role behaviors as crucial to a successful organization. Organizations are reliant upon these consistent acts of participation and cooperation, for if everyone did only their required job duties, the organization would not be able to function properly (Katz & Kahn, 1978).

According to the theoretical framework set by Organ (1977), organizational citizenship behaviors are classified into five different categories of altruism, courtesy, sportsmanship, conscientiousness, and civic virtue. Altruism describes helping and pro-social behaviors, such as helping a co-worker learn a new task. Courtesy refers to consideration for others, such as checking on a co-worker going through a tough time. Sportsmanship describes being a team player, and tolerating inconveniences. Someone who engages in sportsmanship is able to refrain from complaining about small hassles, and make the best out of a situation. Conscientiousness refers to acting as a good citizen,

and demonstrating dedication to one's work above what is required. Civic virtue describes helping the organization, such as volunteering additional time to attend the organization's sponsored events. (Organ 1977; Podsakoff, MacKenzie, Paine, & Bachrach, 2000).

There are instances where past studies have analyzed the aforementioned dimensions separately in order to examine if certain predictors have differing effects on specific OCB dimensions (e.g., Jex, Adams, Bachrach, & Sorenson, 2003). However, these categories are highly correlated. There is a general tendency to either engage in or not engage in all of these dimensions (Lepine, Eriz, & Johnson, 2002). Based upon this evidence, and the expectation for the proposed predictors to show equivalent relationships with each OCB dimension, OCBs were examined as a single variable in the current study, composed of the five dimensions discussed above.

### **Outcomes**

OCBs are important to organizational functioning because they enhance the climate and effectiveness of an organization. Previous research has shown a positive relationship between OCBs and organizational effectiveness, productivity, and profitability (Podsakoff, Ahearne, & MacKenzie, 1997; Podsakoff, Whiting, Podsakoff, & Blume, 2009; Podsakoff, MacKenzie, Paine, & Bachrach, 2000). Meta-analytic results also support the positive relationship between OCB and performance each at the individual-level (Nielsen et al., 2009), and at the unit-level (Whitman, Van Rooy, & Viswesvaran, 2010). OCB's allow things in an organization to run smoothly. Managers can spend less time dealing with negative attributions of conflict and complaints, and

focus their resources on productive behaviors (Podsakoff et al., 2000). Coworkers receive help from one another, enabling them to learn faster, become more proficient, and improve the quantity and quality of the group's performance (Podsakoff et al., 1997). Customer satisfaction may also increase, as employees are performing better and have more resources to focus on the customer (Koys, 2001).

Further, OCBs may be more influential to supervisor ratings of job performance than task performance, emphasizing the importance for employees' to engage in citizenship and helping behaviors along with their required job duties (Podsakoff, et al., 2009). Past research has shown that in comparison to objective performance measures, those paired with OCB ratings explained 50% more of the variance in manager ratings. This substantial increase presents empirical evidence that although not formally required or rewarded, OCBs hold an important, prevalent, and impactful place in the organization (Podsakoff et al., 2000).

### **Antecedents**

Past OCB research has focused mainly upon the antecedents of individual characteristics of the employee, characteristics of the organization and job tasks, and leadership behaviors (Podsakoff et al., 2000). Individual characteristics (e.g., conscientiousness), and task characteristics (e.g., feedback and intrinsically satisfying tasks) have each demonstrated positive relationships with OCBs (Podsakoff et al., 2000). Organizational characteristics, such as fairness perceptions and commitment, and leadership qualities, such as transformational leadership and supportiveness, have been positively related to OCBs (Organ & Ryan 1995; Podsakoff et al., 2000). There is also



strong evidence for the positive relationship between job satisfaction and OCBs (McNeely & Meglino, 1994; Nielsen et al., 2009; Organ & Ryan, 1995; Podsakoff et al., 2000; Whitman et al., 2010).

Important to the present study, past research has also highlighted the relationship between role stressors, such as role ambiguity, conflict, and overload, and OCBs. Meta-analytic results display negative relationships of role ambiguity and role conflict with OCB dimensions of altruism, courtesy, and sportsmanship (Podsakoff et al., 2000). Eatough and colleagues (2011) also found that role ambiguity and role conflict each had a negative relationship with OCBs. The authors suggest this decrease of OCB participation was due to the hindrance imposed on employees' being able to achieve their work goals (Eatough et al., 2011).

In addition, psychological states, affect, and motivation have been related to OCB performance (Avey, Luthans, & Youssef, 2010). For example, Bachrach and Jex (2000) showed employees in a negative mood categorized in-role tasks more narrowly than those in a neutral or positive mood, indicating that they were less likely to perform extra-role behaviors.

### **Rating Sources**

The current study analyzed supervisor-rated OCBs. This is an important distinction from the use of self-ratings, as past research has demonstrated that self-rated OCBs contain a larger amount of bias because participants may rate themselves more positively. Previous studies show that relationships with variables such as task performance, role ambiguity, role conflict, and role overload were stronger when OCBs

were self-rated than when rated by supervisors (Eatough et al., 2011; Podsakoff et al., 2009). If predictor and criterion data are both rated by the same source, there may be Type I errors from common method variance (Eatough et al., 2011; Podsakoff et al., 2000). In fact, meta-analyses have found that when accounting for common method variance, relationships of different predictors with OCB performance (e.g., dispositional variables, gender, tenure) were no longer significant (Organ & Ryan, 1995; Podsakoff et al., 2000). Therefore, the use of supervisor-rated OCBs will limit potential bias in the responses, and prevent exaggerated relationships from common method variance.

### **Summary**

In summary, OCBs are discretionary acts of prosocial behavior (Organ, 1997) that help to facilitate organization success (Koys, 2001; Podsakoff et al., 2000). However, such behaviors may be lowered in the presence of hindrance stressors (Eatough et al., 2011). The present study sought to better understand this association through investigating whether the variables of increased role ambiguity, organizational constraints, and decreased job control predict lowered OCB performance. Each of the predictor variables and proposed relationships are described below, and are displayed in Figure 1.

## CHAPTER THREE

### HINDRANCE STRESSORS

Hindrance stressors are barriers to optimal performance, which can lead to uncertainty, frustration, and low levels of control. These stressors cannot be overcome by exerting additional effort, and are not under the control of the employee (Cavanaugh, Boswell, Roehling, & Boudreau, 2000; LePine, Podsakoff, & LePine, 2005). The presence of such stressors has been related to work outcomes such as performance, satisfaction, and commitment (Gilboa, Shirom, Fried, & Cooper, 2008; Tubre & Collins, 2000), and may lead employees to adopt a more narrow focus in which they direct attention to what they are held accountable for (in-role performance) and less towards extra-role behaviors. In fact, past research has shown that discretion to engage in OCBs may be negatively influenced by job-related stressors (Eatough et al., 2011; Jex, 1998; Jex et al., 2003). The present study specifically examined the hindrance stressors of role ambiguity, organizational constraints, and low job control, each described below.

#### **Role Ambiguity**

Information regarding expectations for job-related behaviors provides employees with a sense of order, predictability, and feedback on their performance (Katz & Kahn, 1978). Role information may be communicated through formal sources, such as a written job description or information from a supervisor, as well as through informal sources, such as conversations with co-workers. When there is a lack of clear and consistent information regarding an employee's role in the organization, role ambiguity arises, leaving employees unsure of what to do and how to do it (Abramis, 1994). Ambiguity

may include a lack of understanding in regards to job responsibilities, the appropriate ways to perform the job duties, evaluation of performance, or the consequences of failure (Breugh & Colihan, 1994; Eys & Carron, 2001).

Role ambiguity has been consistently established as a hindrance stressor in the workplace, and has been related to a number of negative outcomes, including lowered performance, job satisfaction, and organizational commitment, as well as increased turnover (Abramis, 1994; Doherty & Hoyer, 2011; Jackson & Shuler, 1985; Idris, O'Driscoll, & Anderson, 2011; Rigopoulou et al., 2012; Tubre & Collins, 2000). Role ambiguity has also been found to decrease employees' intrinsic motivation, as found with a sample of finance managers (Rigopoulou, Theodosiou, Katsikea, & Perdakis, 2012). Increased role ambiguity has also been associated with lowered employee engagement (Wright & Millesen, 2007), and lessened positive affect (Wincent & Ortqvist, 2011).

Surprisingly, much less attention has been placed on investigating the relationship between role ambiguity and OCBs. Many of the previously mentioned outcomes also act as antecedents to OCBs. For instance, job satisfaction and motivation have shown to have a positive relationship with OCBs (Organ & Ryan, 1995; Podsakoff et al., 2000).

A presence of ambiguity may require employees to redirect their effort to cope with the stressor, decreasing the likelihood that they would engage in OCBs. This rationale has been supported by meta-analytic results, which show that role ambiguity is negatively related to OCBs (Eatough et al., 2011). Employees may be so preoccupied with deciphering their job duties, that there are no available resources to perform extra-

role behaviors. Therefore, higher levels of role ambiguity were expected to relate to lower OCBs.

*Hypothesis 1a:* Increased levels of role ambiguity will be associated with decreased supervisor-rated OCBs.

### **Organizational Constraints**

Organizational constraints describe conditions that prevent employees from performing at their maximum level. Constraints occur when employees lack the appropriate support to carry out necessary tasks, such as a lack of resources, time, materials, preparation, or authority (Peters & O'Connor, 1988). Organizational constraints are associated with a multitude of negative effects. Meta-analytic results show that organizational constraints are related to harmful physical symptoms, such as gastrointestinal problems (Nixon et al., 2011), as well as lower task performance (Gilboa et al., 2008).

However, employees are still expected to perform well regardless of constraints. Situations with constraints increase the likelihood that employees will need to focus more effort towards task performance, and will place less focus towards extra-role behaviors (Bergeron, 2007). Supporting this notion, organizational constraints were found to be negatively related to OCBs. This relationship was mediated by perceived leadership effectiveness when employees were highly engaged (Britt et al., 2012). Further research has also shown a negative relationship between organizational constraints and altruistic OCBs, such as helping coworkers, particularly when affective commitment was low (Jex, Adams, Bachrach & Sorenson, 2003). Employees who must focus their efforts towards

completing work tasks with insufficient resources likely will not step beyond what is formally required. Therefore, higher organizational constraints were expected to relate to lower OCBs.

*Hypothesis 1b:* Increased levels of organizational constraints will be associated with decreased supervisor-rated OCBs.

### **Low Job Control**

There is a human desire to control the environment, even if it is just a perception (Lowin, 1968). When applied to organizational positions, perceived job control can be defined through higher levels of job autonomy and participative decision-making (Spector, 1986). Job autonomy describes the ability to direct efforts, and decide how to perform job tasks (Hackman & Oldham, 1980). Participative decision-making describes having a say within decision-making processes, such that if an outcome or decision were going to affect an employee, they would have the opportunity to provide input (Lowin, 1968).

Perceived job control has been linked with a number of positive outcomes, including high levels of job satisfaction, involvement, motivation, and performance (Spector, 1986). Recent findings have also shown a positive relationship between greater job control and OCBs directed at the organization within policing personnel (Noblet, Maharee-Lawler, & Rodwell, 2012).

Low job control may also have corresponding detrimental effects. The *Job Demands-Control Model* proposes that jobs with high demands and low control will be associated with strain (Karasek, 1979). A lack of control may prevent the arousal from

demands to be able to be turned into action, and so will instead transform into negative health and work effects. Those with equivalent job demands will display different responses based upon the amount of job control they perceive (Karasek, 1979). For instance, a two-year longitudinal study by de Jonge and colleagues (2010) found a positive relationship between job demands and satisfaction when control was high, but a negative relationship when control was low. In addition, the relationship between job demands with self-reported (e.g., headaches and stomach issues) and objectively measured (e.g., absenteeism) health symptoms was positive under low control, yet negative under high control (de Jonge et al., 2010). Jobs with high demands and high control are associated with higher motivation, better performance (de Jonge, 1999), and increased satisfaction (Bond & Bunce, 2003; Kawada & Otsuka, 2011). However, jobs with high demands and low control are shown to negatively affect performance and productivity (Le Blanc, de Jonge, & Schaufeli, 2000), and to be associated with turnover intentions (Jensen Patel, & Messersmith, 2013).

Furthermore, based upon the aforementioned COR model, Park and colleagues (2014) argued that a lack of job control may lead employees to seek to conserve other resources, and therefore alter their interpersonal interactions, such that they become more depersonalized and withdrawn. Low job control may also decrease job performance, as employees put forth less effort and only perform the basic, minimal tasks. These effects may stem from a need to conserve energy and resources for future work under difficult conditions. Meta-analytic results have provided evidence for these hypotheses, as lower levels of job control were related to increased depersonalization and decreased personal

accomplishments (Park, Jacob, Wagner, & Baiden, 2014).

In sum, employees faced with low job control may not have enough autonomy to enact the discretion to engage in OCBs. In addition, those who are less satisfied, less motivated, and more withdrawn, may be less willing to provide citizenship behaviors. Thus, lower levels of job control were expected to present a negative effect on OCBs.

*Hypothesis 1c:* Decreased levels of job control will be associated with decreased supervisor-rated OCBs.

While the previously described findings demonstrate that hindrance stressors may be a deterrent to OCBs, less is known about the mechanism by which these effects may occur. To fill this gap, the present study examined the negative relationship between hindrance stressors and the positive psychological states of self-efficacy, optimism, and hope. The variables to comprise positive psychological states are each described below, and proposed relationships are displayed in Figure 1.



## CHAPTER FOUR

### POSITIVE PSYCHOLOGICAL STATES

Le Blanc and colleagues (2000) explain there are processes that occur between the presence of a stressor and a reaction, such that cognitive, evaluative, and motivational states may mediate the relationship between a stressor stimulus and employees' response. Here, I propose that positive psychological states partially mediate the relationship between hindrance stressors and OCB participation. While it has been shown that role stressors invoke negative emotions, which may decrease OCB participation (Eatough et al., 2011), the mediating relationship of positive psychological states has yet to be examined.

Positive psychological states are “positive human resource strengths and psychological capacities that can be measured for performance improvement” (Luthans, 2002a, p. 59). Luthans (2002a) described unique requirements that define positive psychological capacities. These capacities must be grounded in solid theory and past research, have valid, published, measurement tools, and have evidence of affecting important outcomes in organizations. In addition, capacities must be state-like in nature (Luthans, 2002a).

A trait represents a characteristic that is fixed, and is stable over time and across situations. On the other hand, a state is something momentary and frequently changing depending on the context, such as a mood. A state-like capacity lies in-between the two. This term represents something somewhat stable that will not likely fluctuate with each moment or situation, yet has the potential to change, and to be trained, developed, and

managed (Luthans 2002b; Luthans & Youssef, 2007).

### **Positive Psychological States as a Single Factor**

Pulling from the theoretical development and empirical support for psychological capital (PsyCap) as a core construct, I proposed to combine the variables of efficacy, optimism, and hope into a single factor. There is evidence to show that each of the three constructs are strongly positively related, and may contribute more predictive value in combination than as individual variables (Avey, Luthans, Smith, & Palmer, 2010; Luthans et al., 2007).

PsyCap is comprised of efficacy, optimism, hope, and resilience. These components form to make an overarching positive psychological state of development (Luthans et al., 2007). Luthans and Youssef (2007) describe the “underlying thread or commonality running through PsyCap that represents one’s positive appraisal of the situation” (*p.* 335). Past research has provided empirical support for the additional predictive value of PsyCap when analyzed as a single construct over the additive sum of the four variables (Luthans, Avolio, Avey, & Norman, 2007). For example, PsyCap was able to predict job performance and satisfaction more strongly than any of the variables independently (Luthans et al., 2007).

PsyCap has been linked to a number of important organizational outcomes, such as lower turnover intentions, cynicism, and counterproductive behaviors (Avey, Luthans, & Youssef, 2010). Avey and colleagues (2010) also found those higher in PsyCap were more likely to engage in OCBs, supporting the hypothesis that employees with higher positive psychological states will display higher levels of OCB performance. In addition,

the construct has shown to predict the previously referenced outcomes over and above demographics, positive traits, and personality (Avey et al., 2010), and demonstrates validity and predictive value within a variety of settings (Luthans et al., 2007). For example, Zhong (2007) examined 198 sets of human resource manager-subordinate pairs in Chinese coal companies. Findings showed PsyCap had positive relationships with job performance, organizational commitment, and OCBs.

Based upon the aforementioned findings and theoretical background, it is most appropriate to analyze the variables of efficacy, optimism, and hope as a single factor in order to capture the full predictive value of the variables of interest. However, it is important to consider the ways in which each of the components contributes distinct and unique properties to the overall factor (Avey, Luthans, & Youssef, 2010). Therefore, the variables to compose the mediator of positive psychological states are each discussed within the purposes of this study below.

### **Self- Efficacy**

Self-efficacy is described as a person's beliefs regarding their ability and competence to accomplish specific tasks and goals (Bandura, 1997). This evaluation of confidence to execute a successful course of action is influenced by available environmental and cognitive resources (Stajkovic & Luthans, 1998). Thus, unlike trait-like general self-efficacy, role-related self-efficacy is state-like. Role-related self-efficacy is not transferable across domains, can change based on tasks or situations, and has the potential to be developed and managed (Bandura, 1997; Luthans, 2002a).

Bandura (1997) explains that people will have little motivation to perform unless they believe they will be successful. Employees higher in positive self-efficacy will put forth more effort and show more perseverance (Luthans, 2002a). Previous research has linked higher levels of self-efficacy to a number of positive work outcomes, such as increased job performance, commitment, and optimism (Stajkovic & Luthans, 1998; Zimmerman, 2000).

Employees confident in their abilities may also be more likely to perform extra-role behaviors. Those who believe they will be successful will be more motivated to perform and put forth additional effort, even if the tasks are not explicitly required. Dussault (2006) found that self-efficacy was positively related to OCBs, such that teachers who believed in their own ability were more likely to help others and be willing to attend non-mandatory meetings.

On the other hand, self-efficacy may be harmed through stressors and constraints. Past research has established a negative relationship between role ambiguity and self-efficacy (Beauchamp, Bray, Eys, & Carron, 2001; Rubino, Luksyte, Perry, & Volpone, 2009). Self-efficacy theory explains that when an individual does not receive enough clear information to effectively perform their job duties, role-related self-efficacy will likely decrease, and that lowered efficacy is associated with lowered performance (Bandura, 1997). Beauchamp and colleagues (2002) found empirical support for this notion. Findings showed efficacy mediated the negative relationship between role ambiguity and performance, such that higher levels of role ambiguity lowered one's efficacy, which then lowered performance. Furthermore, a six-month longitudinal study

found lessened job control was predictive of lower confidence, along with other psychological health components, such as increased sleeplessness and stress (Huang, Chen, Du, & Huang, 2012).

## **Optimism**

Optimism is described as a positive explanation of events, and expectation of success in present and future endeavors (Luthans & Avolio, 2014; Seligman, 1998). Optimists are likely to internalize positive events, while attributing negative experiences or failures to more temporary, external factors (Luthans & Youssef, 2007). While some research has focused on optimism as a stable trait, representing a positive outlook stable across events, there is evidence that optimism can be learned. In fact, American Express has incorporated optimism training into their management programs (Luthans, 2002a). Optimists may transition to pessimists, and vice versa (Luthans, 2002a). The variable of state-like optimism examined in this study refers to the expectation of positive outcomes for specific work-related factors, and is theoretically, and empirically distinct from trait optimism (Kluemper, Little & DeGroot, 2009). Much like efficacy, this belief can be developed and is changeable. State-like optimism is context dependent, and has shown to predict organizational factors such as job satisfaction, task performance, and contextual performance when controlling for overall trait optimism and emotional affect (Kluemper et al., 2009). Furthermore, longitudinal data collected over two years revealed that German business owners' specific work optimism predicted increased work engagement over time, even when controlling for general trait-like optimism (Schmitt, Gielnik, Zacher, & Klemann, 2013).

Optimism has also been linked to positive work outcomes, such as increased organizational commitment and job satisfaction (Kluemper et al., 2009; Tuten & Neidermeyer, 2004; Youssef & Luthans, 2007). In addition, employees higher in optimism may be motivated to work harder, set higher goals, and persist longer (Luthans, 2002a).

Previous findings also provide evidence for the proposed relationship between optimism and OCBs. Kluemper and colleagues (2009) found state optimism to predict OCB performance when controlling for affect, while Ngidi (2012) demonstrated that teacher's academic (i.e., work specific) optimism was positively related to OCB participation. However, negative influences such as workplace stressors may also affect optimism through decreasing employees' view of success and future opportunities (Schmitt, Gielnik, Zacher, & Klemann, 2013). The present study sought to better understand the relationship between optimism and OCBs, as has been recommended by Kluemper and colleagues (2009), and to explore antecedents of state-like optimism through their relationship with hindrance stressors.

### **Hope**

Hope is a positive psychological capacity defined by the two components of willpower, representing a sense of strong determination, and way power, representing pathways available when planning to meet goals (Snyder, 2000). There is empirical evidence for the discriminant validity of hope as a distinct construct in relation to other psychological capital components. For example, unlike optimism, hope represents internalized beliefs of control, which help to motivate and increase determination towards

one's goals (Luthans & Youssef, 2007). In addition, the state-like construct of hope has been shown to be validly distinct from the trait characteristic of hope (Snyder, 2000), can be validly measured (Snyder et al., 1996), and has the potential to be developed, particularly through interventions and training (Snyder, 2000).

Hope has been linked to important work outcomes, such as positive work attitudes and job performance (Youssef & Luthans, 2007), as well as organizational commitment and job satisfaction (Luthans & Jensen, 2002). De Lara (2008) also found hope to act as a mediator from organizational fit to OCBs. Those with increased fit were more hopeful, and so displayed higher levels of OCB performance.

On the other hand, because hope involves clarifying goals, and specifying main and alternative pathways, hindrance stressors are expected to negatively affect hope. Limited information, control, and resources within an organization may restrict employee pathways towards meeting goals, thus decreasing hope (Luthans, 2002a). Therefore, hope may decrease in the presence of hindrance stressors. Further, due to the decline in motivation and determination associated with decreased hope, employees' are unlikely to engage in extra-role behaviors, resulting in lowered OCB performance.

In summary, because a lack of role information, organizational resources, and job control may hinder an employee's confidence, positive outlook, and potential pathways to success, positive psychological states were expected to decrease in the presence of job stressors. In addition, because of decreased beliefs in success, motivation for achievement, and determination, lowered positive psychological states were then expected to be associated with lowered OCB participation.

*Hypothesis 2a:* Increased levels of role ambiguity will be associated with decreased supervisor-rated OCBs through decreased positive psychological states.

*Hypothesis 2b:* Increased levels of organizational constraints will be associated with decreased supervisor-rated OCBs through decreased positive psychological states.

*Hypothesis 2c:* Decreased levels of job control will be associated with decreased supervisor-rated OCBs through decreased positive psychological states.

In addition to examining these relationships at the individual-level (Level 1), researchers have emphasized the importance of considering unit-level (Level 2) effects in order to identify any potential emergent properties and unique relationships (Kozlowski & Klein, 2000; Nielsen et al., 2009). Therefore, the current study investigated the unit-level (Level 2) relationships for predictive value beyond the individual-level (Level 1). Theoretical background and proposed relationships are outlined in the subsequent section, and are depicted in Figure 1.



## CHAPTER FIVE

### UNIT-LEVEL EFFECTS ON HINDRANCE STRESSORS, POSITIVE

### PSYCHOLOGICAL STATES, AND OCBS

Individual employee behaviors are likely influenced by contextual factors, such as the work group or organization in which they are nested (Bliese & Jex, 2002). Kozlowski and Klein (2000) suggest employing a multilevel approach when the variables in question represent an individual's actions or cognitions that may be influenced by higher-level organizational units. Due to the nested nature of individuals within differing work units, the current study examined the aggregated unit-level (Level 2) effects of hindrance stressors and positive psychological states to individual OCB participation. Aggregation creates a summary variable that allows for examination of emergent properties, in which the cohesive whole is more than the combined parts (Bliese & Jex, 2002). Interactions within the unit may magnify certain behaviors and attitudes of the individuals (Kozlowski & Klein, 2000). Although many organizational concepts are suited for multi-level analyses, it is especially important to examine the aggregated effects of relationships with OCBs because these participatory acts are directly tied to interaction among unit members, such as helping a co-worker (Nielsen et al., 2009).

Previous reports also provide support for examining the contextual effects of stressor variables and psychological states. Spell and Arnold (2007) noted that work units are especially prone to converse about ambiguous, challenging, or emotional situations. Thus, work units are likely to discuss stressors of role ambiguity, constraints, and limited control. Furthermore, Wittmer et al. (2013) suggests that employees may demonstrate

similar reactions to shared stressors. In addition, a previous study found collective efficacy, but not individual efficacy, was related to role ambiguity and situational constraints at work, as well as anxiety, frustration, dissatisfaction, and turnover intentions. Findings provide further evidence for the examination of variables at the unit-level, so as to avoid potentially missing important connections (Jex & Gudanowski, 1992).

In regards to extra-role performance, past researchers have stated that OCBs may have differing effects when examined at the unit-level, and have encouraged future studies to examine group membership and OCBs (Nielsen et al., 2009; Organ & Ryan, 1995; Podsakoff et al., 2000). In fact, Podsakoff and colleagues (1997) found that group membership accounted for 58% of the variance in OCB performance. Factors such as group norms, unit climate, and social contagion may influence the effects of hindrance stressors on positive psychological states, and OCBs. However, previous studies have yet to demonstrate unit-level effects regarding the proposed hindrance stressors and OCBs. Therefore, the current study presents a valuable contribution in exploring the effects of hindrance stressors and positive psychological states on OCBs based on unit membership.

### **Processes Responsible for Unit-Level Effects**

**Group Norms.** Interactions within groups often lead to informal agreements about behavior. These may develop through verbal statements, nonverbal actions, or imitation. As explained through social-exchange theory, employees may perform OCBs in an attempt to reciprocate to those who have helped them in some way (Blau, 1964). Over time, these exchanges may help to form group norms surrounding OCB

performance (Whitman et al., 2010). Ehrhart and Naumann (2004) argue that group norms are likely to develop because OCBs are necessary to a group's survival. While some posit that OCBs would no longer be voluntary if incorporated into group norms, Erhart and Naumann (2004) suggest that the behaviors still are indeed voluntary, even if an individual feels it is important and appropriate for the group's success. It is important to note that norms are an informal process. Social understanding and common group behavior does not equate to formally required and evaluated job requirements, and therefore does not contaminate the nature of discretionary OCBs.

**Unit Climate.** Organizational units are characterized by certain tasks and achievements, as well as imposed stressors and constraints. These are collective experiences, which help to form and reinforce the unit climate. A unit climate can be defined as the shared perceptions of the environment among members (Gonzalez et al., 2002). James et al. (2008) found psychological climate, which is defined as shared psychological meanings within a group, to act as a mediator between organizational factors and affect. In addition, Spell and Arnold (2007) showed that the justice climate of work units explained more variance in reported depression and anxiety symptoms than individual perceptions of justice. Building off of these findings, units with higher levels of hindrance stressors may form a more negative climate, further decreasing the levels of individual OCBs.

**Social Contagion.** Employees' subjective experiences may influence group members, thus affecting the members' attitudes and behaviors (Vijayalakshmi & Bhattacharayya, 2012). The most commonly referenced form is emotional contagion,

which describes how employees have a tendency to mimic others' emotional behavior and expressions. It is relatively automatic to integrate and synchronize with those around us. Emotions spread through groups and can potentially lead to a shared emotional tone (Hatfield, Cacioppo, & Rapson, 1994) composed of new emergent qualities (Vijayalakshmi & Bhattacharayya, 2012). Social contagion has also been linked to spreading concerns about workplace aggression (Wittmer et al., 2013) and burnout (Bliese, 2012). In the present study, shared perceptions may influence and exaggerate positive psychological states through social contagion. If higher levels of hindrance stressors lower positive psychological states in individuals, these instances of lowered efficacy, optimism, and hope may easily spread throughout the unit, further lowering members' psychological states.

In closing, employees' unit membership may affect outcomes through influences of group norms, unit climate, and social contagion. Aggregated variables account for and reveal emergent properties of shared unit perceptions. Thus, it is most appropriate to examine the multilevel effects of individuals and work units. In the present study, higher levels of hindrance stressors aggregated to the unit-level (Level 2) were expected to be associated with individual (Level 1) OCB performance through aggregated unit-level (Level 2) lowered positive psychological states above and beyond individual-level (Level 1) effects.

*Hypothesis 3a:* Increased levels of role ambiguity aggregated to the unit-level (Level 2) will be associated with individual-level (Level 1) decreased supervisor-rated OCBs when controlling for individual-level (Level 1) role ambiguity.

*Hypothesis 3b:* Increased levels of organizational constraints aggregated to the unit-level (Level 2) will be associated with individual-level (Level 1) decreased supervisor-rated OCBs when controlling for individual-level (Level 1) organizational constraints.

*Hypothesis 3c:* Decreased levels of job control aggregated to the unit-level (Level 2) will be associated with individual-level (Level 1) decreased supervisor-rated OCBs when controlling for individual-level (Level 1) job control.

*Hypothesis 4a:* Increased levels of role ambiguity aggregated to the unit-level (Level 2) will be associated with individual-level (Level 1) decreased supervisor-rated OCBs through decreased aggregated unit-level (Level 2) positive psychological states when controlling for individual-level (Level 1) role ambiguity and positive psychological states.

*Hypothesis 4b:* Increased levels of organizational constraints aggregated to the unit-level (Level 2) will be associated with individual-level (Level 1) decreased supervisor-rated OCBs through decreased aggregated unit-level (Level 2) positive psychological states when controlling for individual-level (Level 1) organizational constraints and positive psychological states.

*Hypothesis 4c:* Decreased levels of job control aggregated to the unit-level (Level 2) will be associated with individual-level (Level 1) decreased supervisor-rated OCBs through decreased aggregated unit-level (Level 2) positive psychological states when controlling for individual-level (Level 1) job control and positive psychological states.

## CHAPTER SIX

### SUMMARY OF HYPOTHESES

In order to better understand the effects of individual and unit-level hindrance stressors on OCBs, partially mediated by positive psychological states, the following hypotheses were proposed. Please see the previously described Figure 1 for a complete model of pathways.

*Hypothesis 1a:* Increased levels of role ambiguity will be associated with decreased supervisor-rated OCBs.

*Hypothesis 1b:* Increased levels of organizational constraints will be associated with decreased supervisor-rated OCBs.

*Hypothesis 1c:* Decreased levels of job control will be associated with decreased supervisor-rated OCBs.

*Hypothesis 2a:* Increased levels of role ambiguity will be associated with decreased supervisor-rated OCBs through decreased positive psychological states.

*Hypothesis 2b:* Increased levels of organizational constraints will be associated with decreased supervisor-rated OCBs through decreased positive psychological states.

*Hypothesis 2c:* Decreased levels of job control will be associated with decreased supervisor-rated OCBs through decreased positive psychological states.

*Hypothesis 3a:* Increased levels of role ambiguity aggregated to the unit-level (Level 2) will be associated with individual-level (Level 1) decreased supervisor-rated OCBs when controlling for individual-level (Level 1) role ambiguity.

*Hypothesis 3b:* Increased levels of organizational constraints aggregated to the unit-level (Level 2) will be associated with individual-level (Level 1) decreased supervisor-rated OCBs when controlling for individual-level (Level 1) organizational constraints.

*Hypothesis 3c:* Decreased levels of job control aggregated to the unit-level (Level 2) will be associated with individual-level (Level 1) decreased supervisor-rated OCBs when controlling for individual-level (Level 1) job control.

*Hypothesis 4a:* Increased levels of role ambiguity aggregated to the unit-level (Level 2) will be associated with individual-level (Level 1) decreased supervisor-rated OCBs through decreased aggregated unit-level (Level 2) positive psychological states when controlling for individual-level (Level 1) role ambiguity and positive psychological states.

*Hypothesis 4b:* Increased levels of organizational constraints aggregated to the unit-level (Level 2) will be associated with individual-level (Level 1) decreased supervisor-rated OCBs through decreased aggregated unit-level (Level 2) positive psychological states when controlling for individual-level (Level 1) organizational constraints and positive psychological states.

*Hypothesis 4c:* Decreased levels of job control aggregated to the unit-level (Level 2) will be associated with individual-level (Level 1) decreased supervisor-rated OCBs through decreased aggregated unit-level (Level 2) positive psychological states when controlling for individual-level (Level 1) job control and positive psychological states.

## CHAPTER SEVEN

### METHOD

#### **Participants and Procedure**

The present study used data from a previously conducted study (see Britt et al., 2012 for an overview). Employees from a medium-sized public university ( $N = 238$ ) were recruited across 24 departments to complete a self-report survey. Supervisors within the departments ( $N = 61$ ) also completed ratings of subordinate performance. Participants represented a range of employment positions, including firefighters, librarians, residential staff, and parking service employees. Participants were predominantly male (58.2%), with 38.2% females. Participants mainly identified as Caucasian (80.6%), followed by African American (13.5%), Hispanic (0.6%), and other (0.6%). The age of participants ranged from 20 to 65 years old, with 11.5% between the ages of 20 to 29, 29% aged 30 to 39, 28.5% aged 40-49, 22.2% aged 50-59, and 7.8% aged 60 to 65. Regarding education, most participants had at least some college (36.5%), 13.2% had a Bachelors degree, and 35.5% had an advanced (i.e., masters or doctorate) degree. Surveys were completed during work hours, and within small groups under controlled conditions. Participants first received a brief presentation regarding the purpose of the study, and were assured confidentiality of their responses. Researchers obtained a response rate of 86%.

#### **Measures**

**Organizational citizenship behaviors** were assessed through supervisor ratings on the 24-item Organizational Citizenship Behavior Questionnaire (Podsakoff, Mackenzie, Moorman, & Fetter, 1990). As previously stated, the use of supervisor ratings



helped to limit bias and prevent Type I errors from common method variance (Eatough et al., 2011). The scale items represented the five dimensions of OCB's (altruism, courtesy, sportsmanship, conscientiousness, and civic virtue). Response options ranged from 1 (strongly disagree) to 7 (strongly agree). Sample items include "Attends meetings that are not mandatory, but are considered important" and "Helps others who have heavy workloads." As described above, the five categories that make up OCBs are highly correlated and there is a tendency to engage in all or none of the dimensions (Lepine et al., 2002). Thus, OCBs were examined as a single variable. Past research has reported moderate to high reliability coefficients for each of the dimensions (e.g. conscientiousness ( $\alpha = .82$ ), sportsmanship ( $\alpha = .85$ ), courtesy ( $\alpha = .85$ ), altruism ( $\alpha = .85$ ), civic virtue ( $\alpha = .70$ )) along with an average intercorrelation of .52 between the five dimensions (Diefendorff, Brown, Kamin, & Lord, 2002). The current study obtained an alpha value of .95.

**Role ambiguity** was assessed with the nine-item Job Ambiguity Measure (Breugh & Colihan, 1994). Participants rated items regarding ambiguity of their work method, scheduling, and performance criteria on a scale of 1 (strongly disagree) to 7 (strongly agree). Sample items included, "I know what is the best way (approach) to go about getting my work done," "My job is such that I know when I should be doing a given work activity," and "It is clear to me what is considered acceptable performance by my supervisor." Studies by Breugh and Colihan (1994) show support for the measures construct validity, and report an average reliability coefficient of .91. This measure has

also demonstrated high reliability ( $\alpha = .88$ ) in past research with a sample 284 self-employed participants (Rubino et al., 2009). The current study obtained an alpha of .91.

**Organizational constraints** were assessed with the 11-item Organizational Constraints Scale (OCS; Spector & Jex, 1998). Participants indicated how often they experienced constraints, such as a lack of supplies or faulty equipment, on a scale of 1 (less than once per month or never) to 4 (several times per day). A sample item was “How often do you find it difficult or impossible to do your job because of lack of equipment or supplies?” Spector and Jex (1998) provide evidence for the content validity of the scale, and a reliability coefficient of .85. This measure has also shown high reliability in past research ( $\alpha = .89$ ) with a sample of 144 university employees (Jex et al., 2003), as well as with a sample of 1,234 social workers ( $\alpha = .88$ ) (Coffey, Dugdill, & Tattersall, 2004). The current study obtained an alpha value of .89.

**Job control** was measured with three-items in which participants rated the degree of control they felt they had over their performance on a scale of 1 (strongly disagree) to 5 (strongly agree). A sample item was “I have personal control over my job performance” (Britt, 2003). Past research has reported reliability of .78 (Britt, 2003). All items were recoded to reflect a lack of job control. The current study obtained an alpha value of .75.

**Self-efficacy** was measured using an eight-item modified version of the New General Self Efficacy scale (Chen, Gully, & Eden, 2001), which was adapted to address work situations. Participants indicated their level of agreement with each item on a scale of 1 (strongly disagree) to 5 (strongly agree). Sample items included “I will be able to achieve most of the goals I have set for myself at work” and “Even when things are tough

at work, I can perform quite well.” Studies by Chen and colleagues (2001) have demonstrated the measure’s content and discriminant validity, along with a high range of reliability coefficients ( $\alpha = .85$  to  $.88$ ). The current study obtained an alpha value of  $.83$ .

**Optimism** was assessed using the ten-item Revised Life Orientation Test (Scheier, Carver, & Bridges, 1994), which had also been modified to address work situations. Participants indicated their level of agreement with each item on a scale of 1 (strongly disagree) to 5 (strongly agree). Sample items included “At work, I’m always optimistic about my future” and “In uncertain times, I usually expect the best at work.” Scheier and colleagues (1994) showed convergent validity of the measure, discriminant validity from related constructs (e.g. anxiety and self-esteem), and a reliability coefficient of  $.78$ . This measure has also shown adequate reliability in past studies ( $\alpha = .78$  and  $.79$ ) (Youssef & Luthans, 2007). The current study obtained an alpha value of  $.76$ .

**Hope** was measured using the State Hope Scale (Snyder et al., 1996). Participants rated six items based on how well the statement described them in the moment. The scale ranged from 1 (definitely false) to 8 (definitely true). Sample items included “Right now I see myself as being pretty successful” and “If I should find myself in a jam, I could think of many ways to get out of it.” Snyder et al. (1996) show evidence of construct validity for the measure, discriminant validity from similar constructs (e.g., self-esteem and affect), and high reliability coefficients ( $\alpha = .82$  to  $.95$ ). This measure has also shown high reliability ( $\alpha = .87$  and  $.84$ ) with a sample of 1,032 and 232 employees, respectively, from a wide range of occupations (Youssef & Luthans, 2007). The current study obtained an alpha value of  $.77$ .

## CHAPTER EIGHT

### RESULTS

Data were analyzed using SPSS. Data were screened for outliers through examination of values of heteroscedasticity and normality, as well as scores of Mahalanobis distance. Based on these analyses, one outlier was deleted. The original data consisted of two large groups, in which their averages were heavily weighted. Empirically, this presented the model from estimating, as only two groups were being compared. Theoretically, this also meant the groups were being overrepresented in analyses relative to their representation in the university's population. Thus, data were resampled so that groups presented a more equal distribution of participants. These adjustments resulted in a final sample of 170 participants nested within 24 departments. Group sizes ranged from 1 to 15 participants, and over 70% of the groups had at least 4 participants. Because individual responses were nested within groups (i.e., organizational units), responses were analyzed using hierarchical linear modeling. The individual employees represent the units for the Level 1 analyses. The 24 departments represent the units for the Level 2 analyses.

#### **Descriptive Statistics**

Means, standard deviations, and bivariate correlations between the raw variables (i.e., not adjusted for group membership) are displayed in Table 1. The means for role ambiguity, organizational constraints, and lack of job control were each on the low end of the scale, indicating low amounts of hindrance stressors in the workplace. The means for positive psychological states and for OCBs were each above the midpoint of their scales.

The different hindrance stressors evidenced low correlations with one another. Organizational constraints was related to lack of job control,  $r = .25, p < .01$ , and role ambiguity,  $r = .30, p < .01$ . Role ambiguity and lack of job control were also related,  $r = .39, p < .01$ .

As expected, the variables of self-efficacy, optimism, and hope were significantly correlated. Self-efficacy was positively related to optimism,  $r = .44, p < .01$ , and hope,  $r = .56, p < .01$ . Hope and optimism were also positively related,  $r = .48, p < .01$ . These variables also displayed a higher reliability score when examining all items together than any of the variables did separately. Furthermore, when the variable of positive psychological states was entered as a predictor to OCBs, the hierarchical linear model presented a lower Bayesian Information Criterion index of the full information unrestricted maximum likelihood when compared to a model with self-efficacy, and optimism, and hope predicting OCBs, indicating that positive psychological states was a better fit for the predictive multilevel model. Thus, with the strong theoretical background presented from past research (e.g., Luthans et al., 2007; Avey et al., 2010) and the empirical support gathered, the variables of self-efficacy, optimism, and hope were analyzed a single factor labeled positive psychological states.

Hindrance stressors were negatively correlated with positive psychological states. Organizational constraints presented a low correlation,  $r = -.19, p < .05$ , while lack of job control,  $r = -.44, p < .01$ , and role ambiguity,  $r = -.42, p < .01$  presented moderate correlations. Supervisor-rated OCBs were negatively correlated with role ambiguity,  $r = -$

.22,  $p < .01$ , organizational constraints,  $r = -.23$ ,  $p < .01$ , and lack of job control,  $r = -.34$ ,  $p < .01$ , and were positively correlated with positive psychological states,  $r = .20$ ,  $p < .05$ .

### **Aggregation**

All predictors were examined for evidence of nesting to provide support for aggregation. Intra-class correlation statistics including the ICC1, ICC2, and *rwg* were calculated to indicate the amount of variance at the group level and the group level reliability. The ICC1 shows how much of the variance is explained by unit membership, and whether the data depends on the grouping variable of unit membership. Variables with an ICC1 above .02 should be aggregated in order to examine group level effects (Bliese, 2000). The ICC2 shows between group variance and indicates the reliability of the group means (Bliese, 2000; Klein & Kozlowski, 2000). While there is no specified cut-off for the ICC2, this reliability estimate is treated similarly to equivalent measures, such as Cronbach's alpha, and should be .7 or above to provide evidence to aggregate the variables to the unit-level (Level 2) (Bliese, 2000). The *rwg* displays the degree to which raters are interchangeable on a single target by comparing the observed scores to a random distribution for each group (Bliese, 2000). Here, a value of .7 or above is also desired in order to support aggregation, such that a higher *rwg* indicates the observed scores are closer to the group mean (Klein & Kozlowski, 2000).

Table 2 displays ICC1, ICC2, and *rwg* values for each variable. All predictors displayed variance at the group level. Role ambiguity had an ICC1 of .061, meaning that 6.1% of the variance was at the group level (Level 2). Furthermore, role ambiguity had an ICC2 value of .28 and an *rwg* index of .89. Organizational constraints had an ICC1 of

.397, meaning that 39.7% of the variance was at the group level (Level 2). Organizational constraints also had an ICC2 value of .76 and *rwg* index of .97. Job control had an ICC1 of .287, meaning that 28.7% of the variance was at the group level (Level 2). Job control also had an ICC2 value of .70 and an *rwg* index of .44. Positive psychological states had an ICC1 of .10, meaning that 10.0% of the variance was at the group level (Level 2). Positive psychological states also had an ICC2 value of .75 and an *rwg* index of .99. Although a select few of the reliability values were below the recommended cutoffs, each of the predictors met the criteria for at least two of the three indexes for aggregation, and presented substantial group variance to be considered.

### **Mean Centering**

All predictors were mean-centered. Level 1 individual variables of role ambiguity, organizational constraints, job control, and positive psychological states were grand mean centered so as to assess the prediction of hindrance stressors to OCBs through positive psychological states at the individual-level (Level 1). To examine the deconflated unit-level (Level 2) effects, individual-level (Level 1) predictors were group mean centered when included in analyses, so as to display overall effects for unit-level (Level 2) predictors when appropriately controlling for the Level 1 effects (Hayes, 2013). Furthermore, to examine incremental effects of unit membership, Level 2 unit-level variables of role ambiguity, organizational constraints, job control, and positive psychological states were grand mean centered so as to demonstrate any additional prediction of unit-level (Level 2) effects to OCBs above and beyond the grand mean centered individual (Level 1) results.

## Hypothesis Testing

**Direct Effects.** Direct effects described in Hypotheses 1a-1c and 3a-3c were analyzed with hierarchical linear model through the mixed-model analysis function of SPSS. This was the most appropriate function to use because there is a larger amount of correlated errors for nested data, which, if not controlled for, may lead to an increased Type I error rate (Tabachnick & Fidell, 2007). Hierarchical linear modeling controls for this issue because the analyses account for both within and between group variance by allowing the intercepts and slopes to vary across groups (Atkins, 2005). Results of direct effects are displayed in Tables 3 and 4, and are described below.

Results provided full support for Hypothesis 1. Hindrance stressors at the individual-level (Level 1) were negatively related to OCB performance. Role ambiguity at the individual-level (Level 1) was negatively related to OCBs,  $B = -.20$ ,  $S.E. = .08$ ,  $p < .05$ , supporting Hypothesis 1a. Organizational constraints at the individual-level (Level 1) was negatively related to OCBs,  $B = -.26$ ,  $S.E. = .11$ ,  $p < .05$ , supporting Hypothesis 1b. Lack of job control at the individual-level (Level 1) was associated with lowered OCB performance,  $B = -.41$ ,  $S.E. = .11$ ,  $p < .01$ , supporting Hypothesis 1c. When all significant Level 1 predictors were entered into a model, only decreased job control remained a significant predictor,  $B = -.33$ ,  $S.E. = .12$ ,  $p < .01$ . All models at the individual-level (Level 1) were run with a random intercept only, as the random slopes were not significant in the model, indicating that the slopes were similar across groups and did not significantly vary.

Effect sizes were calculated through examining the reduction in residual variance



in a model with role ambiguity, organizational constraints, and lack of job control included separately in comparison to the null model, representing a bivariate pseudo  $R^2$ . The effect sizes were modest. Role ambiguity displayed an effect size of 1.53%, organizational constraints showed an effect size of .28%, and lack of job control displayed an effect size of 1.28%.

Relationships between hindrance stressors at the unit-level (Level 2) and OCB performance were next examined. Relationships were examined including the group means of hindrance stressors at the individual-level (Level 1) so the individual-level (Level 1) effects were not conflated with their Level 2 components, representing a deconflated multilevel model (Hayes, 2013). In order to examine the relationship between hindrance stressors at the unit-level (Level 2) and OCB performance when controlling for the individual-level (Level 1), the grand mean centered individual-level (Level 1) variables were included so as to examine unit-level (Level 2) effects above and beyond the individual-level (Level 1). Results showed that role ambiguity aggregated to the unit-level (Level 2) was negatively associated with OCBs in the deconflated model,  $B = -.62$ ,  $S.E. = .27$ ,  $p < .05$ . However, this relationship was no longer significant when controlling for the individual-level (Level 1).  $B = -.46$ ,  $S.E. = .28$ ,  $p > .05$ . Results provided partial support for Hypothesis 3a in that role ambiguity aggregated to the unit-level (Level 2) predicted lowered OCB performance overall, but was not a significant predictor above and beyond any individual level effects.

Organizational constraints aggregated to the unit-level (Level 2) were negatively related to OCB performance in the deconflated model,  $B = -.51$ ,  $S.E. = .19$ ,  $p < .05$ .

However, this relationship was no longer significant when controlling for individual-level (Level 1) effects,  $B = -.36$ ,  $S.E. = .23$ ,  $p > .05$ , providing partial support for Hypothesis 3b. Decreased job control aggregated to the unit-level (Level 2) was negatively related to OCBs in the deinflated model,  $B = -.77$ ,  $S.E. = .19$ ,  $p < .01$ , and remained significant when controlling for individual-level (Level 1) effects  $B = -.50$ ,  $S.E. = .23$ ,  $p < .05$ , indicating that lack of job control predicted decreased OCBs above and beyond the individual-level (Level 1). Results fully support Hypothesis 3c. When all significant predictors at Level 2 were included in a model, only decreased job control remained a significant predictor  $B = -.61$ ,  $S.E. = .24$ ,  $p < .05$ . All Level 2 models were run with random individual-level (Level 1) intercepts only since the random slopes were not significant in the model, indicating that the slopes were similar across groups and did not significantly vary.

Effect sizes for significant relationships in the deinflated model were calculated through the decrease in intercept variance in the model when the unit-level (Level 2) predictor of role ambiguity, organizational constraints, or lack of job control was included. Findings showed moderate effect sizes for Level 2 role ambiguity (22.12%) and organizational constraints (29.73%). Lack of job control at the unit-level (Level 2) presented a large effect size of 83.4%. Furthermore, the contextual effect of unit-level (Level 2) lack of job control presented a moderate effect size of 54.20%.

**Mediational Effects.** In order to analyze Hypotheses 2a-2c and 4a-4c examining the mediating effects of positive psychological states, a Monte Carlo simulation was conducted in which the standard errors and coefficients from the mixed model analyses in

SPSS were entered into the simulation and calculated in R to provide a best fit confidence interval through an online website created by Selig and Preacher (2008). This interval represented significance based on the exclusion of zero in the presented range (Preacher & Selig, 2010). The direct effect of each hindrance stressor on OCBs was examined through the *c'* path. The indirect effects of hindrance stressors to positive psychological states was examined through the *a* path, and positive psychological states to OCBs was examined through the *b* path.

To examine Hypotheses 2a-2c regarding the individual-level (Level 1) effects, a 1-1-1 Monte Carlo model was employed, in which all variables were at Level 1. Monte Carlo is the best method of practice because this software accounts for each of the Level 1 units that may vary across the Level 2 units. The indirect effect calculated includes the *a* and *b* path (*a\*b*), as well as any Level 2 covariance between the random effects (Preacher & Selig, 2010; Hayes, 2013). To examine Hypotheses 4a-4c regarding the unit-level effects, a 2-2-1 model was employed, in which each hindrance stressor and positive psychological states were at the unit-level (Level 2), and OCBs were at the individual-level (Level 1). Monte Carlo served as the best method because it helps to account for small sample sizes. Rather than resampling the provided data, or generating new data, the Monte Carlo method generates sample statistics from the distribution (Preacher & Selig, 2012). Results for mediational analyses are displayed in Figures 2 through 10, and are described below.

Results provide support for Hypothesis 2. Positive psychological states at the individual-level (Level 1) mediated the relationship between role ambiguity and OCBs at

the individual-level (Level 1), (95% CI: -0.16, -0.01), supporting Hypothesis 2a. The indirect effect of role ambiguity to OCBs through positive psychological states at the individual-level (Level 1) explained 25.93% of the total effect. Estimates are presented in Figure 2. Positive psychological states at the individual-level (Level 1) also significantly mediated the relationship between organizational constraints and OCBs at the individual-level (Level 1), (95% CI: -0.11, -0.01), supporting Hypothesis 2b. The indirect effect of organizational constraints to OCBs through positive psychological states at the individual-level (Level 1) explained 13.33% of the total effect. Estimates are presented in Figure 3. Lastly, positive psychological states at the individual-level (Level 1) significantly mediated the relationship between decreased job control and OCBs at the individual-level (Level 1), (95% CI: -0.21, -0.01), providing support for Hypothesis 2c. The indirect effect of lack of job control to OCBs through positive psychological states at the individual-level (Level 1) explained 19.61% of the total effect. Estimates are presented in Figure 4. Paired with the significant direct effects of hindrance stressors to OCBs, results show that the negative relationships between role ambiguity, organizational constraints, and lack of job control were partially mediated by lowered positive psychological states.

Effect sizes were calculated by examining the decrease in residual variance in the model with the individual-level (Level 1) predictor of role ambiguity, organizational constraints, or lack of job control (each entered separately) paired with the mediator of positive psychological states in comparison to the null model. Level 1 mediational effects presented small effect sizes. Role ambiguity and positive psychological states presented

an effect size of 1.18%. Organizational constraints and positive psychological states presented an effect size of .48%. Lack of job control and positive psychological states presented an effect size of 1.07%.

Findings also provide full support for Hypothesis 4, in that positive psychological states acted as a significant mediator at the unit-level (Level 2), even when controlling for individual-level (Level 1) effects of role ambiguity, organizational constraints, lack of job control, and positive psychological states. The negative relationship between role ambiguity aggregated to the unit-level (Level 2) and OCBs was mediated by positive psychological states at the unit-level (Level 2), (95% CI: -0.77, -0.11). The indirect effect of role ambiguity to OCBs through positive psychological states at the unit-level (Level 2) explained 40.95% of the total effect. This relationship also remained significant when controlling for individual-level (Level 1) effects of role ambiguity and positive psychological states, (95% CI: -0.71, -0.01), providing full support for Hypothesis 4a. Estimates are presented in Figure 5 and 8.

Positive psychological states aggregated to the unit-level (Level 2) also significantly mediated the negative relationship between organizational constraints at the unit-level (Level 2) and OCBs, (95% CI: -0.33, -0.04). The indirect effect of organizational constraints to OCBs through positive psychological states at the unit-level (Level 2) explained 23.88% of the total effect. This relationship remained significant when controlling for individual-level (Level 1) effects of organizational constraints and positive psychological states, (95% CI: -0.32, -0.01), providing full support for Hypothesis 4b. Estimates are presented in Figure 6 and 9.

Lastly, positive psychological states acted as a significant mediator between lack of job control aggregated to the unit-level (Level 2) and positive psychological states at the unit-level (Level 2), (95% CI: -0.74, -0.11). The indirect effect of lack of job control to OCBs through positive psychological states at the unit-level (Level 2) explained 34.75% of the total effect. This relationship remained significant when controlling for individual-level (Level 1) effects of lack of job control and positive psychological states, (95% CI: -0.68, -0.02), providing full support for Hypothesis 4c. The indirect effect of job control to OCBs through positive psychological states at the unit-level (Level 2) when controlling for individual-level effects (Level 1) explained 39.02% of the total effect. Estimates are presented in Figure 7 and 10.

These findings suggest that the unit-level (Level 2) effects of role ambiguity, organizational constraints, and lack of job control on OCBs are partially mediated by decreased positive psychological states. Findings also suggest that incremental unit-level (Level 2) effects above and beyond individual-level (Level 1) for the relationship between decreased job control and OCBs is partially mediated by positive psychological states. However, incremental unit-level (Level 2) effects above and beyond individual-level (Level 1) effects are fully mediated by positive psychological states for the relationships of role ambiguity and organizational constraints with OCBs.

Effect sizes were calculated through the decrease in intercept variance in the model when the unit-level (Level 2) predictor of role ambiguity, organizational constraints, or lack of job control (each entered separately) paired with the mediator of positive psychological states was included. Role ambiguity and positive psychological

states presented an effect size of 29.83% at the unit-level (Level 2), and a contextual effect of 5.02%. Organizational constraints and positive psychological states at the unit-level (Level 2) presented an effect size of 49.70%, and a contextual effect of 17.14%. Lack of job control and positive psychological states at the unit-level (Level 2) presented an effect size of 78.14%, and a contextual effect of 38.83%.

### **Summary**

Overall, results provided support for the predicted Hypotheses. Hindrance stressors of role ambiguity, organizational constraints, and lack of job control predicted decreased OCBs both at the individual-level (Level 1) and the unit-level (Level 2). However, only decreased job control was a significant direct predictor at the unit-level (Level 2) above and beyond any individual-level (Level 1) effects. Furthermore, positive psychological states partially mediated the relationships of role ambiguity, organizational constraints, and decreased job control at the individual-level (Level 1) to lowered OCBs.

Positive psychological states aggregated to the unit-level (Level 2) also partially mediated the relationships of role ambiguity, organizational constraints, and lack of job control at the unit-level (Level 2) to decreased OCBs. Additionally, positive psychological states aggregated to the unit-level (Level 2) partially mediated the negative relationship between decreased job control at the unit-level (Level 2) and OCB performance when controlling for any individual-level (Level 1) effects. Lastly, positive psychological states aggregated to the unit-level (Level 2) fully mediated the relationships between role ambiguity and organizational constraints at the unit-level (Level 2) to decreased OCBs when controlling for individual-level (Level 1) effects.

## CHAPTER NINE

### DISCUSSION

OCBs are essential to organizational functioning, enhancing organizational effectiveness and profitability (Koys, 2001). Because OCBs are not formally required, it is crucial to examine ways to influence employees' decisions to engage in them. The present study sought to better understand antecedents of OCBs in order to provide additional insight for encouraging such behaviors. Specifically, the present results provide information on the relationships between role ambiguity, organizational constraints, and lack of job control with OCBs, as mediated by positive psychological states at both the individual-level (Level 1) and unit-level (Level 2). Results help to answer important questions regarding the effects of stressors and OCBs, and the mechanism by which these effects may occur.

#### **Summary of Findings**

Overall, results provide support for a negative relationship between hindrance stressors and supervisor-rated OCBs. Hypotheses 1a-1c examined individual-level (Level 1) effects of hindrance stressors on OCBs. Results showed that role ambiguity, organizational constraints, and lack of job control predicted decreased OCBs at the individual-level (Level 1), providing full support for Hypothesis 1. These results are consistent with past research, which document negative associations between hindrance stressors and OCB performance (Bergeron, 2007; Britt et al., 2012; Eatough et al., 2011; Jex et al., 2003; Noblet et al., 2012).



Hypotheses 2a-2c predicted hindrance stressors to decrease OCB performance through decreased positive psychological states. Results showed positive psychological states partially mediated the relationships of role ambiguity, organizational constraints, and decreased job control at the individual-level (Level 1) to lowered OCBs, providing full support for Hypothesis 2. The mediated pathways accounted for 25.93%, 13.33%, and 19.61% of the total effect, respectively; indicating that up to one-fourth of the total effect of hindrance stressors to OCB performance is mediated through positive psychological states. Mediational results are consistent with past research in that there is a cognitive and motivational process that occurs between a stressor and behavior (Le Banc, 2000), and builds upon past studies, which have associated hindrance stressors to related constructs of efficacy, work attitudes, and motivation. (Beauchamp et al., 2001; Luthans, 2002a; Youssef & Luthans, 2007).

Hypotheses 3a-3c examined the unit-level (Level 2) effects of hindrance stressors on OCBs. Role ambiguity, organizational constraints, and lack of job control aggregated to the unit-level (Level 2) showed negative relationships with OCB performance, indicating that group membership in a unit with higher levels of hindrance stressors significantly predicted decreased OCB participation. However, only decreased job control was a significant predictor at the unit-level (Level 2) above and beyond any individual-level (Level 1) effects, providing full support for Hypothesis 3c, but partial support for Hypotheses 3a and 3b. Unit-level (Level 2) results support past research on unit climate, which explains how units often go through collective experiences and form a distinct climate (Gonzalez et al., 2002), and social contagion, citing that employees'

experiences influence attitudes and behaviors of group members (Vijayalakshmi & Bhattacharayya, 2012). Units faced with stressors are likely to discuss their frustration, forming shared perceptions of the environment (Gonzales et al., 2002) and facilitating a more negative unit climate, which may decrease participation in OCBs.

Hypotheses 4a-4c examined the mediated relationship between hindrance stressors, positive psychological states, and OCBs at the unit-level (Level 2). Positive psychological states aggregated to the unit-level (Level 2) partially mediated the relationships of role ambiguity, organizational constraints, and lack of job control at the unit-level (Level 2) to decreased OCBs. Furthermore, positive psychological states aggregated to the unit-level (Level 2) partially mediated the negative relationship between decreased job control at the unit-level (Level 2) and OCB performance when controlling for any individual-level (Level 1) effects. The mediated pathways accounted for 40.95%, 23.88%, 34.75%, and 39.02% of the total effect respectively. These percentages indicate that up to 40% of the total effect of hindrance stressors at the unit-level (Level 2) to OCB performance can be attributed to unit-level (Level 2) positive psychological states. Lastly, positive psychological states aggregated to the unit-level (Level 2) fully mediated the relationships between role ambiguity and organizational constraints at the unit-level (Level 2) to decreased OCBs when controlling for individual-level (Level 1) effects.

Overall, findings suggest that OCB performance is negatively associated with the level of hindrance stressors present at the individual-level (Level 1) and at the unit-level (Level 2). The small effect sizes for the individual-level (Level 1) predictors indicate that

the hindrance stressors and positive psychological states do not explain a substantial amount of variance at the individual-level (Level 1). However, the moderate to large effect sizes for hindrance stressors at the unit-level (Level 2) indicate that hindrance stressors account for considerable variance at the unit-level (Level 2). Furthermore, lack of job control was a consistent, strong predictor in the relationship to OCBs at all levels. Decreased job control presented the largest effect sizes, was the only predictor to remain significant when analyses included all hindrance stressors, and was the only predictor to present direct, incremental effects above individual-level (Level 1) variance to OCBs. This suggests that employees' autonomy and participative decision-making are particularly important in determining OCB performance, and that this relationship is especially affected by group membership. In addition, relationships of role ambiguity and organizational constraints to OCBs was fully mediated by positive psychological states when all predictors were at the unit-level (Level 2) and analyses controlled for individual-level (Level 1 effects), indicating the effect of group membership on perceptions of hindrance stressors and levels of positive psychological states to OCB performance.

### **Implications of Findings**

**Theoretical Implications.** The results help to advance literature on barriers to OCBs through documenting negative effects of role ambiguity, organizational constraints, and lack of job control through lowered positive psychological states of self-efficacy, optimism, and hope. As past research has documented negative effects of stressors with OCBs, this is the first study to demonstrate a mediated effect through

lowered positive psychological states. Results support work by Le Blanc and colleagues (2000), which emphasized that there is a cognitive process between a stressor and behavior, and highlights the mechanism by which employees experiencing hindrance stressors engage in less OCBs. The present findings also answer the call for additional research in a neglected area of OCB literature by contributing significant findings to multilevel OCB research (Nielsen et al., 2009; Organ & Ryan, 1995; Podsakoff et al., 2000).

In addition, although its importance has been stressed by researchers, most studies in the field of Occupational Health have failed to control for individual-level (Level 1) effects through including the grand mean centered variable in the model, missing information on any solely emergent effects as were examined here. The current study offers value in presenting the unit-level (Level 2) influences on hindrance stressors of role ambiguity, organizational constraints, and lack of job control on OCB performance, and highlighting the emergent unit-level (Level 2) influence on the mediated pathway of hindrance stressors and positive psychological states on OCBs. Results emphasize the importance of examining nested data at both the individual-level (Level 1) and unit-level (Level 2) so as to capture potential unique influences at different levels of analysis.

**Practical Implications.** Results suggest that organizations should investigate components of job design and seek to reduce barriers to extra-role performance for individual and work units. Results also indicate that hindrance stressors explained more variance in OCBs at the unit-level (Level 2). Paired with past research, which has shown group interventions to be more successful in reducing stressors than individual-level

approaches (Tucker et al., 2005), this suggests that organizations should focus on decreasing hindrance stressors and increasing positive psychological states at the unit-level.

Interventions should focus on decreasing role ambiguity in the workplace. Managers should provide clear instructions, set expectations, as well as explain how performance will be evaluated and possible consequences of failure (Breugh & Colihan, 1994; Eys & Carron, 2001). Instructions can be provided in written form or through conversations, and there should be continuous pulse checks to ensure that managers are providing guidance and clarity to the employee. Managers should inquire about any issues of role ambiguity, and seek to clear up any vague or confusing components of the employee's role.

Furthermore, organizational constraints should be diminished wherever possible. The first step is to open communication with employees in order to determine which barriers may be present that are affecting extra-role performance. Constraints may be specific to the organization and to the work-unit, so it is important to document what constraints are present before designing an intervention. Managers should then work to provide employees with the appropriate resources to perform their work tasks, and facilitate extra-role performance. Some may be easy fixes, such as fixing a faulty printer, or providing all employees with their own stapler. Other constraints may take more time and effort to overcome, such as redistributing an employee's workload to allow the proper amount of time for preparation for each task (Peters & O'Connor, 1988). It is also

important to routinely have open communication regarding constraints and continuously seek to decrease barriers in the workplace.

In addition, it is especially important to provide work units with autonomy and resources to engage in OCBs. Those with increased control may be more willing and more able to participate in OCBs (Noblet et al., 2012). Organizations should examine their job design to provide employees with autonomy wherever possible. This could be the order in which employees complete their tasks, how they complete their tasks, or even a choice in which tasks they complete. Managers should include employees in decisions that will affect them, giving them a voice and taking their contributions into consideration. Managers should also avoid micro managing, particularly for experienced employees who do not need strong guidance to be successful.

Lastly, managers should work to increase positive psychological states of self-efficacy, optimism, and hope in their department. This may be achieved through altering the employees' environmental and cognitive resources (Stajkovic & Luthans, 1998) in order to set them up for success. Managers should work to provide employees with the appropriate resources and support to perform their job tasks, as well as provide encouragement and positive feedback where applicable. In order to increase optimism, organizations could model the optimism training adopted into the management programs at American Express (Luthans, 2002a), working to train managers to be more optimistic and to encourage their employees to expect positive outcomes from their work. Furthermore, organizations seeking to increase hope should have managers help employees clarify their goals and specify pathways to reach their goals, and encourage a

strong sense of determination towards their goals in order to increase an employee's way power and willpower (Snyder, 2000).

### **Limitations and Directions for Future Research**

Limitations of the present study include the cross-sectional design of the study, the self-report measures of stressors and positive psychological states, the relatively small number of participants and units examined, and failure to control for potentially confounding variables. The cross-sectional design prevents inferences of causality. Future research should consider these relationships in longitudinal designs to examine their predictive value. Second, the data collected is self-report, which could result in response biases; however, there is the added strength of using self-report data from multiple sources (employee ratings of stressors and psychological states and supervisor ratings for OCBs). There is also the benefit of increased accuracy when aggregating individual-level (Level 1) variables to the unit-level (Level 2), which represents the overall consensus of the unit and are less susceptible to individual idiosyncrasies. Additionally, the ratings provided from supervisors may vary based on their opportunity to observe employees' performance in OCBs, and their leniency in ratings of extra-role performance. Future research could explore additional avenues for measurement, such as objective measures, and 360-degree ratings for OCB performance, gathering ratings from each employee, their co-workers, and their supervisor. Furthermore, the current study had a relatively small number of groups. This research should be replicated with a larger sample with an abundant amount of groups in order to increase the generalizability of results.

Lastly, the study did not control for potential confounding variables such as affect, which could have an influence on positive psychological states. However, previous research has shown the variables used in this study to predict above and beyond affect (Kluemper et al., 2009). In addition, future research should continue to examine mediated effects to OCB performance, so as to gain a more holistic understanding of variables that may influence such behavior. Researchers should also place a strong focus on multilevel research. This is particularly important for nested constructs such as work stressors that often affect a unit simultaneously and are commonly discussed with members. It is also especially critical to examine multilevel models in the domain of OCBs, in which employees' direct discretionary behaviors towards benefiting their co-workers, unit, or organization (Nielsen et al., 2009).

## **Conclusions**

In summary, because OCBs are crucial to organizational success, it is important to research, identify, and diminish any barriers. The results of the present study help to advance the understanding of OCBs and their antecedents by explaining the pathways through which hindrances may lower OCB performance. Findings suggest that role ambiguity, organizational constraints, and lack of job control decrease OCB performance, both directly and through decreased positive psychological states, at both the individual-level (Level 1) and unit-level (Level 2). Furthermore, lack of job control aggregated to the unit-level (Level 2) directly predicted decreased OCBs when controlling for individual-level (Level 1) effects, showing a contextual effect of unit-level job control. Hindrance stressors mediated by positive psychological states to OCBs presented



evidence of incremental unit-level (Level 2) variance, explaining pathways at the unit-level (Level 2) above and beyond any individual-level (Level 1) effects. Findings emphasize the importance of examining relationships at the group level, and document contextual group level influences on job control and positive psychological states to OCBs. Results also aid in the development of interventions to diminish barriers and encourage OCB participation by highlighting the hindrance stressors and psychological processes associated with OCBs that organizations should target, and by providing suggestions to help facilitate and increase OCB performance.

## CHAPTER TEN

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CHAPTER ELEVEN

APPENDICES

## Appendix A

### Measure of Role Ambiguity

Please indicate the extent to which you agree with the following statements using the scale provided:

1-----2-----3-----4-----5-----6-----7

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree or Disagree    Somewhat Agree    Agree    Strongly Agree

- \_\_\_1. I am certain how to go about getting my job done (the methods to use).
- \_\_\_2. I know what is the best way (approach) to go about getting my work done.
- \_\_\_3. I know how to get my work done (what procedures to use).
- \_\_\_4. I know when I should be doing a particular aspect (part) of my job.
- \_\_\_5. I am certain about the sequencing of my work activities (when to do what).
- \_\_\_6. My job is such that I know when I should be doing a given work activity.
- \_\_\_7. I know what my supervisor considers satisfactory work performance.
- \_\_\_8. It is clear to me what is considered acceptable performance by my supervisor.
- \_\_\_9. I know what level of performance is considered acceptable by my supervisor.

Appendix B  
Measure of Organizational Constraints

How often do you find it difficult or impossible to do your job because of ... ?	Less than once per month or never	Once or twice per	Once or twice per week	Once or twice per day	Several times per day
1. Poor equipment or supplies.					
2. Organizational rules and procedures.					
3. Other employees.					
4. Your supervisor.					
5. Lack of equipment or supplies.					
6. Inadequate training.					
7. Interruptions by other people.					
8. Lack of necessary information about what to do or how to do it.					
9. Conflicting job demands.					
10. Inadequate help from others.					
11. Incorrect instructions.					

## Appendix C

### Measure of Job Control

Please indicate the extent to which you agree with the following statements using the scale provided:

1-----2-----3-----4-----5  
Strongly Disagree Neither Agree Agree Strongly  
Disagree or Disagree Agree

\_\_\_1. I have personal control over my job performance.

\_\_\_2. Once I am given instructions I am pretty much left alone to do my job.

\_\_\_3. I am allowed to do my job without constant supervision from others.

## Appendix D

### Measure of Self-Efficacy

Please indicate the extent to which you agree with the following statements using the scale provided:

1-----2-----3-----4-----5  
Strongly Disagree      Disagree      Neither Agree      Agree      Strongly  
Disagree                          or Disagree                          Agree                          Agree

- \_\_\_1. I will be able to achieve most of the goals I have set for myself at work.
- \_\_\_2. When facing difficult tasks at work, I am certain that I will accomplish them.
- \_\_\_3. In general, I think that I can obtain outcomes at work that are important to me.
- \_\_\_4. At work, I believe I can succeed at most any endeavor to which I set my mind.
- \_\_\_5. I will be able to successfully overcome many challenges at work.
- \_\_\_6. I am confident that I can perform effectively on many different tasks at work.
- \_\_\_7. Compared to other people at work, I can do most tasks very well.
- \_\_\_8. Even when things are tough at work, I can perform quite well.

## Appendix E

### Measure of Optimism

Please indicate the extent to which you agree with the following statements using the scale provided:

1-----	2-----	3-----	4-----	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		or Disagree		Agree

\_\_\_1. In uncertain times, I usually expect the best at work.

\_\_\_2. It's easy for me to relax at work.

\_\_\_3. If something can go wrong for me at work, it will.

\_\_\_4. At work, I'm always optimistic about my future.

\_\_\_5. I enjoy my friends that are at work a lot.

\_\_\_6. It's important for me to keep busy at work.

\_\_\_7. I hardly ever expect things to go my way at work.

\_\_\_8. At work, I don't get upset too easily.

\_\_\_9. I rarely count on good things happening to me at work.

\_\_\_10. Overall, I expect more good things to happen to me than bad at work.

## Appendix F

### Measure of Hope

Directions: Read each item carefully. Using the scale shown below, please select the number that best describes how you think about yourself right now and put that number in the blank provided. Please take a few moments to focus on yourself and what is going on in your life at this moment. Once you have this "here and now" set, go ahead and answer each item according to the following scale: 1 = Definitely False; 2 = Mostly False; 3 = Somewhat False; 4 = Slightly False; 5 = Slightly True; 6 = Somewhat True; 7 = Mostly True; and 8 = Definitely True.

- \_\_\_\_\_ 1. If I should find myself in a jam, I could think of many ways to get out of it.
- \_\_\_\_\_ 2. At the present time, I am energetically pursuing my goals.
- \_\_\_\_\_ 3. There are lots of ways around any problem that I am facing now.
- \_\_\_\_\_ 4. Right now I see myself as being pretty successful.
- \_\_\_\_\_ 5. I can think of many ways to reach my current goals.
- \_\_\_\_\_ 6. At this time, I am meeting the goals that I have set for myself.

## Appendix G

### Supervisor Measure of Organizational Citizenship Behaviors

Using the scale provided, please indicate the extent to which you agree with the following statements regarding this employee's performance.

1-----2-----3-----4-----5-----6-----7  
 Strongly Disagree Slightly Neither Agree Slightly Agree Strongly  
 Disagree Disagree or Disagree Agree Agree Agree

- \_\_\_ 1. Helps others who have heavy work loads.
- \_\_\_ 2. Is the classic "squeaky wheel" that always needs greasing.
- \_\_\_ 3. Believes in giving an honest day's work for an honest day's pay.
- \_\_\_ 4. Consumes a lot of time complaining about trivial matters.
- \_\_\_ 5. Tries to avoid creating problems for coworkers.
- \_\_\_ 6. Keeps abreast of changes in the organization.
- \_\_\_ 7. Tends to make "mountains out of molehills."
- \_\_\_ 8. Considers the impact of his/her actions on coworkers.
- \_\_\_ 9. Attends meetings that are not mandatory, but are considered important.
- \_\_\_ 10. Is always ready to lend a helping hand to those around him/her.
- \_\_\_ 11. Attends functions that are not required, but help the company image.
- \_\_\_ 12. Reads and keeps up with organization announcements, memos, and so on.
- \_\_\_ 13. Helps others who have been absent.
- \_\_\_ 14. Does not abuse the rights of others.
- \_\_\_ 15. Willingly helps others who have work related problems.
- \_\_\_ 16. Always focuses on what's wrong, rather than the positive side.
- \_\_\_ 17. Takes steps to try to prevent problems with other workers.
- \_\_\_ 18. Attendance at work is above the norm.
- \_\_\_ 19. Always finds fault with what the organization is doing.
- \_\_\_ 20. Is mindful of how his/her behavior affects other people's jobs.
- \_\_\_ 21. Does not take extra breaks.
- \_\_\_ 22. Obeys company rules and regulations even when no one is watching.
- \_\_\_ 23. Helps orient new people even though it is not required.
- \_\_\_ 24. Is one of my most conscientious employees.

How confident are you in these ratings? Please circle your answer using the scale provided:

1-----2-----3-----4-----5  
 Not at all A little Somewhat Very Extremely  
 Confident Confident Confident Confident Confident

How long (in months) have you supervised this employee? \_\_\_\_\_ Months





12. Please check which item most closely describes your current position **in your organization**:

I do NOT supervise subordinates

I supervise subordinates, and I also have a supervisor above me within my department

I supervise subordinates, and I do NOT have a supervisor above me within my department

13. What other department(s) within the Division of Student Affairs do you interact with most frequently as you do your job?

---

14. What other department(s) within the Division of Student Affairs share a similar mission/focus as your department?

---

15. Please use the rest of this page and the back if necessary to describe any additional comments you have about the stressors you experience at work and/or the aspects of your work you find particularly meaningful:

Figure 1. Model of hypothesized pathways for individual- level (Level 1) and unit-level (Level 2) relationships.

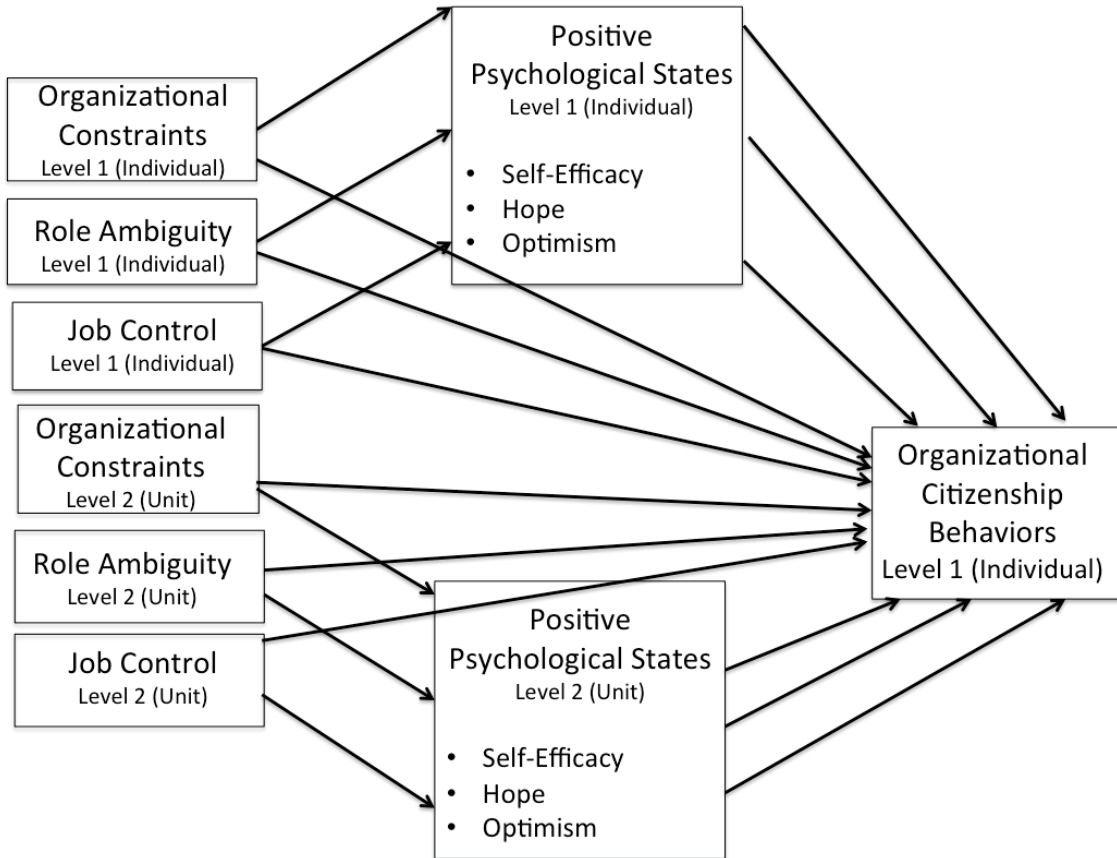
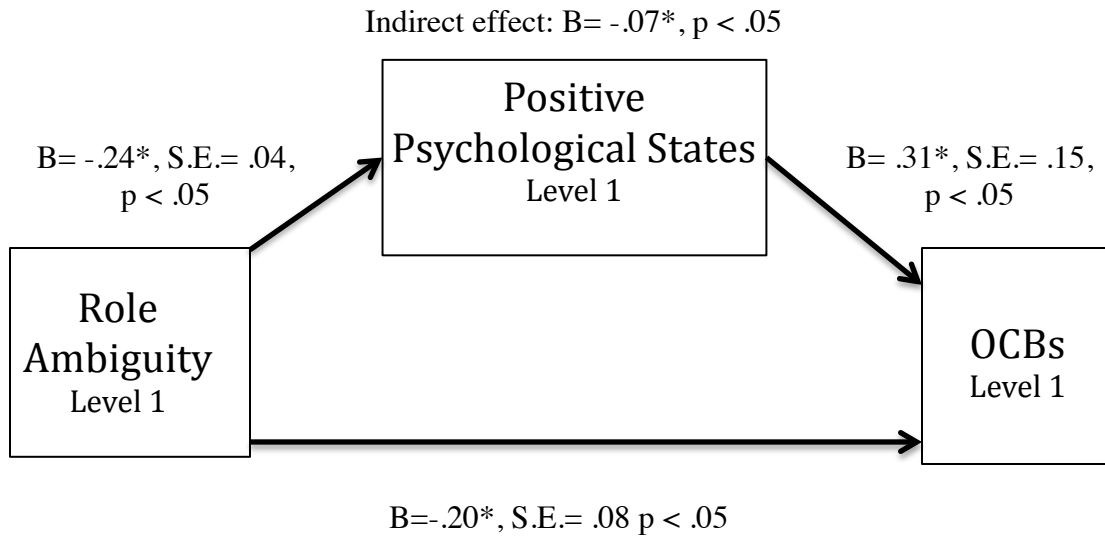
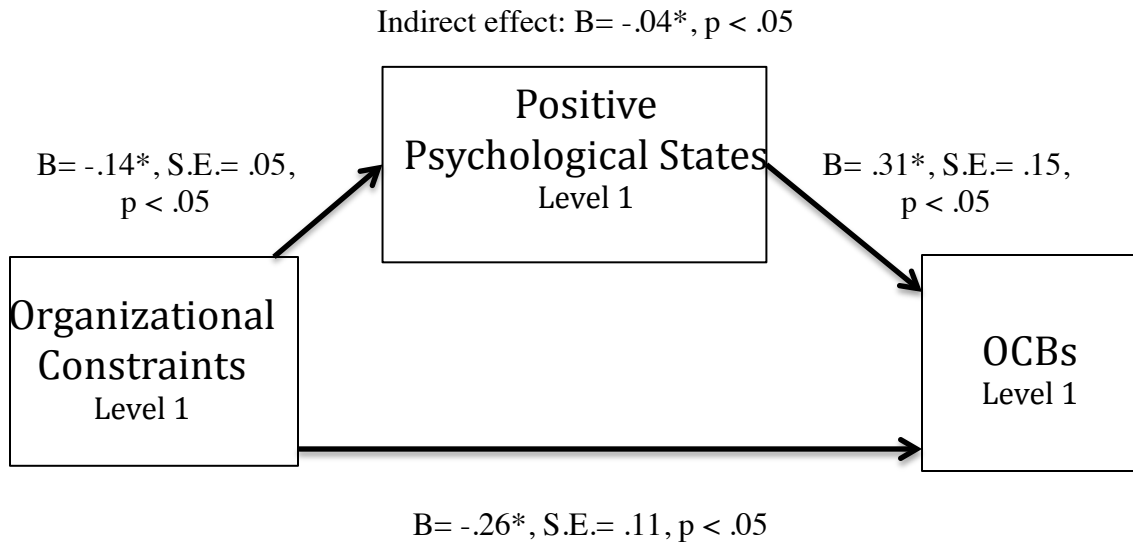


Figure 2. Mediated model of role ambiguity to OCBs through positive psychological states at Level 1.



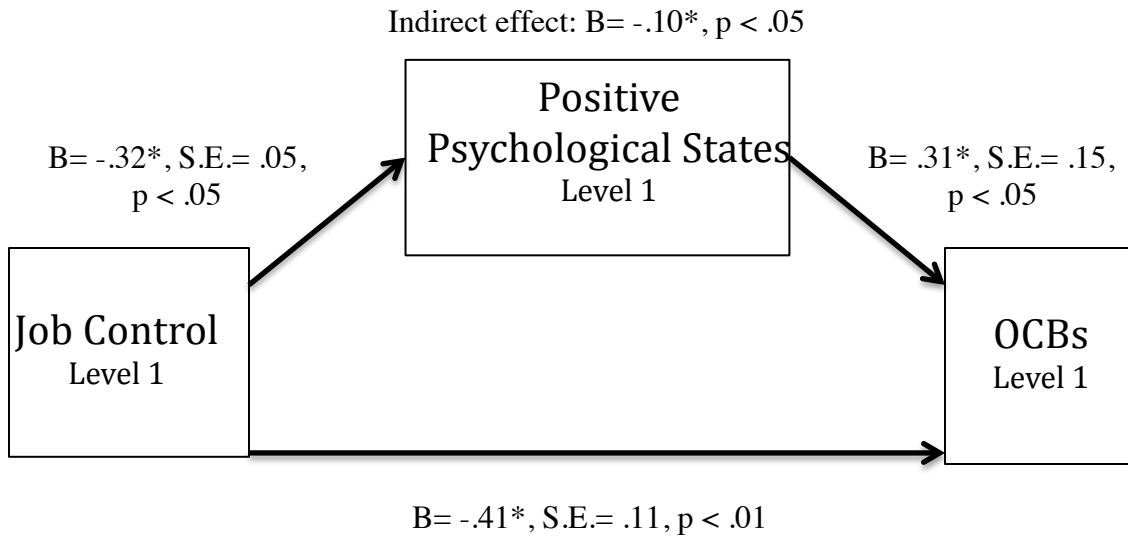
\* $p < .05$ , \*\* $p < .01$

Figure 3. Mediated model of organizational constraints to OCBs through positive psychological states at Level 1.



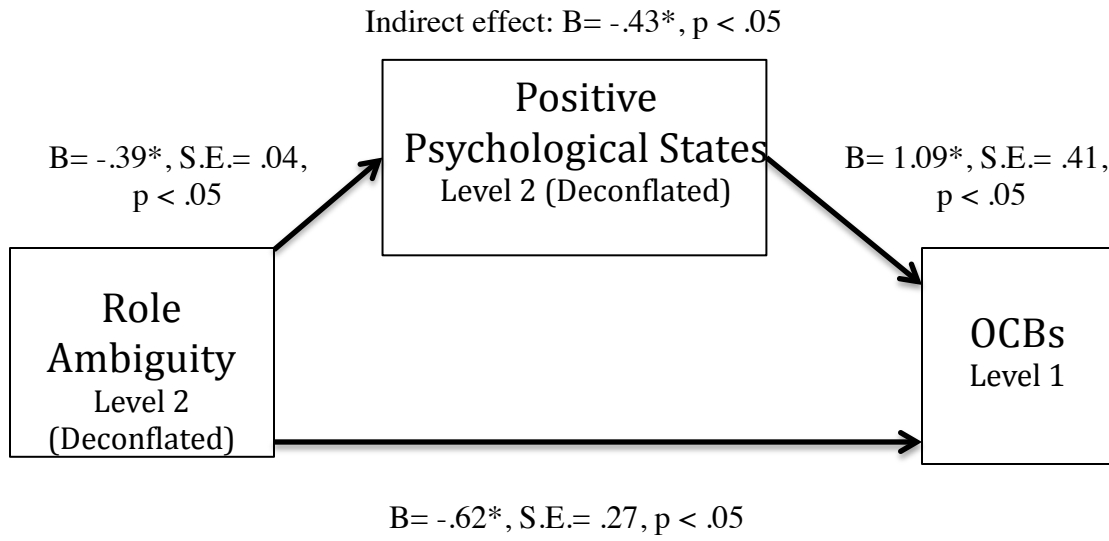
\* $p < .05$ , \*\* $p < .01$

Figure 4. Mediated model of lack of job control to OCBs through positive psychological states at Level 1.



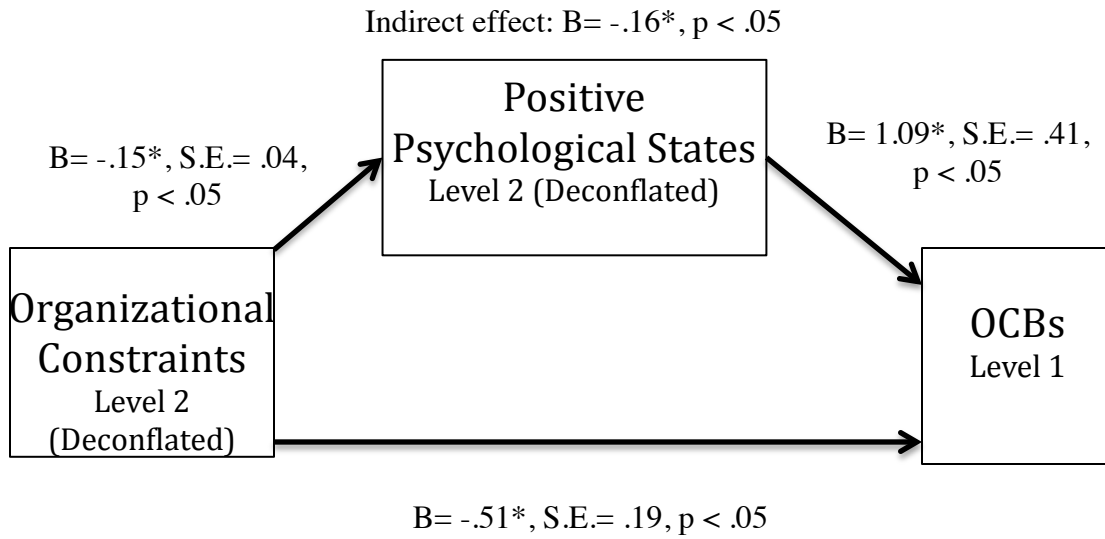
\* $p < .05$ , \*\* $p < .01$

Figure 5. Mediated model of role ambiguity to OCBs through positive psychological states at Level 2 (deconflated).



\* $p < .05$ , \*\* $p < .01$

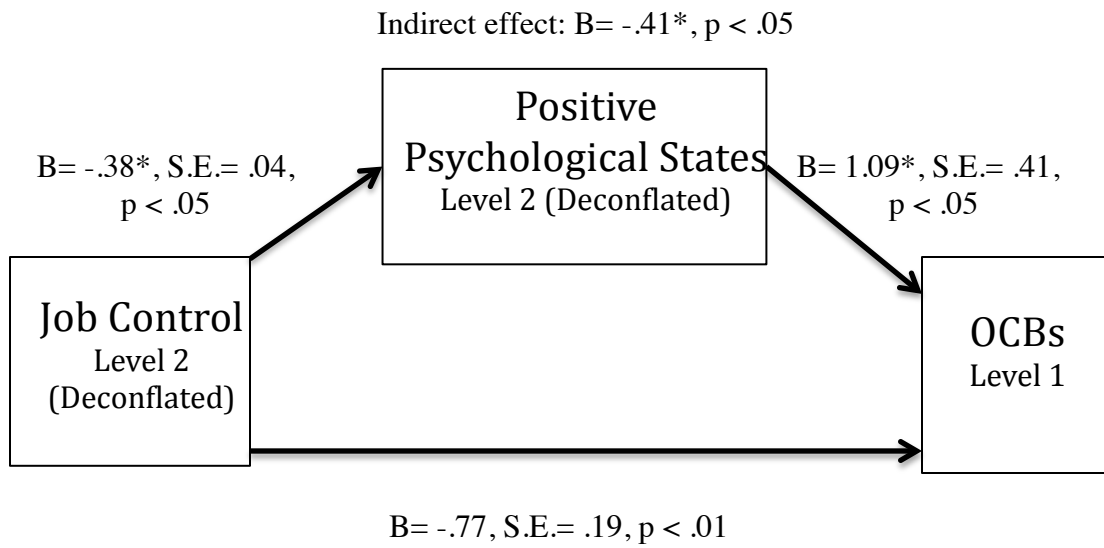
Figure 6. Mediated model of organizational constraints to OCBs through positive psychological states at Level 2 (deconflated).



\* $p < .05$ , \*\* $p < .01$

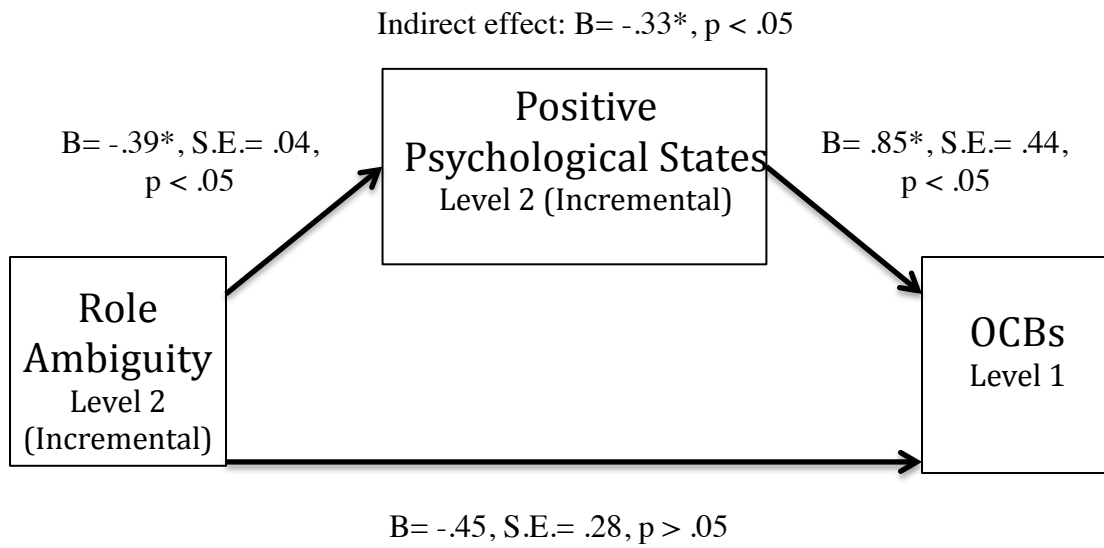


Figure 7. Mediated model of lack of job control to OCBs through positive psychological states at Level 2 (deconflated).



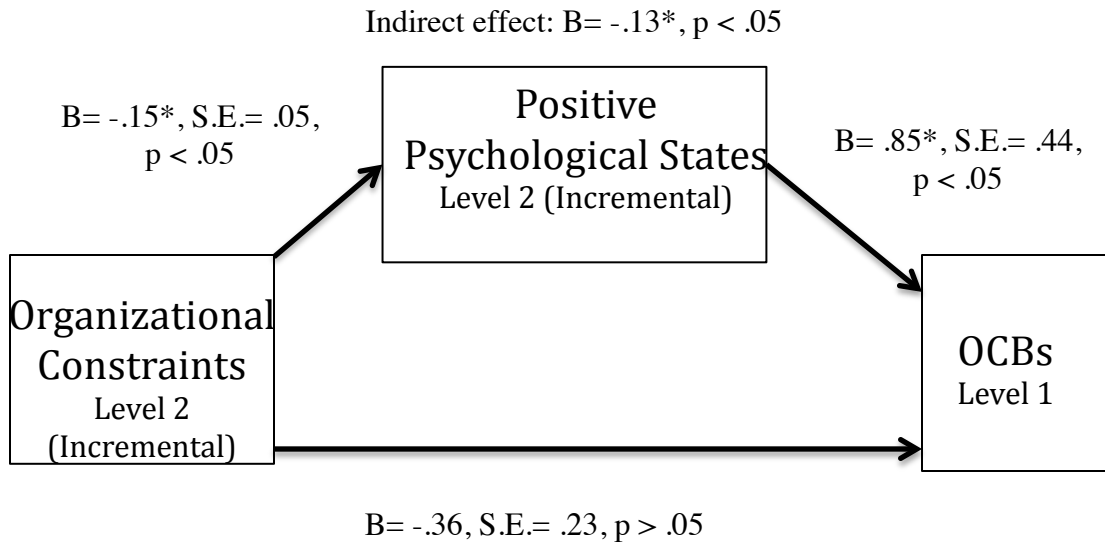
\* $p < .05$ , \*\* $p < .01$

Figure 8. Mediated model of role ambiguity to OCBs through positive psychological states at Level 2 (incremental).



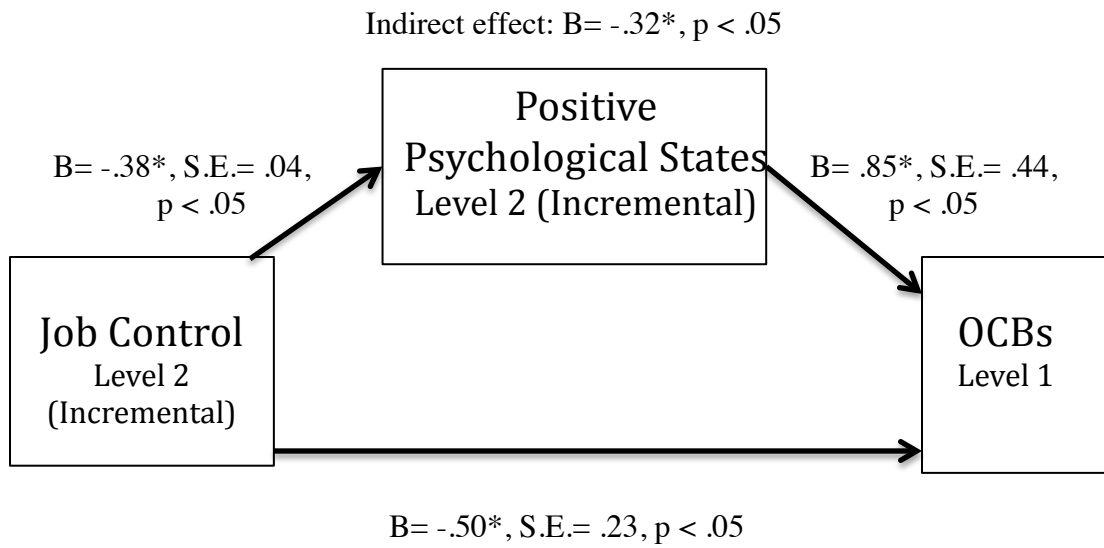
\* $p < .05$ , \*\* $p < .01$

Figure 9. Mediated model of organizational constraints to OCBs through positive psychological states at Level 2 (incremental).



\* $p < .05$ , \*\* $p < .01$

Figure 10. Mediated model of lack of job control to OCBs through positive psychological states at Level 2 (incremental).



\* $p < .05$ , \*\* $p < .01$

Table 1. Raw means, standard deviations, and correlations between hindrance stressors, positive psychological states, and OCBs.

	Mean	SD	1	2	3	4	5	6	7	8
1. Role Ambiguity	2.03	.90	--							
2. Organizational Constraints	1.75	.73	.30**	--						
3. Job Control	1.73	.71	.39**	.25**	--					
4. Positive Psychological States	4.73	.53	-.42**	-.19*	-.44**	--				
5. Self-Efficacy	4.10	.43	-.29**	-.03	-.36**	.75**	--			
6. Optimism	3.68	.50	-.41**	-.37**	-.43**	.73**	.44**	--		
7. Hope	6.43	.98	-.38**	-.12	-.32**	.92*	.56**	.48**	--	--
8. Supervisor-Rated OCBs	5.56	.97	.22**	-.23**	-.34**	.20*	.15	.26**	.10*	--

\*p < .05. \*\*p < .01.

Table 2. ICC1, ICC2, and *rwg* for hindrance stressors and positive psychological states.

Predictors	<i>ICC1</i>	<i>ICC2</i>	<i>rwg</i>
Role Ambiguity	.061	.28	.88
Organizational Constraints	.397	.76	.97
Job Control	.287	.70	.44
Positive Psychological States	.101	.75	.99

Table 3. Direct effects of hindrance stressors on OCBs with independent predictors.

	<i>B</i>	<i>SE</i>	<i>P</i>	Pseudo <i>R</i> <sup>2</sup>
<i>Level 1</i>				
Role Ambiguity	-.20*	.08	.02	.02
Organizational Constraints	-.26*	.11	.02	.003
Job Control	-.41**	.11	< .001	.01
<i>Level 2 Deconflated</i>				
Role Ambiguity	-.62*	.27	.03	.22
Organizational Constraints	-.51*	.19	.01	.30
Job Control	-.77**	.19	< .001	.83
<i>Level 2 Incremental</i>				
Role Ambiguity	-.46	.28	.11	--
Organizational Constraints	-.36	.23	.13	--
Job Control	-.50*	.23	.03	.54

\**p* < .05, \*\* *p* < .01

Table 4. Direct effects of hindrance stressors on OCBs with all significant predictors.

	<i>B</i>	<i>SE</i>	<i>P</i>	Unique Pseudo $R^2$
<i>Level 1</i>				
Role Ambiguity	-.08	.09	.37	--
Organizational Constraints	-.17	.11	.11	--
Job Control	-.33**	.12	< .001	.008
<i>Level 2 Deconflated</i>				
Role Ambiguity	-.07	.28	.81	--
Organizational Constraints	-.22	.21	.30	--
Job Control	-.61*	.24	.02	.40

\* $p < .05$ , \*\*  $p < .01$