## **DISSERTATION**

# THEORETICAL ANTECEDENTS AND POSITIVE EMPLOYEE WORK EXPERIENCES OF JOB CRAFTING

Submitted by

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### **ABSTRACT**

# THEORETICAL ANTECEDENTS AND POSITIVE EMPLOYEE WORK EXPERIENCES OF JOB CRAFTING

Although there have been recent advances in the conceptualization of job crafting (e.g., Berg, Dutton, & Wrzesniewski, 2013; Leana, Appelbaum, & Shevchuk, 2009) and in mapping its nomological network (Berg, Dutton & Wrzesniewski, 2007; Demerouti & Bakker, 2014; Petrou, 2013), the theory of job crafting remains limited. Specifically, job crafting theory fails to recognize important theoretical antecedents of job crafting behavior, including individual, work context, and leadership factors that serve as sources of motivation for employee job crafting. Furthermore, the theory does not explain the complex interrelationship of job crafting and traditional work design (Hackman & Oldham, 1976; Humphrey, Nahrgang, & Morgeson, 2007), even though job crafting is said to complement and supplement traditional work design to influence employee work experiences (Berg et al., 2013). Through this study, I expand job crafting theory to not only rely on a needs-based approach to motivation (Berg et al., 2013; Wrzesniewski & Dutton, 2001), but to also apply cognitive, trait/dispositional, behavioral, and work design approaches to understand why employees are motivated to craft in their work roles. Study hypotheses were investigated using a sample of working adults and their colleagues (N =120 employee-colleague dyads), both of whom provided information about individual, leader, and work characteristics, as well as ratings of job crafting behaviors, work attitudes, motivation, and adaptive performance. Results show individual factors (i.e., proactivity and learning orientation), work design factors (i.e., task and social characteristics), and leader factors

(empowerment and trust) all significantly relate to job crafting and should be conceptualized as theoretical precursors to job crafting. Additionally, job crafting and work design factors predict positive employee work experiences. Specifically, task characteristics and job crafting explain significant variance in employees' intrinsic motivation; task and social characteristics explain significant variability in person-organization fit; and as a final indicator of positive work experiences, employee adaptive performance is significantly related to knowledge characteristics. The findings of this study advance job crafting and work design theories and provide practical recommendations for facilitating positive work experiences through both job crafting and work design efforts.

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## **DEDICATION**

I would like to dedicate this dissertation to my sister and brother, Bridget and Dan Dvorak. You are my best friends and support system. You keep me grounded. You remind me to be playful and not take life too seriously. Our differences bring out the best in each of us and our similarities keep us close. I wish both of you true happiness and success in all that you do.

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#### INTRODUCTION

Though fundamentally most people work to earn a living, research shows people also work to experience a sense of meaningfulness, make an impact, build relationships, and contribute to purposes greater than themselves (Rodell, 2013; Steger, Dik, & Duffy, 2012). Job crafting presents a way for employees to create personal meaningfulness, fulfill interests, and use individual strengths in their work (Berg, Dutton, & Wrzesniewski, 2007). As a form of proactive and self-initiated behavior, employees alter and 'craft' their work roles by changing specific work tasks, thoughts and perceptions about work, and work relationships (Berg, Dutton, & Wrzesniewski, 2013; Wrzesniewski & Dutton, 2001). Consequently, benefits for both individuals and their organizations accrue as evidenced by research showing job crafting positively relates to employee engagement, organizational commitment, psychological well-being, helping behaviors, and task performance (Bakker, Tims, & Derks, 2012; Brenninkmeijer & Hekkert-Koning, 2015; Leana, Appelbaum, & Shevchuk, 2009; Petrou, Demerouti, & Schaufeli, 2015; Slemp & Vella-Brodrick, 2013; Slemp & Vella-Brodrick, 2014).

Job crafting theory suggests that employees are motivated to change their work roles because of (1) inherent needs, such as human connection, autonomy, and positive self-image, and (2) out of a desire to build meaningfulness and identity through experiences at work (Wrzesniewski & Dutton, 2001). In support of the theory, research shows that needs (specifically, needs satisfaction), such as autonomy and competence, are positively related to job crafting behavior (Holcombe, Byrne, & Mattingly, 2016; Slemp & Vella-Brodrick, 2014).

Despite advances in research on job crafting, the current conceptualization of job crafting theory is limited in that needs are only one potential source of motivation for job crafting, and therefore

do not explain all of the variance in employee job crafting. For example, recent studies show needs fulfillment explained only 13-19% of the variance in employee job crafting (Leana et al., 2009; Lyons, 2008). Because of the accumulating evidence that job crafting is beneficial for both organizations and employees themselves, it is imperative that the nature of job crafting is understood, including the motivators of crafting and how to foster job crafting.

In this study, I explore the complex interrelationship of job crafting and work design as an approach to expanding job crafting theory. Based on work design theories of motivation (e.g., Hackman & Oldham, 1975; Morgeson & Humphrey, 2006), organizations can restructure jobs to include specific work characteristics (e.g., autonomy, social support, or complexity), creating positive experiences for employees while providing the capabilities, motivation, and opportunities for proactive behavior like job crafting (Grant & Parker, 2009). A variety of laboratory and field studies, using both correlational and quasi-experimental methods, have shown that work design characteristics influence employee motivation, productivity, and wellbeing (Morgeson & Campion, 2003; Morgeson & Humphrey, 2006; Oldham & Hackman, 2010). However, as a top-down approach applied across a variety of jobs, work design practices (i.e., integrating work characteristics in employees' jobs) cannot be tailored easily for a single employee's unique needs, abilities, and interests (Wrzesniewski, Lobuglio-dutto, Dutton, & Berg, 2013). Researchers have observed that employees armed with the right resources, capabilities, and motivation can shape their own work roles and build positive experiences through their work. Thus, the opportunity exists beyond traditional work characteristics to enrich employee work experiences.

Work design efforts are valuable in that they create a positive work context for employees, but job crafting efforts, which are initiated by employees themselves, can further

enhance experiences at work. Crafting is uniquely different from organizational work design approaches because it is employee-initiated rather than company-driven and crafting is intended to produce different outcomes than work design characteristics, namely personal meaningfulness and identity. Finding meaningfulness in work is desirable, in and of itself, but is also related to positive outcomes, such as job satisfaction, organizational commitment, and helping behaviors (Steger et al., 2012). Hence, the combination of work characteristics and crafting may provide extensive benefits to the organization in the form of performance and high quality work, and also to individuals in the form of job satisfaction and personal meaningfulness, ultimately translating into healthier and more productive workers (Kelloway & Barling, 1991; Wilson, Dejoy, Vandenberg, Richardson, & McGrath, 2004).

## **Aims of this Study**

The purpose of this project was to extend job crafting theory beyond a needs-based perspective (Berg et al., 2013; Wrzesniewski & Dutton, 2001) by incorporating sources of motivation derived from theories of work design, cognitive, trait/dispositional, and behavioral theories of motivation. By identifying additional sources of motivation at the individual, work, and leadership levels, I sought to expand the theoretical and empirical literature on how and why employees job craft.

As another extension to job crafting theory, I integrate job crafting and work design theories to understand how both the organization and individual employees build *positive work experiences*, which I define as a broad multidimensional construct representing work attitudes, motivational states, and performance. Work design characteristics create a context that facilitates employee job crafting, but crafting efforts can also change the basic design of work. Through this reciprocal relationship, employees and organizations build positive work experiences. Thus,

work design characteristics may be conceptualized as theoretical antecedents of job crafting that also act complementary in creating positive employee attitudes, behaviors, and perceptions of work.

Researchers have not empirically demonstrated that work design characteristics promote employee job crafting, nor is there evidence showing job crafting creates positive work experiences beyond what is produced through organizational work characteristics. Therefore, understanding the interplay of job crafting and work design characteristics, and the nature of how and why employees thrive in their work environments using both job crafting *and* work design characteristics can advance organizational theory and practice. My full theoretical model, an extension of job crafting theory, is shown in Figure 1.

## **Employees' Role in Designing Work: Job Crafting**

Several qualitative studies, including daily diary studies (e.g., Berg, Grant, & Johnson, 2010; Demerouti, Bakker, & Halbesleben, 2015; Ko, 2012), have helped define job crafting and describe what crafting looks like. Researchers disagree to some extent on how to categorize and describe job crafting (Kooij, Tims, & Kanfer, 2015), but according to job crafting theory (Berg et al., 2013; Wrzesniewski & Dutton, 2001), job crafting is best represented by three broad types of crafting behavior: task, relational, and cognitive crafting. *Task crafting* represents an active change to one's specific work tasks, which involves taking on new work tasks, emphasizing certain tasks that are aligned with personal interests and strengths, or by redesigning how tasks are accomplished (Berg et al., 2013). Employees can also craft their work relationships, i.e., *relational crafting*, to derive meaningfulness and identity. For example, employees can build new relationships, reframe the purpose of their existing relationships, or take on a mentoring or support role within an existing relationship (Berg et al., 2013). The last broad type of crafting,

cognitive or perceptions crafting, represents changes to the ways one thinks about and processes experiences at work. This can be done by thinking about work holistically, focusing on the most rewarding or fulling parts of work, or finding connections between work and one's personal interests and values (Berg et al., 2013). Employees may shape their work roles by engaging in any one of these types of crafting, making them independent ways to alter work roles (Berg et al., 2013; Dvorak, 2014). Additionally, altering facets of work may involve expanding and shrinking or minimizing parts of work (Laurence, 2010), but the essential core to job crafting is that some change (either growth or contraction) has taken place to successfully integrate personal passions, strengths, and interests into a work role.

Why do employees job craft? Researchers have observed, described, and characterized job crafting behaviors (e.g., Bakker et al., 2012; Berg et al., 2010a; Berg, Wrzesniewski & Dutton, 2010; Leana et al., 2009), but what exactly motivates employees to job craft in the first place? Job crafting theory states that employees job craft to fulfill specific personal needs, such as having control, maintaining a positive self-image, feeling connected with others, and wanting to cope at work (Berg et al., 2007; Berg et al., 2013; Wrzesniewski & Dutton, 2001). These inherent needs are thought to motivate people to alter facets of their work, such as tasks, perceptions, and relationships, so needs are met. Furthermore, when employees satisfy needs, it is hypothesized that they create positive personal experiences at work, such as meaningfulness and a strong personal identity.

Research using self-determination theory has provided empirical support for the underlying needs perspective of job crafting theory. Self-determination theory (Ryan & Deci, 2000), a well-supported needs-based theory (Gagné & Deci, 2005; Ryan & Deci, 2008), posits that all people have inherent needs to exert personal control over their actions, decisions, and

thoughts (i.e., autonomy), to build relationships and connections with other people (i.e., relatedness), and to feel accomplished by utilizing personal strengths/skills through one's actions (i.e. competence). Job crafting helps satisfy these needs, as it is related to the fulfillment of all three basic needs – autonomy, competence, and relatedness (Holcombe et al., 2016) – as well as to overall needs satisfaction (Slemp & Vella-Brodrick, 2014). Satisfying basic needs through job crafting is related to psychological and subjective well-being (Slemp & Vella-Brodrick, 2014) and meaningfulness of work (Holcombe et al., 2016).

Although this initial support for the needs-based perspective of job crafting theory is encouraging, the needs perspective presents challenges. For one, needs are thought to be inborn and, as such, having a certain need is thought to be outside one's control (Latham & Pinder, 2005). A person cannot change the needs inherent to him or her, only whether or not needs are satisfied. As a result, people and organizations do not have as much control over needs as they do over other motivational factors, such as job characteristics, leader and coworker support, or goals. In general, needs-based theories of motivation have lost favorability in organizational research because they are more descriptive than prescriptive; they help describe some of the reasons employees behave certain ways in the workplace, but are not particularly helpful for changing behavior or motivation (Latham & Pinder, 2005).

Another difficulty with the needs perspective is the disagreement about how to assess needs. All needs theories state that needs are inborn and fundamental characteristics of a person (Mitchell & Daniels, 2003). However, depending on the theory, there are differing assumptions about the ways needs function within people to produce behavior. For example, some theories emphasize need strength, or how strongly a need exists within a person, whereas other needs theories suggest that needs satisfaction, or the extent to which a certain need is fulfilled for a

person, best predicts behavior. The former perspective, which includes theories such as need for achievement theory (McClelland, Atkinson, Clark, & Lowell, 1967), proposes that people have differing needs and also have needs of differing strength, which is why they behave differently. The latter perspective, which is predominated by self-determination theory (Ryan & Deci, 2000), theorizes that all people have the same basic and inherent needs (i.e., need for autonomy, relatedness, and competence), but the extent to which those needs are satisfied explains differences in behavior. In either case, whether measuring which needs people have and the strength of those needs or measuring to what extent needs are satisfied, needs do not fully explain differences in employee behavior and more specifically, needs do not explain all the variance in employee job crafting (Slemp & Vella-Brodrick, 2014).

When using a needs perspective alone, job crafting theory fails to capture other reasons employees decide to change their work roles through crafting efforts. Accumulated research from personality, motivation, leadership, and performance literatures shows that situational, contextual, and leadership factors can play roles in determining behavior (Bandura, 1977; Barling, Christie, & Hoption, 2011; Grant & Parker, 2009; Judge & Piccolo, 2004). Job crafting theory does not presently account for work context or leadership influences on employees' job crafting.

Other researchers have noted this gap in job crafting theory as well. In his recent book on job crafting and organizational change, Petrou (2013) discussed both individual motivational orientations and environmental factors as predictors of job crafting. In her dissertation,

Ghitulescu (2006) explored some of the structural context factors (i.e., discretion, task complexity, and interdependence) and relational work context factors (i.e., psychological safety and communities of practice) that motivate job crafting. Bruning (2014) also explored some

contextual factors that support job crafting in his dissertation, including autonomy, task complexity, and work conditions. Although these researchers take an important step in the right direction by observing the relationships between some work context variables and job crafting, their examinations fail to fully represent the work context, which is characterized by task, knowledge, social, and work context characteristics (Humphrey, Nahrgang, & Morgeson, 2007), and they neglect the important role of leadership in predicting employee job crafting.

Applying other theories of motivation. To answer the question, what motivates people to job craft?, it is helpful to think broadly about work motivation. Work motivation is defined as a "set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior and to determine its form, direction, intensity, and duration" (Pinder, 1998, p. 11). Motivation influences almost all behavior in the workplace because it influences attention (what we do), effort (how hard we try), persistence (how long we try), and task strategies (the way we do it). Combined with abilities and skills, and depending on contextual factors, motivation elicits all work behavior and performance (Mitchell & Daniels, 2003).

There are several approaches and perspectives to work motivation. Although the perspectives grew out of different traditions and address different components of motivation, they are generally complementary (i.e., rather than contradictory). By utilizing multiple perspectives, scholars can understand employee work behaviors more holistically than by relying on any one theory alone. Others have recognized this as well (Locke & Latham, 2004) and have attempted to integrate theories of motivation into broad, overarching models of motivation. I aim to extend job crafting theory by pulling from cognitive, trait/dispositional, behavioral, and work design approaches to explain how and why employees choose to craft their work roles.

Cognitive-based theories of motivation. Cognitive perspectives of work motivation highlight that people perceive a discrepancy between their own beliefs and their behavior, or between a current and a desired state, which motivates them to reframe thoughts or alter actions to close the perceived gap. This perspective is highly relevant to job crafting because crafting presents one technique for employees to resolve discrepancies experienced in their work roles. For example, employees may want to derive more meaningfulness, feel a stronger sense of identification with work, or display more personal strengths than they currently are able (Berg et al., 2013). Employees can resolve discrepancies such as these and alter their work experiences for the better by actively changing facets of their work tasks and relationships, or reframing thoughts through cognitive crafting. Two current dominating theories of work motivation that fall under the cognitive approach and that may contribute to our understanding of job crafting include social cognitive theory (Bandura, 1977), specifically perceptions of self-efficacy, and goal setting theory (Locke & Latham, 1990).

Trait-based theories of motivation. Another subset of work motivation theories falls under the trait/dispositional perspective of motivation, which says people's inherent personality traits and dispositional tendencies predict their behaviors. According to the theory of planned behavior and reasoned action (Ajzen, 1991), traits and dispositions influence peoples' personal beliefs and attitudes, which their influence intentions for behavior and actual behavior (Ajzen & Fishbein, 2005). People are especially inclined to express their inherent tendencies or dispositions when situations are weak, where norms for behavior are unclear or ill-defined, as opposed to strong (e.g., ceremonies where certain actions are expected and others shunned). In weak situations where there are few norms to dictate behavior, people are free to display their personalities and individual differences (Cooper & Withey, 2009). Thus, the interaction between

a person and the situation is important to consider when applying trait perspectives of motivation, because traits are one potential source guiding peoples' behavior.

Researchers have investigated broad traits (e.g., five factor model of personality; McCrae & Costa, 1987), as well as narrow traits (e.g., optimism; Scheier, Carver, & Bridges, 1994), and in either case there is support that personal characteristics relate to work behaviors. Just as personality traits can predict job performance (Judge & Zapata, 2015; Schmidt & Hunter, 1998), creativity and initiative (Fuller & Marler, 2009), and organizational citizenship behaviors (Borman, Penner, Allen, & Motowidlo, 2001), personality likely also plays a role in explaining employee job crafting behavior.

Behavioral-based theories of motivation. In addition to individually-focused motivation perspectives (i.e., cognitive and trait perspectives), the behavioral perspective to work motivation can advance job crafting theory. According to the behavioral approach, people's behavior is largely dependent on reinforcement and punishment (Skinner, 1974). People continue exhibiting a behavior that is reinforced by the direct outcomes of their own actions or by other people, such as leaders, colleagues, or subordinates. Upon rejection, the behavior is reduced.

Leaders and direct supervisors may play an especially important role in either reinforcing or rejecting employee behaviors at work. For example, supervisors can exhibit control and punish employees through incivility (Peason & Porath, 2005). Positive leader interactions and behaviors, in contrast, reinforce behaviors and are related to employee motivation, creativity, proactive behaviors, change orientation, and potency (i.e., an ability to take on and resolve problems and challenges; Bass, Avolio, Jung, & Berson, 2003; Judge & Piccolo, 2004; Oldham & Cummings, 1996; Parker, Williams, & Turner, 2006). Furthermore, leaders and supervisors can impact other work-related variables, such as resources, information, and role clarity, which

also reinforce employee proactivity (Fuller, Marler, & Hester, 2006). Similar to proactive behaviors (Parker et al., 2006), innovation (Gumusluoglu & Ilsev, 2009), and organizational citizenship behaviors (Hui, Law, Hackett, Duanxu, & Zhen Xiong, 2005), supervisors can influence job crafting behavior by either positively or negatively reinforcing employees for their crafting efforts. As such, leadership factors are among the theoretical antecedents that should be included in job crafting theory, but are not today.

Work design theories of motivation. An employee may perceive a discrepancy in his or her work role, may have traits that predispose him to engage in proactive behavior, and may even have been reinforced to do so by his leader, but without the proper situation or context, the employee may not job craft. Situational perspectives emphasize how the environment sends messages about the appropriateness and likelihood of engaging in a behavior. The context most relevant to job crafting is the job itself, or the design of the work. According to work design theories (e.g., job characteristics theory; Hackman & Oldham, 1976), when an employee first steps into his or her work role, the job has task, knowledge, social, and context characteristics that define what the job entails and how the work can be done (Humphrey et al., 2007). For example, some jobs allow flexibility and autonomy (i.e., a task characteristic); some work roles are designed so employees give and receive lots of feedback (i.e., a social work characteristic); other jobs require a lot of information processing (i.e., a knowledge characteristic); and some work roles have high physical demands (i.e., a work context characteristic). These characteristics influence employee attitudes, well-being, and performance (Morgeson & Campion, 2002; Morgeson & Humphrey, 2006). Not only can the design of work influence employee work experiences, work design characteristics are thought to influence job crafting because they can either limit opportunities for crafting or create a context that is supportive of crafting efforts

(Morgeson, Dierdorff, & Hmurovic, 2010). Managers and leaders can design positive work roles that motivate employees to take ownership of their roles and change them in ways that are consistent with personal values and strengths. As stated by Berg and colleagues (2007, p. 5), "job crafting theory does not devalue the importance of job designs assigned by managers; it simply values the opportunities employees have to change them." Without certain work design characteristics, employees may choose not to craft at all.

#### THE CURRENT STUDY

This study is depicted in two broad models. Model 1, shown in Figure 2, displays the theoretical antecedents of job crafting behaviors. Through testing this model, my goal is to extend job crafting theory to include not only needs-based motivators of job crafting, but also individual, work design, and leadership factors that explain how and why employees craft their work roles. Represented in Model 2 and seen in Figure 3, I aim to advance job crafting theory, as well as work design theories, by observing the relationships of job crafting and work design characteristics with positive employee work experiences. Through this model, I demonstrate that positive work experiences, which comprise positive attitudes, motivational states, and adaptive performance, are explained better by a combination of job crafting and work design characteristics than by either alone.

## **Theoretical Antecedents of Job Crafting: Model 1**

Much of the research on job crafting has focused on theoretical outcomes of crafting behaviors (e.g., Slemp & Vella-Brodrick, 2014; Tims, Bakker, & Derks, 2013; Tims, Bakker, Derks & van Rhenen, 2013), but some researchers have observed factors that theoretically precede employee job crafting, such as proactive personality (Bakker et al., 2012), career orientation (Leana et al., 2009), and readiness to change (Lyons, 2008; Petrou et al., 2015). Scholars and practitioners need a better understanding of the factors that enable employee job crafting to explain why employees are motivated to job craft in the first place, and then to subsequently understand why employees elect to craft their work roles. Thus, the first goal of this study was to investigate the conditions at the individual-, work context-, and leadership-level that foster and facilitate employee job crafting.

**Individual factors.** From a series of qualitative studies including interviews (e.g., Berg et al., 2010a; Berg et al., 2010b; Bruning, 2014) and daily diary studies (e.g., Demerouti et al., 2015; Ko, 2012), researchers observed that job crafting is self-initiated and personally driven. Job crafters may want to align their current jobs with preconceived notions about the positive meaning and identity that can be derived through work (Wrzesniewski et al., 2013). Other crafters may aspire to develop themselves and their jobs into something greater than before. To accomplish this, employees make conscious choices to change the ways they complete tasks, navigate relationships, or think about work. Psychologists cannot identify or explain all determinants of human behavior, but accumulated evidence suggests that behavior is determined by situational factors, and often, largely because of the individual who is enacting the behavior (Barrick & Mount, 2005). In line with trait and dispositional perspectives (e.g., five factor model of personality; McCrae & Costa, 1987; need for achievement theory; McClelland et al., 1976), personal characteristics and basic tendencies may make a person predisposed to proactive behavior such as job crafting. Furthermore, as employees learn and grow in their work roles, they can develop skills that support job crafting behaviors. When skills and behaviors are reinforced, employees may learn when and how best to job craft. As such, it is expected that individual factors, including personality traits, tendencies, skills, abilities, and perceptions, influence employee job crafting behavior.

Some researchers have investigated personal characteristics as conceptual antecedents to job crafting. In line with my predictions, personal qualities do positively relate to job crafting. One's orientation (i.e., career orientation, regulatory focus), readiness to change, proactive personality, and self-efficacy are related to job crafting (Bakker et al., 2012; Brenninkmeijer & Hekkert-Koning, 2015; Bruning, 2014; Leana et al., 2009; Lyons, 2008; Petrou et al., 2015;

Tims, Bakker, & Derks, 2014; van den Heuvel, Demerouti, & Peeters, 2015). However, these qualities have been studied in isolation, not in relation to contextual or leadership factors, hence researchers do not yet fully understand the role of individual factors in explaining employee job crafting.

Other research on proactive behavior can also provide insight into why individual characteristics theoretically predict job crafting, as job crafting is one form of proactivity. For example, personal tendencies like proactive personality are related to actual proactive behavior (Parker et al., 2006); without the tendency to be proactive, employees are less inclined to identify, seek, or act on opportunities to be proactive. Individual evaluations of the situation or of personal abilities also impact proactive behaviors. For example, role breadth self-efficacy, change orientation, and control appraisals are positively related to proactive behavior (Parker et al., 2006). These studies support the important role of individual factors in understanding behavior like job crafting. To understand the theoretical underpinnings of job crafting, it is imperative to consider the qualities of the individual job crafter. In the proposed study, individual factors related to job crafting will be indicated by proactive personality, role breadth self-efficacy, and learning orientation.

*Proactivity*. Employees who are considered proactive, or who have a highly proactive personality, have a tendency to show self-initiative and stimulate change (Fuller & Marler, 2009). Proactive personality has shown to predict employee proactive behaviors (Fuller et al., 2006), specifically, voice, taking charge, creativity, career initiative, and networking (Fuller & Marler, 2009). Proactive personality also interacts with other factors such as motivation, skills, abilities, and opportunities for change, to magnify their effects on proactive behavior (Grant & Parker, 2009). Thus, people who have a tendency to be proactive are expected to take advantage

of change or to use their feelings of motivation to actually engage in proactive behaviors. As a form of proactive behavior, I predict that as employees exhibit higher levels of proactive personality, they will also tend to job craft.

Role breadth self-efficacy. Social cognitive theory (Bandura, 1977) emphasizes the importance of self-efficacy, or one's beliefs in his or her capabilities to enact a particular behavior, in determining one's actions. Social cognitive theory, and specifically hypotheses that one's self-efficacy influences goal selection, task strategies, problem-solving, and performance, have been well supported (Stajkovic, & Luthans, 1998). Self-efficacy influences work behavior because those with higher self-efficacy exert more effort and persist longer, have greater focus and fewer distractions, and choose more difficult goals and commit to those goals than people who have lower self-efficacy (Bandura, 1977; Kanfer & Ackerman, 1996; Locke & Latham, 1990). High self-efficacy is also directly related to proactive behavior because initiating a risky behavior, like taking initiative or expressing strong opinions, requires that the employee believes he or she is capable of enacting the behavior (Crant, 2000).

Researchers can use generalized self-efficacy scales (i.e., having beliefs about general capabilities to produce desired actions), but there are also a variety of situation specific self-efficacy scales (e.g., Bandura, 2006) because beliefs about oneself may change from one action and situation to another. Role breadth self-efficacy is an employee's belief that he or she is capable of taking on a more proactive role or a role outside the defined scope of the job (Parker, 1998). If an employee has role breadth self-efficacy, he or she may be more likely to engage in proactive behavior like job crafting. Thus, role breadth self-efficacy is highly relevant to employee job crafting and should be included as a theoretical antecedent of job crafting.

Learning orientation. One personal tendency that influences how a person approaches work tasks, problem-solving, and enacting change is goal orientation (Bell & Kozlowski, 2002; Porath & Bateman, 2006; Steele-Johnson, Beauregard, Hoover, & Schmidt, 2000). Goal orientation is typically defined by three different individual perspectives: learning, performance-approach, and performance-avoid orientations (DeShon & Gillespie, 2005; Elliot & Church, 1997; VandeWalle, 1997). Learning orientation is characterized by a desire to achieve competence and to master a given task, even if it involves making mistakes in the process. Performance orientation, in contrast, is characterized by a desire to demonstrate or prove competence. Those with performance-approach orientations want to actively show-off their skills, while those with performance-avoid orientations primarily wish to avoid making mistakes or receiving negative evaluations of their performance.

Different orientations are more or less desirable for performance and attitudes in differing situations (Steele-Johnson et al., 2000), but having a learning orientation may facilitate employee job crafting. Learning orientation is positively related to self-efficacy (Bell & Kozlowski, 2002), creative self-efficacy (Gong, Huang, & Farh, 2009), and proactive behaviors such as creativity, setting goals, seeking training, and soliciting feedback (Gong et al., 2009; VandeWalle, Brown, Cron, & Slocum, 1999). Employees who have a learning orientation use complex strategies to accomplish their work tasks (Fisher & Ford, 1998). Overall, research suggests that learning orientation is most effective for performance on complex tasks and performance orientation is best for simple tasks (Mitchell & Daniels, 2003). Because job crafting is a complex, creative, and proactive behavior, I expect that employee learning orientation is positively related to job crafting.

In summary, individual factors, as indicated by proactive personality, role breadth self-efficacy, and learning orientation, should be conceptualized as theoretical antecedents of job crafting behavior.

Hypothesis 1: Individual factors positively and uniquely relate to job crafting behaviors.

Work design factors. Job crafting is an individually driven behavior, but similar to other work behaviors, it is also fostered by the work context or situation. Employees perceive messages about the appropriateness of their behavior or the likelihood they can engage in certain behaviors from situational factors (Salancik, & Pfeffer, 1978). Thus, crafting may only happen in a context that supports making such changes in work (Berg et al., 2013; Wrzesniewski, 2003). An employee's work context may include organizational culture and climate, national or societal events and values, or specific industry norms, but the context that I propose as most directly related and relevant to job crafting is the context of one's job or work design. Work design characteristics define the nature of one's tasks, norms for completing the tasks, and other qualities of the job like autonomy or work conditions that dictate how it can be done. The design of one's job, which is typically established by management or the organization (Hackman & Oldman, 1976), sets the foundation for one's work role, as well as the boundaries for how the role may be changed, and thus, should be considered an essential precursor to job crafting.

Researchers conceptualize and measure work design characteristics as the task, knowledge, social, and context factors that together create the kind of work that can positively influence employee attitudes, well-being, and performance (Humphrey et al., 2007). For example, task work characteristics include autonomy, task variety (i.e., opportunities to work on multiple tasks in one's work role), and task significance (i.e., the work is viewed as important and as having an impact on others). Knowledge characteristics include job complexity, problem

solving, and skill variety (i.e., able to use multiple skills). Social work characteristics comprise social support, feedback from others, and interaction outside the organization. The final broad category of work design, context characteristics, includes ergonomics, equipment use, and work conditions. Each of these broad groups of characteristics have shown relationships with positive employee attitudes, such as commitment and internal motivation, as well as performance and well-being indicators including low anxiety and stress (Humphrey et al., 2007; Morgeson & Humphrey, 2006). Work design approaches are geared towards defining and creating positive employee work experiences.

Work characteristics are also thought to produce the mechanisms necessary for employees to initiate proactive behavior. For example, Grant and Parker (2009) proposed a dynamic model of work design and proactive behavior that suggests work design characteristics lead to motivation, ability, and opportunities, which subsequently enable proactive behavior. Employee proactive behavior, such as changing the nature of work, relationships, or personal attributes reciprocally influences the characteristics of work. In support of Grant and Parker's model, researchers have provided empirical evidence of the positive relationships between work characteristics and proactive behavior, creativity, innovation, and personal initiative (Fuller et al., 2006; Parker et al., 2006; Ohly & Fritz, 2010); all constructs theoretically related to job crafting.

Although studies about the interplay between work design characteristics and proactivity exist, there is limited research on the relationship between work characteristics and job crafting specifically. Only a few studies, most of which are dissertations, provide results from examinations of the relationships between contextual factors and job crafting. For example, some work characteristics, such as job complexity, work conditions, and interdependence (Bruning, 2014; Ghitulescu, 2006) as well as job autonomy and low levels of work pressure (Demerouti et

al., 2015), seem to support job crafting. Other work characteristics that pertain to the social environment at work, such as coworker support and interdependence have also shown positive relationships with job crafting (Laurence, 2010; Leana et al., 2009). Aside from these work characteristics, others, such as interaction outside the organization, feedback, skill variety, task significance, and ergonomics have not been investigated. To elaborate on this previous research and extend job crafting theory, I investigate the relationship of holistic work design characteristics – including task, knowledge, social, and context characteristics (Morgeson & Humphrey, 2006) – with job crafting.

Although I propose that work characteristics are essential theoretical antecedents to job crafting, it is also important to note that consistent with Grant and Parker's (2009) model, the relationship between job crafting and work characteristics is probably reciprocal rather than unidirectional (as shown in Figure 1). The relationships between job crafting and work design characteristics have not yet been tested with experimental or quasi-experimental methods, but theoretically, employees change facets of their work through job crafting, which may temporarily or even permanently influence the overall design of their work. Initial support for the influence of job crafting on work characteristics is shown in a longitudinal study (non-experimental), where the authors observed that job crafting produced subsequent changes in knowledge characteristics (e.g., workload and cognitive demands), task characteristics (e.g., autonomy) and social characteristics (e.g., social support and feedback) of employees' work roles (Tims et al., 2013).

Based on previous research on proactive behaviors and consistent with Grant and Parker's (2009) model of work design and proactive behavior, I propose that work characteristics create a context that is supportive of job crafting. Positively designed work provides the

necessary motivation, opportunities, and capabilities to engage in proactive behaviors, and so will be positively related to employee job crafting.

Hypothesis 2: Work design factors positively and uniquely relate to job crafting behaviors.

Leadership factors. In addition to the individual employee and the context of work, I propose that leadership factors are related to job crafting and should be considered an important boundary condition to crafting behaviors. Despite other researchers sharing this thought (e.g., Berg et al., 2007; Kira, van Eijnatten & Balkin, 2010), leadership has been largely ignored empirically in the job crafting literature. In a few exceptions, researchers have shown that supportive supervision is positively related to job crafting (Ko, 2012; Laurence, 2010; Leana et al., 2009), as is positive leader-member exchange (van den Heuvel et al., 2015). These studies provide initial support for the important role that leaders can play in fostering employee job crafting, but there are several other ways that I propose managers and leaders can influence employee job crafting efforts. Because leaders can influence attitudes, create supportive environments, and reinforce behaviors like job crafting, I argue that leadership factors should be considered as essential theoretical antecedents to job crafting.

For instance, transformational leadership theory suggests leaders can influence proactive behavior through individualized consideration, communicating vision, and inspiring employees (Den Hartog & Belschak, 2012). Based on social exchange theory (Homans, 1958) and behavioral reinforcement, receiving support from leaders encourages employees' innovation (Ohly, Sonnentag, & Pluntke, 2006), organizational citizenship behaviors (Kuvaas & Dysvik, 2010), and idea implementation (Škerlavaj, Černe, & Dysvik, 2014). Leadership is also related to states such as empowerment, perceived social support, and perceived autonomy (Breevaart,

Bakker, Hetland, Demerouti, Olsen, & Espevik, 2013; Dust, Resick, & Mawritz, 2014; Kalshoven, Den Hartog, & de Hoogh, 2013), which motivate employee proactivity (Fuller et al., 2006; Leana et al., 2009). Additionally, trust in leaders explains differences in employees' inrole and extra-role behaviors (Yang, & Mossholder, 2010). As job crafting is a form of proactive behavior and has conceptual similarities with the other outcomes mentioned above, I expect that leaders also impact employee job crafting.

Leaders can also create environments and climates supportive of successful job crafting (Berg et al., 2007). For example, supervisors play a role in setting norms (Barling et al., 2011) that signal to employees crafting and other forms of proactive behavior are acceptable or unacceptable. To build a norm for acceptable job crafting, managers may even model it for their employees or mentor and coach employees through job crafting efforts. These efforts may also build trust and a climate for empowerment (Seibert, Silver, & Randolph, 2004), both of which are expected to impact employee job crafting. Without having trust, employees may feel there will be negative repercussions or uncertain consequences for their crafting efforts; empowerment is related to proactivity (Fuller et al., 2006), motivation (Humphrey et al., 2007), and perceived control (Menon, 2001) and so may also positively influence job crafting. Thus, leaders can enable motivation and opportunities for job crafting by creating supportive environments through empowerment and trust.

Empowerment. Leader empowerment refers to how a leader can motivate employees through creating feelings of meaning, competence, choice, and importance (Spreitzer, 1995). Research has shown that through a transformational style and high quality relationships, leaders can empower their employees, which elicits positive attitudes and behaviors (Dust et al., 2014; Liden, Wayne, & Sparrowe, 2000). By feeling empowered, employees see their work as

meaningful and impactful while also feeling competent and autonomous. These feelings allow employees to perceive opportunities and feel capable of engaging in proactive behaviors (Fuller et al., 2006). Employees who feel empowered also tend to be intrinsically motivated and engage in creative processes (Zhang & Bartol, 2010), have self-efficacy, and demonstrate adaptability (Ahearne, Mathieu, & Rapp, 2005). Leaders can directly empower their individual employees and they may contribute to an empowerment climate, which is related to employee attitudes and work behaviors (Siebert et al., 2004). Empowerment has not been investigated as an antecedent of job crafting, but based on its relationships with other related constructs like creativity, adaptability, and proactive behavior, I expect that leader empowerment is also related to employee job crafting and should be considered a theoretical precursor to job crafting.

Trust in the leader. When employees experience feelings of trust toward their leaders, they have faith in and loyalty to their leaders or supervisors (Podsakoff, MacKenzie, Moorman, & Fetter, 1990). Trust is also described as a willingness to be vulnerable based on the perceived or known intentions of another (Dirks & Ferrin, 2002). In essence, employees decide to engage in a behavior only if they can reasonably guess how a supervisor will respond and are accepting of this anticipated reaction. Several leadership qualities and behaviors such as transformational and transactional leadership, high-quality relationships with leaders, perceived justice, participative decision-making, and clear expectations predict employee feelings of trust in their leaders (Dirks & Ferrin, 2002). Trust is valued by employees, leaders, and organizations because it leads to several positive outcomes, including positive work attitudes, goal commitment, citizenship behaviors, and performance (Dirks & Ferrin, 2002). Proactive behavior is not always supported by supervisors (Grant, Parker, & Collins, 2009), but when employees have trust in their leaders, they take risks (Colquitt, Scott, & LePine, 2007), dedicate extra effort (Avolio,

Gardner, Walumbwa, Luthans, & May, 2004), and initiate changes in their work roles. Similarly, to job craft, employees may need to feel comfortable exercising their freedom and taking risks (Berg et al., 2007). Given that job crafting is an individual choice, an individually initiated behavior, it may require a certain level of trust between the person and his or her supervisor that changing parts of the job is acceptable and will not result in negative consequences.

In summary, leadership factors as indicated by empowerment and trust are expected to promote job crafting and should be conceptualized as theoretical antecedents of crafting.

Hypothesis 3: Leadership factors positively and uniquely relate to job crafting behaviors.

## Outcomes of Job Crafting and Work Design Characteristics: Model 2

To make a case that job crafting is a construct worth investigating, one that has potential benefits for employees and organizations, researchers have spent more time looking at the theoretical outcomes of job crafting than they have predictors. For example, job crafting is related to commitment (Leana et al., 2009), work enthusiasm (Slemp & Vella-Brodrick, 2013), low burnout (Nielsen & Abildgaard, 2012), and leader perceptions of employability (Tims et al., 2012). Researchers have shown that job crafting relates to various aspects of positive work experiences, which include positive work attitudes, high motivational states, including engagement and intrinsic motivation, and adaptive performance. Job crafting presents one way for employees to alter their own experiences at work in positive and meaningful ways (Berg et al., 2013).

Some authors have discussed job crafting as a strategy for employees to create motivating and enriching work experiences even when the organization has not taken care to design good work roles. In this way, job crafting is thought to be a replacement or substitute for work design efforts and that employees may be able to compensate for poor organizational practices if they

engage in job crafting. Contrary to this ideology, I propose that positive work characteristics facilitate employee job crafting; as organizations design work in positive ways (e.g., provide autonomy, skill variety, social support, etc.), employees are provided with opportunities and capabilities to job craft and I expect that the combination of organizational work characteristics and employee job crafting relates more strongly to positive work experiences than either effort alone. Consistent with a long history of work design research, work characteristics are still relevant and beneficial for employees (Oldham & Hackman, 2010), but when employees also job craft in their roles, even more positive outcomes can be realized.

In the following sections I discuss how work characteristics and job crafting relate to positive work experiences, which is a multidimensional construct comprising positive PO fit, intrinsic motivation, and adaptive performance.

PO fit. I expect that work characteristics and job crafting are related to perceived PO fit, or employee perceptions that their characteristics are congruent with the organization's and vice versa (Kristoff-Brown, Zimmerman, & Johnson, 2005). The congruence may be in values, employee personality and organizational climate, organizational demands and employee capabilities, or employee needs and organizational supplies. The PO fit emphasized in this study is supplementary values fit, meaning that the employee feels that his or her values are consistent with and similar to the values held and espoused by the organization (Muchinsky & Monahan, 1987).

PO fit is conceptualized as a main part of positive employee experiences because it is related to other positive attitudes and behaviors. For example, PO fit is positively related to satisfaction, commitment, and organizational identification (Kristoff-Brown et al., 2005). Fit is also related to behaviors such as task and contextual performance (Kristoff-Brown et al., 2005),

organizational citizenship behaviors and low turnover (Hoffman & Woehr, 2006), as well as needs fulfillment and job performance (Greguras & Diefendorff, 2009). Many organizations place high value on employee fit because it influences the applicants who are attracted to the company and apply for employment, as well as job choice decisions (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005; Resick, Baltes, & Shantz, 2007) and employee retention (Kristoff-Brown et al., 2005).

I propose that work characteristics and job crafting can increase employee perceptions of fit. PO fit is not typically considered an outcome of work design efforts (e.g., see reviews and comprehensive models such as Humphrey et al., 2007; Morgeson & Campion, 2003; Parker, Wall, & Cordery, 2001), possibly because work design is often applied to a group of jobs or a group of people rather than on an individual basis (Morgeson & Campion, 2002). However, several work design characteristics may enable employees to fit within their work roles. For example, work characteristics (e.g., job complexity, problem-solving, specialization, physical demands) may elicit feelings of demand-abilities fit (i.e., employees are able to satisfy the demands of the job, based on its characteristics). Other characteristics (e.g., work conditions, equipment use, work method autonomy) may satisfy feelings of needs-supplies fit. In terms of PO value fit, characteristics like autonomy, skill variety, support, interaction outside the organization, job complexity, and work conditions (among others) may be valued by both an employee and the organization. Consistent with work adjustment theory (Dawis & Lofquist, 1984), when work environments are adjusted to satisfy the needs and preferred conditions of employees and employees adjust their actions satisfy the organization's requirements, there is correspondence, a concept very similar to fit (Bretz & Judge, 1994). By designing good work and adjusting work roles to include optimal work conditions (e.g., providing autonomy,

opportunities for feedback, social support, etc.), an organization or manager can satisfy the preferred conditions of employees, including work values.

Researchers have suggested, based on the theory and research on crafting, that job crafting techniques can also shape a job to fit with an employee's needs, values, and interests (Berg et al., 2013). The positive relationship between job crafting and fit was supported by Chen and colleagues (2014) who found that person-job fit mediated the relationship between individual and collaborative crafting and work engagement. In another study, job crafting was positively associated with needs-supplies and demands-abilities fit (Lu, Wang, Lu, Du, & Bakker, 2014). To extend these findings, I include values-based PO fit as an indicator of positive work experiences. According to work adjustment theory (Dawis & Lofquist, 1984), employees can make adjustments in themselves and in their work to meet the requirements of their jobs but also fulfill their own preferences, such as living out certain values through their work roles. Job crafting presents one work adjustment technique in which employees can alter boundaries of their own work to integrate more personal interests and values while also ensuring they meet the requirements of the organization (i.e., creating correspondence).

Intrinsic motivation. Intrinsic motivation, or feelings of motivation due to inherent interest, enjoyment, and fulfillment (Ryan & Deci, 2000), is another main indicator of positive experiences through work. According to work motivation theories, psychological states such as felt responsibility, meaningfulness, and knowledge of results produce employee feelings of intrinsic or internal motivation (Hackman & Oldham, 1976; Humphrey et al., 2007; Morgeson & Campion, 2003). In addition to these psychological states, according to self-determination theory, when people feel competent, or can successfully utilize personal strengths and skills, when they feel autonomous, or that decisions and actions are in their own control, and when they

feel connected and related to other people, they also tend to experience intrinsic motivation (Gagné & Deci, 2005). Intrinsic motivation is a desirable state in itself, but is also desirable because of its relationship to other outcomes such as psychological well-being, organizational trust and commitment, and high performance (Gagné & Deci, 2005).

There are several ways to foster intrinsic motivation, among them are work characteristics and job crafting. Having autonomy and support to use autonomy, along with other positive job characteristics such as skill variety, task significance, feedback, and interdependence, tends to produce feelings of intrinsic motivation (Baard, Deci, & Ryan, 2004; Humphrey et al., 2007). These positive work design characteristics help satisfy needs for autonomy, competence, and relatedness, which is why they also tend to increase an employee's intrinsic motivation (Ryan & Deci, 2008).

Although researchers have not investigated the specific relationship between job crafting and intrinsic motivation, they have shown crafting is related to work enjoyment, positive workplace affect, and enthusiasm (Slemp, Kern, & Vella-Brodrick, 2015; Slemp & Vella-Brodrick, 2013; Tims et al., 2014), which are conceptually related to intrinsic motivation. Furthermore, job crafting satisfies employee needs for autonomy, competence, and relatedness (Slemp & Vella-Brodrick, 2014), which means it may also be related to heightened experiences of intrinsic work motivation.

Adaptive performance. As described above, positive employee experiences at work are conceptualized as including work attitudes and motivational states, but they also include the ability to adapt and effectively perform in one's work role. Adaptive performance may incorporate proactive or reactive behavioral changes to accommodate perceived or actual environmental changes so a person can successfully meet the requirements of his or her work

role (Pulakos, Arad, Donovan, & Plamondon, 2000). This type of performance is defined by dimensions such as handling emergencies, dealing with stress, creatively solving problems, dealing with uncertainty, and demonstrating interpersonal, cultural, and physically-oriented adaptability (Charbonnier-Voirin, El Akremi & Vandenberghe, 2010). Adaptive performance is desirable in and of itself, but it is also related to several other positive outcomes, such as continuous learning, team adaptive performance, and general openness to work role change (Griffin, Parker, & Mason, 2010; Han & Williams, 2008).

Performance, including adaptive performance, is a product of employee declarative knowledge (e.g., ability, personality, experience), procedural knowledge and skills (interpersonal skills, context relevant skills), and motivation (Campbell, McCloy, Oppler, & Sager, 1993). Thus, organizational and employee efforts that influence knowledge, skills, or motivation, are expected to make employees equipped to adapt in the work place and demonstrate proficiency in specific adaptive performance dimensions, such as handling stress or creatively problem-solving. Work characteristics are related to overall motivation (Humphrey et al., 2007) and I expect they also create a context in which employees can use their skills (i.e., due to autonomy, social support, proper working conditions, etc.). When employees have poorly designed work, they are limited in their abilities to adapt. For example, without autonomy, adapting in a timely manner may not be plausible. Without proper support, employees may feel uncomfortable reacting to stressful or urgent situations. In contrast, when working in jobs that have task complexity, skill variety, high information processing, and interaction outside the organization, the chances to demonstrate adaptive performance are increased, as the job itself is more complex and presents opportunities for employees to successfully adapt.

Similar to work characteristics, job crafting may positively influence one's motivation to engage in adaptive performance (Bruning, 2014). Some motivation may come from crafting adequate resources to adapt in one's role (Tims et al., 2013). Employees may also craft supportive relationships or tasks aligned with personal strengths, both of which could facilitate the skills and motivation needed to adaptively perform. In terms of cognitive crafting, an employee could change his or her thoughts about work to encourage adaptive performance. For example, an employee could expand her perceptions of work to include adaptive performance or, alternatively, could narrow thoughts to focus on successfully meeting environmental challenges, which brings a sense of fulfillment to the employee. Job crafting may also produce feelings of autonomy or competence (Slemp & Vella-Brodrick, 2014), allowing the employee to believe he or she has the skills necessary to meet and respond to organizational changes.

Positive employee work experiences are characterized by adaptive performance, positive PO fit, and motivation. Through work characteristics and individual crafting efforts, employees are expected to experience overall positive work experiences.

Hypothesis 4: Work characteristics significantly and positively relate to positive work experiences.

Hypothesis 5: Job crafting significantly and positively relates to positive work experiences.

# **Exploring the Leader's Role**

I propose a critical relationship between two important leader factors, empowerment and trust, and job crafting. As these may not be the only leadership factors that facilitate employee crafting efforts, I explored other leadership variables that may be theoretical antecedents of job crafting. Based on prominent leadership theories, such as full range theory of leadership (Avolio

& Bass, 1995), leader-member exchange (Graen, Novak, & Sommerkamp, 1982), authentic leadership (Avolio et al., 2004), and ethical leadership (Brown, Trevino, & Harrison, 2005), there may be other leadership behaviors not identified for inclusion in this study, but that may emerge as precursors to proactive behavior like job crafting. To guide future research, I conducted interviews with employees. Through the interviews, I sought to detect patterns in people's responses to reveal how leaders facilitate and hinder employee job crafting efforts.

Exploratory Research Question: What leadership factors support or hinder job crafting behaviors?

# **Summary of the Study**

The objective of this study was to expand job crafting theory and support that individual, work design, and leadership factors serve as important theoretical antecedents to job crafting.

The theory will also be expanded to represent the complex relationship between work characteristics and job crafting, as the combination of these is expected to influence employee work experiences beyond the effect of either practice alone.

#### **METHOD**

# **Participants**

Data were collected as part of course projects in two psychology classes at a large university in the West. After learning about the project and desired sample, students recruited working adults and their colleagues to participate in the study using an approved recruitment script. Students were instructed that employees should be at least 18 years old, work at least parttime (at least 20 hours per week), and have a supervisor, defined as a person to whom you report, who oversees work, or makes decisions regarding work. Based on collected demographic data, these qualities were confirmed for all participants. While recruiting employees, students also asked each person to provide the name of a colleague who may also be interested in the study. Students were instructed that each colleague should work in a similar job or position as the employee. Employees and their corresponding colleagues were assigned the same random identification codes, so the collected data could be matched and then de-identified. Though sometimes criticized as less than adequate, student-recruited sampling such as this often results in heterogeneous samples that are low cost (Demerouti & Rispens, 2014) and demographically similar to non-student-recruited samples (Wheeler, Shanine, Leon, & Whitman, 2014). Furthermore, when comparing the relationships among variables in student- and non-studentrecruited samples, there are typically not substantial or meaningful differences (Wheeler et al., 2014). Hence, the sampling method was considered acceptable.

The recruited employees and their colleagues completed separate surveys but both surveys referred to the employees' jobs (not the colleagues' own work experiences). Colleagues were included in the data collection effort to provide objective and other-sourced data to

supplement the employees' self-report responses. Together, employees and their colleagues provided information about individual, work design, and leadership variables, as well as employees' job crafting, work attitudes, motivation, and adaptive performance.

Of those recruited (N = 421 working adults and 376 colleagues), 236 employees and 172 colleagues completed the online surveys, which resulted in 129 complete pairs or dyads. Failing to meet study requirements, 9 employees were dropped because they worked less than 20 hours per week, resulting in N = 120 complete employee-colleague pairs that are included in the final sample.

All employees (N = 120) were from the United States and worked at least part-time (16.1%), but most worked full-time (83.9%). The sample of working adults includes both male (41.5%) and female (58.5%) participants who ranged in age (M = 39.91, SD = 13.68) and organizational tenure (M = 7.33, SD = 8.35). The employees were primarily White (81.4%) and also Hispanic (4.2%) or identified with two or more races (5.9%). The employees' reported jobroles spanned many levels within their organizations but respondents primarily represented non-management supervisors (18.6%), mid-level management (17.8%), and non-managerial employees with no supervisory responsibilities (40.7%).

Colleagues who participated in the study worked full-time (82.1%) or part-time (15.4%) and included men (43.6%) and women (56.4%). Similar to the primary pool of employees, colleagues varied in age (M = 39.70, SD = 13.97) and organizational tenure (M = 7.22, SD = 8.55). The majority of colleagues were White (83.8%) or Hispanic (6.8%) and worked in similar positions as the study employees (15.4% non-management supervisors, 18.8% mid-level management, 39.3% and non-managerial employees with no supervisory responsibilities).

Employees and their corresponding colleagues came from companies with 25 employees or less (28.8%), organizations with 26-100 employees (20.3%), 101-500 employees (16.1%), and workplaces with more than 500 employees (34.7%). Additionally, the sample represented a wide range of industries including, education (13.6%), professional, scientific, and technical services (13.6%), health care and social assistance (8.5%), and construction (10.2%).

#### **Procedure**

All participants were invited via email to complete a single online survey, hosted on a secure website. Employees completed one survey and colleagues completed a separate survey that asked questions about job characteristics and about some of the employees' work behaviors. No data were shared between the employee and colleagues, nor with the employees' organizations. As incentive to participate, all employees who completed the survey were invited to enter a drawing to win one of two \$50 gift cards. Any colleague who also completed the online survey was invited to enter a separate drawing to win one of two \$50 gift cards.

Interviews. From those who completed the survey, 40 employees were initially selected using a random number generator for a brief follow-up interview. Only employees and not colleagues were interviewed as the questions pertained to perceptions about job crafting and the influence of one's leader on job crafting behaviors. Employees were invited to participate via email. All participants had the right to opt-in and consent to the interviews, which were conducted over the phone and arranged for times convenient with their schedules. When employees opted out of their interviews, I randomly selected more participants from the list of those who completed the project until I fulfilled the desired sample size of 20 participants. In total, 80 were invited to participate.

Twenty participants for interviewing was considered the appropriate number after reviewing other qualitative content analysis studies (e.g., Kvarnström, 2008; Wangensteen, Johansson, & Nordström, 2008) and the recommendations of prominent authors (e.g., Elo, Kääriäinen, Kanste, Pölkki, Utriainen, & Kyngäs, 2014; Mason, 2010; Neuendorf, 2002). Some researchers have sampled as few as two participants, while others have included as many as 70-90 in their research (Mason, 2010; Sharif & Masoumi, 2005). In looking at less extreme examples, researchers often interview between 10 and 20 people (Kvarnström, 2008; Wangensteen et al., 2008). Mason (2010) conducted a study to specifically investigate the number of participants used in qualitative studies completed as part of PhD/graduate research. On average, qualitative content analysis studies included 31 people, the mode being 30 participants, and the median being 25 participants. It was recommended to interview at least 15 participants for the content analysis method, which is my intended method of analysis. Ultimately, the appropriate sample size is achieved when the researcher detects saturation in responses (Neuendorf, 2002). Saturation is attained when consistent patterns are found in the data, with no new main ideas emerging as more interviews are conducted. The guidelines for sample size are not hard-and-fast rules, but do indicate the point at which researchers typically reach saturation. Thus, I conducted 20 relatively short interviews (about 30 minutes).

The interview was developed in a semi-structured manner to reduce the potential biases of the interviewer, but also to allow flexibility so unanticipated participant questions and ideas could be fully explored (Hsieh & Shannon, 2005). The interviews were recorded using Google Voice and transcribed by trained research assistants to ensure responses were not misrepresented. All identifying information associated with the phone interviews was replaced with the same made-up identification codes participants received at the start of the study. All digitally recorded

interviews were destroyed after they had been transcribed and all linked lists used to match surveys with phone interviews were destroyed at the end of the study.

Addressing common method bias. Having data from multiple sources should reduce common method bias, which is a potential concern for psychological studies (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Several authors have written recommendations for reducing the potentially negative effects (e.g., Conway & Lance, 2010: Podsakoff, MacKenzie, & Podsakoff, 2012). Recommendations typically fall under two categories: procedural and statistical. Although statistical remedies for common method bias are frequently used and appropriate in some cases (Podsakoff et al., 2012), using procedural methods to prevent problems as much as possible on the design-side of a project is preferred over retroactive statistical corrections (Conway & Lance, 2010). Thus, I employed several procedural methods to reduce the potentially negative effects of common method variance.

Specifically, per the recommendations of Podsakoff and colleagues (2012), the predictor variables (e.g., work design factors, job crafting) and criterion variables (e.g., adaptive performance, engagement) were collected from different sources, namely, employees and their colleagues. Employees did not provide information for all predictor variables, nor did colleagues for all outcomes; rather, employees and colleagues provided information for a mix of variables, when appropriate given their abilities to accurately assess the variables. Also per recommendations, there was psychological separation between the predictor and criterion variables (Podsakoff et al., 2012) in that participants were not explicitly given information about the research questions. By communicating a broad purpose for this study (i.e., This project looks at characteristics of organizations and working adults' work behaviors, motivation, and related workplace attitudes), participants were less likely to anticipate the research questions and

intentionally or unintentionally inflate responses in ways that are consistent with predictions. I additionally reduced as much ambiguity as possible in the study (Podsakoff et al., 2012). All scales were presented with clear instructions, defined response options, and well-written items. Method effects tend to be minimized when using scales that have construct validity evidence (Conway & Lance, 2010), so all measures in this study were chosen because they have been used in previous research and specific validity evidence is provided for each instrument.

Although self-report data are often criticized for susceptibility to common method bias, each variable in the participant survey was based on individual perceptions either about the self or facets of work that may not be apparent to or easily assessed by others. For example, many job crafting efforts may be invisible to one's coworkers (Ghitulescu, 2006). Or, as another example, the relationship between an employee and his or her leader, especially regarding trust in one's leader, is most appropriately measured via self-perceptions. Thus, self-report was the most appropriate form of data collection for constructs in the employee survey.

#### **Measures**

All variables in this study were assessed on a 1 (Strongly Disagree) to 5 (Strongly Agree) response scale unless otherwise noted. All employee and colleague survey measures can be found in Appendices A and B.

**Employee survey.** All employees responded to several questions about their work environments (e.g., work social characteristics), behaviors (e.g., job crafting), and attitudes (e.g., person-organization fit). Additionally, participants were asked to provide demographic information, including age, gender, race/ethnicity, organizational level, and tenure.

*Task characteristics*. Work design characteristics were measured using four broad dimensions – task, knowledge, social, and context characteristics – two of which were rated by

employees. All employees were asked to report on their task work characteristics using the 24item, 7-dimension scale from Morgeson and Humphrey (2006). Task characteristics include factors such as scheduling autonomy, decision-making autonomy, task variety, and feedback from the job. Previous sample reliability estimates ( $\alpha$  = .85-.95; Morgeson & Humphrey, 2006) and the reliability estimate from this study ( $\alpha$  = .90) are good, and studies have accumulated validity evidence to support the use of this scale with working samples (e.g., DeRue & Wellman, 2009; Grant & Berry, 2011; Grant & Sumanth, 2009).

Social characteristics. Employees also reported their social work characteristics using 19 items from the Morgeson and Humphrey (2006) scale, which represent 5 factors: support, initiated interdependence, received interdependence, interaction outside the organization, and feedback from others. The scales have shown good sample reliability estimates ( $\alpha$  = .83 in the current study;  $\alpha$  = .80-.91; Morgeson & Humphrey, 2006) and support for validity (e.g., DeRue & Wellman, 2009; Grant, 2012).

*Role breadth self-efficacy*. Role breadth self-efficacy was measured using a scale that presents 10 work-related statements (Parker, 1998). For example, one item states, "How confident would you feel making suggestions to management about ways to improve the working of your team." Employees were asked how confident they would feel about each statement on a 1 (not all confident) to 5 (very confident) response scale. The scale has shown good sample reliability estimates ( $\alpha = .92$  in the current study;  $\alpha = .86-.88$ ; Griffin, Neal, & Parker, 2007) and comes with validity evidence to support its use (e.g., Griffin, Neal, & Parker, 2007; Luthans, Avolio, Avey, & Norman, 2007).

*Learning orientation.* Employee learning orientation was assessed using VandeWalle's (1997) scale which includes subscales for learning, proving, and avoidance orientations.

Learning orientation is characterized by a desire for knowledge and competence, even when it is attained through making mistakes (Latham & Pinder, 2005), as shown by the sample item, "For me, development of my work ability is important enough to take risks." The subscale sample reliability estimates are good ( $\alpha$  = .88 in the current study;  $\alpha$  = .85; Hirst, Van Knippenberg, & Zhou, 2009) and the scale has been used in previous research (e.g., DeRue & Wellman, 2009; Hirst et al., 2009).

Empowerment. Employees reported to what extent they felt empowered (Spreitzer, 1995) by their supervisors, with supervisor being defined in the survey as someone who oversees work, makes decisions about work, or to whom the employee reports. Empowerment is assessed via items such as, "My supervisor supports that my job activities are personally meaningful to me." The scale has shown good sample reliability estimates ( $\alpha = .92$  in the current study;  $\alpha = .90$ ; Grant, 2012) and validity evidence for its use (e.g., Grant, 2012; Liden et al., 2000).

*Trust in leader.* Trust in leader was assessed using Podsakoff and colleagues' (1990) trust scale. Sample items include, "My leader would never try to gain an advantage by deceiving workers," and "I have complete faith in the integrity of my leader." Sample reliability estimates are adequate ( $\alpha = .77$  in the current study;  $\alpha = .84$ ; Podsakoff, MacKenzie, & Bommer, 1996) and the scale has validity evidence for its use (e.g., Podsakoff et al., 1996).

Job crafting. Employee perceptions of their own job crafting behavior were assessed using the Measure of Job Crafting (MJC; Dvorak, 2014). This scale includes three distinct factors – task, cognitive, and relational crafting – and overall job crafting can also be modeled as a higher-order factor (Dvorak, 2014). Job crafting items include, "I make time to work on projects I find interesting," and "I actively remind myself what the purpose of my work is." The response scale (1= Disagree, 2= Somewhat Agree, 3= Agree, 4= Strongly Agree, 5=Very

Strongly Agree) is asymmetrical to elicit more normal responding (University of Minnesota: Vocational Psychology Research, 2012; Weiss, Dawis, & England, 1967), given that people may be more likely to craft to some extent as opposed to not at all (Lyons, 2008). The task, relational, and cognitive scales have shown good sample reliability estimates ( $\alpha$  = .84,  $\alpha$  = .89,  $\alpha$  = .89, respectively), as has job crafting reported as an overall score ( $\alpha$  = .93 in the current study;  $\alpha$  = .94; Dvorak, 2014).

Intrinsic motivation. Intrinsic motivation was assessed using Gagné, Forest, Gilbert, Aubé, Morin, and Malorni's (2010) scale, which includes four levels, or dimensions, of motivation: intrinsic, identified, introjected, and extrinsic motivation. Participants were asked to indicate to what degree they presently correspond to a variety of reasons for doing their particular jobs. For example, "Because I enjoy this work very much." Each item was rated on a scale from 1 (Not at All) to 7 (Exactly). The scale has shown good sample reliability estimates ( $\alpha$  = .91 in the current study;  $\alpha$  = .89; Gagné et al., 2010) and has been used in field research (e.g., Gillet, Fouquereau, Forest, Brunault, & Colombat, 2012).

*Person-organization fit.* Employee perceptions of PO fit were measured using three items (Cable & Judge, 1996). Sample items include "My values match or fit the values of this organization," and "My values prevent me from fitting in at this company because they are different from the company's values," which was reverse-scored. The scale has shown acceptable sample reliability estimates ( $\alpha = .78$  in the current study;  $\alpha = .91-.92$ ; Cable & DeRue, 2002) and has validity evidence for its use (e.g., Cable & DeRue, 2002; Cable & Parsons, 2001).

Colleague Survey. Each colleague completed a survey with his or her coworker in mind (i.e., the employees) and responded to questions about the employees' work roles and behavior. Similar to employees, all colleagues were also asked to provide some demographic information,

including age, gender, race/ethnicity, organizational level, and tenure, to understand the characteristics of the colleagues in this sample. As with the employee survey, all variables were rated on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree) unless otherwise noted; colleagues were also provided with an "I don't know" response option.

**Knowledge characteristics.** Using 20 items from the Morgeson and Humphrey (2006) work design scale, colleagues rated the work knowledge characteristics of the study participants' jobs. The scale was modified from the original version so it did not reference one's own job, but the job of another (i.e., the employee's job). Knowledge characteristics include job complexity, information processing, problem solving, skill variety, and specialization, which the colleagues could assess given that they work in similar roles as the employee. Although the scale has not been used with the reference to another's job, the original scale has shown good sample reliability estimates ( $\alpha = .94$  in the current study;  $\alpha = .84$ -.87; Morgeson & Humphrey, 2006).

Work context characteristics. Colleagues also rated the work context characteristics for the employees' jobs, including ergonomics, physical demands, equipment use, and work conditions (Morgeson and Humphrey, 2006). These characteristics are generally observable and are familiar to the colleagues, given that they work in similar roles. As with the knowledge characteristics scale, the items were modified from the original version to refer to the employees' jobs, rather than the colleagues' own positions. The scale has shown adequate sample reliability estimates ( $\alpha = .87$  in the current study;  $\alpha = .64$ -.95; Morgeson & Humphrey, 2006) and initial validity evidence supports its use (e.g., Schmitt, Zacher, & Frese, 2012).

*Proactivity.* Colleagues rated participants' proactivity using the four-item scale developed by Bateman and Crant (1993). Proactive behavior, by nature, is typically observable and therefore appropriate to be assessed by colleagues. For example, items included, "My colleague

loves being a champion for new ideas, even against others' opposition," and "My colleague is excellent at identifying opportunities." The scale has shown good sample reliability estimates ( $\alpha$  = .87 in the current study;  $\alpha$  = .89; Seibert, Kraimer, & Crant, 2001) and supportive validity evidence (e.g., Seibert et al., 2001; Tims et al., 2012).

Adaptive performance. Employees' adaptive performance (Charbonnier-Voirin et al., 2010) was assessed by colleagues using 19 items, which represent 5 different sub-dimensions: handling emergencies and unpredictable situations, handling work stress, solving problems creatively, learning, and demonstrating interpersonal adaptability. Sample reliability estimates are good ( $\alpha = .94$  in the current study;  $\alpha = .89$ ; Charbonnier-Voirin et al. 2010), and supportive validity evidence exists for this measure (e.g., Naami, Behzadi, Parisa, & Charkhabi, 2014).

## **RESULTS**

All data analyses were conducted using SPSS Statistics, version 23 (IBM Corp., 2015) and MPlus statistical software, version 6.12 (Muthén & Muthén, 1998-2011). All regression coefficient estimates and their respective 95% confidence intervals were derived using bootstrapping with 1000 draws (Preacher & Hayes, 2008). Descriptive statistics, reliability estimates, and correlations for all study variables are reported in Table 1.

## **Confirmatory Factor Analyses**

Before testing the hypotheses, I conducted confirmatory factor analyses (CFA) on the study variables. As previously mentioned, all scales have been developed, tested, and used in prior studies, so the purpose here was to confirm pre-established factor structures. To demonstrate adequate model fit, or consistency of the specified model with the data, the chisquare  $(\chi^2)$  test of model fit should be non-significant (Kline, 2016). However, this test is very sensitive to sample size and it is not uncommon to find significant results, thus chi-square is often reported but not solely used to determine the fit of a model (McDonald & Ho, 2002). To demonstrate good model fit, the comparative fit index (CFI) should be greater than .95, the root mean square error of approximation (RMSEA) should be less than .05 but is acceptable if less than .08, and the standardized root-mean-square residual (SRMR) should be less than .10 (Kline, 2016). If the scales did not meet recommended cut-offs, I examined their psychometric properties to see if modifications were appropriate. As explained by Viswanathan (2005), it is best to leave a validated scale intact, but if a scale fails to demonstrate adequate psychometric properties under specific conditions, it may be justified to alter the scale. All scales' fit statistics are reported in Table 2.

The single-factor scales for proactivity, learning orientation, trust in leader, intrinsic motivation, and PO fit demonstrated good fit and met most recommended cut-offs. Thus, I created scale scores for each of these variables by averaging responses on all items. Role breadth self-efficacy was also specified as a single-factor model and although it did not demonstrate adequate fit based on recommended cut-offs (CFI = .89, RMSEA = .14, SRMR = .06), all items were significantly correlated and loaded strongly on the factor (i.e., > .40; DeVellis, 2012). Thus, there was not enough justification to modify this scale and I averaged all items to create total scale scores for participants' self-efficacy.

Adaptive performance was specified as a five-dimensional, higher order factor. To create a single composite score for this variable (and all other multi-dimensional variables), all dimensions should load strongly on the higher-order factor (i.e., > .60; Byrne, 2012; Rich, LePine, & Crawford). Fit statistics did not meet recommended cut-offs (CFI = .89, RMSEA = .09, SRMR = .07), but all items loaded strongly on their respective factors (all > .50) and the dimensions loaded significantly and strongly on the higher-order factor; handling emergencies = .69, handling stress = .94, creatively problem solving = .90, learning = 1.02, and interpersonal adaptability = .86. Based on this, I calculated total scale scores for adaptive performance by averaging all scale items.

The scale for leader empowerment was specified as a four-dimensional, higher-order factor. The CFA revealed poor model fit (CFI = .83, RMSEA = .18, SRMR = .14) and while the meaning, competence, and impact sub-dimensions loaded strongly on the higher-order factor (.96, .81, and .63, respectively), the self-determination dimension did not (items 7-9; loading = .37). I tested an alternative model, excluding the self-determination items. This model showed improved fit based on a chi-square difference test (p < .001) and all dimensions loaded strongly

on the higher-order factor. Additionally, all items loaded strongly on their respective factors.

Although the modified scale did not meet recommended cut-offs, there was no justification to further modify the scale. Based on these results, I created scale scores for leader empowerment by averaging all items from the meaning, competence, and impact dimensions.

Job crafting was specified as a three-dimensional, higher-order factor model. The scale did not meet all recommended cut-offs (CFI = .88, RMSEA = .09, SRMR = .07). However, upon inspection of the items and dimensions, item-one showed non-significant correlations with several items that were in other dimensions of the scale. The item loaded highly on its own dimension (.60), and so was not deemed problematic. Across all items, the factor loadings were high and all three dimensions loaded significantly and strongly on the higher-order factor (task crafting = .81, cognitive = .74, relational = .66). Based on these results, there was no justification to change the scale and I calculated total scale scores based on an average of all job crafting items.

Work design characteristics are defined by four main categories (i.e., task, social, knowledge, and context work characteristics), each of which comprises several sub-dimensions. The task characteristics scale was modeled as a five-dimensional, higher-order factor. CFA results showed poor model fit (CFI = .88, RMSEA = .09, SRMR = .12). All items loaded strongly on their respective factors (> .50), but the task identity and feedback from the job subscales did share significant relationships with the higher-order factor (loading = .01, p = .96 and loading = .15, p = .15, respectively; autonomy dimension loading = .41, task variety = .58, and task significance = .72). Thus, I tested an alternative model that excluded the task identity and feedback dimensions. The revised scale showed improved model fit based on a chi-square difference test (p < .001), all items loaded strongly on their respective factors (> .51), and the

sub-dimensions loaded strongly on the higher-order factor. Thus, a task characteristics score was calculated for each participant by averaging all items from the autonomy, task variety, and task significance subscales.

Similar to the task characteristics variable, the social characteristics scale was modified. The original 4-factor, higher-order model showed poor fit (CFI = .85, RMSEA = .10, SRMR = .09) and the interdependence dimension did not have a significant loading on the higher-order factor (loading = .19, p = .18; whereas social support loading = .49, interaction outside the organization = .48, and feedback from others = .61). A revised scale, which excluded the interdependence items, showed improved fit based on a chi-square difference test (p < .001), had items that loaded strongly on their respective factors, and sub-dimensions that loaded strongly on the higher-order factor. Based on the modified scale, I calculated scale scores for social work characteristics by averaging all items from the social support, interaction outside the organization, and feedback dimensions.

Neither knowledge (CFI = .90, RMSEA = .10, SRMR = .07) nor context characteristics (CFI = .88, RMSEA = .12, SRMR = .09) scales met all recommended cut-offs. However, in each scale, all items loaded strongly on their respective factors and the dimensions loaded significantly on the higher-order factors. Specifically, complexity loading = .77, information processing = .85, problem solving = .80, and specialization = .73 on a knowledge characteristics factor; and ergonomics = .99, physical demands = .89, working conditions = .64, and equipment = .46 on a social characteristics higher-order factor. Thus, there was no justification for revising these scales and they were retained in their original forms. A scale score was calculated for each participant's knowledge work characteristics by averaging all the knowledge items. Scores for

participants' work context characteristics were determined by averaging all items from the context subscales.

## **Cleaning Data and Checking Assumptions**

Participants who failed to meet the study criteria (i.e., participants who work less than at least 20 hours per week) were removed from the dataset. After this, I observed the amount of missing data. Small amounts of missing data (< 5-10%) and data missing at random are typically not concerning (Kline, 2016). In the current data, there are few missing observations for most variables (0.5%-4%, but up to 17.5%). Given this, listwise deletion is appropriate and was used for all analyses (Kline, 2016).

To assess where data met required assumptions for regression, I ran all regression models and saved their unstandardized residuals to plot against their unstandardized predicted values. Based on an examination of these partial regression plots, no clear patterns were detected, supporting that the data meets the assumption of linearity (Cohen, Cohen, West, & Aiken, 2003). Similarly, the plots support that the assumptions of homogeneity of variance and independence of errors have also been met. To test the assumption of normality, I plotted the standardized residuals for all regression models with histograms and normal distributions emerged in all cases. Additionally, using normal probability plots, I observed no significant deviations from the theoretical normal distributions, further supporting that the data meets the assumption of normality (Cohen et al., 2003). As a final consideration prior to data analysis, extreme collinearity was not an issue; no two variables were correlated highly (high being r = .95 or greater, and all correlations among variables in this study were < .51) and variance inflation factors (VIF) for all variables were less than 10.0 (Kline, 2016). Based on these tests, all assumptions have been met.

**Power analysis.** To ensure I had adequate power to test the hypotheses, I conducted a power analysis using G\*Power, version 3 (Paul, Erdfelder, Lang, & Buchner, 2007). Model 1, which includes nine predictor variables, had sufficient power (> .90). The regression models for Model 2 (one analysis for each outcome, PO fit, intrinsic motivation, and adaptive performance), also had sufficient power (all > .90).

# **Model 1: Theoretical Antecedents of Job Crafting**

To test hypotheses 1-3, I conducted hierarchical multiple regression and observed the relationships between individual, work design, and leadership factors and employee job crafting (results shown in Table 3). Individual factors were entered at the first step, revealing that proactivity ( $\beta = .30$ , p = .002) and learning orientation ( $\beta = .33$ , p = .003) are positively related to job crafting. Role breadth self-efficacy is unrelated to job crafting when controlling for the other two variables ( $\beta = -.09$ , p = .44). Individual factors explained 17% of the variance in job crafting.

Work design characteristics variables were entered at the second step of the hierarchical model and explained 16% more variance in job crafting than individual factors alone ( $R^2$  change = .16, p < .001). Controlling for all other variables, proactivity ( $\beta$  = .21, p = .01) and learning orientation ( $\beta$  = .23, p = .04) remained significant predictors of job crafting. Of the work design characteristics, both task ( $\beta$  = .28, p = .002) and social characteristics ( $\beta$  = .27, p = .003) were positively related to employee job crafting. Accounting for all other variables, knowledge and context factors did not significantly predict job crafting (p = .64 and .74, respectively). Together, work design characteristics and individual factors explained 33% of the variability in employee job crafting.

Leadership factors were entered at the third and final step of the regression model.

Leadership factors explained significant variability in job crafting above and beyond individual

and work design factors ( $R^2$  change = .07, p = .01). Proactivity ( $\beta$  = .14, p = .06), learning orientation ( $\beta$  = .19, p = .08), and social work characteristics ( $\beta$  = .18, p = .06) were marginally, positively related to job crafting. Trust in one's leader was negatively related to job crafting and approached significance, holding all else contact ( $\beta$  = -.20, p = .08). Task characteristics ( $\beta$  = .19, p = .04) and leader empowerment ( $\beta$  = .40, p = .003) were positively and significantly related to employee reported job crafting. Role breadth self-efficacy, knowledge characteristics, and context characteristics remained non-significant predictors, as in previous steps of the model. Collectively, all predictors explained about 40% of the variance in job crafting (see full model results in Table 3).

To create the most parsimonious model that also explained the most variance possible in employee job crafting, I reran the hierarchical regression model excluding variables that were not at least marginally significant (i.e., self-efficacy, knowledge characteristics, and context characteristics). Using significance levels alone to draw conclusions has been highly criticized in social sciences research (Cortina & Dunlap, 1997; Cortina & Landis, 2009; Kline, 2016). Thus, for the purposes of this research, the magnitude of the relationships were considered and a more liberal p-value was adopted, which led me to retain any variable with a p-value less than .10 (Kline, 2004; Larson-Hall, 2010; Murphy, Myors, & Wolach, 2014). In the trimmed model (shown in Table 4), individual factors explained 16% of the variance in job crafting, work design factors explained an additional 16% (p < .001), and leadership factors explained another 11% (p < .001), in total explaining 43% of the variance in employee job crafting. Removing the non-significant predictors did not significantly deteriorate the model (Partial F = 1.69, p = .10). When taking all theoretical predictors into account, proactivity ( $\beta = .16$ , p = .03), learning orientation ( $\beta = .20$ , p = .02), task characteristics ( $\beta = .19$ , p = .03), social characteristics ( $\beta = .20$ , p = .03), and

leader empowerment ( $\beta$  = .43, p = .001) were all positively, significantly, and uniquely related to job crafting. These results support hypotheses 1, 2, and 3. Contrary to hypothesis 3, trust in one's leader, though significant, was negatively related to job crafting ( $\beta$  = -.23, p = .03).

## **Model 2: Positive Work Experiences**

My goal with Model 2 was to investigate work design characteristics and job crafting as predictors of positive work experiences, which are indicated in this study by states of intrinsic motivation, perceptions of PO fit, and colleague-rated adaptive performance. I tested hypotheses 4 and 5 by running a hierarchical regression model for each of these theoretical outcomes (see Table 5 for summaries of these models). Work design characteristics were entered at a first step of each model and then job crafting was entered at a second step to observe if crafting explained variance in the outcomes beyond that of work design characteristics.

Work design characteristics and job crafting explained 37% of the variability in employees' intrinsic motivation. When accounting for the four types of work characteristics and job crafting, task characteristics ( $\beta$  = .32, p = .003) and job crafting ( $\beta$  = .33, p = .003) were significant predictors of intrinsic motivation, supporting hypotheses 4 and 5. Job crafting explained 8% more variability in states of intrinsic motivation than work design characteristics alone ( $R^2$  change = .08, p < .001).

In looking at PO fit, work design characteristics and job crafting explained 22% of the variance in fit perceptions. In support of hypothesis 4, both task ( $\beta$  = .35, p = .001) and social characteristics ( $\beta$  = .20, p = .02) were positively and significantly related to employee fit.

Contrary to hypothesis 5, job crafting was not significantly related to fit perceptions ( $\beta$  = .05, p = .58) and did not explain variance beyond work design characteristics. However, when entered in the regression equation before work design characteristics, job crafting was significantly related

to PO fit ( $\beta$  = .23, p < .001) and explained 7% of the variance in employee perceptions of fit, F(1, 117) = 9.12, p = .003. Thus, hypothesis 5 is partially supported regarding the relationship of job crafting with positive work experiences as indicated by PO fit.

Employees' adaptive performance was observed as a third indicator of positive work experiences. Work design characteristics and job crafting explained 13% of the variance in adaptive performance. Holding all else constant, knowledge characteristics, which include job complexity, skill variety, information processing, problem solving, and specialization, was the only significant predictor of adaptive performance ( $\beta$  = .28, p = .01). This provides support for hypothesis 4. For this particular outcome, there was not support for hypothesis 5, as job crafting was not significantly related to adaptive performance ( $\beta$  = .09, p = .46) and did not explain variance beyond work design factors.

Collectively, these results provide support for hypothesis 4 and partial support for hypothesis 5. Work design characteristics were significantly related to positive work experiences, though the pattern of relationships differed depending on the specific indicator of positive work experience (i.e., motivation, PO fit, or performance). Consistent with hypothesis 4, job crafting was a significant and unique predictor of intrinsic motivation, but was not significantly related to the other two indicators of positive work experiences.

## **Qualitative Data Analysis: Exploring the Leader's Role**

Given that little is known about the role of leadership in employee job crafting and that the current empirical research is limited (and thus cannot be used to guide interview questions or code creation), I used conventional, qualitative content analysis to analyze and interpret responses from the employee interviews (Forman & Damschroder, 2008; Hsieh & Shannon, 2005; Neuendorf, 2002).

To begin the process, I selected and trained research assistants to transcribe the interviews. In total, 20 interviews ranging from about 6 to 23 minutes were transcribed. At this phase, I also selected "leader behaviors" as the unit of analysis; an employee may describe his or her leader's behaviors in part of a sentence, a whole sentence, or in a couple sentences. For each interview, two trained research assistants read through the transcription and identified distinct behaviors presented in the participant responses.

In the next major phase of content analysis, the organization phase (Elo et al., 2014), the identified leader behaviors were assigned specific codes, or categories of leader/supervisor behaviors that support and hinder job crafting. This process involved training sessions and several meetings held with the entire research team. Together, after reading through the interviews, we brainstormed a list of leader behaviors that emerged in the data. It was important that the leader behaviors were specifically related to job crafting and not just pertaining to general performance or meeting the requirements of one's role. At first, two research assistants independently coded each interview. Then, after consensus was reached on the coding scheme, each pair of coders revisited their interview codes to resolve any discrepancies. The full coding scheme and related examples (i.e., direct participant quotes) are presented in Tables 6 and 7.

Of those interviewed (N = 20), 70% reported engaging in some kind of job crafting and gave examples that demonstrated job crafting efforts in their current work roles. The remaining 30% did not job craft, either because of the restrictions of their jobs or because they did not want to job craft. For example, one employee suggested that a "strict work environment" prevented him from job crafting and when asked to expand, he explained, "We have basically lots and lots of rules that define what you can and can't do. Basically, most of the stuff that I do is mechanical maintenance and all of it comes with very strict guidelines and basically step by step

instructions. So everything I do, I have to do straight out of the book." When employees were asked if leaders played a role in their job crafting (or lack of job crafting), 75% reported that leaders did play a role and also supplied specific examples to support this claim. In total, 60% of employees job crafted and said their leaders played a direct role in supporting their job crafting efforts; there were no employees who reported that leaders prevented them from job crafting. Thus, not all leaders play a direct role in supporting job crafting, but at least in this sample, leaders did not present large barriers for job crafting efforts.

I wanted to identify a set of leader behaviors that specifically support job crafting and also a set of behaviors that hinder employee job crafting. Employees indicated that leaders support their job crafting efforts primarily through providing general social support and autonomy. Specifically, 70% of employees mentioned that leader social support was important for their job crafting and 70% discussed that when leaders provide and support autonomy, it helps job crafting. For example, one employee said, "I have their [i.e., the leaders'] support in working independently to punch up my curriculum and freedom of choice on what, what materials I want to use and what, how I want to structure my lessons." Leaders also encouraged employee job crafting through resources support, such as when a leader, "encourages education, going on the outside, taking field trips and that kind of thing," or when directly recognizing job crafting efforts, "Well they're encouraging and you know, 'good job or you did a good job and taking that on'". Based on employee interviews it was also clear that leaders play a positive role in job crafting when they have interaction with employees and provide feedback about job crafting efforts (30% of employees mentioned each of these behaviors). For example, "She [the leader] wants to make sure that I'm happy at my work environment, for sure, and we meet on a regular basis so that the communication is open and if I need to contact her about anything, I

can contact her at anytime." Though reported less frequently than other leader behaviors, building a positive relationship (reported by 10%) and having trust (5%) were identified as leader behaviors that also support employee job crafting efforts. The full list of positive leader behaviors, their descriptions, and relevant employee examples are reported in Table 6.

Employees reported more ways that leaders support than hinder job crafting. However, certain patterns of behaviors did emerge to suggest how leaders actively discourage job crafting or make crafting efforts difficult. The most frequently reported leader behavior that hindered employee job crafting was micromanaging work or failing to provide autonomy (45% reported this). One participant had a unique insight on this because he had management experience. He described that managers may limit autonomy when employees are not able to fulfill the basic requirements of their jobs: [When, as a manager, would you want to limit job crafting?] "If the person is having personal issues or if their job performance is not up to par, when in the past they aren't doing well." In some interviews, it was difficult to tease apart whether autonomy was provided by the job itself (i.e., a work characteristic) or provided directly by a leader. Several employees attributed their autonomy (or lack of) to their leaders, which may or may not be accurate. Nonetheless, autonomy was deemed important for job crafting and leaders likely play at least some role in determining the autonomy that an employee has in his or her work role.

Employees also reported that a lack of recognition (15% reported this), lack of resources (15%), and lack of social support (10%) can hinder job crafting. For example, pertaining to a lack of recognition and social support, one participant said he was sometimes discouraged to job craft: "So you have some [leaders] that are definitely more vocal and more outgoing and supportive of you and then you have some that—there's a couple that I could say, you know, just don't say much at all." Furthermore, although autonomy is conducive to job crafting, when a

leader has a very hands-off style, or a laissez-faire style, it may seem like the leader does not care about the employee or job crafting efforts, which can discourage these efforts. A full summary of these codes and relevant employee examples are presented in Table 7. Based on the employee interviews, it seems that leaders can discourage job crafting and may even actively do so for underperforming employees. However, it is important to note that no employee stopped job crafting all-together as a result of his or her leader; specific crafting efforts were sometimes discouraged by leader behaviors, but employees often still job crafted to some extent in their work roles.

#### DISCUSSION

Through this study I tested two models that extend job crafting theory. First, I demonstrated that individual, leader, and work design factors uniquely relate to employee job crafting and should be conceptualized as theoretical antecedents of job crafting. As a second main contribution, I tested whether job crafting explains variance in positive work experiences above and beyond work design characteristics, as proposed by job crafting theory (Wrzesniewski & Dutton, 2001). The results support that both job crafting and work characteristics relate to positive experiences at work, though the pattern of relationships differs depending on the specific outcome.

## **Model 1: Theoretical Antecedents**

Model 1 comprises the hypothesized relationships between individual, leadership, and work design factors and employee job crafting behaviors. Other studies have isolated some individual (e.g., proactivity; Bakker et al., 2012), leader (e.g., supportive supervision; Leana et al., 2009), or work design (e.g., interdependence; Ghitulescu, 2006) variables and investigated their relationships with crafting, but I hypothesized that it is the combination of these factors that reflects the complexity of employee experiences and best explains job crafting in the workplace. Consistent with these hypotheses, the results support that individual factors, leader factors, and work design factors each explain significant and unique variance in employee job crafting. Furthermore, together these factors explain 43% of the variability in employee job crafting, which is considerably more than what has been demonstrated in other research to date. Job crafting theory (Berg et al., 2013; Wrzesniewski & Dutton, 2001) relies solely on a needs-based perspective of motivated behavior. By also applying job-based, cognitive, and personality-based

theories of motivation, as well as leadership theories, researchers can gain a greater understanding of how and why employees craft their work.

Individual antecedents. Consistent with predictions, when employees have proactive tendencies (i.e., proactive personality), they also tend to job craft in their work roles. Being innately proactive likely means that employees recognize opportunities to craft and are willing to initiate behaviors not required of their jobs, but that lead to increased meaningfulness or integration of personal strengths and interests. In addition to proactivity, my results showed that employees who have learning orientations also tend to engage in job crafting.

Contrary to expectations, role breadth self-efficacy was not correlated with job crafting, nor significantly related after accounting for other individual, work design, and leadership variables. Rather than have a main effect on employee job crafting, as was expected in this study, it could be that role breadth self-efficacy moderates the relationships of proactivity or learning orientation with job crafting behaviors (i.e., the positive relationship of proactivity with job crafting could depend on employee perceptions of self-efficacy). Numerous others studies have found support that self-efficacy moderates relationships between personal or situational variables and work outcomes. For example, new hire training has shown to be more effective for employees with low self-efficacy than for employees with high-self efficacy upon hire (Saks, 1995). Employees tend to experience less psychological strain due to work overload or lack of role clarity when they have high self-efficacy as compared to low efficacy (Jex, Bliese, Buzzell, & Primeau, 2001). In another study, self-efficacy moderated the relationships of control and personal initiative, showing that when employees lack control, but have high efficacy, they tend to demonstrate initiative more than employees with lower levels of efficacy (Speier & Frese, 1997). Similar to these studies, role breadth self-efficacy may be better conceptualized as a

moderator of personal characteristics and job crafting than as directly related to crafting behaviors. Future studies should investigate this possibility and determine if self-efficacy is a moderator and for which theoretical antecedents.

Context antecedents. As predicted and consistent with Grant and Parker's (2009) model of work design and proactive behavior, both task and social work characteristics are positively related to employee job crafting. These work characteristics explained significant variability in employee job crafting beyond individual characteristics. When employees' jobs provide autonomy, task variety, interaction outside the organization, and social support (among other task and social characteristics), they also provide opportunities, motivation, and capabilities to engage in proactive behavior like job crafting. This finding supports the important role of organizational work design efforts. When organizations design work in positive and enriching ways, it fosters an environment for proactive behavior like job crafting. This allows employees to experience positive outcomes at work, such as satisfaction (Leana et al., 2009) and well-being (Slemp & Vella-Brodrick, 2014) and also allows organizations to benefit from a high performing and thriving workforce (Tims et al., 2014).

Knowledge and context work characteristics were not significantly correlated with job crafting and were non-significant predictors when accounting for other individual, work design, and leadership factors. Although knowledge characteristics were hypothesized to support job crafting by providing opportunities, motivation, and capabilities to alter the boundaries of one's role (Grant & Parker, 2009), the results do not support this. Rather than knowledge characteristics being unimportant for job crafting, it could be that these aspects of a job are not readily visible to colleagues and differ so much from one person to the next that colleagues were unable to adequately assess employees' knowledge job characteristics. Colleagues were recruited

based on knowing employees and working in similar roles as the employees, meaning they are familiar with the employees' jobs and should be able to rate the jobs' knowledge characteristics. However, knowledge characteristics (e.g., job complexity, information processing, skill variety) may be perceived differently across individuals even in relatively similar jobs. For example, the same task may be evaluated as complicated by some employees and as uncomplicated by colleagues, or as another example, what constitutes analyzing a 'great deal of information' may be perceived differently across people. Because of this, knowledge characteristics may be more subjective and personal than anticipated and so as rated by a colleague, are unrelated to job crafting.

The non-significant relationship of work context characteristics with job crafting suggests that ergonomics, physical demands, and physical conditions of one's work space are not highly related to employee job crafting. If an employee works in highly undesirable conditions, such as one with excessive noise, extreme temperatures, or high risk of accidents, it could prevent an employee from job crafting because he or she is does not have the opportunity or capability (e.g., time or resources) to mold and shape the work role in personally meaningful ways (Grant & Parker, 2009). However, counter to this reasoning, the results suggest that context characteristics are unrelated to job crafting. It may be for some employees, poorly designed context characteristics do prevent crafting efforts due to a lack of resources or ability, but for other employees, job crafting efforts may not be hindered and may even be encouraged because employees wish to compensate for the poor working conditions and ineffective work spaces. Future research studies could include potential moderators of the work context characteristics-job crafting relationship to see context characteristics facilitate job crafting for some employees but not for others. For example, self-efficacy may moderate the relationship between poor

working conditions and job crafting efforts such that only employees with high self-efficacy elect to craft their roles in less than ideal contexts (Schaubroeck & Merritt, 1997).

Leader antecedents. Of all the theoretical antecedents included in this study, leader empowerment was the most strongly related to employee job crafting. Additionally, leadership factors explained significant variance in job crafting beyond that of the other antecedents. This supports the notion that leaders play an important role in employee job crafting efforts. When leaders foster feelings of competence, purpose, and impact in their subordinates, employees are more likely to engage in proactive and potentially risky behaviors like job crafting (Fuller et al., 2006; Zhang & Bartol, 2010). Through empowerment, leaders can send the message that experiencing meaningfulness through work matters and that it is acceptable to shape work roles and enact change.

Although empowerment emerged as an important leadership factor that fosters employee job crafting, having trust in one's leader showed a negative relationship when accounting for other theoretical antecedents. This means, holding all else the same across employees, having low trust in one's leader tends to be related to greater employee job crafting, which is somewhat counter-intuitive. I expected that when employees perceive trust, they may be more likely to engage in risky and self-promoting behaviors like job crafting (Colquitt et al., 2007).

Furthermore, the positive relationship which emerges from trust may provide opportunities and perceived ability to engage in job crafting (Dirks & Ferrin, 2002). However, it may be the case that when employees lack trust in their leaders, and especially when they feel empowered, they take matters into their own hands. If employees are not able to trust their leaders to treat people fairly, to have integrity, or respond well in emergency situations (i.e., items of the trust scale), then employees may take initiative in their own roles without regard for leaders' approval or

input. The included measure of trust could also be measuring some conceptual pieces of perceived leader competence, resulting in the counter-intuitive findings. Trust and perceived competence of one's leader could interact in this situation; if an employee trusts his or her leader (e.g., on an interpersonal level), but does not perceive the leader as competent, employees might be more likely to job craft and improve their own work situations. Future studies should investigate the role of perceived trust and perceived competence of one's leader and how each predicts employee job crafting.

Another potential explanation for results contrary to expectations is that trust may be acting as a suppressor variable and when included in the model, it serves to heighten the relative importance (i.e., relationship) of empowerment with job crafting (Conger, 1974; Krus & Wilkinson, 1986). Suppression effects happen when one predictor variable is uncorrelated with the dependent variable but highly correlated with other predictors. In this sample, trust was weakly correlated with job crafting and strongly correlated with empowerment. Thus, when both empowerment and trust were entered into the regression equation, trust acted as a suppressor variable, making empowerment more strongly related to job crafting than it would be without trust in the model. Researchers should attempt to disentangle the relative effects of trust in one's leader, leader empowerment, and employee job crafting in future studies.

Other potential leadership antecedents. After completing the study survey, some employees participated in brief follow-up interviews. From the interview responses, I identified primary leadership factors that facilitate and hinder job crafting. Consistent with Leana and colleagues' (2009) findings, social support emerged as one of the most frequently mentioned leader behaviors that facilitates crafting. Providing autonomy was another key pattern in employee responses; when employees are given autonomy in their roles, they are able to job craft

and conversely, when leaders micromanage and remove autonomy, it directly hinders job crafting efforts. Some employees may have overestimated the control or influence of their leaders and over-attributed the autonomy in their jobs directly to leader decisions. Researchers have cautioned against the romanticism of leaders when studying the relative impact of leadership on workplace behaviors, performance, and organizational outcomes (Bligh, Kohles, & Pillai, 2011). However, if employees perceive leaders as the primary source of autonomy, these perceptions are worth exploring. To help align perceptions to reality, leaders may want to highlight when they are directly responsible for providing autonomy versus limited by the basic design of a job (i.e., and outside the leaders' control). This conversation could pinpoint opportunities for job crafting and also prevent employees from wasting time trying to craft parts of their jobs that simply are not amenable to crafting.

Interviews revealed that managers may purposely hinder job crafting when employees are underperforming or failing to meet the basic requirements of their jobs. This is consistent with other research that suggests proactive behaviors are not always desirable (Grant et al., 2009) and makes intuitive sense, as managers would be most concerned about basic job requirements. Employees who feel unable to job craft may want to seek feedback about their job performance to understand if they should focus effort on improving before attempting to job craft. Alternatively, employees could communicate to their leaders how job crafting may help meet the expectations of their job roles, which may garner leader buy-in and support for job crafting.

Resources support was also frequently reported as a facilitator of job crafting (or a hindrance in cases where resources were lacking). As with autonomy, employees may be misattributing their available resources to leadership, but leaders are often responsible for distributing materials, finances, and especially their own time and attention, which could impact

employees' abilities to job craft. The notion that resources are important for job crafting is consistent with Tims, Bakker, Demerouti, and colleagues' (2012, 2013, 2014) work on job crafting; resources are necessary for job crafting and demands can prevent job crafting.

However, during the interviews creating resources was not discussed as actual job crafting, but that resources were necessary to job craft (i.e., resources make it possible to change facets of work and integrate strengths, interests, and passions). Thus, resources and demands are important for leaders to consider when encouraging employee job crafting, but resources are better conceptualized as precursors of job crafting than as actual job crafting.

Overall, the analysis of the interview responses reveals leadership factors that are essential precursors to job crafting and that should be investigated in future research studies. These include: autonomy, social support, recognition, interaction, feedback, positive relationships, trust, and leader style.

# **Model 2: Positive Work Experiences**

Model 2 represents another subset of job crafting's nomological network by outlining the theoretical outcomes of job crafting and the relative contribution of job crafting and work design characteristics in predicting positive work experiences.

Work design is initiated by someone in the organization, typically by a leader or a direct supervisor, and is a top-down approach to employee motivation (Wrzesniewski et al., 2013). Job crafting, in contrast, is employee initiated, representing a bottom-up approach to motivation and creating meaningfulness in work (Berg et al., 2013). These top-down and bottom-up approaches are said to be complementary, as work characteristics can create a situation supportive of job crafting and job crafting efforts may reciprocally influence work roles by altering the make-up and design of work (Grant & Parker, 2009). Previously, the relative contributions of these

approaches had not been tested simultaneously, thus researchers had yet to fully understand how work design characteristics and job crafting influence each other and how, when combined, they influence employee work experiences. The findings from this study show that both job crafting and work design play roles in employee experiences at work. Work characteristics are beneficial because of their direct relationships with positive outcomes and because they create a supportive environment for job crafting to take place. Job crafting is beneficial because it explains variability in employee experiences beyond the characteristics of work.

Both work design characteristics and job crafting were significantly and positively related to intrinsic motivation, one indicator of positive work experiences. Consistent with job crafting theory (Berg et al., 2013; Wrzesniewski & Dutton, 2001), employee job crafting explained variance in motivation above and beyond the basic design of work. Thus, both organizations and employees can create optimal experiences at work, as represented by increased states of intrinsic motivation.

PO fit was investigated as another indicator of positive work experiences. As explained by work adjustment theory (Bretz & Judge, 1994; Dawis & Lofquist, 1984) and supported by other research, when employees perceive that they share organizational values and can live out those values, they perform well (Greguras & Diefendorff, 2009), feel loyal to their companies (Verquer, Beehr, & Wagner, 2003), and tend to stay longer than when perceived fit or congruence is low (Hoffman & Woehr, 2006). Work design characteristics, specifically task and social characteristics, were positively related to employee perceptions of PO fit. Although job crafting was significantly correlated with PO fit and explained significant variance when not accounting for work design factors, job crafting did not explain variance in PO fit when controlling for work design characteristics. This may indicate that even though crafting presents

one technique for employees to integrate their own interests and values into work, employees may be more focused on creating person-*job* fit through job crafting (as supported by Chen et al., 2014) than on values fit with their organizations. Relational crafting may carry over from one job to another (i.e., if an employee moves up within an organization), which could influence a holistic evaluation of person-organization congruence, but thoughts about one's job role and especially task crafting efforts pertain to a very specific role. So, although these efforts can create person-job fit, they may not influence perceptions of PO fit and may not create these perceptions beyond what is explained by work design.

Adaptive performance was also explored as an indicator of positive work experiences, as thriving employees are also able to adapt and adjust to varying work requirements and situations. Of the work characteristics and job crafting, only knowledge characteristics were significantly and positively related to adaptive performance. This indicates that when jobs allow complexity, information processing, skill variety, specialization, and problem solving, employees are able to adapt in stressful, emergency, or interpersonal situations. Knowledge characteristics provide opportunities to develop critical thinking, analysis, decision-making, and other cognitive skills that likely equip employees for when uncertain and problematic situations arise.

The non-significant relationships of job crafting, social characteristics, and context characteristics with adaptive performance, though counter to my expectations, may be explained by the infrequency and the case-by-case nature of adapting in the workplace. Work characteristics and job crafting shape the general work environment, thoughts, and tasks, but may not specifically prepare employees to, 'quickly take effective action,' 'stay calm under [stressful] circumstances,' or 'resolve atypical problems' (i.e., some of the items used to measure adaptive performance). Especially if stress and emergencies are not a usual part of someone's job, it is

unlikely that the employee would job craft in ways that specifically support handling emergency situations. It would be interesting to observe the relationships of job characteristics and crafting with adaptive performance for employees who work in particularly stressful, fast-pace, or quickly changing occupations. Perhaps for these employees (e.g., police dispatch, nurses, fire authorities), work characteristics and job crafting show stronger relationships with adaptive performance.

# **Implications**

The results from this study have both theoretical and practical implications. Through the results of this study, I expand job crafting theory to include inherent needs, and also work design, leadership, and individual factors as theoretical antecedents to employee job crafting. In each of these broad factors (i.e., individual, work design, and leadership factors), I identified specific variables that should be considered predictors of job crafting. Within work design, it is imperative to consider social and task characteristics. Pertaining to individual factors, proactivity and learning orientation emerged as important theoretical antecedents of job crafting. As a third main category of antecedents, leadership factors have been neglected in past job crafting studies, despite evidence that leadership influences employee helping behaviors, performance, attitudes, and proactivity (Avolio et al., 2004; Parker et al., 2006). Thus, as a contribution to job crafting theory, I demonstrate that leader empowerment and trust in one's leader are significantly related to employee job crafting. Furthermore, leadership explains a significant amount of variance in job crafting beyond what is explained by work design and individual characteristics.

I also tested and supported the theory of job crafting by demonstrating that job crafting and work characteristics each significantly relate to positive employee work experiences. From an organizational standpoint, supporting employee job crafting can help maximize talent and

improve employee experiences at work. Alternatively, from an employee's perspective, personal efforts to adapt at work, as well as the work environment itself, are important to experience meaningfulness and motivation at work. These findings emphasize the importance of both efforts and challenge ideas that work design is an old and outdated practice. Quite the opposite, organizations *should* design work well so employees are given the proper motivation, capability, and opportunity (Grant & Parker, 2009) to engage in job crafting and further shape work roles to fit with personal interests, strengths, and values. To attract, retain, and motivate top quality talent, organizations must encourage and support employee proactivity, including job crafting. The most successful organizations recognize the value of their talent and that work is about more than satisfying core business functions, it is about cultivating talent and providing opportunities for rich and fulfilling experiences (Fortune, 2015; SIOP Administrative Office, 2015).

The findings from this study also provide strong evidence that work design research and practices should not be abandoned. Work design characteristics help create the right situation and environment in which employees can thrive. Simply because research was conducted decades ago does not mean it is irrelevant and or should be ignored as an organizational practice.

Furthermore, work design has evolved beyond task characteristics and now also emphasizes social and relational aspects of work (Morgeson & Humphrey, 2006). Updating research and replicating findings in new and differing work environments is an important part of the scientific process, but we should not dismiss such a strong stream of research that provides tangible and well-supported recommendations for organizations. Rather, we should build on these recommendations to understand work design in today's working environments, which includes employee-driven activities like job crafting. Findings from this study support that when organizations employ work design efforts, they gain the most out of their employees who job

craft. Aside from job crafting, perhaps work design theory complements and supports other work-improvement interventions such as appreciative inquiry, creativity training, or health and wellness programs. It may be worth exploring how work characteristics support these initiatives or which characteristics tend to be the most influential for different initiatives' success.

# **Strengths and Limitations of the Study**

The hypotheses were investigated using a broad sample of working adults. The sample included employees who represent a wide range of ages, levels within their organizations, and organizational tenure, and who work at organizations differing in size and industry. In addition, one strength of this study is that both working adults and their colleagues provided observations about work roles, so the results do not rely on self-report data alone. Using this broad and diverse sample lends to the generalization of the study results to similar working samples.

Another strength of this study is that the data represent individual, leadership, and work-level variables. Assessing variables at multiple levels reflects the complex nature of work and work activities. By including work design, employee, and leader factors in the same study (which has not previously been achieved in a research study), these variables are observed in relation to one another. The variable exclusion problem (Kline, 2016) is one that often plagues psychological research because it is not possible to include every variable in a single study (nor would this be advised even if it was possible). However, without including all relevant variables, a study's findings may be inaccurate because they do not factor in or account for important variables. Because of this methodology I was able to support that individual factors predict employee job crafting even when controlling for work characteristics and leadership variables. Similarly, work design and leadership factors share significant relationships with job crafting when controlling for all other factors.

Although the data were from multiple sources, responses were cross-sectional, which presents a limitation because I cannot determine causal relationships among the variables or confirm the directionality of the relationships. To observe causal relationships (i.e., that job crafting or work design efforts lead to positive work experiences or that work characteristics create a context that impacts job crafting), an experimental or quasi-experimental study is required. It may be interesting to observe trends over time (i.e., rather than at a single time point as in a cross-sectional study), but simply adding a component of time does not determine the directionality of relationships. With advanced analytical methods, such as cross-lagged panel analysis, researchers can begin to tease apart the relationships of variables over time, but to truly know whether job crafting leads to positive work experiences or that leadership behaviors impact employee job crafting, an experimental study design is required. Although I cannot infer causation from the study findings, I used theory (e.g., Berg et al., 2013; Grant et al., 2009; Humphrey et al., 2007) and existing studies (e.g., Berg et al., 2010a; Demerouti et al., 2015; Ko, 2012) to hypothesize the directions of the relationships in the proposed models. This does not guarantee that the models are correct or are even the 'best' way to represent the relationships, but I integrated as much as possible based on what is already known about job crafting, work design, and other related variables. Future experimental studies can build on the proposed study by manipulating leadership, work characteristics, or individual factors to test their specific effects on job crafting behavior.

A second limitation of this study is the sample size. Having a larger sample would lend to greater confidence in the model results and estimates (Kline, 2016). The sample size also limits the type and number of tests I was able to conduct. With the current sample, I addressed the proposed hypotheses but could not analyze the data using more complex techniques like

structural equation modeling, which accounts for measurement error and allows multiple dependent variables. Having a larger sample may also make the results more generalizable. Despite this limitation, the sample allowed me to investigate the proposed hypotheses. The sample provided observations about the employees' individual characteristics, characteristics of the work, leader characteristics, job crafting, and for variables that define positive work experiences, such as attitudes, motivation, and adaptive performance. Furthermore, due to the complexity of the projects through which these data were collected and the efforts made to thoroughly communicate and connect with the participating employees and their colleagues, I believe these data to be of high quality (possibly more-so than what could be achieved through other data collection methods such as online crowd-sourcing).

### **Future Directions for Research**

With this study, I extend job crafting theory to include theoretical antecedents beyond individual needs. One major contribution is the inclusion of leadership variables. In this one study, however, I could not fully explore the role of leaders or supervisors in employee job crafting. Therefore, future research should continue to investigate the leader behaviors, perceptions, and values that support (or hinder) employee job crafting. Findings from the interviews suggest that autonomy support, social support, recognition, feedback, interaction, high-quality relationships, and trust can influence employee job crafting. These leadership variables should be investigated in future, larger, quantitative studies.

Expanding on the previous recommendation, it would prove useful to study job crafting from managers' and leaders' viewpoints. Although not all job crafting efforts are visible to outsiders (Ghitulescu, 2006), from the interviews it seems that leaders can influence job crafting and may even actively encourage (or discourage) job crafting. Thus, from a leader's perspective,

when is job crafting beneficial? Do leaders recognize and observe the same benefits of job crafting as individual employees? How might leaders role model crafting or coach employees through crafting to increase the chances that efforts are successful? Investigating these and other questions will build understanding around the nature of job crafting and its perceived benefits.

Future studies should also investigate the relative contributions of work characteristics and job crafting efforts in creating other positive experiences at work, such as engagement, well-being, and positive attitudes like commitment. Results from this study suggest that job crafting explains variability in employee motivation above and beyond work design characteristics, but not for PO fit or adaptive performance. It would be beneficial to see these findings replicated in other studies, especially non-student-recruited samples. By studying work design characteristics and job crafting together, researchers can detect the benefits of job crafting and clarify the roles of organizations and employees in creating positive experiences through work.

### **Conclusion**

This study provides empirical evidence in support of work design theory (Humphrey et al., 2007) and job crafting theory as proposed by Wrzesniewski and Dutton (2001), by showing that both organizational and employee efforts are related to employee experiences through work. Work design characteristics, established by organizations or leadership, are related to positive employee experiences such as intrinsic motivation, PO fit, and adaptive performance. In addition to work characteristics, employees can influence their own experiences at work through job crafting. Job crafting explains variability in employee positive experiences, specifically motivation, beyond work characteristics.

This study also extends job crafting theory and shows that to foster and encourage employee job crafting, it is important to consider individual, contextual, and leadership factors.

Employees tend to engage in job crafting when they have predispositions or innate tendencies like proactive personality and learning orientation. Additionally, work design characteristics provide motivation, ability, and opportunity to job craft. Furthermore, leader empowerment and trust in one's leader are also related to employee job crafting. Collectively, the findings from this study help understand the drivers of employee job crafting, suggest that work design is a relevant and important practice for today's workforce, and promote job crafting as one technique for employees to enhance their work experiences.

Table 1

Descriptive Statistics, Correlations, and Reliability Estimates Italicized Along the Diagonal for Study Variables

	Variable	М	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Job Crafting	2.88	0.79	.93												
2	Task Ch	3.98	0.60	.41*	.90											
3	Knowledge Ch	3.89	0.69	.05	.23*	.94										
4	Social Ch	3.81	0.55	.40*	.23*	02	.83									
5	Context Ch	3.36	0.74	.04	.14	.04	.01	.87								
6	Proactivity	4.00	0.72	.14	.17	.21*	.10	.00	.87							
7	Self-efficacy	3.95	0.77	.13	.13	.04	.03	08	.20*	.92						
8	Learn Orient	4.12	0.63	.29*	.21*	.11	.03	09	02	.40*	.88					
9	Empowerment	3.77	1.04	.49*	.31*	08	.38*	.11	.19*	01	.14	.92				
10	Trust in Leader	3.91	0.76	.16	.17	.00	.29*	.13	.12	.13	.10	.58*	.77			
11	Intrinsic Motiv	5.14	1.55	.51*	.47*	.05	.35*	01	.08	.03	.15	.31*	.05	.91		
12	PO Fit	4.07	0.69	.27*	.40*	01	.30*	.09	.05	.11	.19*	.29*	.29*	.51*	.78	
13	Adaptive Perf	3.87	0.54	.15	.20*	.31*	.08	.09	.61*	.10	.12	.11	.11	.17	.03	.94

*Note.* \* p < .05. Ch = characteristics. Orient = orientation. Motiv = motivation. PO = person-organization. Perf = performance.

Table 2

Confirmatory Factor Analyses for Study Variables

Scale	Model	$\chi^2$	(df)	CFI	RMSEA	SRMR
Task Characteristics	Higher-order, 3-factor	295.14	(116)*	0.88	0.11	0.08
Social Characteristics	Higher-order, 3-factor	120.02	(62)*	0.93	0.09	0.06
Knowledge Characteristics	Higher-order, 4-factor	348.64	(165)*	0.90	0.10	0.07
Context Characteristics	Higher-order, 4-factor	189.62	(73)*	0.88	0.12	0.09
Proactivity	1-factor	3.17	(2)	1.00	0.07	0.02
Self-efficacy	1-factor	110.71	(35)*	0.89	0.14	0.06
Learning Orientation	1-factor	19.72	(5)*	0.96	0.16	0.04
Trust in Leader	1-factor	21.27	(5)*	0.97	0.12	0.03
Empowerment	Higher-order, 3-factor	141.92	(24)*	0.86	0.22	0.13
Job Crafting	Higher-order, 3-factor	337.44	(186)*	0.88	0.09	0.07
Intrinsic Motivation	1-factor	0.00	(0)	1.00	0.00	0.00
PO Fit	1-factor	0.00	(0)	1.00	0.00	0.00
Adaptive Performance	Higher-order, 5-factor	284.02	(147)*	0.89	0.09	0.07

Note. For all multidimensional scales, all factors were modeled onto a higher-order factor.

<sup>\*</sup>*p* < .05

Table 3 Full Model of Individual, Work Design, and Leader Factors as Predictors of Job Crafting

					Job Crafting	g			
		Model 1			Model 2		Model 3		
Predictor	b	95% CI	β	b	95% CI	β	b	95% CI	β
Proactivity	.34	[.17, .52]	.30*	.24	[.08, .42]	.21*	.16	[00, .35]	$.14^{\Delta}$
Role Breadth Self-efficacy	10	[30, .18]	09	07	[26, .15]	07	05	[22, .17]	05
Learning Orientation	.44	[.14, .71]	.33*	.30	[.00, .57]	.23*	.26	[02, .52]	$.19^{\Delta}$
Task Characteristics				.37	[.13, .65]	.28*	.25	[.03, .49]	.19*
Social Characteristics				.40	[.16, .64]	.27*	.26	[00, .53]	$.18^{\Delta}$
Knowledge Characteristics				04	[24, .16]	04	.03	[18, .23]	.02
Context Characteristics				03	[20, .14]	03	04	[23, .13]	04
Trust in Leader							21	[42, .03]	$20^{\Delta}$
Leader Empowerment							.39	[.14, .67]	.40*
Total $R^2$	.17			.33			.40		
F	6.87*	*		6.73*	*		6.86*	*	
$\Delta R^2$	.17*	*		.16*	*		.07*		

Note: N = 120. CI = confidence interval. \*p < .05, \*\*p < .001,  $^{\Delta}p < .10$ 

Table 4

Trimmed Model of Individual, Work Design, and Leader Factors as Predictors of Job Crafting

	Job Crafting										
		Model 1			Model 2		Model 3				
Predictor	b	95% CI	β	$\overline{b}$	95% CI	β	b	95% CI	β		
Proactivity	.32	[.13, .51]	.28*	.21	[.04, .39]	.19*	.18	[.03, .35]	.16*		
Learning Orientation	.39	[.14, .65]	.29*	.27	[.02, .51]	.20*	.26	[.06, .49]	.20*		
Task Characteristics				.37	[.13, .61]	.27*	.25	[.03, .48]	.19*		
Social Characteristics				.41	[.18, .65]	.28*	.28	[.03, .55]	.20*		
Trust in Leader							24	[42,01]	23*		
Leader Empowerment							.33	[.16, .48]	.43*		
Total $R^2$	.16			.32			.43				
F	9.89**			11.83	11.83**			12.15**			
$\Delta R^2$				.16*	*		.11**				

*Note:* N = 120. CI = confidence interval.

<sup>\*</sup>p < .05, \*\*p < .001

Table 5

Work Design and Job Crafting as Predictors of Positive Work Experiences

					Positi	ve Wo	rk Experience	es					
	Intrinsic Motivation					PO Fit				Adaptive Performance			
Predictor	$\Delta R^2$	b	95% CI	β	$\Delta R^2$	b	95% CI	β	$\Delta R^2$	b	95% CI	β	
Step 1	.29**				.21*				.12*				
Task Ch		.83	[.32,1.30]	.32*		.39	[.20, .63]	.35*		.08	[10, .28]	.09	
Social Ch		.41	[05, .95]	.15		.24	[.05, .45]	.20*		.03	[17, .24]	.03	
Knowledge Ch		07	[46, .37]	03		09	[25, .07]	08		.22	[.08, .41]	.28*	
Context Ch		16	[48, .17]	07		.04	[12, .21]	.04		.05	[09, .18]	.06	
Step 2	.08**				.00				.01				
Job Crafting		.63	[.22,1.00]	.33*		.05	[13, .21]	.05		.06	[10, .21]	.09	
Total $R^2$	.37				.22				.13				
F	13.17**				6.18**				3.19*				

*Note:* N = 120. CI = confidence interval. Ch = characteristics. All reported values are from the final model in which both steps 1 and 2 are included.

<sup>\*</sup>*p* < .05, \*\**p* < .001

Table 6

Qualitative Content Analysis Results: Positive Roles of Leaders in Employee Job Crafting

Leadership	% of	Description	Example
Code	<b>Participants</b>	Leaders facilitate	
		job crafting by:	
Social	70%	Providing general	"Very supportive of any type of professional
Support		social support to	development that I want to try."
		employees.	
Autonomy	70%	Providing	"And so they're really encouraging on creating
		employees	different pathways that we think that students
		autonomy in their	will actually enjoy and giving us the freedom
		jobs.	with that as well."
Resources	40%	Providing	"They provide an environment, is what they
Support		resources that	end up doing, they provide athe physical
		enable employees	equipment, they provide the physical space,
		to job craft (e.g.,	they provide certain things that help make your
		materials, time,	ability to, if you want to call it job craft, easier
		money).	so they do provide that aspect."
Recognition	30%	Recognizing	"They tweet my, students' art work, they are
_		employees for	affirmative when they really like a project, they
		their job crafting	stop fellow teachers, fellow teachers in the
		efforts.	hall, stop me and say we really love what
			you're doing."
Interaction	30%	By having at least	"All of our managers sit within proximity to us,
		some or frequent	or always somewhere where they can be
		interaction with	located or asked any questions."
		their employees.	, -
Feedback	30%	Providing	"The supervisor asking other cleaners how
		feedback about	their experiences with their trainer have been
		job crafting	was really helpful for me to grow as a
		efforts.	trainer."
Positive	10%	Having positive	"Yea well certainly communication is very
Relationship		relationships with	good, general understanding of each other,
-		their employees.	what we work and what we need it's just the
			whole relationship."
Trust	5%	Building trust	"You know I think I've said a lot and it starts
		with employees.	with trust, and as a supervisor, looking more to
			serve your people than to treat them as
			hornets, cause people are smart, and they don't
			want to be in an environment when they get
			beat up or intimidated or feel stress because of
			what the supervisor puts on them."
			1 1

*Note.* N = 20. % of participants represents the proportion of participants who discussed this leader behavior.

Table 7

Qualitative Content Analysis Results: Hindering Roles of Leaders in Employee Job Crafting

Leadership	% of	Description	Example
Code	Participants	Leaders hinder job crafting by:	
Lack of Autonomy	45%	Limiting the autonomy employees have in their jobs.	"When the supervisor has a priority that they think is a priority and it interferes with what you think."
Lack of Recognition	15%	Failing to recognize employee job crafting efforts.	"Because he has times when he is, seems more lenient or seems more aware of what his staff does and other times where he, you know, is not willing to acknowledge that we work hard."
Lack of Resources	15%	Failing to provide the resources necessary for job crafting.	"I'm very concerned about budget. There are rumors thatthat the visual artsbudget is going to becut drastically, and if that were to happen because it's such adependent area that I can foresee a lot of, a lot of things being thrown by the wayside and a lot of really important and wonderful and valuable experiences being lost, so that would be crushing to me.
Lack of Social Support	10%	Failing to provide general support.	"He's done a few things where the, a lot of the staff, don't feel like they can trust him, in certain areas like, like if you want to disagree with him about something, or kinda voice your opinion, is not always the smartest thing to do."
Laissez- faire style	5%	Leading with a laissez-faire style.	"He doesn't want to have anything to do with my job."

*Note.* N = 20. % of participants represents the proportion of participants who discussed this leader behavior.

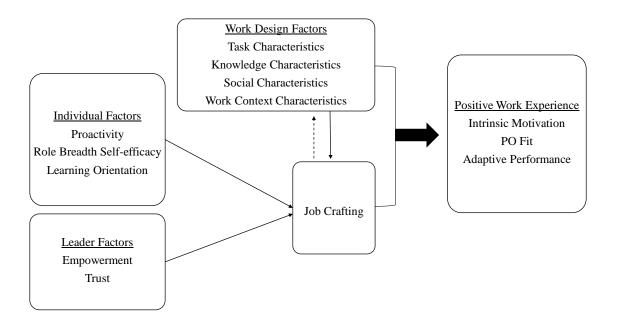


Figure 1. Full Conceptual Model Depicting an Extension of Job Crafting Theory.

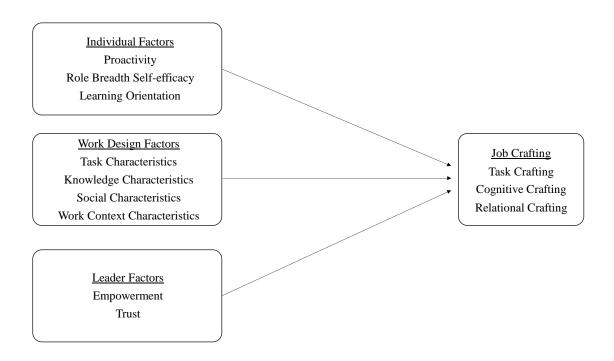


Figure 2. Model 1: Conceptual Model Depicting Theoretical Antecedents of Job Crafting.

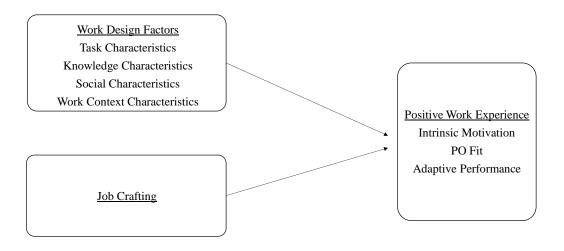


Figure 3. Model 2: Conceptual Model Depicting Theoretical Outcomes of Job Crafting and Work Design Efforts.

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#### APPENDIX A: PARTICIPANT SURVEY MEASURES

### Work Design (Morgeson & Humphrey, 2006)

1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree

### **Task Characteristics**

The following statements talk about characteristics of <u>your</u> work and how you may or may not complete tasks in <u>your own</u> job. Please read each statement and indicate the degree to which the statement applies to <u>you</u>. Please respond as honestly as possible.

## Work Scheduling Autonomy

- 1. The job allows me to make my own decisions about how to schedule my work.
- 2. The job allows me to decide on the order in which things are done on the job.
- 3. The job allows me to plan how I do my work.

### Decision-Making Autonomy

- 4. The job gives me a chance to use my personal initiative or judgment in carrying out the work.
- 5. The job allows me to make a lot of decisions on my own.
- 6. The job provides me with significant autonomy in making decisions.

### Work Methods Autonomy

- 7. The job allows me to make decisions about what methods I use to complete my work.
- 8. The job gives me considerable opportunity for independence and freedom in how I do the
- 9. The job allows me to decide on my own how to go about doing my work.

# Task Variety

- 10. The job involves a great deal of task variety.
- 11. The job involves doing a number of different things.
- 12. The job requires the performance of a wide range of tasks.
- 13. The job involves performing a variety of tasks.

### Task Significance

- 14. The results of my work are likely to significantly affect the lives of other people.
- 15. The job itself is very significant and important in the broader scheme of things.
- 16. The job has a large impact on people outside the organization.
- 17. The work performed on the job has a significant impact on people outside the organization.

### Task Identity

- 18. The job involves completing a piece of work that has an obvious beginning and end.
- 19. The job is arranged so that I can do an entire piece of work from beginning to end.

- 20. The job provides me the chance to completely finish the pieces of work I begin.
- 21. The job allows me to complete work I start.

### Feedback From Job

- 22. The work activities themselves provide direct and clear information about the effectiveness (e.g., quality and quantity) of my job performance.
- 23. The job itself provides feedback on my performance.
- 24. The job itself provides me with information about my performance.

## **Social Characteristics**

The following statements talk about social aspects of your work and how you may or may not interact with others in your job. Please read each statement and indicate the degree to which the statement applies to you. Please respond as honestly as possible.

### Social Support

- 1. I have the opportunity to develop close friendships in my job.
- 2. I have the chance in my job to get to know other people.
- 3. I have the opportunity to meet with others in my work.
- 4. My supervisor is concerned about the welfare of the people that work for him/her.
- 5. People I work with take a personal interest in me.
- 6. People I work with are friendly.

### Initiated Interdependence

- 7. The job requires me to accomplish my job before others complete their job.
- 8. Other jobs depend directly on my job.
- 9. Unless my job gets done, other jobs cannot be completed.

### Received Interdependence

- 10. The job activities are greatly affected by the work of other people.
- 11. The job depends on the work of many different people for its completion.
- 12. My job cannot be done unless others do their work.

# **Interaction Outside Organization**

- 13. The job requires spending a great deal of time with people outside my organization.
- 14. The job involves interaction with people who are not members of my organization.
- 15. On the job, I frequently communicate with people who do not work for the same organization as I do.
- 16. The job involves a great deal of interaction with people outside my organization.

### Feedback From Others

- 17. I receive a great deal of information from my manager and coworkers about my job performance.
- 18. Other people in the organization, such as managers and coworkers, provide information about the effectiveness (e.g., quality and quantity) of my job performance.
- **19.** I receive feedback on my performance from other people in my organization (such as my manager or coworkers).

# Measure of Job Crafting (Dvorak, 2014).

The following survey presents statements about your behavior at work. Please read each statement and indicate the degree to which the statement applies to you. Please respond as honestly as possible.

1 = Disagree, 2 = Somewhat agree, 3 = Agree, 4 = Strongly Agree, 5 = Very Strongly Agree

### **Task Crafting**

- 1. I change the way I complete certain work tasks to make them more interesting to me.
- 2. I add tasks I am passionate about into my work.
- 3. I change my work tasks to spend more time doing the parts I enjoy most.
- 4. I make time to work on projects I find interesting.
- 5. I incorporate work tasks into my daily routine that I find enjoyable but are not required for my job.
- 6. I take on new work tasks that better suit my interests.
- 7. I change my tasks to better suit my skills.

# **Cognitive Crafting**

- 8. I actively remind myself what the purpose of my work is.
- 9. I actively think about the impact my work has on those who care most about the success of the organization.
- 10. When reflecting on my work, I think about how it fulfills my personal values.
- 11. Focusing on the greater purpose of my job helps me get through the everyday tasks I have to do.
- 12. Reminding myself that my work is an important piece of a larger purpose helps me stay motivated.
- 13. I think about how my job gives my life purpose.
- 14. I remind myself about the significance that my work has for the success of the organization.

### **Relational Crafting**

- 15. In my job, I work to establish personal connections with people.
- 16. I create opportunities to meet new people at work.
- 17. The ways I choose to interact with others at work adds value to my job.
- 18. I try to spend time with other employees who view my work as important.
- 19. To connect more closely with others at work, I change the ways I communicate (e.g., meeting face-to-face rather than emailing).
- 20. I find value in my work because of my relationships with my peers/coworkers.
- 21. I make an effort to get to know people well at work.

# **Learning Orientation (VandeWalle, 1997)**

Please answer the following questions as honestly and accurately as possible.

1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree

- 1. I am willing to select a challenging work assignment that I can learn a lot from.
- 2. I often look for opportunities to develop new skills and knowledge.
- 3. I enjoy challenging and difficult tasks at work where I'll learn new skills.
- 4. For me, development of my work ability is important enough to take risks.
- 5. I prefer to work in situations that require a high level of ability and talent.

# Role breadth self-efficacy (Parker, 1998)

How confident would you feel:

Response Scale: 1 = not all confident to 5 very confident

- 1. Analyzing a long-term problem to find a solution
- 2. Representing your work area in meetings with senior management
- 3. Designing new procedures for your work area
- 4. Making suggestions to management about ways to improve the working of your team
- 5. Contributing to discussions about the company's strategy
- 6. Writing a proposal to spend money in your work area
- 7. Helping to set targets/goals in your work area
- 8. Contacting people outside the company (e.g., suppliers, customers) to discuss problems
- 9. Presenting information to a group of colleagues
- 10. Visiting people from other departments to suggest doing things, differently

## Leader Empowerment (Spreitzer, 1995)

The following are statements about your supervisor, the person who oversees your work or makes decisions regarding your work. Please read each statement and indicate the degree to which the statement applies to you. Please respond as honestly as possible.

1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree

- 1. My supervisor helps me see that the work 1 do is very important (meaning 1).
- 2. My supervisor supports that my job activities are personally meaningful to me (meaning 2).
- 3. My supervisor wants the work I do to be meaningful to me (meaning 3).
- 4. My supervisor helps me be confident about my ability to do my job (competence 1).
- 5. My supervisor makes me self-assured about my capabilities to perform my work activities (competence 2).
- 6. My supervisor helps me master the skills necessary for my job (competence 3).
- 7. My supervisor provides significant autonomy in determining how I do my job (self-determination 1).
- 8. My supervisors allows me to decide on my own how to go about doing my work (self-determination 2).
- 9. My supervisor provides considerable opportunity for independence and freedom in how I do my job (self-determination 3).

- 10. My supervisor shows me that my impact on what happens in my department is large (impact 1).
- 11. My supervisor provides me a great deal of control over what happens in my department (impact 2).
- 12. My supervisor lets me have significant influence over what happens in my department (impact 3).

# Trust in Leader (Podsakoff et al., 1990)

To what extent do you agree/disagree with the statement below as it refers to the person you identify as your supervisor?

1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree

- 1. I feel guite confident that my leader will always try to treat me fairly.
- 2. My leader would never try to gain an advantage by deceiving workers.
- 3. I have complete faith in the integrity of my leader.
- 4. I feel a strong loyalty to my leader.
- 5. I would support my leader in almost any emergency.
- 6. I have a divided sense of loyalty toward my leader. (R)

# Intrinsic Work Motivation (Gagné et al., 2010)

Using the scale below, please indicate for each of the following statements to what degree they presently correspond to one of the reasons for which you are doing this particular job.

Response scale: 1-7, Not at all to Exactly

- 1. Because I enjoy this work very much
- 2. Because I have fun doing my job
- 3. For the moments of pleasure that this job brings me

### PO Fit (Cable & Judge, 1996)

The following are statements about your <u>beliefs about work</u>. Please read each statement and indicate the degree to which the statement applies to you. Please respond as honestly as possible. 1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree

- 1. My values match or fit the values of this organization
- 2. I am able to maintain my values at this company
- 3. My values prevent me from fitting in at this company because they are different from the company's values (R).

#### APPENDIX B: COLLEAGUE SURVEY MEASURES

### Work Design (Morgeson & Humphrey, 2006)

1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree

# Knowledge Characteristics (in regards to his/her colleague's job)

The following statements talk about the knowledge and skills required by your colleague to successfully complete his or her job. If your job is very similar to your colleagues, these statements may also apply to your job. Please read each statement and indicate the degree to which the statement applies to your colleague's/your job. Please respond as honestly as possible.

# Job Complexity

- 1. The job requires that my colleague only does one task or activity at a time (R).
- 2. The tasks on the job are simple and uncomplicated (R).
- 3. The job comprises relatively uncomplicated tasks (R).
- 4. The job involves performing relatively simple tasks (R).

### **Information Processing**

- 5. The job requires my colleague to monitor a great deal of information.
- 6. The job requires that my colleague engages in a large amount of thinking.
- 7. The job requires my colleague to keep track of more than one thing at a time.
- 8. The job requires my colleague to analyze a lot of information.

## **Problem Solving**

- 9. The job involves solving problems that have no obvious correct answer.
- 10. The job requires my colleague to be creative.
- 11. The job often involves dealing with problems that my colleague has not met before.
- 12. The job requires unique ideas or solutions to problems.

## Skill Variety

- 13. The job requires a variety of skills.
- 14. The job requires my colleague to utilize a variety of different skills in order to complete the work.
- 15. The job requires my colleague to use a number of complex or high-level skills.
- 16. The job requires the use of a number of skills.

# Specialization

- 17. The job is highly specialized in terms of purpose, tasks, or activities.
- 18. The tools, procedures, materials, and so forth used on this job are highly specialized in terms of purpose.
- 19. The job requires very specialized knowledge and skills.
- 20. The job requires a depth of knowledge and expertise.

### **Work Context**

The following statements talk about your general work environment. Please read each statement and indicate the degree to which the statement applies to you and your colleague's workplace. Please respond as honestly as possible.

## **Ergonomics**

- 1. The seating arrangements on the job are adequate (e.g., ample opportunities to sit, comfortable chairs, good postural support).
- 2. The work place allows for all size differences between people in terms of clearance, reach, eye height, leg room, etc.
- 3. The job involves excessive reaching (R).

### **Physical Demands**

- 4. The job requires a great deal of muscular endurance. (R)
- 5. The job requires a great deal of muscular strength. (R)
- 6. The job requires a lot of physical effort. (R)

### **Work Conditions**

- 7. The work place is free from excessive noise.
- 8. The climate at the work place is comfortable in terms of temperature and humidity.
- 9. The job has a low risk of accident.
- 10. The job takes place in an environment free from health hazards (e.g., chemicals, fumes, etc.).
- 11. The job occurs in a clean environment.

### Equipment Use

- 12. The job involves the use of a variety of different equipment. (R)
- 13. The job involves the use of complex equipment or technology. (R)
- 14. A lot of time was required to learn the equipment used on the job. (R)

# Proactivity (of his/her colleague; Bateman & Crant, 1993)

The following statements talk about <u>your colleague's</u> general habits and tendencies. Please read each statement and indicate the degree to which the statement applies to <u>your colleague</u>. Please respond as honestly as possible.

Response scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree, 6 = I don't know

- 1. No matter what the odds, if my colleague believes in something, he/she will make it happen.
- 2. My colleague loves being a champion for new ideas, even against others' opposition.
- 3. My colleague is excellent at identifying opportunities.
- 4. If my colleague believes in an idea, no obstacle will prevent him/her from making it happen.

# Adaptive Performance (of his/her *colleague*; Charbonnier-Voirin et al., 2010)

The following statements talk about <u>your colleague's</u> general habits and how he/she performs on the job. Please read each statement and indicate the degree to which the statement applies to your colleague. Please respond as honestly as possible – as a reminder, none of your responses will be shared with your colleague or the organization you work for.

1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree

# Handling emergencies and unpredictable situations

- 1. My colleague keeps focused on situations to react quickly.
- 2. My colleague quickly takes effective action to solve problems.
- 3. My colleague examines available options and their implications to choose the best solutions.
- 4. My colleague easily changes plans to deal with new situations.

## Handling work stress

- 5. My colleague stays calm under circumstances where many decisions must be made at the same time.
- 6. My colleague seeks solutions by talking to more experienced colleagues.
- 7. Other coworkers often ask my colleague for advice in difficult circumstances because he/she keeps cool.

# Solving problems creatively

- 8. My colleague tries to develop new methods for solving atypical problems.
- 9. My colleague relies on a wide variety of information to find innovative solutions to problems.
- 10. My colleague tries to avoid following established ways of addressing problems to find innovative solutions.
- 11. Other coworkers take advice from my colleague for generating new ideas and solutions.

## Learning

- 12. My colleague searches for innovations in his/her job so as to improve work methods.
- 13. My colleague takes actions (within or outside the company) to keep his/her skills up to date.
- 14. My colleague anticipates changes in his/her job by participating in projects or assignments that help deal with change.
- 15. My colleague is always looking for opportunities (e.g., training, interactions with coworkers, etc.) that help increase his/her job performance.

# Demonstrating interpersonal adaptability

- 16. My colleague changes his/her way of working as a function of others' feedback and suggestions.
- 17. My colleague always develops positive relationships with the people he/she interacts with when doing the job.
- 18. My colleague learns new ways of doing his/her job to better cooperate with others.
- 19. My colleague tries to consider others' viewpoints to better interact with them.

### APPENDIX C: INTERVIEW SCRIPT

I am interested in learning about how people mold and shape their work. We call this job crafting. When employees job craft, they change parts about their work to derive more meaningfulness out of what they do. Job crafting can involve changing certain tasks, thoughts, or relationships. This way, employees integrate more of their own passions, interests, and strengths into their work

- 1. Do you currently craft parts of your job by changing the nature of your work tasks, how you think about work, or by changing the nature of your relationships with others at work?
  - a. IF YES: How does this look for you? Can you give me an example or two?
  - b. IF NO: How might this look for you? Do you have any desire to change parts of your work? Why do you think you aren't currently job crafting?
- 2. Does your supervisor play any role in whether you job craft or how you job craft? Can you explain?
- 3. What does your supervisor do that encourages job crafting?
- 4. What does your supervisor do that makes it difficult to job craft in your work?
- 5. Do you have any final thoughts about job crafting or the role of a supervisor in employee job crafting?

Thank you for sharing your experiences with me. We appreciate your participation in this interview. Again, we will transcribe this interview so we can accurately capture your responses, but no identifying information will be saved with those responses. If you have any questions you may contact myself at a later time or contact the IRB. Would you like the IRB phone number? You can also find their information on the [university] website.

Thank you and have a great rest of your day!