

GOOD PEOPLE: HOW COWORKER COMPETENCE AND SUPPORT INFLUENCE
ENGAGEMENT AND CONTEXTUAL PERFORMANCE

A Dissertation

Presented to

The Faculty of the Department of Psychology

University of Houston

In Partial Fulfillment

Of the Requirements for the Degree of

Doctor of Philosophy

By

Allison M. Tringale

August 2018

GOOD PEOPLE: HOW COWORKER COMPETENCE AND SUPPORT INFLUENCE
ENGAGEMENT AND CONTEXTUAL PERFORMANCE

Allison M. Tringale

APPROVED:

L. A. Witt, Ph.D.
Committee Chair

Leanne Atwater, Ph.D.

James Champion, Ph.D.

Dejun Tony Kong, Ph.D.

Antonio D. Tillis, Ph.D.
Dean, College of Liberal Arts and Social Sciences
Department of Hispanic Studies

GOOD PEOPLE: HOW COWORKER COMPETENCE AND SUPPORT INFLUENCE
ENGAGEMENT AND CONTEXTUAL PERFORMANCE

An Abstract of a Dissertation

Presented to

The Faculty of the Department of Psychology

University of Houston

In Partial Fulfillment

Of the Requirements for the Degree of

Doctor of Philosophy

By

Allison M. Tringale

August 2018

ABSTRACT

Organizational structures are flattening; as a consequence, relationships with coworkers are becoming increasingly influential in the workplace (Cascio, 2003; Nijssen & Pauwe, 2012). Based on the Stereotype Content Model (Fiske, Cuddy, Glick, & Xu, 2002), I argue that two perceptions of coworkers, *competence* and *warmth* (*i.e.*, *support*), relate to employee engagement and subsequent performance. Applying the Job Demands-Resources Model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), I hypothesized that perceptions of coworker competence and support, two job resources, predict employee emotional and social engagement. These claims were partially supported. Using a longitudinal structural equation model, I found that coworker support predicted both social and emotional engagement, while coworker competence significantly predicted social engagement. I also found that emotional and social engagement yield organizational citizenship behaviors. Accordingly, I hypothesized that emotional and social engagement fully mediate the relationships of coworker competence and support with organizational citizenship behaviors. Coworker support indirectly resulted in organizational citizenship behaviors through both emotional and social engagement. However, coworker competence only produced organizational citizenship behaviors via social engagement. The current study also introduces a new scale for measuring coworker competence, an important, yet largely ignored concept in organizational literature.

Keywords: coworkers, competence, support, engagement, OCB

TABLE OF CONTENTS

Chapter I

Introduction.....	1
Coworkers.....	3
Warmth and Competence.....	7
Coworker Support.....	11
Coworker Competence.....	12
Job Demands-Resource Theory.....	16
Competence and Support as a Resource.....	18
Job Engagement.....	21
Emotional Engagement.....	23
Social Engagement.....	24
Organizational Citizenship Behaviors.....	28
Organizationally Directed OCB.....	29
Engagement as a Mediator.....	32

Chapter II

Method.....	35
Participants and Procedure.....	35
Measures.....	35

Chapter III	
Results.....	38
Chapter IV	
Discussion.....	43
Limitations.....	46
Future Directions.....	48
Theoretical Implications.....	50
Practical Implications.....	51
Conclusion	54
References.....	55
Tables.....	73
Figures.....	78
Appendices.....	80

CHAPTER I

Introduction

The people you work with are, when you get down to it, your very best friends.

–Michael Scott, *The Office*

Humans are social beings (Aristotle, trans. 1998). This thinking extends to the workplace, such that individuals within an organization seek to interact with each other. The modern workplace is becoming more socially involved (Grant & Parker, 2009), and the bonds and relationships individuals form with their coworkers may have a large influence on their behavior and psyche. We see this play out in our own lives and in popular culture. There are critically acclaimed television sitcoms, such as *The Office* and *Parks and Recreation*, dedicated to exploring individuals at work and coworker relationships.

A 2013 employee engagement survey conducted by TinyPULSE polled over 40,000 employees in more than 300 global organizations and found that coworkers contributed more to employee happiness than the direct supervisor. This is not surprising when one considers how the traditional organization hierarchy is becoming increasingly flat (Cascio, 2003; Nijssen & Pauwe, 2012). As opposed to reporting to only one direct supervisor, a number of workgroups are now organized strictly by matrices or collaborative teams without one clear authority figure. This may heighten the role coworkers or peers play in an individual employee's daily work experience.

There is a large body of research dedicated to the relationships individuals have with their organization (e.g., Eisenberger, Huntington, Hutchison, & Sowa, 1986) and their leaders (e.g., Graen & Uhl-Bien, 1995; Gerstner & Day, 1997; Lord, Day, Zaccaro, Avolio, & Eagly, 2017). Research in social psychology has highlighted the benefits and outcomes of

social relationships (e.g., Cohen, 2004; House, Landis, & Umberson, 1988). Furthermore, researchers increasingly recognize the importance of social networks (e.g., Sparrowe, Liden, Wayne, & Kraimer, 2001), and the influence of social exchange on organizationally relevant outcomes, such as justice perceptions (e.g., Cropanzano & Mitchell, 2005). Yet, despite the fact that most individuals interact with their coworkers on a daily basis, and these connections are vital to organizational functioning (Dutton & Heaphy, 2003), organizational scholars have largely neglected coworker relationships (Basford & Offerman, 2012).

Because coworkers are integrated into the daily activities of most employees, one would assume that the relationship between individuals and their coworkers would be widely studied. From the “least preferred coworker” scale of leadership (Fielder, 1971) to more recent research on Coworker Exchange Theory (CWX; Sherony & Green, 2002) and peer ratings (Fox, Spector, Goh, & Bruursema, 2007), researchers briefly allude to the importance of coworkers in the organization. However, relative to our knowledge of the influence of the organization or leadership, research on coworkers remains under-developed. With the present study, I seek to add to the growing literature on the importance of coworkers for individual and organizational outcomes.

I introduce the concept of *coworker competence* as a key contributing factor for how employees perceive their coworkers, which prompts subsequent individual and organizational outcomes. Individual behaviors and beliefs may also be driven by employee assessments of *coworker warmth/supportiveness*. This is based on the understanding that individuals have a fundamental desire to judge others based on warmth and competence (Cuddy, Glick, & Beninger, 2011). Furthermore, I reason that positive perceptions of these two assessments serve as a resource to employees, promoting both their emotional and social

engagement at work. This notion is consistent with the Job Demands-Resources Model of Burnout (J D-R model; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). These positive perceptions of coworkers should also indirectly enhance contextual performance via enhanced work engagement.

I test a model examining how two distinct qualities of coworkers, support and competence, influence an individual's social and emotional engagement at work. Furthermore, I analyze the idea that these coworker-related experiences influence performance outcomes through engagement. Specifically, I test a complete structural equation model where coworker competence and support influence both emotional and social engagement, which drive contextual performance outcomes. In so doing, I highlight two novel concepts—coworker competence and social engagement.

This study may make a theoretical contribution to the current literature by addressing Chiaburu and Harrison's (2008) call for a deeper look into how coworkers influence organizational outcomes. Specifically, the introduction of the coworker competence scale may be increasingly valuable for research and practice. This study may add to the growing body of literature which empirically tests the J D-R model, while also taking a more detailed look at the resources aspect of this model. Furthermore, I anticipate adding to the literature on engagement by introducing social engagement as another important facet of work engagement, which is not currently addressed.

Why are Coworkers Important?

Humans are social creatures. Multiple fields, including both social psychology and neurobiology, have studied this claim and attribute it to our success as a species (Frith & Frith, 2010). While social behavior is not limited specifically to humans (Young, 2008), we

as a species generally assume that we are among the most social living beings (Frith & Frith, 2010). Entire theories are dedicated to the idea that humans develop an identity predominantly based on their group or social belonging (i.e., Social Identity Theory; Ashforth & Mael, 1989; Tajfel & Turner, 1979). Because humans are inherently social, we may be hard-wired to develop relationships with those whom we frequently interact with at work. Therefore, people may be predisposed to develop social relationships with their coworkers. Yet, coworker interactions do not happen in a vacuum; the relationships, experiences, and subsequent perceptions an individual forms regarding their coworkers may shape a number of personally and organizationally relevant phenomenon.

In his seminal 1987 article, Schneider claimed, “the people make the place,” emphasizing the importance of social relationships in the organization. Chiaburu and Harrison (2008) took this notion one step further with their article which posited whether “peers make the place?” Coworkers may be incrementally more important to individuals than the relationships they have with others in the organization (e.g., their leader, customers, etc.; Chiaburu & Harrison, 2008). Because coworkers are just as important, or maybe even more important, than other workplace social relationships (Chiaburu & Harrison, 2008), a greater understanding of how coworkers may help or hinder individuals in the workplace is likely to be of utility.

Most people would likely agree that coworkers are essential to an individual’s happiness and well-being at work. When asked what makes a job good or bad, both men and women ranked coworkers fairly high (Jurgensen, 1978). Furthermore, some even propose that the emotional toil that results from leaving a job with great coworkers is similar to

breaking up with a romantic partner (e.g., Huhulea, 2016). Thus, it's no surprise that coworkers can influence a number of organizationally-relevant outcomes.

Our relationships with coworkers are complex (Byington, 2013; Hodson, 2008). Favorable relationships can produce a number of positive influences on individual health and stress. For example, coworker social support is related to fewer psychological stressors and strains, such as depression and frustration (Beehr, Jex, Stacy, & Murray, 2000; Karasek, Triantis, & Chaudhry, 1982; Viswesvaran, Sanchez, & Fisher, 1999), decreased withdrawal (Chiaburu & Harrison, 2008), and reduced job demands (Halbesleben, 2006). Yet, bad social relationships may also be telling (Labianca & Brass, 2006). Bad coworkers may be detrimental and result in negative emotions (Felps, Mitchell, & Byington, 2006), increased withdrawal (Chiaburu & Harrison, 2008), and somatic complaints, such as headaches (Duffy, Ganster, & Pagon, 2002).

Coworkers can also prompt a number of individual job attitudes and behaviors. For example, bad coworkers may yield increased perceptions of inequity and damaged trust (Felps et al., 2006), decreased job satisfaction and commitment (Chiaburu & Harrison, 2008), and increased counterproductive work behaviors (Chiaburu & Harrison, 2008; Duffy et al., 2002). Additionally, the unfavorable actions of one's coworkers may prompt internalized turnover intentions (Felps, Mitchell, Herman, Lee, Holtom, & Harman, 2009; Krausz, Yaakovovitz, Bizman, & Caspi, 1999). Still, positive coworker behaviors, such as trust and mentoring, may reduce turnover and promote feelings of perceived organizational support, along with increasing affective commitment, and job satisfaction (e.g., Ferrer, Connell, & Travaglione, 2004; Raabe & Beehr, 2003).

A body of work supports the notion that coworkers can influence an individual's performance behaviors. Social loafing theory states that individuals are more likely to loaf, or disengage from their work, when they expect their coworkers to perform at a high level (Karau & William, 1993). Conversely, the social compensation hypothesis posits that individuals work harder when they expect their peers to perform poorly on a meaningful task (Williams & Karau, 1991). In their meta-analysis, Chiaburu and Harrison (2008) empirically establish that coworker support promotes performance, and coworker antagonism reduces performance. Additionally, coworker behaviors can prompt organizational citizenship behaviors (OCB; Bommer, Miles, & Grover, 2003; Chiaburu & Harrison, 2008), a type of performance consisting of activities one does to help out the organizational or individuals within it. Thus, it is important to consider how coworkers may influence individual performance.

As previously alluded to, several widely studied theories also support the claim that the people, or coworkers, "make the place" (Chiaburu & Harrison, 2008; Schneider, 1987). For example, attraction-selection-attrition theory states that individuals are attracted to certain work groups based on the characteristics of those within it, and subsequently seek to join groups where they feel they belong, and leave those in which they do not (Schneider, 1987). This supports the notion that the people you work with, such as coworkers, are integral to your success at work. Likewise, theories of organizational fit also support the claim that coworkers are essential to the success of an individual within an organization. Kristof-Brown, Zimmerman, and Johnson (2005) conducted a meta-analysis to examine how employee fit influences individual outcomes. They found that person-group fit (i.e., one's similarity to their coworkers), significantly predicted job satisfaction, performance, and

intentions to quit (Kristof-Brown et al., 2005). Additionally, Louis, Posner, and Powell (1983) found that compared to other organizational socialization practices, peer interactions have the most profound influence on newcomer assimilation and effectiveness. Positive peer socialization processes can also influence organizational commitment, tenure, and satisfaction (Louis et al., 1983).

Whereas researchers have focused heavily on an individual's relationship with their leaders or followers (i.e., Leader-Member Exchange, Gerstner & Day, 1997, Graen & Uhl-Bien, 1995; abusive supervision, Tepper, 2007, etc.), there is still more to learn about the relationships individuals have with their coworkers. While research on the relationships between leaders and followers is important, the relationships between coworkers seem to be just as important, if not more important, to a number of organizational outcomes (Chiaburu & Harrison, 2008). I suggest that research needs to take a closer look at how coworkers influence individual attitudes and behaviors.

Judgment Dimensions: Warmth and Competence

Humans are inherently primed to judge one another and consequentially make decisions based on these judgments. Social psychologists concluded that there are two universal underlying dimensions that define social judgments: *warmth* and *competence* (Cuddy, Glick, & Beninger, 2011; Fiske, Cuddy, & Glick, 2007; Judd, James-Hawkins, Yzerbyt, & Kashima, 2005). Introduced as the *Stereotype Content Model (SCM)*, Fiske, Cuddy, Glick, and Xu (2002) explained why some stereotyped groups are seen more or less favorably than others. However, research assessing human judgment based on warmth and competence began long before Fiske and colleagues introduced the SCM (e.g., Asch, 1946; Rosenberg, Nelson, & Vivekananthan, 1968). From an evolution standpoint, generalized

assessments of warmth and competence originally derived from a need to quickly determine who was friend or foe (Cuddy et al., 2011; Fiske et al., 2002, 2007). For survival purposes, individuals would traditionally assess another person's warmth to determine whether they were trustworthy or benevolent. Furthermore, they would assess the other's competence to determine whether they were truly capable of completing a given action (Cuddy et al., 2011; Fiske et al., 2007). They would then use these brisk judgments to determine how to react to an individual.

High levels of both warmth and competence elicit favorable outcomes (Cuddy, Fiske, & Glick, 2007). Subsequently, a lack of these two characteristics is generally unfavorable (Fiske et al., 2007). Individuals may engage in helping behaviors towards those they see as high in warmth or competence; in contrast, they may look to harm (whether directly or indirectly) those who they see as low in the two dimensions (Cuddy et al., 2007; 2008). Therefore, it is generally assumed that being high in both warmth and competence is ideal (Cuddy et al., 2007; Fiske et al., 2002). Despite this, some research suggests that these perceptions are often inversely related (e.g., due to social stereotypes, women are seen as high in warmth, but low in competence; Cuddy, 2009; Fiske et al., 2002).

Compared to our ancestors, survival-driven assessments of warmth and competence are likely less frequent in today's society. Yet, assessments of warmth and competence, and subsequent behaviors prompted by these appraisals still occur (Cuddy et al., 2011; Fiske et al., 2002, 2007). Research in this area predominantly focuses on how individual perceptions of warmth and competence influence stereotypes and organizational diversity (i.e., King & Ahmad, 2010; Lin, Kwan, Cheung, & Fiske, 2005; Rosette, & Tost, 2010; van Dijk, Meyer, van Engen, & Loyd, 2017). For example, hiring managers may hold unfounded stereotypes

towards certain minority group applicants based on their perceptions of their warmth (King & Ahmad, 2010).

While perceptions of warmth and competence are fundamental to human judgments (Fiske et al., 2002), these perceptions are not strictly limited to social judgments or stereotypes. Individuals habitually personify organizations (Levinson, 1965), so it is not surprising that individuals may also assign human judgments to organizational entities. Organizations are also judged based on their warmth and competence (Aaker, Garbinsky, & Vohs, 2012; Aaker, Vohs, & Mogilner, 2010). For example, individuals assign judgments of warmth to non-profit organizations, while perceiving for-profit organization as competent (Aaker et al., 2010). These perceptions are implicit in the attributions we make regarding a variety of entities, not solely individuals.

While outside of the scope of the present study, it is important to note that perceptions of others based on warmth and competence are often flawed due to pre-existing stereotypes and prejudices (Fiske et al., 2002). It would be unfavorable to assume that all women are high in warmth, yet incompetent, as it is not an accurate assumption and may lead to unfavorable consequences (Cuddy, 2009). Therefore, it is wise to avoid drawing conclusions regarding an individual's warmth or competence based on stereotypes or implicit biases, as they are not necessarily factual or accurate. Or in fewer words, "just because I'm nice, don't assume I'm dumb" (Cuddy, 2009, p. 24).

For example, a hiring manager may assume (founded in stereotypes) that women are great for business support functions, based on their warmth, yet unfit for leadership based on negative stereotypes of incompetence. This may ultimately hurt the productivity and well-being of both the organization and the individuals within it. By missing out on potentially

exceptional female leaders due to pre-existing and likely unfounded stereotypes, organizations and employees may not be able to perform to their fullest potential. Therefore, efforts by organizations and researchers to take a deeper look at how judgments regarding warmth and competence influence organizationally-relevant outcomes are likely to be of merit.

As previously stated, this theoretical framework is generally used to assess judgments and behaviors prompted by stereotypes. However, I apply this theory more broadly to how individuals assess their *coworkers'* warmth and competence. To my knowledge, only one other study examined similar issues. In her unpublished dissertation, Byington (2013) proposed that coworker relationships be assessed through dimensions of warmth and competence. However, Byington (2013) assessed coworker competence through an objective rating of an individual's GPA and did not examine the outcomes of these perceptions, such as engagement and contextual performance. Therefore, there is more work to be done in this domain.

The current study builds on the propositions of Byington (2013) by introducing a measure for assessing coworker competence and applying it to a model of employee stress and performance outcomes. This reconceptualization is necessary because even some broad pre-existing competence scales are incomplete (e.g., Van de Broeck, Vansteenkiste, De Witte, Soenens, & Lens, 2010). The construction and validation of a subjective scale of coworker competence is important because an individual's assessment of competence may vary based on a variety of contextual factors; simply using GPA as a proxy for competence (as Byington (2013) did) may neglect a number of the subtle differences that define social relationships and cognitive judgments of one's peers. Thus, I examine the overall

assessments that individuals draw regarding the warmth and competence of their coworkers using two subjective scales of coworker support and competence. I focus on the said two perceptions of coworkers because these discernments appear to closely reflect dimensions of human judgment, based on the Stereotype Content Model.

Coworker Support (Warmth)

As previously mentioned, humans are likely to assess others based on two universal dimensions, warmth and competence (Fiske et al., 2002, 2007). In general, high perceptions of warmth yield more favorable outcomes than low warmth judgments (Cuddy et al., 2007). People may even go out of their way to actively help individuals that they perceive to be high in warmth (Fiske et al., 2007). Hence, high perceptions of coworker warmth generally result in positive outcomes. This might not only be true in everyday life, but also applied to an organizational context.

Warmth perceptions are characterized by beliefs that the individual is caring, helpful, or friendly (Fiske et al., 2007). Individuals who see their coworkers as being very helpful or caring are likely to also see them as being high in warmth. I define coworker support as the extent to which an individual sees their coworkers as agentic or helpful. Therefore, coworker support and coworker warmth could be used synonymously. An individual who is seen as supportive is also seen as warm. For this study, I use *coworker support* to conceptualize perceptions of coworker warmth.

Overall, research suggests that coworker support generally yields favorable outcomes. Coworker support is related to a number of important organizational outcomes, such as job satisfaction (Baruch-Feldman, Brondolo, Ben-Dayana, & Schwartz, 2002; Chiaburu & Harrison, 2008; Ducharme & Martin, 2000; La Rocco & Jones, 1978), trust (Halbesleben &

Wheeler, 2015), decreased stressors (Karasek et al., 1982; Viswesvaran et al., 1999), reduced withdrawal (Chiaburu & Harrison, 2008), increased safety behaviors (Tucker, Chimeiel, Turner, Hershcovis, & Stride, 2008), and greater commitment to customers (Susskind, Kacmar, & Borchgrevink, 2007). Organizations that foster perceptions of coworker support likely boost a number of favorable outcomes. Yet, it is not enough to just be high in warmth (Cuddy et al., 2007). The benefits of increased warmth perceptions are optimized by also enhancing perceptions of competence (Cuddy et al., 2007).

Coworker Competence

Introduced by White (1959) as a motivational factor, competence is vital to performance. Judgments of competence reflect perceptions of an individual's ability to successfully complete their desired behaviors (Cuddy et al., 2011). For example, an individual may be seen as a foe based on perceptions of their warmth. However, if this individual is thought to be incompetent one may not actually perceive them to be a threat, as he/she is likely unable to actually carry-out any potentially thwarting actions.

Perceptions of competence are generally viewed favorably. In organizational settings, employee cognitive ability, or cognitive competence, is generally one of the best predictors of overall job performance (Schmidt, 2002; Schmidt & Hunter, 1998). Additionally, organizational competence, or beliefs about the organization's capabilities, is related to organizational performance (Reimann, 1982) and affective commitment (Kim, Eisenberger, & Baik, 2016). Moreover, research has linked leader competence to higher group morale (Hamblin, Miller, & Wiggins, 1961) and competence need satisfaction to increased OCB (Ho & Kong, 2015).

Cuddy and colleagues (2007) introduced the *Behaviors from Intergroup Affect and Stereotypes* (BIAS) map as a way to explain how general human perceptions of warmth and competence prompt specific targeted behaviors which individuals may engage in towards those whom they judge. The BIAS map (Cuddy et al., 2007) proposes that high levels of warmth and competence prompt facilitation behaviors. Conversely, low levels of warmth and competence yield harm behaviors (Cuddy et al., 2007). Therefore, an individual seen as high in warmth and competence may receive admiration, while someone who is low in warmth and competence may be approached with contempt (Cuddy et al., 2007). Yet, it is not enough to solely be perceived as high in warmth. According to Cuddy et al. (2007) high perceptions of warmth, coupled with low competence perceptions result in pity for the individual. High levels of competence are also integral to favorable perceptions. As such, high levels of competence are generally seen positively. Applied to the workplace, I reason increased competence perceptions ultimately promote a number of favorable individually and organizationally relevant outcomes.

While research has examined work and organizational competence (e.g., Kanfer & Ackerman, 2005; Kim et al., 2016; Reimann, 1982), there is a lack of research on coworker competence. To my knowledge only two prior studies (i.e., Byington, 2013; Kim, 2003) explored coworker competence and its influence in the workplace. I define coworker competence as an individual's beliefs regarding the proficiency of their colleagues work skills and abilities. With the current study, I seek to solidify the importance of coworker competence and its relevance within the organization. Furthermore, I propose a new tool for subjectively measuring coworker competence within the organization.

Whereas the aforementioned two studies (i.e., Byington, 2013; Kim, 2003) briefly examined coworker competence, I believe that the conceptualization and subsequent measurement of this construct in both of these studies remain a limitation to research. Byington (2013) used GPA as a proxy for competence. While there is merit in using an objective measure of ability to measure coworker competence, the downfalls may outweigh the advantages. It is not enough to be objectively competent if your coworkers perceive you to truly be incompetent. For example, someone may have a high IQ but lack the necessary social skills for his or her line of work. Additionally, a sizable body of research on the potential pitfalls of measures of cognitive ability exists (e.g., Goldstein, Zedeck, & Goldstein, 2002; Murphy, Cronin, & Tam, 2003). Therefore, I propose that using GPA or mental ability as a proxy for competence fails to accurately take into account the potential influence of neither individual differences nor the inter-workings of social relationships.

Experimental manipulations of competence may also fail to truly reflect the complexity of human judgments and perceptions of competence, especially coworker competence. Kim (2003) used an experimental design to prompt participants on the level of competence their coworkers held. However, perceptions of an individual's coworkers in the real world are generally guided by previous relationships or interactions the individual engaged in with their respective coworkers. Experimental manipulations may fail to reflect these social dynamics and social perceptions. I suggest that perceptions of coworker competence be measured using a subjective measure, where individuals can state their personal beliefs about their coworkers' competence. A subjective measure may be able to better account for how previous social dynamics color current perceptions of colleagues' competence. Therefore, a major advantage to the current study is a scale explicitly developed

to assess actual subjective beliefs an individual has regarding the competence of their coworkers.

Research supports both direct and inverse relationships between perceptions of warmth and competence (i.e., Cuddy, 2009; Fiske et al., 2002; Judd et al., 2005). However, Judd et al. (2005) proposed that inverse relationships are more common when assessing the two dimensions through a stereotype lens, while a positive relationship is frequently observed when assessing the two through a trait or personal judgment perspective. Fiske et al. (2007) echoed this sentiment, stating that a positive relationship between the two areas is often found for judgments of individuals, while inverse relationships are often witnessed for assessments of entire social groups (i.e., group stereotypes). While they noted that negative relationships are more frequently witnessed (Judd et al. 2005), I reason that this may be rooted in the fact that this framework is generally used for stereotype research. However, the current study does not look at these perceptions through a stereotype lens. Hence, I hypothesize a positive relationship between coworker competence and coworker support due to the fact that this research is rooted in general human judgment and not stereotypes.

High levels of both coworker competence and support may serve as a work resource to the employee, and because of this they are likely somewhat positively related. Tenets of resource theories support this notion (e.g., Hobfoll, 1989). Resources beget other resources (i.e., resource gain spirals; Hakanen, Perhoniemi, & Toppinen-Tanner, 2008; Hobfoll, 1989; Hobfoll & Shirom, 2001), so positive perceptions in one of these resource areas may beneficially color perceptions of the other. The acquisition of one resource may promote the facilitation of other resources (Hobfoll, 1989), supporting a positive relationship between coworker competence and support.

Despite conflicting research in this area, I expect a positive relationship between coworker competence and support. One reason for the lack of consensus in this area may be due to the fact that most work on warmth/competence perceptions focuses on stereotypes, not individual assessments where a positive relationship is more often witnessed (Fiske et al., 2007; Judd et al., 2005). Coupled with the fact that research often neglects work on resource gain spirals (Hakanen et al., 2008), it is no surprise that work in this area is mixed. The relationships between warmth and competence perceptions are very complex. With the current study, I hope to shed greater light on situations that foster positive relationships between these two areas. Therefore, I hypothesize that coworker support and competence are two distinct, yet positively related constructs.

Hypothesis 1: Coworker competence and coworker warmth perceptions are positively related (Path *a* in Figure 1).

Job Demands-Resources Theory

The Job Demands-Resource model (Demerouti et al., 2001) is commonly used to explain why burnout or engagement occurs in the workplace. Broadly, this theory supports the idea that job demands enhance burnout and negate engagement. Job resources, in contrast, reduce exhaustion and enhance engagement. This model has gained monumental attention and use since its inception, and it is commonly cited as the theoretical framework for explaining organizational phenomenon (Bakker & Demerouti, 2013). The parsimony, flexibility, and generalization of this model across occupations and settings makes this theory useful for industrial/organizational and management scholars (Bakker & Demerouti, 2013; Bakker, Demerouti, & Sanz-Vergel, 2014). Another advantage of the J D-R model is that the characteristics and requirements of every job, for any type of work, can be characterized into

unique demands or resources (Bakker & Demerouti, 2007). Research supports the use of this model across a variety of studies (Bakker & Demerouti, 2007), cultures, occupations, and data collection methods (Llorens, Bakker, Schaufeli, & Salanova, 2006).

According to Bakker and Demerouti (2013), the J D-R model is rooted in seminal organizational theories such as Herzberg's (1966) two-factor motivation-hygiene theory, Hackman and Oldham's (1976) job characteristics model, Karasek's (1979) demand-control model, and Siegrist's (1996) effort-reward imbalance model. The motivation-hygiene and job characteristics models are two motivational theories, while the demand-control model and effort-reward imbalance model are commonly used to explain stress and strain. The J D-R model, in contrast, integrates both motivation and stress models to provide a more nuanced explanation of how organizational characteristics may influence both engagement and burnout, and subsequent performance (Bakker & Demerouti, 2013).

Demerouti et al. (2001) initially proposed that job demands include the physical workload, time pressure, the physical environment, etc. However, demands may be broadly characterized as any, "physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological effort or skills and are therefore associated with certain physiological and/or psychological costs" (Bakker & Demerouti, 2007, p. 312). Generally, we think of demands as any job characteristics that could be physically or psychologically costly to the individual who encounters the respective demand. Practically, job demands could include an abusive supervisor, constraints, a lack of resources, and unfair organizational practices and policies.

Unlike demands, which can lead to stressors, job resources serve a motivational function (Bakker & Demerouti, 2007). Resources promote engagement and buffer against job

demands (Nahrgang, Morgeson, & Hofmann, 2011; Bakker, Demerouti, & Euwema, 2005). Job resources were originally conceptualized to include feedback, rewards, supervisor support, and a number of other positive aspects of one's work (Demerouti et al., 2001). Broadly, resources are defined as any "physical, psychological, social, or organizational" job characteristics that promote goals, reduce demands and their subsequent outcomes, and stimulate growth and development (Bakker & Demerouti, 2007, p. 312). According to this definition, I classify coworker competence and coworker support as resources; having supportive and competent coworkers may not only buffer against stress but also aid in performance and motivation.

Coworker Competence/Support as a Job Resources

Recent literature critiques the breadth of the aforementioned definition of resources, as it appears that almost anything positive can be characterized as a resources (Halbesleben, Nevue, Paustian-Underdahl, & Westman, 2014). Accordingly, researchers recently attempted to give a more nuanced view of what truly constitutes as a resource and how resources function. For example, Halbesleben et al. (2014) tried to narrow down the very broad definition of resources. In their 2014 review, Halbesleben and colleagues described resources as, "anything perceived by the individual to help attain his or her goals" (p. 1338). While this still appears to be quite a broad definition, it at least adds a goal directed context to resources (Halbesleben et al., 2014). I argue that coworker support and coworker competence still qualify as resources under this definition, as they may serve a motivational function for employees, promoting them to be engaged and ultimately helping them reach performance goals.

Support is a resource (Bakker & Demerouti, 2007; Narhgang et al., 2011). According to Bakker, Demerouti, and Verbeke (2004), support is one of the most well-known stress buffers. This further strengthens the notion that coworker support does in fact serve as a resource in this theoretical model. Coworker support may be conceptualized as an employee resource as supportive coworkers may help or motivate individual goal attainment. Coworker competence may also be defined as a resource based on the conceptualizations of resources as put forward by Demerouti and colleagues (2001) and Halbesleben and colleagues (2014). Coworker competence may serve as a resource, as highly competent coworkers may help an individual achieve their goals by providing instrumentality and positive organizational interactions. Competent coworkers may provide individuals with additional expertise or knowledge. Furthermore, competent coworkers may serve as a resource as they provide employees with additional peace-of-mind, allowing them to put more effort into their work. Employees with competent or supportive coworkers may eventually seek to reinvest these resources back into their work based on a desire to reciprocate resources (Social Exchange Theory; Blau, 1964), thus promoting motivation, engagement, and performance.

Coworker support and coworker competence serve as a motivating resource for employees, prompting an enhanced sense of workplace engagement. Yet, while the J D-R model examines how both job demands and resources influence engagement and burnout, I examine how *resources* influence *engagement*. While both demands and resources are important to understanding these processes, I focus solely on resources as they are the predominant motivating factor within an organization. Research supports the idea that relative to demands, resources are a stronger predictor of organizationally relevant outcomes, such as emotional exhaustion and engagement (e.g., Mauno, Kinnunen, & Ruokolainen,

2007; Saari, Melin, Balabanova, & Efendley, 2017). Furthermore, some argue that burnout and engagement are simply two polar ends of the same single continuous concept (i.e., Gonzalez-Roma, Schaufeli, Bakker, & Lloret, 2006). While it enhances model parsimony, examining both engagement and burnout may ultimately be redundant. Thus, I investigate the resources and engagement aspects of the J D-R model.

Traditional work involving the J D-R model (i.e., Demerouti et al., 2001) has focused on how resources predict engagement and demands predict burnout. I place the resources aspect of the J D-R model under a microscope. I seek to take a closer look at the relationship between resources and engagement in this model, parceling out two different types of resources, and examining how they relate to two distinct facets of engagement. Because resources traditionally predict engagement (Demerouti et al., 2001) it appears to be most appropriate to only examine engagement, as opposed to burnout, as an outcome. However, I examine how resources differentially influence two different types of employee engagement, *emotional* and *social engagement*.

Research generally concludes that engagement is of theoretical importance and related to key organizational areas of interest (Christian, Garza, & Slaughter, 2011). Most work in the engagement domain uses the J D-R model as its theoretical framework (Simpson, 2009). I examine two different job resources, coworker support and competence, and their relationships with employee engagement and subsequent performance outcomes. Therefore, my model does not fully reflect the J D-R model, as it neglects the influence that demands may have on exhaustion outcomes. However, I argue that this theory provides a comprehensive explanation of the current study. When compared to other theories such as the Conservation of Resources Theory (COR; Hobfoll, 1989), the use of the J D-R model is

advantageous, as it can explain how resources influence both engagement, and performance outcomes through engagement. I reason that both coworker competence and support are positively related to employee engagement.

Job Engagement

A quick Google search illustrates the fact that organizations are genuinely concerned with increasing employee engagement. Articles from such popular news and business media as the Harvard Business Review (i.e., Harter & Adkins, 2015), Forbes (i.e., Westwood, 2017), and The Wall Street Journal (i.e., Bersin, 2015) all discuss potential ways that organizations can enhance employee engagement. Scholarly research shares this sentiment, as research on employee engagement has experienced an increased amount of attention in the past couple decades (Simpson, 2009). Employee engagement is related to a number of positive outcomes, such as job satisfaction, commitment, organizational citizenship behaviors, reduced intentions to quit, and more (Saks, 2006). Therefore, is it important that organizations truly understand this phenomenon in order to promote firm productivity and individual well-being. Research, organizations, and the media seem to agree that employee engagement is an organizational asset that conceptually includes both attitudinal and behavioral components of passion and focus for one's work (Macey & Schneider, 2008).

Kahn (1990) introduced employee engagement as, “simultaneous employment and expression of a person's ‘preferred self’ in task behaviors that promote connection to work and to others” (p. 700). Engagement is generally prompted by perceived psychological meaningfulness, psychological safety, and psychological availability in an individual's work (Kahn, 1990). Broadly, engagement is a sense of vigor, dedication, absorption, and efficacy that one may experience due to their work (Schaufeli, Salanova, González-Romá, & Bakker,

2001). Macey and Schneider (2008) sought to further clarify the conceptualization of engagement when they concluded that conceptually, researchers should consider trait, state, and behavioral aspects of engagement, along with how a number of work conditions may promote the phenomenon. Despite the conceptual dispute, we may think of engagement as a sense of fulfillment or connectedness that one finds within his or her work and the behaviors and attitudes that reflect this.

According to Kahn (1990), aspects of interpersonal and social interactions at work are included in the three aforementioned antecedents of engagement. I capture these social interactions in terms of coworker competence and support. Essentially, this provides support for the idea that coworker competence and support not only promote engagement based on the J D-R Model, but also based on the underlying assumptions of Kahn's (1990) original conceptualization of engagement.

More recent engagement research builds off of Kahn's (1990) introduction of the construct. For example, Christian et al. (2011) said that two aspects of Kahn's (1990) conceptualization of engagement, a "psychological connectedness to work tasks and "self-investment of personal resources," appear to be operationally worthwhile (p. 91). Furthermore, in an effort to more accurately reflect Kahn's (1990) definition of engagement, Rich et al. (2010) proposed that engagement be measured using three underlying components: emotional, physical, and cognitive engagement. With regards to Rich et al.'s (2010) conceptualization of engagement, I focus on emotional engagement as an outcome as opposed to physical or cognitive engagement. This is because physical and cognitive engagement seem to be promoted by more instrumental aspects of resources (i.e., a lack of constraints, etc.). However, I believe that Rich and colleagues' (2010) conceptualization of

engagement may be limited such that an individual's social involvement within his or her organization may also be of interest to engagement research. Therefore, I also explore social engagement. Social engagement appears very important to individuals who work in cooperative or team-oriented professions, which workplaces are increasingly moving towards. I also focus on both social and emotional engagement, as they appear to mirror Christian et al.'s (2011) aforementioned two areas of operational merit. Emotional engagement reflects a "psychological connectedness to work task," while social engagement reflects an "investment of personal [social] resources." In the following sections, I discuss how coworker competence and support may yield engagement. I also introduce social engagement, an important facet of engagement that I believe is missing from the current conceptualizations of employee engagement.

Emotional Engagement

Emotional engagement may reflect an emotional connection that individuals have with their work. This is manifested through a sense of positivity, enthusiasm, and energy at work (Rich et al., 2010). Emotional engagement is organizationally relevant as it reflects an individual's sense of inherent passion and exuberance for his/her job. As I focus on coworkers as a resource, I include emotional engagement in the model; doing so positions me to examine how coworkers may promote an individual's inherent enthusiasm for his/her work. I believe that this aspect of engagement is highly related to organizationally relevant outcomes, as it reflects a deeply rooted sentimental investment in one's work.

Xanthopoulos, Bakker, Heuven, Demerouti, and Schaufeli (2008) found that coworker support is significantly related to work engagement. I aim to build on this claim by examining how coworker support is related to emotional engagement. Based on the J D-R

model, I argue that coworker support, a beneficial employee resource, is positively related to emotional engagement. Individuals with high amounts of this resource have an increased capacity to be emotionally engaged at work. Based on theory and prior empirical research, Hypothesis 2 is as follows:

Hypothesis 2: Coworker support is positively related to emotional engagement (Path *b* in Figure 1).

Coworkers are a significant source of resources for individual employees (Halbesleben & Wheeler, 2012). I also conceptualize coworker competence as an emerging employee resource. Prior research solidified that employee resources are strong predictors of engagement (e.g., Bakker & Demerouti, 2013; Crawford et al., 2010; Demerouti et al., 2001). Despite the fact that research has generally neglected coworker competence, I argue that it is also related to employee engagement, based on the J D-R model. Resources enhance engagement (Demerouti et al., 2001). Consequentially, high levels of coworker competence provide employees with greater resources, increasing their ability to become emotionally invested in their work. Hypothesis 3 is as follows:

Hypothesis 3: Coworker competence is positively related to emotional engagement (Path *c* in Figure 1).

Social Engagement

Many individuals are also socially invested within their community or organization. Consider the popularly referenced scene of employees gathering around the water cooler in an office to talk and find out what is going on in each others' lives. We may infer these individuals are likely very socially involved or engaged with their colleagues. Socially engaged employees develop strong relationships with others, prompting a number of

different individual beliefs and behaviors. For example, an employee may be part of an organization where they actively participate in voluntary committees or events to interact with those around them. In this case, this person is very socially engaged at work.

Social ties are integral to our success as human beings (Frith & Frith, 2010). Our relationship structures or social ties are related to our psychological well-being (Kawachi & Berkman, 2001) and other health outcomes (Seeman, 1996). Social ties may also be an important aspect of our work. Anecdotal evidence suggests that some people may even avoid leaving an unpleasant job solely because of their coworkers. Empirical evidence supports that social relationships at work are related to reduced turnover (O'Reilly, Caldwell, & Barnett, 1989), increased commitment (Buchanan, 1974), interpersonally-directed citizenship behaviors (Bowler & Brass, 2006), and increased performance (Cross & Cummings, 2004; Sparrowe, Liden, Wayne, & Kraimer, 2001). Despite its profound effect on a number of practically and organizationally relevant outcomes, Rich et al. (2010) did not account for social involvement in their conceptualization of engagement.

According to Saks (2006), engagement depends on an individual's roles at work. Two roles are fundamental to employees—their role in their respective job (e.g., I am a pilot) and their social role within the workplace/organization (e.g., I work for airline XYZ; Saks, 2006). Thus, Saks (2006) explored employee engagement for the two said workplace roles through job engagement and organization engagement. Specifically, job engagement reflected an individual's involvement in their actual work. Organizational engagement, however, reflected a sense of being a member of the organization and getting involved in organizational “happening(s)” (Saks, 2006). Building on this, I also explore social

engagement, or the involvement and investment of one's time and energy into more socially oriented roles and activities at work.

While Kahn (1990) mentioned social relationships in his exploration of the antecedents of engagement, he did not mention how one may also embody a sense of social engagement. Building on research by both Kahn (1990) and Saks (2006), I argue that social engagement, or the idea that one is socially invested in their workplace, is also an important area of interest for organizational researchers, as sociability is related to a number of important workplace phenomenon. I define social engagement as the investment, both psychologically and behaviorally, that individuals put into forming informal relational bonds with their colleagues.

Social engagement is similar to, yet conceptually distinct from other forms of engagement and measures of workplace social relationships. For example, existing research on engagement commonly breaks workplace engagement into three related facets, cognitive, emotional, and physical engagement (Rich et al., 2010). Social engagement is similar to the aforementioned dimensions as it is also a sub-facet of a larger overarching engagement construct. It is also similar in that it represents a "psychological connectedness" to work (Kahn, 1990), and an investment of energy (Rich et al., 2010). Unlike the other facets of engagement, this investment and connectedness is directed towards work social relationships. Additionally, this is different from measures of work/team cohesion or social bonding, as it does not necessarily reflect the quality or reciprocation of the relationship, but the effort put forth to form these relationships. Thus, the actual social make-up of the organization does not necessarily reflect an individual's social engagement. For example, someone who works with individuals who are largely introverted may not necessarily have a strong bond with their

coworkers, due to the fact that their colleagues do not necessarily enjoy social interaction. Nevertheless, individuals high in social engagement generally attempt to form these relationships and put forth the effort to be invested in the lives of their colleagues, even if there is not necessarily reciprocation.

Similar to the relationship between coworker support and emotional engagement, I hypothesize that coworker support promotes social engagement. Specifically, individuals who feel they are supported by their coworkers also want to be socially involved with these individuals. People with high levels of coworker support channel this additional resource into aspects of social engagement at work. Hypothesis 4 is as follows:

Hypothesis 4: Coworker support is positively related to social engagement

(Path *d* in Figure 1)

Employees may also be socially engaged in their workplace when they feel like their coworkers are competent or proficient within their work. Because competent coworkers may serve as a resource, individuals with competent coworkers may have additional means to partake in social behaviors within the workplace that they may not have had the physical or psychological resources to do so before. For example, an employee may not have previously been able to attend work social functions due to the fact that they were continually working on projects that their team members did not complete, or did incorrectly. However, if their colleagues are competent, they need not invest their time and resources into making up for their coworkers' short-comings. Therefore, they may now have the resources to become socially immersed in the workplace. As such, Hypothesis 5 is as follows:

Hypothesis 5: Coworker competence is positively related to social engagement (Path *e* in Figure 1).

Organizational Citizenship Behaviors

Organizations implement most interventions and developmental programs under the presumption that they ultimately improve employee and organizational performance.

Organizational performance is often defined by measurements of task and contextual performance (Borman & Motowildo, 1997) and counterproductive work behaviors (Rotundo & Sackett, 2002; Sackett, 2002). Alternatively, some may conceptualize creativity (George, 2008) or safety compliance (Griffin & Neil, 2000) as performance. Despite the on-going debate regarding what constitutes performance, businesses and stakeholders may ultimately conceptualize performance as whatever they see as relevant given their organizational climate and context (Murphy & Shiarella, 1997).

Organizations are generally concerned with improving their employees' task and contextual performance as it is what managers generally determine to be organizationally relevant behaviors (Borman & Motowildo, 1997). Task performance consists of an individual successfully completing the activities formally required by their job. For example, a pilot may conceptualize task performance as how many flights they travel in a day. Contextual performance, on the other hand, is characterized by behaviors that an employee conducts that helps the organization or those within it (Borman & Motowildo, 1997; LePine, Erez, & Johnson, 2002). This includes volunteering for additional work activities, assisting others at work, and personally defending the organization and its mission (Borman & Motowildo, 1993). Consider once again the example of the pilot. While pilots may be concerned about the number of flights they can complete in a day (task performance), they may also want to make sure that the individuals on their flight are enjoying their travel experience. Because of this, they may also go out of their way to personally greet passengers, or help flight

attendants with their duties prior to people boarding the plane. While these behaviors may not be included in the pilot's formal job description, he or she may engage in these behaviors to also help the performance of the organization. These actions would be considered contextual performance.

Due to the fact that task performance may vary greatly based on job requirements and organizational contexts, I focus on contextual performance as my outcome. Contextual performance may include actions such as pro-social or organizational citizenship behaviors (Borman & Motowildo, 1997). Organizational citizenship behaviors reflect contextual performance (Organ, 1997), therefore, I use the two terms synonymously.

Organizationally-Directed OCB

Organizational citizenship behaviors can take shape through a variety of different behaviors. For example, LePine et al., (2002) determined that there are five distinct yet related dimensions of OCB. These dimensions include, altruism, civic virtue, conscientiousness, courtesy, and sportsmanship (LePine et al., 2002). Similarly, OCB may also be directed at multiple targets. Individuals can go out of their way to do good things for their organization (*organizationally*-directed OCB) or their colleagues (*interpersonally*-directed OCB; Lee & Allen, 2002). I focus on organizationally-directed citizenship behaviors (OCB-O), as they seem to more closely mirror or enhance actual organizational performance when compared to interpersonal-directed OCB. Therefore, I assess organizationally-directed citizenship behaviors in lieu of task performance. As stated by Organ (1997), OCB-O are not specifically directed at anyone or anything in general. However, they are broadly targeted at the overall organization and its functioning. Thus, OCB-O may not only benefit the organization at large, but also those within it. Additionally, a drawback of examining

interpersonally-directed OCB (OCB-I) is that it does not account for differentiation between different individuals. For example, an employee may engage in OCB towards one of their coworkers who they see as highly competent, however, they may not engage in OCB towards someone they see as incompetent. Because the current measurement does not have the ability to differentiate amongst the social dynamics between different employees (i.e., the measure is an aggregate of OCB), I employ OCB-O to account for a general predisposition to engage in contextual performance at work.

The Broaden-and-Build theory (Fredrickson, 2001) explains how positive affective states translate into proactive behaviors and beliefs. Whereas negative emotions cause people to focus on quick, survival reactions, positive experiences prompt people to broaden their mindset, allowing for novel actions and ideas (Fredrickson, 2001). Generally, the Broaden-and-Build theory states that positive emotions or experiences, “*broaden* momentary thought-action repertoires, prompting them to pursue a wider range of thoughts and actions than is typical” (Fredrickson & Branigan, 2005, p. 2). For example, when individuals are having a bad day at work, they may only focus on how to alleviate or escape this unfortunate experience. However, if someone is having a very pleasant day at work, they may be propelled to look beyond their normal work duties and apply their talents in a different way. I apply the logic behind the Broaden-and-Build theory to explain how enhanced employee engagement (a positive state), prompts organizational citizenship behaviors.

Researchers often cite the Broaden-and-Build theory as an explanation for numerous organizational phenomena, including organizational change behaviors and positive employee relations (Vacharkulksemsuk, & Fredrickson, 2015). I apply tenets of this theory to my model as a way to explain how a positive state of engagement (i.e., being highly emotionally

and/or socially engaged) prompts organizational citizenship behaviors. Based on this theory, I reason that individuals who experience heightened engagement may ultimately use this positive state to broaden their work actions to behave in activities that also promote their organization and colleagues. Specifically, engaged individuals may look to build on their current work activities by participating in citizenship behaviors. Therefore, based on the underlying assumptions of the Broaden-and-Build theory (Fredrickson, 2001) and the J D-R model (Demerouti et al, 2001), I anticipate that engagement prompts OCB.

Empirical evidence also supports that work engagement is related to job performance (Bakker & Bal, 2010). As mentioned previously, there are different types of performance. Luckily, research has also found that work engagement is related to multiple types of performance. Rich, Lepine, and Crawford (2010) found that job engagement is positively related to both task performance and organizational citizenship behaviors. Furthermore, research supports the notion that engagement is related to OCB (e.g., Bakker et al., 2004; Saks, 2006). Specifically, Saks (2006) found that both job and organization engagement predict organizationally-directed OCB.

In their 2011 meta-analysis, Christian and colleagues found support for the link between engagement and contextual performance. They also found that engagement accounted for a significant amount of incremental validity over job satisfaction, commitment, and involvement in its prediction of task and contextual performance (Christian et al., 2011). In support of Christian et al.'s (2011) meta-analytic efforts and in accordance with the Broaden-and-Build theory, I also reason that there is a positive relationship between the two proposed facets of employee engagement and contextual performance. Therefore, Hypotheses 6 and 7 are as follows:

Hypothesis 6: Emotional engagement is positively related to OCB (Path *f*; Figure 1).

Hypothesis 7: Social engagement is positively related to OCB (Path *g*, Figure 1).

Engagement as a Mediator

Based on the BIAS map (Cuddy et al., 2007), high levels of coworker competence and warmth (support) should yield helping behaviors. I view organizationally directed OCB as business targeted helping behaviors. However, I argue that Cuddy and colleagues (2007) potentially missed a critical link between warmth and competence perceptions and actual targeted behaviors. I believe that these perceptions do not directly influence helping behaviors or OCB as proposed by the BIAS map. Rather, these perceptions indirectly lead to OCB through a heightened sense of engagement.

I hypothesize that both facets of engagement serve as a mediator in my model. Yet, I am not the first to propose that social resources may lead to positive workplace outcomes via a mediation pathway. Christian et al. (2007) proposed that engagement mediates the relationship between job characteristics, including social support, and performance outcomes such as contextual performance. Seibert, Kraimer, and Liden (2001) also found that network benefits fully mediated the relationship between social resources and career success. Likewise, I hypothesize that social and emotional engagement fully mediate the relationship between the resources in the current model and organizational citizenship behaviors. Individuals who have increased resources, such as coworker support and competence, are more engaged, and thus more likely to exhibit greater performance.

The indirect link between resources and performance via engagement is also supported by the Job Demands-Resources Model, as resources likely serve a motivational function for employees which ultimately translates into meaningful workplace results, including safety performance (Narhgang et al., 2011), commitment (Hakanen et al., 2008), and contextual performance. While to my knowledge no empirical evidence exists suggesting that emotional engagement specifically mediates the relationship between coworker resources, such as support and competence, and contextual performance, I argue that this link makes conceptual sense. Individuals with increased work resources are likely to be more emotionally invested in their work environment, and consequentially engage in increased performance behaviors, such as OCB. Hence, I hypothesize that emotional engagement mediates the relationship between the resources examined in my study and contextual performance as follows:

Hypothesis 8: Emotional engagement mediates the relationship between coworker support and OCB (see Path *b* and *f* in Figure 1).

Hypothesis 9: Emotional engagement mediates the relationship between coworker competence and OCB (see Path *c* and *f* in Figure 1).

Social engagement is a newly developed facet of engagement, and because of this there is currently to my knowledge no research that examines social engagement at work. Still, social relationships and social ties are broadly related to OCB (e.g., Bowler & Brass, 2006). Coupled with the fact that engagement is generally related to OCB (Rich et al., 2010) and based on the Broaden-and-Build theory, I also argue that social engagement yields OCB. Based on the J D-R model, I suggest that increased resources promote an employee's ability to become socially engaged within the organizational environment, and this enhanced sense

of social engagement prompts OCB. Therefore, resources indirectly promote OCB.

Hypotheses 10 and 11 are as follows:

Hypothesis 10: Social Engagement mediates the relationship between coworker support and OCB (Path *d* and *g* in Figure 1).

Hypothesis 11: Social Engagement mediates the relationship between coworker competence and OCB (Path *e* and *g* in Figure 1).

The full hypothesis model is presented in Figure 1.

CHAPTER II

Method

Participants and Procedure

This study was included as part of a large assessment of organizational culture and faculty engagement. All data were collected as part of a longitudinal University-wide National Science Foundation grant aimed at institutional transformation. Participants were tenured/tenure-track faculty at a large university in the Southern United States. Data collection occurred voluntarily via the online survey platform Qualtrics. Subjects were recruited through email at two time points. Participants were first asked to take a voluntary survey in the January of 2016. A little under two years later, participants were once again asked to participate in the survey during November of 2017. During the second wave of the survey, participants were offered the incentive of being included in a raffle for a restaurant gift card in exchange for their participation. Of the 1003 possible participants, 327 responded to the survey during the first time point. At time two, 518 of 1037 participants responded. There were 236 participants who responded to the items at both Time 1 and Time 2, however, after accounting for missing data, only 142 of the participants were included in analyses based on having usable longitudinal data. I measured Coworker Support and Coworker Competence at Time 1, while Emotional Engagement, Social Engagement, and OCB were measured at Time 2.

Measures

Coworker Competence. I pilot-tested the new coworker competence scale on a student sample prior to data collection. I found the scale was relatively reliable, with a Cronbach's alpha of .85. I reworded the items to reflect a faculty sample for the present

study. Items are presented in Appendix A. This scale consisted of four self-made items. Of the four items, two were positively worded, and two were reverse coded as best practice suggests including an equal number of negative/positive worded items in a scale (Kelloway & Barling, 1990). An example of a positively worded item is as follows, “I believe that my coworkers have the skills necessary to successfully complete their jobs.” Additionally, an example of a negatively worded item is as follows, “I often think that my coworkers do not have the ability that is necessary for this line of work.”

Coworker Support. I measured coworker support using seven-items adapted from Eisenberger, Huntington, Hutchison, and Sowa’s (1986) perceived organizational support (POS) scale. I did not include one item from the original eight-item POS scale as it was not applicable to coworker support. Therefore, I adapted seven items to reflect perceptions of coworker support, of which two items were reverse coded. An example item is as follows, “My colleagues take pride in my accomplishments at work.” Items are presented in Appendix B.

Emotional Engagement. I measured emotional engagement using six items from Rich et al.’s (2010) engagement scale. This consists of items such as, “I am enthusiastic in my job.” The items are presented in Appendix C.

Social Engagement. I measured social engagement using four items from a scale developed for the larger organizational climate study. Items are included in Appendix D. This scale includes items such as, “I spend time getting to know my colleagues.”

Organizational Citizenship Behaviors. I measured organizational citizenship behaviors using seven items from the Lee and Allen (2002) organizationally directed OCB

scale. An example of an item present in this scale is, “I take action to protect the organization from potential problems.” Items are presented in Appendix E.

CHAPTER III

Results

I analyzed the data using both IBM Corp.'s (2013) SPSS, Version 22 and the statistical package MPLUS, Version 8 (Muthen & Muthen, 2017). Based on initial reliability estimates (Table 1), the five scales all appear to have acceptable reliability. Of the most interest is the reliability of the two newly proposed scales, coworker competence and social engagement. Initial estimates provide support for the reliability of coworker competence (Cronbach's $\alpha = .88$) and social engagement (Cronbach's $\alpha = .77$), as both are above the conventional .7 cutoff (Nunnally, 1978). However, individuals should be cautious of assuming that $\alpha > .7$ is a definitive rule for assessing reliability and indicative of the overall merit of a measure (Lance, Butts, & Michels, 2006), as it is subject to a number of influences, such as inflation due to a large number of items in a scale (Cortina, 1993; Schmitt, 1996). Keeping in mind that $\alpha > .7$ does not necessarily indicate absolute evidence of reliability, I still reason that the aforementioned values provide support for the reliability of the two scales. I draw these conclusions based on the fact that the two previously mentioned scales consist of four items, respectively, and therefore are not necessarily subject to inflation due to a large number of items. The aforementioned alpha levels provide initial support of the reliability of our new scales. However, a confirmatory factor analysis was necessary to further explore their psychometric properties.

Following this, I assessed the factor structure of the constructs using MPLUS (Muthen & Muthen, 2017) by running a series of nested confirmatory factor analyses. I first conducted a confirmatory factor analysis on all six of the measures as separate latent constructs, which I then compared to a series of nested models to ensure that the proposed

model was the best fit for the data. As seen in Table 2, I compared five different iterations of the model. Tested models include a one factor model, which loads all of the variables onto one latent construct ($\chi^2 (350) = 1666.10$, $RMSEA = .16$, $CFI = .51$, $TLI = .47$) and a two factor model where the coworker related items (coworker competence and support) were loaded onto one latent construct, and the engagement items and OCB were loaded onto another latent factor ($\chi^2 (349) = 1293.85$, $RMSEA = .14$, $CFI = .65$, $TLI = .62$). These models were not a good fit for the data, therefore I proceeded to conduct additional confirmatory factor analyses. I compared a three factor model which coworker support and competence were loaded onto one latent construct, social and emotional engagement were loaded onto one latent construct, and OCB was loaded onto its own latent construct. This model was still not a good fit for the data ($\chi^2 (347) = 1056.36$, $RMSEA = .12$, $CFI = .74$, $TLI = .71$). Finally, I conducted the proposed five latent factor confirmatory factor analysis, where coworker competence, coworker support, social engagement, emotional engagement, and OCB were all loaded onto separate latent constructs. The model approached being a relatively good fit for the data ($\chi^2 (340) = 627.64$, $RMSEA = .08$, $CFI = .89$, $TLI = .88$) and comparatively fit the data significantly better than the previously tested model ($\chi^2 \Delta = 428.72$, $p < .01$).

As seen in Appendix A, of the four coworker competence items, two are worded positively (1 and 2), and two are negatively phrased (3 and 4). Negatively worded items may sometimes load onto a separate factor due to participant carelessness (Schmitt & Stuits, 1985). Despite this, the covariance due to the presence of negatively worded items does not necessarily indicate a problematic interpretation of the construct (Kelloway & Barling, 1990). Based on this, and coupled with the findings of the suggested modification indices, I ran a final confirmatory factor analysis with all five constructs (coworker competence,

coworker support, emotional engagement, social engagement, and OCB) as separate latent constructs, while allowing the positive (1 and 2) and negative (3 and 4) items from the coworker competence scale to covary with each other (see Figure 2). Allowing these items to covary significantly improved model fit ($\chi^2(338) = 593.54$, $RMSEA = .07$, $CFI = .90$, $TLI = .89$). Of the fit indices, RMSEA and CFI met the suggested conventional cut-offs for adequate model fit (Browne & Cudeck, 1993; Hu & Bentler, 1999; Kenny, 2015), and the TLI approached adequate fit. Therefore, I moved forward testing my hypotheses using this factor structure. The standardized and unstandardized factor loadings of the five factor fixed model are presented in Table 3.

I assessed the descriptive statistics and correlational analyses using SPSS (IBM Corp., 2013) as presented in Table 1. As seen there, participants held quite high beliefs regarding their coworkers' competence ($M = 4.14$, $SD = .69$) and were highly emotionally engaged ($M = 4.07$, $SD = .79$). Participants also reported generally favorable beliefs regarding their coworkers' supportiveness ($M = 3.54$, $SD = .91$), experiences of social engagement ($M = 3.36$, $SD = .79$), and experiences of organizational citizenship behaviors ($M = 3.78$, $SD = .69$). Furthermore, there was a significant positive correlation between each of the proposed variables, respectively. Other than the relatively weak relationship between coworker competence and OCB ($r = .17$, $p < .05$), there appeared to be a moderate correlation between most constructs (r ranged from $.32$ to $.56$, $p < .01$).

I tested the hypothesis model (Figure 1) using structural equation modeling (SEM) by means of the MPLUS software, Version 8 (Muthen & Muthen, 2013). I removed missing data using listwise deletion. This resulted in a final longitudinal N of 142 participants. I present the model fit estimates (Table 4), direct and indirect pathway estimates (Table 5), and

standardized pathway coefficients (Figure 2). As seen in Table 4, the hypothesized structural model was a relatively good fit for the data ($RMSEA = .07$, $CFI = .90$, $SRMR = .07$) based on conventional fit statistic guidelines (Hu & Bentler, 1999; Kenny, 2015).

As seen in Figure 2, I found support for Hypothesis 1. There was a significant positive relationship between coworker support and competence ($\beta = .53$, $p < .01$). This positive relationship supports the idea that resources promote further resources (Hakanen et al., 2008; Hobfoll, 1989; Hobfoll & Shirom, 2001). Next, I examined the pathways between coworker support/competence and emotional engagement. As seen in Table 5 and Figure 2, coworker support was positively related to emotional engagement ($\beta = .55$, $p < .01$), supporting Hypothesis 2. As perceptions of coworker supportiveness increase, so do feelings of emotional engagement. Hypothesis 3 proposed that coworker competence would be positively related to emotional engagement; however, as indicated by the dashed line in Figure 2, I did not find support for Hypothesis 3 ($\beta = .09$, ns).

Next, I examined the relationships among coworker support, competence, and social engagement. In support of Hypothesis 4, coworker support yielded social engagement ($\beta = .31$, $p < .01$). Increased perceptions of coworker support result in increased social engagement. Additionally, coworker competence also facilitates increased social engagement (Hypothesis 5 supported, $\beta = .33$, $p < .01$). These results suggest that coworker resources appear to promote positive social engagement outcomes.

Hypotheses 6 and 7 predicted that both emotional and social engagement would be positively related to organizational citizenship behaviors. As seen in Table 5 and Figure 2, I found support for both of these hypotheses. Emotional engagement was positively related to

OCB (Hypothesis 6, $\beta = .49, p < .01$). Social engagement was also positively related to OCB (Hypothesis 7, $\beta = .29, p < .01$).

Finally, I examined the indirect effects of coworker support and coworker competence on OCB (Hypotheses 8-11). As seen in Table 5, I found support for three of the four aforementioned hypotheses. In support of Hypothesis 8, emotional engagement mediated the relationship between coworker support and OCB (Hypothesis 8 supported, $\beta = .27, p < .01$). Coworker support results in increased OCB through the enhancement of emotional engagement. However, I did not find support for Hypothesis 9. The indirect effect of coworker competence on OCB through emotional engagement was statistically non-significant ($\beta = .04, ns$). There was a significant indirect effect of coworker support on OCB via social engagement (Hypothesis 10 supported, $\beta = .09, p < .05$). Similarly, the effect of coworker competence on OCB through social engagement was significant (Hypothesis 11 supported, $\beta = .10, p < .05$).

CHAPTER IV

Discussion

The necessity of effective coworkers will likely continue to gain momentum as organizational teamwork increases and professional hierarchies continue to flatten (Grant & Parker, 2009). Therefore, I hypothesized and tested a psychological process in which two coworker driven resources – coworker competence and coworker support (i.e., warmth) – indirectly predicted OCB through engagement. Moreover, I introduced the concept of social engagement and developed a scale for subjectively measuring coworker competence within the present study. I tested this model using data collected from faculty at a large university at two time points, the second approximately two years after the first. Moreover, and in line with the Stereotype Content Model (Fiske et al., 2002), I proposed that coworker support and competence are fundamental to employee judgments. Based on the Job Demands-Resources Model (Demerouti et al., 2001), I reasoned that high levels of coworker competence and support result in increased emotional and social engagement. Based on the theoretical underpinnings of the Broaden-and-Build theory (Fredrickson, 2001), I also predicted that engagement promotes OCB. Integrating these two theories, I hypothesized that coworker resources result in increased levels of engagement, which subsequently prompt OCB.

Resource-based stress theory advocates have argued that resources produce additional resources (Hakanen et al., 2008; Hobfoll, 1989). Following studies indicating a positive relationship between aspects of warmth and competence (i.e., Fiske et al., 2007; Judd et al., 2005), I predicted with Hypothesis 1 and found a positive relationship between coworker support and coworker competence. Thus, it seems as though individuals seeing their

coworkers as high in competence are also likely to see them as being supportive, and vice-versa.

The Job Demands-Resources Model (Demerouti et al., 2001) states that job resources promote engagement and reduce exhaustion, whereas job demands enhance burnout and diminish engagement. Accordingly, I postulated that coworker competence and support both facilitate emotional engagement, respectively. Consistent with Hypothesis 2 but inconsistent with Hypothesis 3, I found that emotional engagement was related to coworker support but not to coworker competence.

I also predicted that coworker support (Hypothesis 4) and coworker competence (Hypothesis 5) both positively relate to social engagement. I found support for both of these predictions. These findings suggest that employees are influenced by perceptions of their coworkers. By serving as a resource, supportive coworkers aid their colleagues' ability to become socially and emotionally invested in their workplace. Similarly, competent coworkers likely promote efforts to participate in workplace social engagement.

I anticipated that engagement would favorably influence contextual performance. Applying the Broaden-and-Build theory (Fredrickson, 2001), I hypothesized that emotional and social engagement predict OCB. I reasoned that highly engaged employees would be able to look beyond their traditional job responsibilities and engage in OCB. Consistent with Hypotheses 6 and 7, emotional and social engagement were positively related to OCB. This provides further support for the relationship between employee engagement and performance-related work outcomes (Bakker & Bal, 2010; Bakker et al., 2004; Christian et al., 2011; Rich et al., 2010, Saks, 2006). Employees who are socially and/or emotionally engaged are likely to direct this positive motivational state beyond their traditional work

tasks and aim this constructive energy towards their colleagues and organization by partaking in OCB.

Tying together the previous hypotheses, I predicted that coworker competence and support indirectly promote OCB through emotional and social engagement (Hypotheses 8-11). The data were consistent with three of the four proposed relationships. Coworker support predicted OCB through both emotional and social engagement. However, whereas coworker competence indirectly resulted in OCB via social engagement, the link between coworker competence and OCB through emotional engagement was not supported. Enhancing coworker support may result in both increased social and emotional engagement and subsequent OCB. However, enhanced perceptions of coworker competence may only improve social engagement, which in turn promotes OCB.

My findings reinforce the importance of the role that supportive and competent coworkers play in the workplace. Supportive coworkers promote employee social and emotional engagement, which likely sequentially stimulates increased OCB. That is, favorable levels of coworker support may also yield an increase in OCB through both social and emotional engagement. However, whereas coworker competence likely yields increased levels of social engagement, it apparently does not promote emotional engagement. I speculate that this result may be attributed to the fact that highly competent coworkers are either motivating or debilitating as a function of the individual's perception of his/her own competence. For example, individuals who perceive their coworkers to be more competent than they are might experience coworker competence as motivating. Hence, they might invest even more emotional energy into the organization (i.e., increased emotional engagement) to compete with their coworkers. In contrast, individuals who feel threatened by

coworker competence might experience their competence as debilitating, creating a sense of paralysis at work. Thus, they might not put forth much emotional effort on the job because they feel as though they are unable to compete with their colleagues. I emphasize the speculative nature of my argument. Indeed, the non-significant results for the relationship between coworker competence and emotional engagement could be attributed to a myriad of underlying issues, such as range restriction.

Ultimately, coworkers high in competence and supportiveness serve as a valuable resource to their colleagues. The inherent need for coworker competence and supportiveness can be explained by aspects of the Stereotype Content Model (Fiske et al., 2002). These two resources facilitate employee engagement based on the Job Demands-Resources Model (Demerouti et al., 2001). Resources, specifically coworker competence and support, function as an employee motivator. Employees recognize that highly competent coworkers provide the resources necessary to become socially engaged in the workplace. Those with highly supportive coworkers have the resources to not only become socially involved in the organization but also more inherently emotionally absorbed in their work. Individuals will then use this heightened sense of engagement to expand their work-task repertoire by engaging in voluntary organizational citizenship behaviors. These behaviors are essential to organizational functioning, as they are related to organizational productivity and turnover (Podsakoff, Whitting, Podsakoff, & Blume, 2009).

Limitations

I emphasize four limitations. First, whereas I assumed that participants would conceptualize coworkers as those who work closely with them in their department, it is possible that this was not the referent group that participants had in mind when answering

questions regarding their coworkers. It is possible that some individual saw their coworkers as being limited to only the few people who are in their specific group of their department; however, others may have seen their coworkers as being in the entire department, college, or the organization at large. As I did not account for the specificity of who an individual considers to be their coworkers, I encourage future researchers to conduct additional research in this area.

Second, this study assessed one specific employee sample – university faculty members. Faculty members generally work rather independently and therefore may not be as involved in their coworkers' lives. This independence may also result in a decreased need for supportive or competent coworkers. Hence, more research conducted among multiple organizations and industries is needed to truly establish certainty. Moreover, the results of this study may also be influenced by the fact that faculty members are generally better educated than the vast majority of workers, as employment as a faculty member often requires a terminal degree. Therefore, there may have been some range restriction of coworker competence. Indeed, the participants reported their colleagues as highly competent, with relatively little variability ($M = 4.14$, $SD = .69$).

Third, the small sample size ($N = 142$) may have potentially influenced the findings. This limited sample size may have affected model fit, as Kenny (2015) suggests a minimum sample size of 200 for structural equation models. Accordingly, I suggest that future studies retest the propositions of this study using not only multiple occupations and organizations, but also with larger sample sizes. Whereas the aforementioned sample size is not ideal, it is important to keep in mind that the sample size employed in the current study reflects a longitudinal sample. That is, unlike many studies in this area (Lindell & Whitney, 2001;

Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), the present study was not limited by a cross-sectional design.

Fourth, I used organizationally directed citizenship behaviors as the sole performance outcome. As contextual and task performance are related (Borman & Motowildo, 1997), it is possible that my findings might generalize to other performance constructs. However, additional work would likely benefit from including core task, counterproductive, and other contextual indicators of performance.

Directions for Future Research

Future research may benefit from exploring the antecedents of coworker competence and support, along with additional outcome variables. In general, I encourage future scholars to continue to expand research in the coworker domain, as our understanding of coworker-related phenomena remains underdeveloped. Moreover, I enjoin future researchers to apply the coworker competence scale described here to explore the nuances that define these close work relationships. As previously mentioned, Byington (2013) proposed addressing coworker competence. However, she did not include or employ an actual measure for doing so. Hence, I argue that the new scale of coworker competence permits assessment of perceptions that individuals hold regarding their coworkers' competence. Similarly, I call for efforts to develop and test measures of coworker competence to ensure the validity, reliability, and practical usefulness of the measure.

Research could also benefit from an examination of how coworker support and competence relate to trust. Employee trust consists of three fundamental components: benevolence, ability, and integrity (Mayer, Davis, & Schoorman, 1995). Of these components, coworker "ability" and competence are ostensibly quite similar, and it is

possible that “benevolence” may capture aspects of coworker support. Thus one might speculate that coworker competence and coworker support are actually antecedents of trust. While not explored in this study, future research may benefit from examining the relationships between these phenomena. Additional research could ultimately confirm or refute the distinction between these domains.

Rich et al. (2010) proposed three underlying dimensions of the overarching “engagement” variable – cognitive, emotional, and physical engagement. I argue that the social engagement scale assessed in this study also be added as a fourth underlying dimension of the overall latent engagement measure proposed by Rich et al., (2010). However, I only assessed emotional and social engagement as mediators in the current study. Therefore, I encourage future researchers to assess how cognitive and physical engagement influence the relationships between coworker competence, coworker support, and OCB.

Also notable is the fact that the two newly proposed constructs, coworker competence and social engagement appear to be of merit and warrant greater attention in research. Through a series of confirmatory factor analyses and the test of the full structural equation model, I found that coworker competence appears to be related to coworker support. Yet, the two aforementioned constructs are also theoretically and empirically distinct. Additionally, I found that social engagement appears to be a separate form of engagement not captured by measures of emotional engagement. These two new constructs, coworker competence and social engagement, are also related to OCB. A better understanding of both coworkers and engagement may give business entities and stakeholders a competitive advantage in today’s competitive, yet flattening organizational structures.

Theoretical Implications

This study makes potential contributions to organizational theory. First, the results make strides towards Chiaburu and Harrison's (2008) call for increased research on coworkers. This study illustrates how coworkers influence an employee's work engagement, which subsequently promotes contextual performance outcomes. Whereas research on relationships with leaders and the organization have received considerable support (i.e., Eisenberger et al., 1986; Lord et al., 2017), there has been limited focus on coworker relationships. This has constrained our knowledge of workplaces processes, as coworkers play a large role in their colleagues' professional lives.

I applied tenets of the Stereotype Content Model (Fiske et al., 2002), a theory frequently used in social psychology to explain stereotypes and biases, to a more holistic framework of coworkers. I employed this theory to explain how individuals form broad assessments of their coworkers' competence and warmth, which I suggest influences engagement and performance-related behavior. The use of the SCM broadly applied to understand overall perceptions of coworkers, not stereotypes, garners additional support for the universality and usefulness of this model. This study's use of the SCM supports the belief that perceptions of warmth and competence are fundamental to human judgment, and a basic aspect of all social interactions. This ascertains that while they are often used to form stereotypes, these appraisals are not limited to stereotypes and biases. The current use of this theory supports the application of this model across a variety of domains and disciplines, not exclusively diversity related research.

Employee engagement is a very promising area of interest for academics, practitioners, and organizational stakeholders (Saks, 2006; Simpson, 2009). Despite its

ubiquity, its measurement is relatively still a work in progress; there are multiple understudied, yet frequently used tools to measure employee engagement (Simpson, 2009). Rich and colleagues (2010) spent an extensive amount of time attempting to better define and understand this process by breaking their measure of engagement into three sub-factors: cognitive, emotional, and physical engagement. Whereas this is a more holistic view of engagement, the model is still limited in that it does not account for a sense of social engagement at work. Social engagement encompasses the effort and energy that individuals put into their social relationships at work. This does not necessarily need to reflect the strength of these relationships but rather the effort exerted to develop these relationships. Therefore, the present study makes potential contributions to engagement literature by introducing social engagement and testing a model in which engagement mediates the relationship between coworker resources and OCB.

Finally, this study provides additional support for tenets of the JD-R model (Demerouti et al., 2001). I examined how two coworker resources: *competence* and *support* enhance engagement, a motivating organizational process. In general, I found support for the notion that resources enhance engagement, which in turn promotes employee performance. This adds additional support for the robustness and generalizability of the theory, further solidifying its position as a prominent theoretical background for work in this area.

Practical Implications

I propose that there are four major areas of improvement that managers and practitioners might target for employee and organizational development based on the results of this study – selections systems, employee training programs, feedback interventions, and employee reward systems. I offer below how these organizational programs might be tailored

to enhance coworker supportiveness and competence, which likely produces increased engagement and performance.

First, the results of this study can also be used to inform organizational selection procedures and practices. Selection is often at the root of a number of organizational issues (Ployhart, Schmitt, & Tippins, 2017). Findings of the present study reinforce the importance of considering fit (Kristof-Brown et al., 2005) in the selection process to mitigate potential problems that may arise from a non-cohesive group of coworkers.

Second, organizations may benefit from implementing additional training programs, including team training, to enhance coworker competence and supportiveness. That is, organizations could offer technical training programs to enhance employee skills and performance, which should hopefully bolster perceptions of coworker competence. However, it is most advantageous to be high in both support and competence (Cuddy et al., 2007). Consequently, organizations may also want to educate employees on how to be sensitive to the demands that others may face in order to promote coworker supportiveness. For example, a single, child-free employee may be unaware of the demands that a coworker with children faces outside of work. Therefore, the single employee may ask their colleague to complete an assignment on the weekend, unaware of the pressures that it puts on the coworker with children. It may not necessarily be that the single employee is unsupportive, they may simply be ignorant of the additional home demands that their colleagues may face. Implementing educational opportunities and sensitivity training programs for employees to become aware of the many different lifestyles individuals embody could organically promote increased employee supportiveness via heightened awareness.

Interpersonal feedback programs may be advantageous for bolstering perceptions of coworker competence and support. Whereas relatively understudied, the utility of interpersonal feedback programs are generally supported (e.g., Grant & Parker, 2009; Morgeson & Humphrey, 2006). Practitioners may be able to develop formal interpersonal feedback programs in which employees seek feedback regarding their performance from their peers. This may not only improve individual job performance, but also promote a sense of coworker supportiveness while simultaneously fostering increased perceptions of coworker competence.

Employees frequently engage in behaviors which are rewarded (Kerr, 1995). Managers wanting their employees to be competent and supportive team-players will likely need to reward these behaviors. For example, it may not be enough to simply implement the aforementioned interpersonal feedback programs. Managers may also need to reward the successful completion of these programs to enhance their benefits. Whereas rewarding competence seems relatively straightforward (i.e., those who are highly competent are also assumed to generally be good at the job), the benefits of enhancing and rewarding coworker supportiveness may be less apparent to managers. Organizational decision makers might make the benefits of supportiveness apparent to employees and also provide incentives for engaging in these behaviors. Likewise, it may be beneficial to include coworker supportiveness in formal performance appraisals to ensure that it is measured and included in decision-making procedures. By measuring and rewarding competence and supportiveness, organizations are signaling to their employees that these behaviors are valued and integral to individual and firm performance.

Conclusion

Coworkers profoundly influence individuals at work (e.g., Chiaburu & Harrison, 2008; Schneider, 1987). In order to further explore the influence of coworkers, I tested a model which two coworker resources – competence and support – predict contextual performance via engagement pathways. Ultimately, I found that coworker competence predicted contextual performance via social engagement. I also found that coworker support yielded OCB through both emotional engagement and social engagement. Therefore, organizations may be able to increase aspects of their performance by enhancing coworker relationships. Specifically, bolstering feelings of coworker competence and coworker support should ultimately result in increased employee engagement, which in turn prompts increased contextual performance.

References

- Aaker, J., Vohs, K. D., & Mogilner, C. (2010). Nonprofits are seen as warm and for-profits as competent: Firm stereotypes matter. *Journal of Consumer Research*, 37(2), 224-237.
- Aaker, J. L., Garbinsky, E. N., & Vohs, K. D. (2012). Cultivating admiration in brands: Warmth, competence, and landing in the “golden quadrant”. *Journal of Consumer Psychology*, 22(2), 191-194.
- Aristotle. (1998). *Politics*. R.F. Stalley (Ed.). (E. Barker, Trans.). Oxford: Oxford University Press.
- Asch, S. E. (1946). Forming impressions of personality. *The Journal of Abnormal and Social Psychology*, 41(3), 258-290.
- Ashforth, B., & Mael, F. (1989). Social identity theory and the organization. *The Academy of Management Review*, 14(1), 20-39.
- Bakker, A. B., & Bal, M. P. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology*, 83(1), 189-206.
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328.
- Bakker, A.B., & Demerouti, E. (2013). Job demands-resources theory. In C. Cooper & P. Chen (Eds.), *Wellbeing: A Complete Reference Guide*. Chichester, UK: Wiley-Blackwell.

- Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology, 10*(2), 170-180.
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD–R approach. *Annual Review of Organizational Psychology and Organizational Behav, 1*(1), 389-411.
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human Resource Management, 43*(1), 83-104.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: a meta-analysis. *Personnel Psychology, 44*(1), 1-26.
- Baruch-Feldman, C., Brondolo, E., Ben-Dayan, D., & Schwartz, J. (2002). Sources of social support and burnout, job satisfaction, and productivity. *Journal of Occupational Health Psychology, 7*(1), 84-93.
- Basford, T. E., & Offermann, L. R. (2012). Beyond leadership: The impact of coworker relationships on employee motivation and intent to stay. *Journal of Management & Organization, 18*(6), 807-817.
- Beehr, T. A., Jex, S. M., Stacy, B. A., & Murray, M. A. (2000). Work stressors and coworker support as predictors of individual strain and job performance. *Journal of Organizational Behavior, 39*1-405.
- Bersin, J. (2015). Unlocking the secrets of employee engagement. *The Wall Street Journal*. Accessed from <http://deloitte.wsj.com/cfo/2015/09/04/unlocking-the-secrets-of-employee-engagement/>.

- Blau, P. M. (1964). *Exchange and power in social life*. Transaction Publishers.
- Bommer, W. H., Miles, E. W., & Grover, S. L. (2003). Does one good turn deserve another? Coworker influences on employee citizenship. *Journal of Organizational Behavior*, 24(2), 181-196.
- Borman, W. C., & Motowidlo, S. M. (1993). Expanding the criterion domain to include elements of contextual performance. *Personnel Selection in Organizations; San Francisco: Jossey-Bass*, 71-98.
- Borman, W. C., & Motowidlo, S. J. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance*, 10(2), 99-109.
- Bowler, W. M., & Brass, D. J. (2006). Relational correlates of interpersonal citizenship behavior: a social network perspective. *Journal of Applied Psychology*, 91(1), 70-82.
- Buchanan, B. (1974). Building organizational commitment: The socialization of managers in work organizations. *Administrative Science Quarterly*, 533-546.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. *Sage Focus Editions*, 154, 136-136.
- Byington, E. (2013). *Exploring Coworker Relationships: Antecedents and Dimensions of Interpersonal Fit, Coworker Satisfaction, and Relational Models*. Unpublished Dissertation, Erasmus University Rotterdam.
- Casciaro, T., & Lobo, M. S. (2008). When competence is irrelevant: The role of interpersonal affect in task-related ties. *Administrative Science Quarterly*, 53(4), 655-684.
- Cascio, W.F. (2003). Change in workers, work, and organizations. In W. Borman, R. Klimoski, & D. Ilgen (Eds.), *Handbook of Psychology: Volume 12: Industrial and Organizational Psychology*: 401-422. New York: Wiley.

- Chiaburu, D. S., & Harrison, D. A. (2008). Do peers make the place? Conceptual synthesis and meta-analysis of coworker effects on perceptions, attitudes, OCBs, and performance. *Journal of Applied Psychology, 93*(5), 1082-1103.
- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology, 64*(1), 89-136.
- Cohen, S. (2004). Social relationships and health. *American Psychologist, 59*(8), 676-684.
- Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology, 78*(1), 98-104.
- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: a theoretical extension and meta-analytic test. *Journal of Applied Psychology, 95*(5), 834-848.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management, 31*(6), 874-900.
- Cross, R., & Cummings, J. N. (2004). Tie and network correlates of individual performance in knowledge-intensive work. *Academy of Management Journal, 47*(6), 928-937.
- Cuddy, A.J. (2009). Just because I'm nice don't assume I'm dumb. *Harvard Business Review, 87*, 24.
- Cuddy, A. J., Fiske, S. T., & Glick, P. (2007). The BIAS map: behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology, 92*(4), 631-648.
- Cuddy, A. J., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. *Advances in Experimental Social Psychology, 40*, 61-149.

- Cuddy, A.J., Glick, P., & Beninger, A. (2011). The dynamics of warmth and competence judgments, and their outcomes in organizations. *Research in Organizational Behavior, 31*, 73-98.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*(3), 499-512.
- Ducharme, L. J., & Martin, J. K. (2000). Unrewarding work, coworker support, and job satisfaction: A test of the buffering hypothesis. *Work and Occupations, 27*(2), 223-243.
- Duffy, M. K., Ganster, D. C., & Pagon, M. (2002). Social undermining in the workplace. *Academy of Management Journal, 45*(2), 331-351.
- Dutton, J. E., & Heaphy, E. D. (2003). The power of high-quality connections. In K. Cameron, J. Dutton, & R.E. Quinn (Eds.), *Positive organizational scholarship: Foundations of a new discipline*, 263-278, San Francisco: Berrett-Koehler.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*(3), 500-507.
- Felps, W., Mitchell, T. R., & Byington, E. (2006). How, when, and why bad apples spoil the barrel: Negative group members and dysfunctional groups. *Research in Organizational Behavior, 27*, 175-222.
- Felps, W., Mitchell, T. R., Herman, D. R., Lee, T. W., Holtom, B. C., & Harman, W. S. (2009). Turnover contagion: How coworkers' job embeddedness and job search behaviors influence quitting. *Academy of Management Journal, 52*(3), 545-561.
- Ferres, N., Connell, J., & Travaglione, A. (2004). Co-worker trust as a social catalyst for constructive employee attitudes. *Journal of Managerial Psychology, 19*(6), 608-622.

- Fiedler, F. E. (1971). Validation and extension of the contingency model of leadership effectiveness: A review of empirical findings. *Psychological Bulletin*, 76(2), 128-148.
- Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878-902.
- Fiske, S. T., Cuddy, A. J., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and competence. *Trends in Cognitive Sciences*, 11(2), 77-83.
- Fox, S., Spector, P. E., Goh, A., & Bruursema, K. (2007). Does your coworker know what you're doing? Convergence of self-and peer-reports of counterproductive work behavior. *International Journal of Stress Management*, 14(1), 41-60.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218-226.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & Emotion*, 19(3), 313-332.
- Frith, U., & Frith, C. (2010). The social brain: allowing humans to boldly go where no other species has been. *Philosophical Transactions of the Royal Society of London B: Biological Sciences*, 365(1537), 165-176.
- George, J. M. (2008). Creativity in organizations. *The Academy of Management Annals*, 1(1), 439-477.
- Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader-member exchange theory: Correlates and construct issues. *Journal of Applied Psychology*, 82(6), 827-844.

- Goldstein, H. W., Zedeck, S., & Goldstein, I. L. (2002). g: Is this your final answer?. *Human Performance, 15*(1-2), 123-142.
- González-Romá, V., Schaufeli, W. B., Bakker, A. B., & Lloret, S. (2006). Burnout and work engagement: Independent factors or opposite poles?. *Journal of Vocational Behavior, 68*(1), 165-174.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly, 6*(2), 219-247.
- Grant, A. M., & Parker, S. K. (2009). Redesigning work design theories: The rise of relational and proactive perspectives. *Academy of Management Annals, 3*(1), 317-375.
- Griffin, M. A., & Neal, A. (2000). Perceptions of safety at work: a framework for linking safety climate to safety performance, knowledge, and motivation. *Journal of Occupational Health Psychology, 5*(3), 347-358.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance, 16*(2), 250-279.
- Hakanen, J. J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behavior, 73*(1), 78-91.
- Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The job demands-resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work & Stress, 22*(3), 224-241.

- Halbesleben, J. R. (2006). Sources of social support and burnout: a meta-analytic test of the conservation of resources model. *Journal of Applied Psychology, 91*(5), 1134-1145.
- Halbesleben, J. R., Neveu, J. P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the “COR” understanding the role of resources in conservation of resources theory. *Journal of Management, 40*(5), 1334-1364.
- Halbesleben, J. R., & Wheeler, A. R. (2015). To invest or not? The role of coworker support and trust in daily reciprocal gain spirals of helping behavior. *Journal of Management, 41*, 1628-1650.
- Hamblin, R. L., Miller, K., & Wiggins, J. A. (1961). Group morale and competence of the leader. *Sociometry, 24*(3), 295-311.
- Harter, J. & Adkins, A. (2015). What great managers do to engage employees. *Harvard Business Review*. Accessed from <https://hbr.org/2015/04/what-great-managers-do-to-engage-employees>.
- Herzberg, F. I. (1966). *Work and the nature of man*. Cleveland, OH: World.
- Ho, V. T., & Kong, D. T. (2015). Exploring the signaling function of idiosyncratic deals and their interaction. *Organizational Behavior and Human Decision Processes, 131*, 149-161.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513-524.
- Hobfoll, S. E., & Shirom, A. (2001). Conservation of resources theory: Applications to stress and management in the workplace. In R. T. Golembiewski (Ed.), *Handbook of Organizational Behavior* (pp. 57-80). New York, NY, US: Marcel Dekker.

- Hodson, R. (2008). The ethnographic contribution to understanding co-worker relations. *British Journal of Industrial Relations*, 46(1), 169-192.
- House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science*, 241(4865), 540-545.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55.
- Huhulea, I. (2016). Quitting your job can be just as heartbreaking as ending a romance. *Quartz*. Retrieved from <https://qz.com/701102/quitting-your-job-can-be-just-as-heartbreaking-as-ending-a-romance/>.
- IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.
- Judd, C. M., James-Hawkins, L., Yzerbyt, V., & Kashima, Y. (2005). Fundamental dimensions of social judgment: understanding the relations between judgments of competence and warmth. *Journal of Personality and Social Psychology*, 89(6), 899-913.
- Jurgensen, C. E. (1978). Job preferences (What makes a job good or bad?). *Journal of Applied Psychology*, 63(3), 267-276.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-724.
- Kanfer, R., & Ackerman, P. L. (2005). Work competence. *Handbook of Competence and Motivation*, 336-353.

- Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 285-308.
- Karasek, R. A., Triantis, K. P., & Chaudhry, S. S. (1982). Coworker and supervisor support as moderators of associations between task characteristics and mental strain. *Journal of Organizational Behavior*, 3(2), 181-200.
- Karau, S. J., & Williams, K. D. (1993). Social loafing: A meta-analytic review and theoretical integration. *Journal of Personality and Social Psychology*, 65(4), 681-706.
- Kawachi, I., & Berkman, L. F. (2001). Social ties and mental health. *Journal of Urban Health*, 78(3), 458-467.
- Kelloway, E. K., & Barling, J. (1990). Item content versus item wording: Disentangling role conflict and role ambiguity. *Journal of Applied Psychology*, 75(6), 738-742.
- Kenny, D. A. (2015). Measuring model fit. Accessed from <http://davidakenny.net/cm/fit.htm>.
- Kerr, S. (1995). On the folly of rewarding A, while hoping for B. *The Academy of Management Executive (1993-2005)*, 9(1), 7-14.
- Kim, K. Y., Eisenberger, R., & Baik, K. (2016). Perceived organizational support and affective organizational commitment: Moderating influence of perceived organizational competence. *Journal of Organizational Behavior*, 37(4), 558-583.
- Kim, P.H. (2003). When private beliefs shape collective reality: The effects of beliefs about coworkers on group discussion and performance. *Management Science*, 49, 801-815.
- King, E. B., & Ahmad, A. S. (2010). An experimental field study of interpersonal discrimination toward Muslim job applicants. *Personnel Psychology*, 63(4), 881-906.

- Krausz, M., Yaakovovitz, N., Bizman, A., & Caspi, T. (1999). Evaluation of coworker turnover outcomes and its impact on the intention to leave of the remaining employees. *Journal of Business & Psychology, 14*(1), 95-107.
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individual's fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology, 58*(2), 281-342.
- La Rocco, J. M., & Jones, A. P. (1978). Co-worker and leader support as moderators of stress-strain relationships in work situations. *Journal of Applied Psychology, 63*(5), 629-634.
- Labianca, G., & Brass, D. J. (2006). Exploring the social ledger: Negative relationships and negative asymmetry in social networks in organizations. *Academy of Management Review, 31*(3), 596-614.
- Lance, C. E., Butts, M. M., & Michels, L. C. (2006). The sources of four commonly reported cutoff criteria: What did they really say?. *Organizational Research Methods, 9*(2), 202-220.
- Lee, K., & Allen, N. J. (2002). Organizational citizenship behavior and workplace deviance: The role of affect and cognitions. *Journal of Applied Psychology, 87*(1), 131-142.
- LePine, J. A., Erez, A., & Johnson, D. E. (2002). The nature and dimensionality of organizational citizenship behavior: a critical review and meta-analysis. *Journal of Applied Psychology, 87*(1), 52-65.
- Levinson, H. (1965). Reciprocation: The relationship between man and organization. *Administrative Science Quarterly, 10*, 370-390.

- Lin, M. H., Kwan, V. S., Cheung, A., & Fiske, S. T. (2005). Stereotype content model explains prejudice for an envied outgroup: Scale of anti-Asian American stereotypes. *Personality and Social Psychology Bulletin*, *31*(1), 34-47.
- Lindell, M. K., & Whitney, D. J. (2001). Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology*, *86*(1), 114-121.
- Llorens, S., Bakker, A. B., Schaufeli, W., & Salanova, M. (2006). Testing the robustness of the job demands-resources model. *International Journal of Stress Management*, *13*(3), 378-391.
- Lord, R. G., Day, D. V., Zaccaro, S. J., Avolio, B. J., & Eagly, A. H. (2017). Leadership in applied psychology: three waves of theory and research. *Journal of Applied Psychology*, *102* (3), 434-451.
- Louis, M. R., Posner, B. Z., & Powell, G. N. (1983). The availability and helpfulness of socialization practices. *Personnel Psychology*, *36*(4), 857-866.
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, *1*(1), 3-30.
- Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior*, *70*(1), 149-171.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, *20*(3), 709-734.
- Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, *91*(6), 1321-1339.

- Murphy, K. R., Cronin, B. E., & Tam, A. P. (2003). Controversy and consensus regarding the use of cognitive ability testing in organizations. *Journal of Applied Psychology*, 88(4), 660-671.
- Murphy, K. R., & Shiarella, A. H. (1997). Implications of the multidimensional nature of job performance for the validity of selection tests: Multivariate frameworks for studying test validity. *Personnel Psychology*, 50(4), 823-854.
- Muthén, L. K., & Muthén, B. O. (1998-2017). Mplus User's Guide. Eight Edition. Los Angeles, CA: Muthén & Muthén.
- Nahrgang, J. D., Morgeson, F. P., & Hofmann, D. A. (2011). Safety at work: A meta-analytic investigation of the link between job demands, job resources, burnout, engagement, and safety outcomes. *Journal of Applied Psychology*, 96(1), 1-24.
- Nijssen, M. & Paauwe, J. (2012). HRM in turbulent times: How to achieve organizational agility? *The International Journal of Human Resource Management*, 23, 3315-3335.
- Nunnally, J.C. (1978). *Psychometric methods*. New York: McGraw-Hill.
- O'Reilly III, C. A., Caldwell, D. F., & Barnett, W. P. (1989). Work group demography, social integration, and turnover. *Administrative Science Quarterly*, 34(1), 21-37.
- Organ, D. W. (1997). Organizational citizenship behavior: It's construct clean-up time. *Human Performance*, 10(2), 85-97.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.

- Podsakoff, N. P., Whiting, S. W., Podsakoff, P. M., & Blume, B. D. (2009). Individual-and organizational-level consequences of organizational citizenship behaviors: A meta-analysis. *Journal of Applied Psychology, 94*(1), 122-141.
- Ployhart, R. E., Schmitt, N., & Tippins, N. T. (2017). Solving the supreme problem: 100 years of selection and recruitment at the Journal of Applied Psychology. *Journal of Applied Psychology, 102*(3), 291-304.
- Raabe, B., & Beehr, T. A. (2003). Formal mentoring versus supervisor and coworker relationships: Differences in perceptions and impact. *Journal of Organizational Behavior, 24*(3), 271-293.
- Reimann, B. C. (1982). Organizational competence as a predictor of long run survival and growth. *Academy of Management Journal, 25*(2), 323-334.
- Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal, 53*(3), 617-635.
- Rosenberg, S., Nelson, C., & Vivekananthan, P. S. (1968). A multidimensional approach to the structure of personality impressions. *Journal of Personality and Social Psychology, 9*(4), 283-294.
- Rosette, A. S., & Tost, L. P. (2010). Agentic women and communal leadership: How role prescriptions confer advantage to top women leaders. *Journal of Applied Psychology, 95*(2), 221-235.
- Rotundo, M., & Sackett, P. R. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of job performance: A policy-capturing approach. *Journal of Applied Psychology, 87*(1), 66-80.

- Saari, T., Melin, H., Balabanova, E., & Efendiev, A. (2017). The job demands and resources as antecedents of work engagement: Comparative research on Finland and Russia. *Baltic Journal of Management*, *12*(2), 240-254.
- Sackett, P. R. (2002). The structure of counterproductive work behaviors: Dimensionality and relationships with facets of job performance. *International Journal of Selection and Assessment*, *10*(1-2), 5-11.
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, *21*(7), 600-619.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2001). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, *3*(1), 71-92.
- Schmidt, F. L. (2002). The role of general cognitive ability and job performance: Why there cannot be a debate. *Human Performance*, *15*(1-2), 187-210.
- Schmidt, F. L., & Hunter, J. E. (1998). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. *Psychological Bulletin*, *124*(2), 262-274.
- Schmitt, N. (1996). Uses and abuses of coefficient alpha. *Psychological Assessment*, *8*(4), 350-353.
- Schmitt, N., & Stuits, D. M. (1985). Factors defined by negatively keyed items: The result of careless respondents?. *Applied Psychological Measurement*, *9*(4), 367-373.
- Schneider, B. (1987). The people make the place. *Personnel Psychology*, *40*(3), 437-453.
- Seeman, T. E. (1996). Social ties and health: The benefits of social integration. *Annals of Epidemiology*, *6*(5), 442-451.

- Seibert, S. E., Kraimer, M. L., & Liden, R. C. (2001). A social capital theory of career success. *Academy of Management Journal*, 44(2), 219-237.
- Sherony, K. M., & Green, S. G. (2002). Coworker exchange: Relationships between coworkers, leader-member exchange, and work attitudes. *Journal of Applied Psychology*, 87(3), 542-548.
- Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health and Psychology*, 1(1), 27-41.
- Simpson, M. R. (2009). Engagement at work: A review of the literature. *International Journal of Nursing Studies*, 46(7), 1012-1024.
- Sparrowe, R. T., Liden, R. C., Wayne, S. J., & Kraimer, M. L. (2001). Social networks and the performance of individuals and groups. *Academy of Management Journal*, 44(2), 316-325.
- Susskind, A. M., Kacmar, K. M., & Borchgrevink, C. P. (2007). How organizational standards and coworker support improve restaurant service. *Cornell Hotel and Restaurant Administration Quarterly*, 48(4), 370-379.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. *The Social Psychology of Intergroup Relations*, 33(47), 33-47.
- Tan, H. H., & Lim, A. K. (2009). Trust in coworkers and trust in organizations. *The Journal of Psychology*, 143(1), 45-66.
- Tepper, B. J. (2007). Abusive supervision in work organizations: Review, synthesis, and research agenda. *Journal of Management*, 33(3), 261-289.

- TinyPULSE. (2013). 7 Vital Trends Disrupting Today's Workplace: Results and Data from the 2013 TINYpulse Employee Engagement Survey. Retrieved from <https://www.tinypulse.com/resources/employee-engagement-survey-2013/>
- Tucker, S., Chmiel, N., Turner, N., Hershcovis, M. S., & Stride, C. B. (2008). Perceived organizational support for safety and employee safety voice: The mediating role of coworker support for safety. *Journal of Occupational Health Psychology, 13*(4), 319-330.
- Vacharkulksemsuk, T., & Fredrickson, B. L. (2013). Looking back and glimpsing forward: The broaden-and-build theory of positive emotions as applied to organizations. In *Advances in Positive Organizational Psychology* (pp. 45-60). Emerald Group Publishing Limited.
- Van den Broeck, A., Van steenkiste, M., Witte, H., Soenens, B., & Lens, W. (2010). Capturing autonomy, competence, and relatedness at work: Construction and initial validation of the Work-related Basic Need Satisfaction scale. *Journal of Occupational and Organizational Psychology, 83*(4), 981-1002.
- van Dijk, H., Meyer, B., van Engen, M., & Loyd, D. L. (2017). Microdynamics in diverse teams: A review and integration of the diversity and stereotyping literatures. *Academy of Management Annals, 11*(1), 517-557.
- Viswesvaran, C., Sanchez, J. I., & Fisher, J. (1999). The role of social support in the process of work stress: A meta-analysis. *Journal of Vocational Behavior, 54*(2), 314-334.
- Westwood, R. (2017). The secret to employee engagement isn't about your employees. *Forbes*. Accessed from <https://www.forbes.com/sites/ryanwestwood/2017/10/30/the-secret-to-employee-engagement-isnt-about-your-employees/#1eefdd031ed4>.

- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review*, 66(5), 297-333.
- Williams, K. D., & Karau, S. J. (1991). Social loafing and social compensation: The effects of expectations of co-worker performance. *Journal of Personality and Social Psychology*, 61, 570-581.
- Xanthopoulou, D., Baker, A. B., Heuven, E., Demerouti, E., & Schaufeli, W. B. (2008). Working in the sky: A diary study on work engagement among flight attendants. *Journal of Occupational Health Psychology*, 13(4), 345-356.
- Young, S. N. (2008). The neurobiology of human social behaviour: an important but neglected topic. *Journal of Psychiatry & Neuroscience: JPN*, 33(5), 391-392.

Table 1

Descriptive Statistics and Inter-Item Correlations Matrix

	Mean	SD	1	2	3	4	5
1. Coworker Competence	4.14	.69	(.88)				
2. Coworker Support	3.54	.91	.48**	(.93)			
3. Emotional Engagement	4.07	.79	.32**	.56**	(.93)		
4. Social Engagement	3.36	.79	.40**	.44**	.43**	(.77)	
5. OCB-O	3.78	.69	.17*	.39**	.48**	.46**	(.88)

Note. $N = 142$. Reliability estimates (Cronbach's alpha) are provided in parentheses on the diagonal.

* $p < .05$, two-tailed ** $p < .01$, two-tailed.

Table 2

Confirmatory Factor Analyses of Nested Models

Model	<i>df</i>	χ^2	χ^2_{diff}	RMSEA	CFI	TLI
Five-factor fixed model	338	593.54**		.07	.90	.89
Five-factor model	340	627.64**	34.10**	.08	.89	.88
Three-factor model	347	1056.36**	428.72**	.12	.74	.71
Two-factor model	349	1293.85**	237.49**	.14	.65	.62
One-factor model	350	1666.10**	372.25**	.16	.51	.47

Note. $N = 142$. *df* = degrees of freedom, RMSEA = root mean square error of approximation, CFI = comparative fit index, TLI = Tucker-Lewis Index. Five-factor fixed model = Coworker Competence, Coworker Support, Social Engagement, Emotional Engagement, and OCB all loaded onto separate latent variables while leaving the positively worded items from coworker competence (CWC1/CWC2), and the negatively worded items from coworker competence (CWC3/CWC4) free to covary. Five-factor model = Coworker Competence, Coworker Support, Social Engagement, Emotional Engagement, and OCB all loaded onto separate factors. Three-factor model = Coworker Competence and Social Support loaded onto one latent variable, social engagement and emotional engagement loaded onto one latent variable, and OCB loaded onto one latent variable; Two-factor model = Coworker Support and Coworker Competence loaded onto one common factor, Social Engagement, Emotional Engagement, and OCB loaded onto one common factor; One-factor model = all items loaded onto the same latent factor.

** $p < .01$.

Table 3

Unstandardized and Standardized Factor Loadings from Confirmatory Factor Analysis

Parameter	Standardized	Unstandardized	SE
<u>Coworker Competence</u>			
CWC1	.92	1	
CWC2	.89	.97	.05
CWC3	.63	.59	.10
CWC4	.66	.62	.10
<u>Coworker Support</u>			
CS1	.86	1	
CS2	.66	.69	.08
CS3	.86	1.01	.08
CS4	.88	1.04	.07
CS5	.81	.83	.07
CS6	.70	.74	.08
CS7	.89	1.00	.07
<u>Emotional Engagement</u>			
EENG1	.88	1	
EENG2	.74	.67	.06
EENG3	.74	.72	.07
EENG4	.88	.94	.07
EENG5	.81	.95	.08
EENG6	.60	.77	.10
<u>Social Engagement</u>			
SENG1	.74	1	
SENG2	.63	1.21	.18
SENG3	.58	1.12	.18
SENG4	.80	1.47	.17
<u>OCB-O</u>			
OCB1	.55	1	
OCB2	.61	.89	.15
OCB3	.77	1.25	.19
OCB4	.85	1.32	.20
OCB5	.54	.79	.15
OCB6	.89	1.33	.19
OCB7	.73	1.05	.17

Note. $N = 142$. Results for CFA with CWC1/CWC2 and CWC3/CWC4 free to covary.

Table 4

Goodness of Fit Model Estimates

	χ^2	RMSEA	RMSEA 90% CI	CFI	TLI	SRMR
Hypothesized Model	603.91	.07	(.06, .08)	.90	.89	.07

Note. $N = 142$.

χ^2 degrees of freedom = 341. Results for hypothesis model estimates with CWC1/CWC2 and CWC3/CWC4 free to covary

Table 5

Unstandardized and Standardized Estimates of the Direct and Indirect Effects of Coworker Support and Coworker Competence

	Emotional Engagement			Social Engagement			Organizational Citizenship Behaviors		
	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β
Coworker Support	.49**	.09	.55**	.19**	.07	.31**			
Coworker Competence	.10	.11	.09	.24**	.09	.33**			
Emotional Engagement							.32**	.07	.49**
Social Engagement							.29**	.10	.29**
Coworker Support via Emotional Engagement							.16**	.04	.27**
Coworker Support via Social Engagement							.05*	.03	.09*
Coworker Competence via Emotional Engagement							.03	.04	.04
Coworker Competence via Social Engagement							.07*	.03	.10*

Note: N = 142

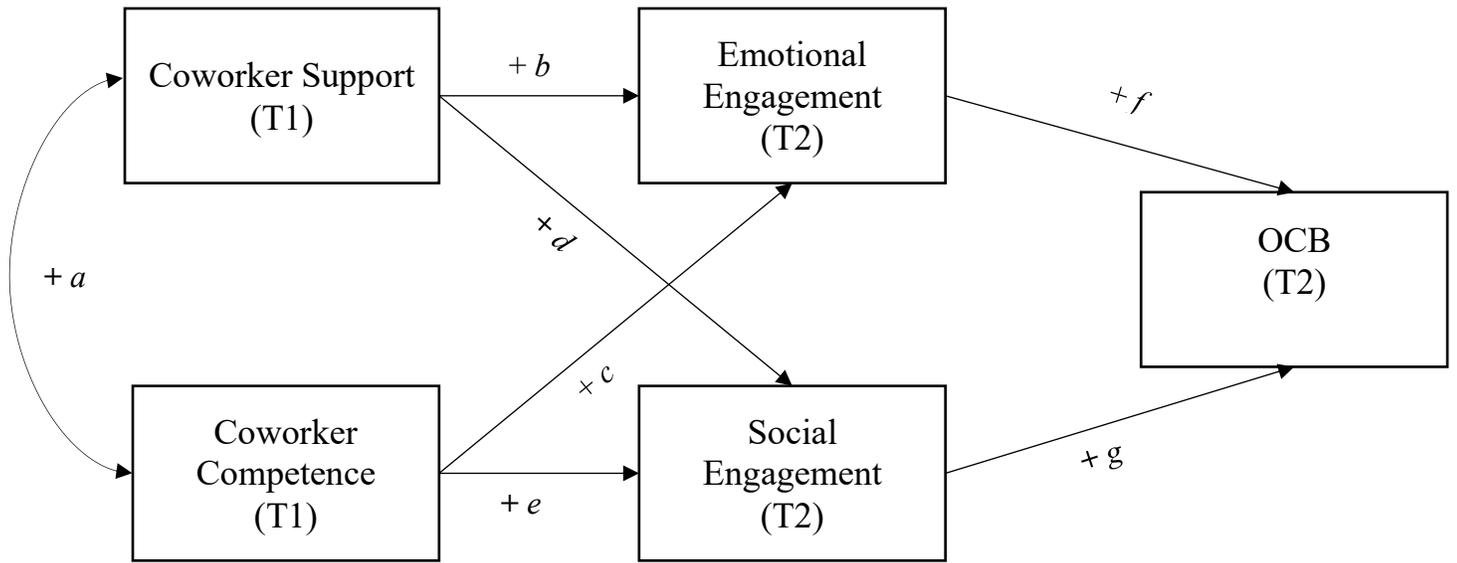


Figure 1. The Hypothesized Model

Note: T1 = Time 1; T2 = Time 2.

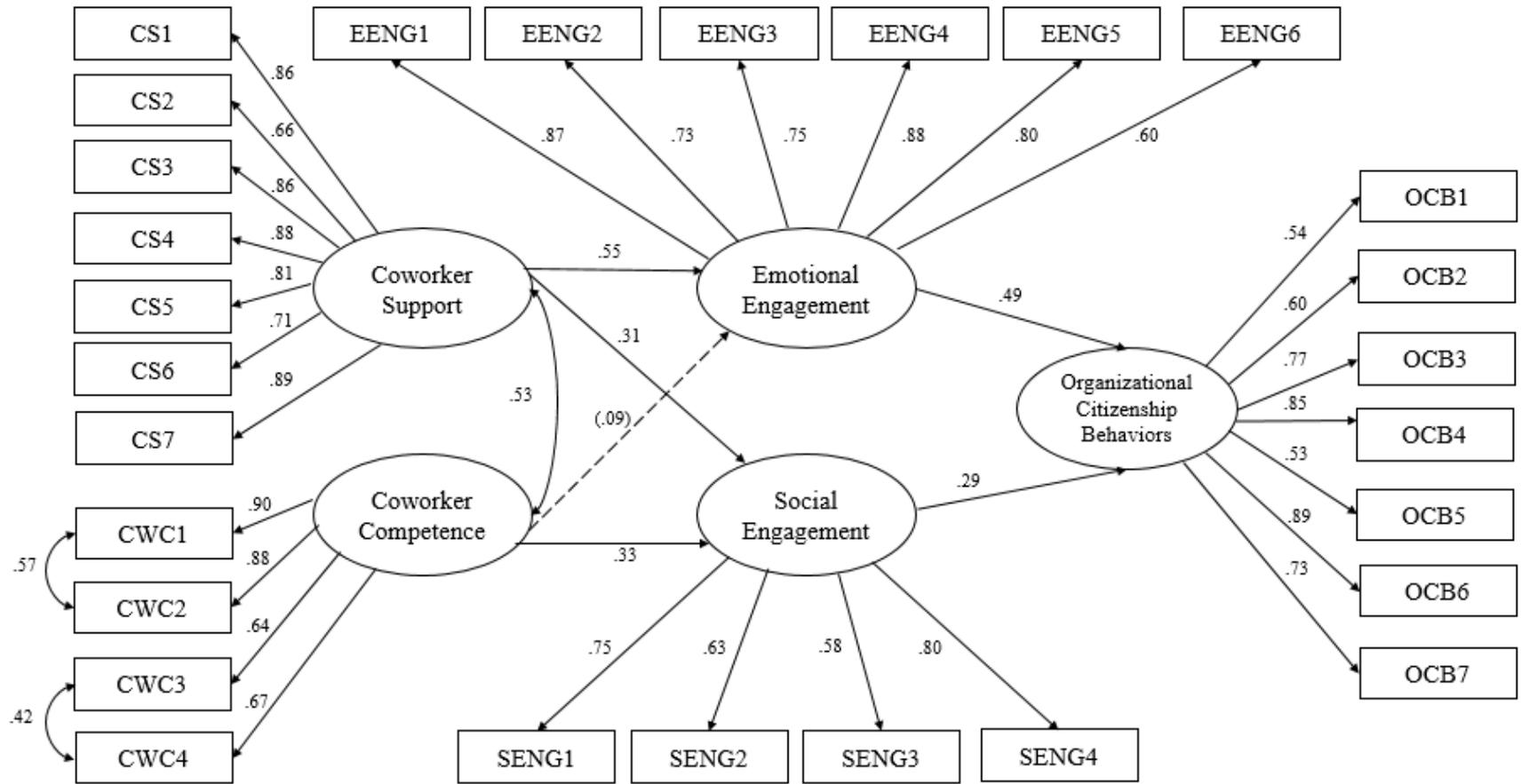


Figure 2. Standardized parameter estimates for the hypothesized model

Note: $N = 142$. All estimates represented by solid lines are significant at $p < .05$

Appendix A

Coworker Competence Scale

Developed for the Study

1. I believe that my coworkers have the skills necessary to successfully complete their jobs.
2. My coworkers are proficient in their work.
3. My coworkers are unable to fully meet the demands of this job (Reverse Coded)
4. I often think that my coworkers do not have the ability that is necessary for this line of work (Reverse Coded).

Appendix B

Coworker Support Scale

Based on Eisenberger, Huntington, Hutchison, and Sowa (1986)

1. My colleagues strongly consider my goals and values.
2. My colleagues fail to appreciate any extra effort from me (Reverse Coded).
3. My colleagues really care about my well-being.
4. My colleagues take pride in my accomplishments at work.
5. My colleagues care about my opinions.
6. My colleagues show very little concern for me (Reverse Coded).
7. My colleagues are willing to extend themselves to help me perform to the best of my ability.

Appendix C

Emotional Engagement Scale

Rich, Lepine, and Crawford (2010)

1. I am enthusiastic in my job.
2. I feel energetic at my job.
3. I am interested in my job.
4. I am proud of my job.
5. I feel positive about my job.
6. I am excited about my job.

Appendix D

Social Engagement Scale

Developed for the Study

1. I spend time getting to know my colleagues.
2. I make an effort to have lunch with colleagues.
3. I usually attend birthday parties and other celebrations at work.
4. I know a lot about my colleagues, including their families.

Appendix E

Organizational Citizenship Behaviors Scale

Lee and Allen (2002)

1. I attend functions that are not required but that help the organizational image.
2. I keep up with developments in the organization.
3. I defend the organization when other employees criticize it.
4. I show pride when representing the organization in public.
5. I offer ideas to improve the functioning of the organization.
6. I express loyalty toward the organization.
7. I take action to protect the organization from potential problems.