## PERSONAL, RELATIONAL, AND PERFORMANCE IMPLICATIONS OF JOB CRAFTING

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#### **DECLARATION**

I hereby declare that this thesis is my original work and it has been written by me in its entirety. I have duly acknowledged all the sources of information which have been used in the thesis.

This thesis has also not been submitted for any degree in any university previously

Choi, Dongwon

13 April 2017

#### **DEDICATION**

To my family

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#### **ABSTRACT**

In face of uncertain and dynamic environments, an alternative form of work design has emerged – job crafting, defined as proactive, bottom-up changes in employees' work boundaries. Job crafting has been found to have a positive impact on employee attitudes, performance, as well as meaningfulness at work. While previous studies on job crafting have examined various antecedents across multiple levels, investigations on the impact of job crafting have largely focused on the self, neglecting socialrelational implications of job crafting activities. In the current dissertation, I propose an integrative model of job crafting that examines personal, relational, and performance outcomes of job crafting, integrating the notion of meaningfulness at work (Rosso et al., 2010), the agency/communion framework on the self-view and social judgment (Bakan, 1966; Fiske, Cuddy, & Glick, 2006), and the self-concern and other-orientation as moderators model (De Dreu, 2006; De Dreu & Nauta, 2009). Empirical results confirmed the coexistence of self- and other-focused psychological mechanisms in the relationship between job crafting and meaningfulness. In addition, I found that self-/other-focused psychological states differentially influence socialrelational and performance outcomes.

#### INTRODUCTION

In the face of a changing world that becomes more dynamic and uncertain, organizations have begun to depend on employee initiatives (Grant & Ashford, 2008). Among various types of self-initiated actions in the workplace, "job crafting" represents "the physical and cognitive changes individuals make in the task or relational boundaries of their work" (Wrzesniewski & Dutton, 2001, p. 179). As this definition suggests, the concept of job crafting differs from concepts derived from traditional work design theories in several aspects. First, while the existing literature assumes that job design is mainly "given" by the structural features of a job or "assigned" by managers (Grant & Parker, 2009; Hackman & Oldham, 1976; 1980), job crafting refers to proactive and bottom-up activities initiated by employees themselves (Berg, Wrzesniewski, & Dutton, 2010). Second, it involves the alteration of task, relational, and cognitive work boundaries. While traditional work design approaches have concentrated on task-specific changes (Ilgen & Hollenbeck, 1991; Morgeson & Campion, 2003), job crafting taps into the relational and cognitive aspects of a job (Grant & Parker, 2009; Humphrey, Nahrgang, & Morgeson, 2007; Morgeson & Humphrey, 2006). Third, employees engage in job crafting activities to experience meaningfulness at work (Berg, Dutton, & Wrzesniewski, 2013; Wrzesniewski, LoBoglio, Dutton, & Berg, 2013), while traditional work design approaches focus mainly on maximizing efficiency or facilitating motivation (Morgeson & Campion, 2003). These differences indicate that job crafting is a substantially different as well as meaningful construct, capturing the changing nature of the work environment and demands (Oldham & Hackman, 2010).

Since the introduction of the concept of job crafting, scholars have focused on discovering its antecedents and outcomes (Berg et al., 2013; Demerouti & Bakker, 2014). In general, structural features of a job (e.g., task interdependence; Berg et al., 2010; Petrou, Demerouti, Peeter, Schaufeli, & Hetland, 2012), the nature of a job (e.g., task autonomy and job demands; Berg et al., 2010; Ghitulescu, 2007; Leana, Appealbaum, & Shevchuk, 2009; Lyons, 2008), and individual differences (e.g., proactive personality; Bakker, Tims, & Derks, 2012) determine the extent to which employees engage in job crafting activities. In terms of the outcomes of job crafting, research has shown that job crafting is positively associated with psychological well-being (Lyons, 2008; Petrou, Demerouti, & Schaufeli, in press), work engagement (Bakker et al., 2012), person-job fit (Tims, Bakker, & Derks, 2012; 2013; Tims, Derks, & Bakker, 2016), and task performance (Bakker et al., 2012; Leana et al., 2008). Overall, these results suggest that similar to most behavioral activities, employees' engagement in job crafting activities is determined by both individual differences of employees and contextual surroundings in which they are embedded, and further suggest that these activities would result in positive individual outcomes.

While existing studies on job crafting have examined various antecedents across multiple levels, investigations on the impact of job crafting have largely focused on the self. To some extent, the current trend is understandable since by definition, job crafting involves self-focused activities that facilitate the experience of meaningfulness at work (Berg et al., 2010; Wrzesniewski & Dutton, 2001). The seminal work of Wrzesniewski and Dutton (2001), however, described numerous episodes in which job crafting

did not exclusively focus on the self, but rather resulted in beneficial impacts on others; for instance, some nurses provided additional information to patients, while some cleaners in the hospital conducted regular patient checks to assist nurses. These episodes imply that the impact of job crafting may not only be limited to the self but can also extend to others. Indeed, the literature on meaningfulness at work has proven that outcomes for others can also provide a sense of meaningfulness (Bolino & Grant, 2016; Grant, 2012; Rosso, Dekas, & Wrzesniewski, 2010).

In addition, although prior research has investigated the performance implications of job crafting activities (Bakker et al., 2012; Tims, Bakker, & Derks, 2014; Tims, Bakker, Derks, & Van Rhenen, 2013; Leana et al., 2009; Petrou et al., in press; Weseler & Niessen, 2016), the literature has a few limitations, as follows. First, most studies examine the relationship between job crafting and in-role task performance while neglecting the impact of job crafting on contextual performance, which has a positive influence on others (Conway, 1999; Dalal, 2005; Rotundo & Sackett, 2002). Second, most studies on job crafting have depended on self-ratings or peer-ratings of job performance, which may be more vulnerable to common method bias or subjectivity bias in comparison to leader-rated job performance (Conway & Huffcutt, 1997; Harris & Schaubroeck, 1988). Considering the fact that one employee's job crafting can impact the attitudes and behaviors of others, either positively or negatively (Peeters, Arts, & Demerouti, 2016; Tims, Bakker, & Derks, 2015), further research must examine the performance implications of job crafting activities by adopting a more comprehensive view of job performance, based on leader-rating.

To address the above limitations, the current dissertation proposes an integrative model of job crafting that examines the personal, relational, and managerial outcomes of job crafting. This model is based on the notion of meaningfulness at work (Rosso et al., 2010), the agency/communion framework on the self-view and social judgment (Abele & Wojciszke, 2007; Bakan, 1966; Fiske, Cuddy, & Glick, 2006), and the self-concern and otherorientation as moderators (SCOOM) model (De Dreu, 2006; De Dreu & Nauta, 2009). First, I suggest that both self-focused (self-efficacy and work engagement) and other-focused (perceived social impact and belongingness) psychological states will lead to a high level of meaningfulness at work, and further, the relative strength of self- and other-focused psychological mechanisms will be different depending on the employee's pro-self/-social motivation. On one hand, as employees with high pro-self motivation engage in job crafting activities, they are more likely to focus on their own job and thereby achieve a higher level of self-efficacy and work engagement, leading to a higher level of meaningfulness at work. On the other hand, when employees with high pro-social motivation engage in job crafting, they are more likely to reflect on the pro-social impact of their job and thereby achieve a higher level of perceived social impact and sense of belongingness, which in turn contributes to the experience of meaningfulness.

Second, I examine the social-relational implications of job crafting activities. Specifically, I expect that the social-relational implications of job crafting activities will be different due to differences in the pro-self/-social motivation of employees and their corresponding differences in agency/communion perceptions of coworkers. On one hand, as job crafting of

employees with high pro-self motivation increases work engagement and self-efficacy, they are likely to show competence at work and thereby achieve a high status (Abele & Wojciszke, 2007; Anderson & Kilduff, 2009; Blau, 1964; Fiske et al., 2006). On the other hand, the job crafting activities of employees with high pro-social motivation will create a sense of perceived social impact and belongingness. Such individuals with other-focused psychological states are likely to be interpreted by coworkers as people with warmth, leading them to be more likely to establish a favorable relationship at work and thereby achieve a high level of popularity (Abele & Wojciszke, 2007; Blau, 1964; Fiske et al., 2006; Scott & Judge, 2009).

Third, I examine the differential performance outcomes of job crafting activities, which are mediated by different psychological mechanisms. I propose that job crafting is positively associated with job performance through self-focused mechanisms, especially when an employee possesses a high level of pro-self motivation. I also hypothesize that job crafting is positively related to contextual performance through other-focused mechanisms, especially when an employee has a high level of pro-social motivation. Figure 1 illustrates the overall model.

Insert Figure 1 About Here

By articulating the integrative implications of job crafting, the current dissertation intends to advance existing literature in the following ways. First, I want to contribute to research on job crafting through examining wider ranges of impact of job crafting activities that go beyond the impact on the self. Second, by proposing and testing multiple mechanisms increasing

meaningfulness, I intend to advance the literature of meaningfulness at work (Rosso et al., 2010). Third, through elaborating the moderation effects of proself/-social motivation in the relationship between job crafting and self-/other-focused psychological states, I expand the applicability of the SCOOM model. Fourth, I adopt the agency/communion framework to examine not only how agency/communion motivation of the self affects the focal person, but also how such motivation is viewed by others, resulting in differential social-relational outcomes. By elaborating both sides of these implications, I pursue an integrative approach toward the agency/communion framework. Finally, I want to contribute to existing literature on performance management by examining how job crafting is associated with diverse facets of job performance. In the following section, I review work design and proactivity literature to understand how and why the concept of job crafting has emerged.

#### LITERATURE REVIEW

#### Work Design, Proactivity, and Job Crafting

Work design, defined as "the content and organization of one's work tasks, activities, relationships, and responsibilities" (Parker, 2014, p. 662), has been a core topic in organizational behavior, with a substantial impact on employees and organizations (Grant, Fried, Parker, & Frese, 2010; Miner, 2003; Morgeson & Campion, 2003). Scholars have adopted various approaches to theorize on the nature of work design, including scientific management (Taylor, 1911), job enrichment (Hackman & Oldham, 1976; 1980; Herzberg, Mausner, & Snyderman, 1959), social information processing (Salancik & Pfeffer, 1978), job demands-control (Bakker & Demerouti, 2007; Karasek, 1979), and ergonomic perspectives (Campion & Thayer, 1985; Konz & Johnson, 2000).

The recent drastic changes at work, however, have called for a novel approach toward the topic (Grant, 2007; Grant & Parker, 2009); as Oldham and Hackman (2010, p. 465) pointed out, "the phenomenon has changed." To survive changes in technology and the economy, current organizations should depend more on their employees' proactive activities that are not included in the traditional formal job description (Grant & Ashford, 2008). The trend toward acknowledging employees' self-starting behaviors is evident from the emergence of numerous constructs that have been coined to capture this phenomenon, such as personal initiative, proactive behaviors, issue selling, feedback-seeking behavior, taking charge, voice, task revision, flexible role orientation, idiosyncratic deals, and job crafting (Ashford, 1986; Crant, 2000; Dutton, Ashford, O'Neill, & Lawrence, 2001; Frese & Fay, 2001; Grant &

Ashford, 2008; Griffin, Neal, & Parker, 2007; Morrison & Phelps, 1999; Parker, Wall, & Jackson, 1997; Rousseau, Ho, & Greenberg, 2006; Staw & Boettger, 1990; Van Dyne & LePine, 1998; Wrzesniewski & Dutton, 2001).

Following this changing nature of work and jobs, researchers have challenged the traditional assumption of job design that employees are passive recipients of work structures and tasks dictated by their managers (Hackman & Oldham, 1976); instead, scholars have recognized that employees are active shapers of their work and have coined a number of concepts that capture selfinitiative work design activities (Grant & Parker, 2009). Among these attempts, the concept of job crafting has emerged as a concept to describe employees' self-initiated work design. Wrzesniewski and Dutton (2001) defined job crafting as "the physical and cognitive changes that individuals make in the task or relational boundaries of their work" (p. 179), and proposed a theoretical framework delineating the essence of job crafting as well as its antecedents and outcomes. Specifically, they proposed that job crafting activities can be categorized into three forms—task, relational, and cognitive job crafting—and these forms of job crafting are determined by individual motivation (need for control, need for positive self-image, and need for human connection), perceived opportunities, and orientation towards work (job, career, and calling). Finally, they posited that by changing the design of one's job and the social environment of the workplace, job crafting would have important influences on meaningfulness and identity in the workplace.

Since Wrzesniewski and Dutton's (2001) seminal piece, scholars have initiated empirical investigations that sought to reveal the nature of job crafting. For instance, Lyons (2008) found that self-image, perceived control,

and readiness to change are positively associated with job crafting behaviors. In addition, Berg and colleagues (Berg, Grant, & Johnson, 2010a; Berg et al., 2010b) showed that engagement in job crafting may differ depending on the employees' ranks. They also indicated that job crafting may be used as a method to cope with dissatisfaction related to unanswered occupational callings, indicating antecedents of new structures and tasks. Furthermore, Vogel and colleagues (2016) found that job crafting mitigates the negative impact of value incongruence. Together, these studies serve to provide support for Wrzeniewski and Dutton's (2001) theoretical framework.

Demerouti, Bakker, and their colleagues (Bakker et al., 2012; Demerouti, 2014; Demerouti & Bakker, 2014; Petrou et al., 2012; Tims & Bakker, 2010; Tims et al., 2012; 2013; 2015; 2016) interpreted job crafting through the lens of the job demands-resources (JD-R), defining job crafting as "changes that employees initiate in the level of job demands and job resources in order to make their own job more meaningful, engaging, and satisfying" (Demerouti, 2014, p. 237). Based on this conceptualization, they identified antecedents of job crafting, such as proactive personality (Bakker et al., 2012), regulatory focus (Petrou & Demerouti, 2015), and work characteristics (Petrou et al., 2012), as well as various job crafting outcomes including work engagement, emotional exhaustion, person-job fit, and task performance (Bakker et al., 2012; Lu, Wang, Lu, Du, & Bakker, 2014; Petrou et al., 2012; Tims et al., 2012; 2013; 2016). Furthermore, Tims and colleagues (Tims et al., 2015; Tims, Bakker, Derks, & Van Rhenen, 2013) found that job crafting can emerge as a collective-level phenomenon that has a positive impact on group performance. However, they also found that job crafting could have a

downside—employees' job crafting activities can be detrimental to co-workers' work outcomes, such as increasing a co-worker's workload, conflict, and emotional exhaustion. These suggest that job crafting can have implications across different levels of analyses.

Researchers have also expanded the domain of job crafting by conceptualizing additional types of job crafting activities. First, Leana and colleagues (2009) coined the concept of collaborative job crafting and showed discriminant validity as well as incremental validity in predicting performance; interestingly, they found that only collaborative job crafting, and not individual job crafting, was positively related to performance. This finding suggests that employees may collectively engage in job crafting activities. Laurence (2010) proposed a new taxonomy that divides job crafting into expansion-oriented and contraction-oriented job crafting, and showed the different nature of the two types of job crafting activities. Brunning (2014) further refined the taxonomy of job crafting by suggesting seven subdimensions—work role expansion, implementing work organization, metacognition, social expansion and facilitation, adoption of knowledge and technology, withdrawal, and work role reduction. Finally, Dumani (2015) coined the term "non-work crafting," defining it as "involvement in non-work activities during off-work time to specifically satisfy needs for competence, autonomy, and relatedness" (p. 30), and showed that non-work crafting buffers the harmful effects of over-qualification.

To summarize, the concept of job crafting has emerged as a reflection of the changing nature of work design (Oldham & Hackman, 2010). By adopting diverse approaches, researchers have investigated different types of

job crafting activities in the form of expanding and contracting work boundaries, individual or collaborative changes in work boundaries, and changes in job demands and resources. While these conceptualizations and definitions of job crafting are distinct, all of these studies agree on the purpose of job crafting such that employees engage in job crafting to experience a sense of meaningfulness at work, indicating the importance of meaningfulness in job crafting activities. In the following, I review the literature on meaningfulness, the most relevant proximal outcome of job crafting.

#### Meaningfulness at Work

The literature on meaningfulness has developed over decades from various disciplines including psychology, sociology, economics, and management (Brief & Nord, 1990; Bunderson & Thompson, 2009; Gill, 1999; Mead, 1934; Morse & Weiss, 1955; MOW International Research Team, 1987; Ros, Schwartz, & Surkiss, 1999; Rosso et al., 2010; Vecchio, 1980; Wrzesniewski, Dutton, & Debebe, 2003). While there are some debates surrounding the concept of meaning—what it entails and the various terminologies used to describe meaning—I have adopted the definition put forth by Rosso et al. (2010). As per their definition, meaning refers to "the output of having made sense of something, or what it signifies" (p. 94), whereas meaningfulness refers to "the amount of significance something holds for an individual" (Rosso et al., 2010, p. 95).

Organizational behavior scholars also have examined the nature and role of meaningfulness at work. For instance, Hackman and Oldham (1976) proposed and found that meaningfulness as one critical psychological state that mediates the relationship between job characteristics and work outcomes.

Likewise, the notion of psychological empowerment conceptualized meaning as one aspect of empowerment (Spreitzer, 1995; Thomas & Velthouse, 1990). Given that, scholars have shown that meaningfulness has a substantial impact on various work outcomes. First, meaningfulness is associated with various psychological states and outcomes, such as motivation (Hackman & Oldham, 1980), job satisfaction (Wrzesniewski, McCauley, Rozin, & Schwartz, 1997), organizational identification (Pratt, Rockman, & Kaufmann, 2006), work engagement (May, Gilson, & Harter, 2004), empowerment (Spreitzer, 1996), and stress (Locke & Taylor, 1990). Likewise, meaningfulness is related to work behaviors including job performance (Bunderson & Thompson, 2009; Hackman & Oldham, 1980), job crafting (Berg et al., 2010), absenteeism (Wrzesniewski et al., 1997), and career development (Dik & Duffy, 2009; Dobrow, 2006). These indicate the influential role of meaningfulness at work.

Given the impact of meaningfulness, scholars have long attempted to discern its origins and mechanisms. Integrating existing findings, Rosso and colleagues (2010) categorized four sources of meaning at work: the self, others, the work context, and the spiritual life. After a comprehensive review of the literature, they concluded that meaningfulness is the result of an interplay between the self and external factors (others, work contexts, and spirituality). In linking the origins and outcomes of meaningfulness, Rosso et al. (2010) proposed four pathways to experience meaningfulness at work, namely individuation, contribution, self-connection, and unification. First, they suggested two key dimensions that categorize mechanisms of meaningfulness at work: types of motives and the target of actions. In terms of motives, individuals would engage in actions with a desire for agency or with a desire

for communion (Bakan, 1966); in terms of the target of actions, individuals would engage in actions towards the self or others. Accordingly, individuation refers to the agency motives oriented with self-focused mechanism, while self-connection regards the communion motives oriented towards self-focused mechanism. Likewise, contribution refers to the agency motives oriented towards other-focused mechanism, whereas unification refers to the communion motives oriented towards other-focused mechanism.

The integrative framework of meaningfulness (Rosso et al., 2010) indicated that employees can experience meaningfulness not only when they focus on themselves (individuation and self-connection), but also when their actions have an impact and focus on others (contribution and unification). Accordingly, this also suggests the current limitation of the research on job crafting; while researchers have articulated diverse types of antecedents of job crafting across multiple levels, prior studies have investigated only self-related outcomes of job crafting. The impact of job crafting is, however, not limited to the self. It is likely that job crafting also affects others in the workplace, as employees may craft their jobs to increase meaningfulness through job crafting activities that are focused on others (Rosso et al., 2010). Thus, it indicates the need for research on the social-relational implications and a wide range of articulation on performance implications of job crafting. In the following, to elaborate upon the multiple mechanisms of meaningfulness, I review two concepts for analyzing mechanisms of meaningfulness; agency/communion motivation and self-/other-orientation. First, I review the agency/communion framework on the self-view and social judgment (Abele & Wojciszke, 2007; Asch, 1946; Bakan, 1966; Fiske et al., 2006; Hogan, 1983).

#### The Agency/Communion Framework

Since the initial introduction of Bakan (1966), who postulated that "communion and agency are two fundamental modalities in the existence of living forms" (p. 14), the concept of agency/communion has been adopted to explain various psychological and behavioral phenomena such as human value/orientation, gender role, well-being, interpersonal behavior, decision making, and social judgment (Abele & Wojciszke, 2007; Cuddy, Fiske, & Glick, 2008; Fiske, Cuddy, & Glick, 2006; Helgeson, 1994; Hogan, 1983; Rucker, Galinsky, & Dubois, 2011; Wiggins, 1991). While the agency dimension is related to "intellectual desirability, to competence, to initiating structure, to instrumentality, to the egoistic bias, to dominance, and to an independent self-construal" (Abele & Wojciszke, 2007, p. 752), communion is related "to social desirability, to morality, to consideration, to expressiveness, to the moralistic bias, to nurturance, and to an interdependent self-construal" (Abele & Wojciszke, 2007, p. 752).

On one hand, the agency/communion framework has been used for explaining motivation of the focal individual. While the pursuit of agency motivation is to master, expand, separate, assert, and create, the pursuit of communion motivation is to connect, contact, attach, and unite (Bakan, 1966; Hogan, 1983; Rosso et al., 2010; Rucker et al., 2011). Such differences in motivation are reflected in psychological states and behaviors of individuals. For instance, Helgeson (1994) suggested that both agency and communion are required for acquiring optimal well-being, and the absence of one dimension results in negative impact on well-being. In addition, agency/communion motivation is related to numerous work behaviors such as task performance

(Barrick, Stewart, & Piotrowski, 2002), pro-social behavior (Chiaburu, Marinova, & Lim, 2007; Grant & Gino, 2010; Ng & Lucianetti, 2016), personal initiative (Chiaburu & Carpenter, 2013; Chiaburu et al., 2007), voice behavior (Ng & Lucianetti, 2016), and idiosyncratic deals (Ng & Lucianetti, 2016). These indicate the substantial role of agency/communion motivation in explaining an individual's psychological states and corresponding behaviors.

On the other hand, the agency/communion framework has been utilized to explain the nature of the social cognition regarding others (Asch, 1946; Cuddy et al., 2008; 2011; Fiske et al., 2002; 2006). According to the notion of social cognition, individuals should distinguish whether the other person is a "friend" or "foe" in the face of interpersonal encounters (Fiske et al., 2006). In analyzing the other's characteristics, individuals often base analysis on agency/communion dimensions; when individuals perceive that the other has high agency motivation, they are likely to perceive the other as a person of "competence." On the other hand, when individuals perceive that the other has high communion motivation, they are likely to perceive the other as a person of "warmth"; in combining judgments on two dimensions, individuals form four types of emotions, namely admiration, envy, contempt, and pity (Cuddy et al., 2008; Fiske et al., 2006). First, when the other is perceived as a competent and warm person, individuals are likely to experience the sense of admiration, forming positive attitudes toward the other. Second, when the other is perceived as competent but cold, individuals would experience a sense of envy, forming negative attitudes toward the other. Third, when the other is perceived as an incompetent but warm person, individuals are likely to feel a sense of pity. Finally, when the other is perceived as an

incompetent as well as cold person, individuals would experience a sense of contempt, resulting in negative attitudes and behaviors toward the person (Rucker et al., 2011).

To summarize, the notion of agency/communion is an informative framework for understanding not only the focal individual's motives and values that lead to the focal person's behaviors, but also to comprehend the nature of social cognition on others. It may thus be viewed as an explanation for the comprehensive implication of job crafting activities, since this explains both self-related and social-relational implications of human behaviors. In the following, as another building block to elaborate multiple psychological mechanisms of meaningfulness, I review the SCOOM model, which articulates the implications of pro-self and pro-social motivation of individuals (De Dreu, 2006; De Dreu & Nauta, 2009).

#### The Self-Concern and Other-Orientation as Moderators (SCOOM) Model

De Dreu and colleagues (De Dreu, 2006; De Dreu & Nauta, 2009) developed the SCOOM model to investigate the impact of pro-self and pro-social motivation on performance outcomes in the organizational setting. Drawing from the notion of motivated information processing, the SCOOM model posits that pro-self motivation is activated when attributes related to the self are salient, whereas pro-social motivation is activated when group-related attributes are salient (De Dreu, 2006; De Dreu & Carnevale, 2003). According to the motivated information processing theory, individuals have limited capacities in information processing so they often depend on heuristic strategies that reduce processing loads to explain and predict events surrounding them (Kahneman & Tversky, 1973; Kruglanski & Ajzen, 1983).

Such sub-optimal strategies bring biases in attention, encoding, and information retrieval processes that are in line with an individual's needs and desires (De Dreu & Carnevale, 2003; Pruitt & Rubin, 1986; Ross & Ward, 1995; Rubin, Pruitt & Kim, 1994). Thus, such differences in information processes will result in different types of work-related attitudes, judgment, decision making, and behaviors (De Dreu, 2006; De Dreu, Beersma, Stroebe, & Euwema, 2006; De Dreu, Koole, & Steinel, 2000; De Dreu, Nijstad, & Van Knippenberg, 2008; Van Kleef, De Dreu, & Manstead, 2004).

In applying the logic of motivated informational processing, the SCOOM model considers pro-self/-social motivation as a crucial leverage that leads to different informational processing across individuals. The concept of pro-self/-social motivation has long been a crucial concept in the social sciences; while "the pursuit of self-interest" has been a traditional assumption of economics, other-orientation, which refers to the desire or tendency to care for others' benefits and interests, has been conceptualized to explain pro-social activities of human beings (Bolino & Grant, 2016). While there have been numerous debates on the nature as well as the dimensionality on pro-self/social motivation (Batson, 1987; 2011; 2014; De Dreu, 2006; Meglino & Korsgaard, 2004; 2006), the current dissertation follows the view of De Dreu and colleagues (2006; 2009) who view pro-self and pro-social motivation as orthogonal and independent concepts. To support this view, existing research indeed has shown that pro-self/-social motivation often coexist in an individual, and these in turn interact to predict work behaviors such as citizenship behavior (De Dreu & Nauta, 2009; Grant & Mayer, 2009; Takeuchi, Bolino, & Lin, 2015)

Given the orthogonal/independent dimensionality of pro-self/-social motivation, differences in such types of motivation will lead to differences in information processing of individuals, resulting in differences in attitudes and behaviors (De Dreu, 2006; De Dreu & Nauta, 2009). Specifically, individuals with high pro-self motivation focus more on environmental cues that benefit the self, while individuals with pro-social motivation focus more on cues that benefit others; as a result, the interactive effects of pro-self/-social motivation and corresponding environmental cues will lead to different attitudes and behaviors. Specifically, De Dreu (2006) posited that the activation of pro-self or pro-social motivation triggers different work behaviors; while pro-self motivation facilitates self-related performance behaviors, pro-social motivation increases interpersonal work behaviors. In support of this logic, De Dreu and Nauta (2009) found significant interaction effects between pro-self concern and job characteristics in predicting personal initiative, and between pro-other concern and justice climate (a group construct) on pro-social behavior. To sum up, the SCOOM model posits that the interactive effects of pro-self(-social) motivation and corresponding environmental cues will lead to self-(other-)related motivation and attitudes, which result in self-(other-) focused work behaviors.

I have thus far reviewed literature on work design, proactivity, meaningfulness, agency-communion framework, and the SCOOM model to elaborate relevant issues on job crafting. In the following section, I begin hypotheses development for the construction of the model of integrative implications of job crafting; as an initial step, I propose multiple mechanisms on the relationship between job crafting and meaningfulness at work.

#### HYPOTHESES DEVELOPMENT

### From Job Crafting to Meaningfulness: Elaboration of Multiple Mechanisms

In the preceding sections, I outlined the literature on work design, job crafting, and meaningfulness at work, pointing out that individuals can pursue meaningfulness by engaging in activities that are likely to affect the self as well as the others. In this section, drawing from the framework of meaningfulness, complemented by the agency/communion framework and the SCOOM model, I posit multiple mechanisms that mediate the relationship between job crafting and meaningfulness at work, and further posit that relative strengths of such mechanisms are different depending on the pro-self/social motivation of employees.

As previously indicated, the integrative framework of meaningfulness (Rosso et al., 2010) suggests multiple mechanisms of meaningfulness at work. Specifically, individuals can experience a sense of meaningfulness by engaging in self- or other-directed activities with agency/communion motives. First, *individuation* refers to the mechanism wherein an individual engages in self-directed activities that are fueled by agency motives. In this manner, an individual "defines and distinguishes the self as valuable and worthy" (Rosso et al., 2010, p. 115). Thus, it includes the sense of autonomy/control, competence, and self-esteem. Second, *self-connection* is the mechanism wherein an individual engages in self-directed activities that are fueled by communion motives, thus reflecting on "the meaningfulness of actions that bring individuals closer into alignment with the way they see themselves" (Rosso et al., 2010, p. 115) and including a sense of authenticity such as self-

concordance, identity affirmation, and personal engagement.

Third, *contribution* refers to the mechanism of meaningfulness wherein an individual engages in activities that are directed toward others, fueled by agency motives. Accordingly, it reflects the actions "perceived as significant and/or done in service of something greater than the self" (Rosso et al., 2010, p. 115). The sense of perceived impact, significance, and transcendence may be classified in this category. Finally, *unification* is the mechanism wherein an individual engages in activities directed towards others, fueled by communion motives; it includes activities that "bring individuals into harmony with other beings or principles" (Rosso et al., 2010, p. 115). As individuals engage in such activities, they are likely to perceive a sense of belongingness and purposefulness in terms of value systems. To summarize, Rosso et al.'s (2010) framework suggests that there are multiple ways of achieving a sense of meaningfulness.

In applying the meaningfulness framework to the effects of job crafting on meaningfulness, I expect the emergence of the four mechanisms listed above in the relationship of job crafting to meaningfulness. First, job crafting would facilitate a sense of meaningfulness in the workplace through the mechanism of individuation. As employees change their work boundaries, they can proactively shape their work environments, such as by garnering more job resources that increase work efficiencies or concentrating more on tasks that they perform well (Bakker et al., 2012; Eggerth, 2008; Tims & Bakker, 2010). These proactive actions facilitate a sense of individuation and thereby help individuals make changes so that they can achieve objectives in a way they intend to master (Bandura, 1977; Deci, 1975; Gecas, 1991; Rosso et

al., 2010). As employees experience a sense of individuation, they are likely to perceive that their activities at work are meaningful (Bakker et al., 2012; Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005). Specifically, in this study, I capture the sense of individuation by measuring an individual's sense of self-efficacy, as it represents the ability and power to produce intended outcomes (Bandura, 1997; Baumeister & Vohs, 2002).

Second, job crafting would create a sense of meaningfulness through the mechanism of self-connection. As employees engage in job crafting activities to perform tasks that they find suitable, they are likely to feel a sense of coherence between the working self and the "true" self (Petrou, 2013; van den Bosch & Taris, 2014). Employees who experience authentic self-perception are likely to perceive a sense of meaningfulness because they can consistently sustain their valued beliefs and identities at work (Bono & Judge, 2003; Rosso et al., 2010; Shamir, 1991). Specifically, I capture the mechanism of self-connection by measuring work engagement, as it reflects the extent to which employees feel "personally immersed and alive in the experience of working" (Rosso et al., 2010, p. 109).

Given these self-focused mechanisms, with integrating the logic of the SCOOM model (De Dreu, 2006; De Dreu & Nauta, 2009), I posit that the mechanisms of individuation and self-connection will be more facilitated when an employee has a high level of pro-self motivation. According to the SCOOM model (De Dreu, 2006; De Dreu & Nauta, 2009), employees with high pro-self motivation are more likely to pay attention to self-related information and environmental cues. In the course of such motivated reasoning processes, employees may also reflect and interpret their own

behaviors so they would reflect on job crafting activities as well (Bandura, 1977; 1989; Baumeister, Vohs, DeWall, & Zhang, 2007; Zimmerman, 2006). Thus, employees with high pro-self motivation are more likely to reflect on self-related factors in job crafting actions when they reflect their own job crafting behaviors. As job crafting activities indeed include self-focused activities, such as increasing discretion in the job, seeking resources, and focusing on tasks that offer a high person-job fit (Tims et al., 2012; Wrzesniewski & Dutton, 2001), employees who engage in job crafting would reflect more on the self through the reflection of their activities. A deeper reflection on self-focused activities would make the employee then develop self-focused thoughts such as individuation and self-connection, increasing their self-efficacy and work engagement (De Dreu & Carnevale, 2003).

On the contrary, employees with low pro-self motivation are less likely to pay attention to the self-related factors in job crafting activities, resulting in less reflection on the self-related aspects of job crafting. As a result, employees who have a low level of pro-self motivation are less likely to experience self-focused psychological mechanisms (i.e., individuation, self-connection); thus, the effects of job crafting on self-efficacy and work engagement would be weaker for employees with low pro-self motivation. Therefore, I posit the following:

Hypothesis 1a: Self-efficacy mediates the relationship between job crafting and meaningfulness.

Hypothesis 1b: Work engagement mediates the relationship between job crafting and meaningfulness.

Hypothesis 1c: Pro-self motivation moderates the relationship

between job crafting and meaningfulness through self-efficacy, such that the effect of job crafting on self-efficacy will be stronger when pro-self motivation is higher.

Hypothesis 1d: Pro-self motivation moderates the relationship
between job crafting and meaningfulness through work engagement,
such that the effect of job crafting on work engagement will be
stronger when pro-self motivation is higher.

Subsequently, I posit other-focused mechanisms (i.e., contribution, unification) in the job crafting—meaningfulness relationship. Specifically, I adopt perceived social impact as a representative indicator of contribution as it reflects the extent to which individuals feel "they are making a difference or having a positive impact on their organizations, work groups, coworkers, or other entities beyond the self" (Rosso et al., 2010, p. 110). Likewise, I adopt belongingness as an indicator of unification mechanism since it represents the feeling of identification with other entities beyond the self (Rosso et al., 2010).

Third, as a contribution mechanism, I expect that the perceived social impact would mediate the effects of job crafting on meaningfulness at work. The examples of job crafting engaged in by the nurse and the cleaner suggest that, as described in Wrzesniewski and Dutton (2001), job crafting involves pro-social activities that focus on others and increase others' benefits by bringing about changes in work boundaries. As employees initiate work boundary changes that affect others, they identify ways in which they can influence others, and are thereby more likely to perceive their ability to create a social impact (Grant, 2008). Consequently, this perception leads to a sense of meaningfulness, wherein the employees consider their job, which has the

potential to make a positive influence on others, as meaningful (Cadador, 2009; Grant, 2007; 2008).

Finally, I expect the mediating role of belongingness in the relationship between job crafting and meaningfulness as the unification mechanism. Previous research has suggested that individuals gain a sense of meaningfulness through feelings of shared identity and humanity, which they experience due to their involvement in certain social groups (Baumeister & Laeary, 1995; Homans, 1958). Given that job crafting activities can increase relational interaction with others in the workplace (Wrzesniewski & Dutton, 2001), these increased interactions at work would create a sense of belongingness, and as a result increase the sense of meaningfulness (Ashforth & Keriner, 1999; Kahn, 2007; Rosso et al., 2010).

The above other-focused mechanisms can be expanded upon through integration with the SCOOM model (De Dreu, 2006); thus, I further articulate the moderating role of pro-social motivation in the relationship among job crafting, other-focused psychological mechanisms (i.e., perceived social impact, belongingness), and meaningfulness, specifically with the expectation that contribution and connection mechanisms can be more facilitated when employees have a high level of pro-social motivation. Employees with high pro-social motivation are likely to reflect on other-related factors of job crafting activities to facilitate other-focused psychological mechanisms (i.e., the sense of social impact and belongingness). As indicated, job crafting behaviors include other-focused actions, such as providing extra assistance to clients, collaborating with colleagues, and coordinating interpersonal interactions for others (Leana et al., 2009; Slemp & Vella-Brodrick, 2014;

Wrzesniewski & Dutton, 2001). Therefore, employees with high pro-social motivation are more likely to focus on the aspect of otherness in job crafting activities, which would result in other-focused psychological thoughts and consequently increase their perceived social impact and belongingness (De Dreu, 2006; De Dreu & Nauta, 2009; Rosso et al., 2010).

On the other hand, I expect that employees with low pro-social motivation are less likely to experience a sense of perceived social impact and belongingness. As employees with low pro-social motivation are less likely to pay attention to the pro-social aspects of their own behaviors, they are less likely to experience other-focused psychological mechanisms in achieving the sense of meaningfulness. Accordingly, the effects of job crafting on perceived social impact and belongingness would be weaker for employees with low pro-self motivation. Based on the above reasoning, I posit the following:

Hypothesis 2a: Perceived social impact mediates the relationship between job crafting and meaningfulness.

Hypothesis 2b: Belongingness mediates the relationship between job crafting and meaningfulness.

Hypothesis 2c: Pro-social motivation moderates the relationship between job crafting and meaningfulness through perceived social impact, such that the effect of job crafting on perceived social impact will be stronger when pro-social motivation is higher.

Hypothesis 2d: Pro-social motivation moderates the relationship between job crafting and meaningfulness through belongingness, such that the effect of job crafting on belongingness will be stronger when pro-social motivation is higher.

Thus far, integrating the meaningfulness framework with the SCOOM model, I have articulated multiple mechanisms between job crafting and meaningfulness that are moderated by pro-self/-social motivation of employees. These indicate diverse self- and other-focused psychological implications of job crafting. In the following section, building on the notion of agency/framework on the self-view and social judgment, I argue that the job crafting activities would have diverse performance as well as social-relational implications in the workplace that are manifested by diverse types of self-/other-focused psychological states.

Social-relational and Performance Implications of Job Crafting:

Application of the Agency/Communion Framework on the Self-view and

Social Judgment

As indicated above, the agency/communion framework (Bakan, 1966; Cuddy et al., 2008; Hogan, 1983) explains the nature of human motivation and social cognition regarding others. Individuals with agency motivation would put more efforts to master, create, and assert whereas others would consider them as "competent" people; individuals with communion motivation would put more efforts to connect and unite whereas others would consider them as "warm" people. Thus, this can explain the current dissertation's multiple mechanisms of the job crafting-meaningfulness relationship. Given that, drawing from the agency/framework on the self-view (Hogan, 1983) and social judgment (Cuddy et al., 2008), I articulate the social-relational and performance implications of job crafting.

In applying the logic of social judgment of agency/communion framework to implications of job crafting, on one hand, I expect that the job

crafting activities would have social-relational implications in the workplace in the following ways. First, since employees who are highly involved in job crafting are likely to gain a high level of self-focused psychological states such as self-efficacy and work engagement (Rosso et al., 2010), they are likely to show their competence to others at work (Bandura, 1977; Bandura & Schunk, 1981; Christian, Garza, & Slaughter, 2011; Cuddy, Glick, & Beninger, 2011; Fiske, Cuddy, & Glick, 2006). As a result of being recognized as "a person of competence," this effect would bring social-relational implications. To be specific, as the notion of social exchange suggests, employees who display competence would gain a high status in the group (Blau, 1964; Willer, 2009).

Second, as employees who engage in job crafting experience a high level of other-focused psychological states that are reflected as perceived social impact as well as a sense of belongingness, such individuals are likely to be considered as people exuding warmth (Cuddy et al., 2011; Fiske et al., 2006; Fiske, Cuddy, Glick, & Xu, 2002). Since employees with a high level of warmth are viewed as more appealing and admirable, they are likely to gain popularity at work (Scott, 2013; Scott & Judge, 2009). Thus, based on such reasoning, I posit the following:

Hypothesis 3a: Self-efficacy and work engagement mediate the relationship between job crafting and social status.

Hypothesis 3b: Perceived social impact and belongingness mediate the relationship between job crafting and popularity.

Integrating the above relationships with the SCOOM model logic, I further argue that social-relational implications of job crafting can be differential, depending on the focal employee's pro-self/-social motivation.

Specifically, employees with high pro-self motivation are more likely to gain a high level of social status, since they are more likely to reveal self-focused psychological states, viewed as people with competence. On the contrary, employees with high pro-social motivation are more likely to gain a high level of popularity, as they are more likely to experience other-focused mechanisms so that they are recognized as people with warmth. Thus, I posit the following hypotheses on the moderated mediation relationships among job crafting, pro-self/-social motivation, self-/other-focused psychological states, and social-relational implications.

Hypothesis 4a: Pro-self motivation moderates the effects of job crafting on social status through self-efficacy and work engagement, such that the effect of job crafting on self-efficacy and on work engagement is stronger when pro-self motivation is higher.

Hypothesis 4b: Pro-social motivation moderates the effects of job crafting on popularity through perceived social impact and belongingness, such that the effect of job crafting on perceived social impact and on belongingness is stronger when pro-social motivation is higher.

Finally, in applying the logic of self-view of agency/communion framework to the performance implications of job crafting, I expect that job crafting activities would have differential performance implications; specifically, drawing from the taxonomy of job performance (Borman & Motowidlo, 1993; 1997; Sonnentag & Frese, 2002; Viswesvaran & Ones, 2000), I suggest diverse performance implications of job crafting activities through different psychological mechanisms. The existing models of job

performance suggest that job performance is a multi-dimensional concept (Sonnentag & Frese, 2002; Sonnentag, Volmer, & Spychala, 2008).

Accordingly, scholars have proposed various taxonomies on job performance (e.g., Borman & Motowidlo, 1993; Campbell, 1990; Katz & Kahn, 1978; Murphy, 1989; Welbourne, Johnson, & Erez, 1998). Among the existing taxonomies, I adopt the taxonomy of Borman and Motowidlo (1993), which divides job performance into task performance and contextual performance.

Task performance and contextual performance have the following differences. First, by definition, task performance refers to "an individual's proficiency with which he or she performs activities which contribute to the organization's technical core," while contextual performance is defined as "activities which do not contribute to the technical core, but which support the organizational, social, and psychological environment in which organizational goals are pursued" (Sonnentag & Frese, 2002, p. 6). Accordingly, task performance is composed of in-role behaviors and prescribed by a formal job description, whereas contextual performance mostly comprises discretionary or extra-role behaviors (Borman & Motowidlo, 1997; Motowidlo & Schmit, 1999; Motowidlo & van Scotter, 1994). Second, while task performance is job specific, contextual performance is comparable across diverse types of jobs (Sonnentag & Frese, 2002; Sonnentag et al., 2008). Finally, task performance is mainly determined by ability, whereas contextual performance is largely determined by motivational aspects (Motowidlo & Schmit, 1999; Organ, 1990; Sonnentag & Frese, 2002).

Given the differences in the nature of task performance and contextual performance, building on the agency/communion framework on the self-view,

I argue that job crafting activities would have a positive impact on the differential aspects of job performance through different psychological mechanisms. On the one hand, I posit that job crafting will have positive effects on task performance through self-focused psychological mechanisms such as self-efficacy and work engagement. As employees who engage in job crafting experience a high level of self-efficacy and work engagement, they are more likely to realize their full potential and abilities while performing tasks, and thereby facilitate an increase in task performance (Bandura, 1977; Christian et al., 2011). In support of the logic, empirical findings also support the positive effects of self-efficacy and work engagement on task performance (Christian et al., 2011; Stajkovic & Luthans, 1998).

On the other hand, I expect the positive effects of job crafting on contextual performance through other-focused mechanisms that include perceived social impact and belongingness. As indicated above, job crafting facilitates other-focused thoughts through the interpersonal interactions and influences that arise from changing the boundaries of a job at work (Rosso et al., 2010). Taking this into account, an increased perception of social impact and belongingness engenders a sense of obligation to contribute to the community where employees are embedded, thereby facilitating extra activities for employees at work (Bolino & Grant, 2016; Farmer, Van Dyne, & Kamdar, 2015; Kamdar & Van Dyne, 2007; Konovsky & Pugh, 1994; Wayne, Shore, & Liden, 1997). As a result of engaging in extra activities that contribute to the community, employees are more likely to engage in a high level of contextual performance. Thus, I posit the following hypotheses:

Hypothesis 5a: Self-efficacy and work engagement mediate the

relationship between job crafting and task performance.

Hypothesis 5b: Perceived social impact and Belongingness mediate the relationship between job crafting and contextual performance.

Furthermore, integrating with the aforementioned hypotheses on the moderating role of pro-self/-social motivation, I posit the following hypotheses on the moderated mediation relationships among job crafting, pro-self/pro-social motivation, self-/other-focused psychological states, and task/contextual performance. Specifically, I expect that job crafting is likely to increase one's task performance, especially when the employee has a high level of pro-self motivation as the person is more likely to gain a high level of self-focused psychological states. Likewise, job crafting is more likely to increase one's contextual performance when the employee has a high level of pro-social motivation than when the employee has a low level of pro-social motivation; as described above, an employee with high pro-social motivation is more likely to experience self-focused psychological states. Thus, I propose the following:

Hypothesis 6a: Pro-self motivation moderates the effects of job crafting on task performance through self-efficacy and work engagement, such that the effect of job crafting on self-efficacy and on work engagement is stronger when pro-self motivation is higher.

Hypothesis 6b: Pro-social motivation moderates the effects of job crafting on contextual performance through perceived social impact and belongingness, such that the effect of job crafting on perceived social impact and on belongingness is stronger when pro-social motivation is higher.

#### **METHODS**

# **Participants and Procedures**

To test the hypotheses advanced in the current dissertation, I adopted a multi-source cross-sectional survey method. A power analysis using G\*Power 3.1.9.2 (Faul, Erdfelder, Lang, & Buchmer, 2007) showed that for an estimated average effect size of 0.10, power of 80%, and alpha of 0.05, I would need a sample size of at least 240 employees to detect the effects of five predictors (i.e., pro-self motivation, pro-social motivation, job crafting, the interactive effect of job crafting and pro-self motivation, and the interactive effect of job crafting and pro-social motivation. Given the target number of participants, I conducted data collection from public and private organizations in the Republic of Korea. I recruited participants for the study by sending invitation letters, e-mails, and mobile messages to HR managers of the organizations. After obtaining approval from HR managers in these organizations, I asked the HR managers to distribute the survey packages, which included an invitation mail to employees that detailed the purpose, description, and procedures of the study, and an unmarked envelope for employees to consolidate and seal their responses. The data were collected from various industries, including manufacturing, agriculture, publishing, service, financial, research and development, and the military.

Specifically, I contacted thirty HR managers in private companies and one lieutenant colonel in Korean Army. Among thirty managers, eighteen managers agreed to distribute survey packages, distributing surveys to 29 teams (Approval rate: 60%). On the other hand, the lieutenant colonel distributed survey packages to 60 military squad teams and 48 teams

responded to the survey (Response rate: 80%). Among employees who responded surveys, I deleted 8 cases that report unreliable responses toward survey questions (i.e., rating same score across all questions); there was no systematic differences in demographic characteristics among employees with unreliable responses. At final, I received responses from 358 employees belonging to 77 different teams; 116 employees (29 teams) were from private organizations and 242 employees (48 teams) were from public organizations. The employees from private organizations hailed from diverse sectors: 5 teams from a publishing company involved in editorial work; 7 teams from financial organizations engaged in banking and financing tasks; 6 teams were from service organizations; 4 from manufacturing and agriculture organizations; 7 teams are from research and development organizations. In contrast, all participants from the public sector (48 teams) were soldiers from the Republic of Korea Armed Forces. While these 48 teams are dispersed across the country, the soldiers in these teams have common tasks; they engaged in defense missions, accompanied with military exercises and private supports. Across the full participants, 85% were male; their mean age was 27.6 (s. d. = 9.80). In terms of education level, 22.8% of participants were high school diploma holders, 20.8% of them were 2-year college degree holders, 52.3% of them held bachelor's degrees, and 4.1% of them held master's degrees or higher.

In order to reduce potential problems associated with common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), I adopted two tactics. First, I made temporal seperation; I distributed the surveys across two waves, with a gap of two weeks between surveys. Second, I received responses from multiple raters; the surveys are composed of self-, peer-, and leader-rated

surveys. Employees were asked to answer questions about themselves and their peers, and leaders were asked to answer questions about their followers (i.e., the employees), with Likert-type scales ranging from "Strongly disagree" (1) to "Strongly Agree" (7). The focal participant completed two surveys – the T1 survey included items related to the independent, moderator, and control variables, while the T2 survey included mediators (i.e., self-efficacy, work engagement, perceived social impact, belongingness), self-rated dependent variables (i.e., meaningfulness), as well as peer-rated variables (i.e., social-relational outcomes). Concurrently, at T2, leaders rated their followers' performance outcomes.

All items were written in Korean thus I adopted back-translation method to insure that items accurately captured their original English meaning and were understood in Korean (Brislin, 1970). In addition, one bi-lingual professor, one graduate student, and two managers reviewed questionnaire items to ensure wording clarity.

## **Measurement of Self-rated Variables: Time 1**

In the first survey, participants were asked to describe their demographic information including age, gender, and education level (1 = high school or lower; 2 = 2-year college; 3 = bachelor's degree; 4 = masters degree; 5 = doctoral degree), as these factors have been shown to affect employees' work attitudes and behaviors (Bell, 2007). Subsequently, I asked participants to rate their own job crafting and pro-self/-social motivation.

**Job crafting**. I adopted the 15-item scale from Slemp and Vella-Brodrick (2013), which reflects three-factors of job crafting originally proposed by Wrzesniewski and Dutton (2001). Sample items are "I change the

scope or types of tasks that I complete at work", "I make an effort to get to know people well at work", and "I think about the ways in which my work positively impacts my life". The coefficient alpha was .92. Given the popularity of job crafting measurement developed by Tims and colleagues (2012), I selected this scale over the scale of Tims et al. (2012) for the following reasons. First, the measure of Slemp and Vella-Brodrick (2013) is better in capturing to which extent employees engage in idiosyncratic, extra activities as a result of job crafting behaviors. In contrast, as the measurement Tims et al. (2012) tried to capture day-to-day dynamic job crafting actions per se, adopting this scale would miss out capturing job crafting activities that are already established in an employee's work routines. Second, the Tims et al. (2012) scale does not include the cognitive aspect of job crafting, failing to capture all aspects of job crafting activities what Wrzesniewski and Dutton (2001) suggested. Overall, I choose the measurement of Slemp and Vella-Brodrick (2013) in virtue of its fitness with the original conceptualization.

**Pro-self/-social motivation**. To measure pro-self and pro-social motivation, I adopted De Dreu and Nauta's (2009) 3-item scales. A sample item for pro-self motivation is "At work, I am concerned about my own needs and interests"; the coefficient alpha was .77. A sample item for pro-social motivation is "At work, I consider others' wishes and desires to be relevant"; the coefficient alpha was .82.

## **Measurement of Self-rated Variables: Time 2**

**Self-efficacy**. I used the eight-item scale of self-efficacy, developed by Chen, Gully, and Eden (2001). Sample items are "I will be able to achieve most of the goals that I have set for myself." and "I am confident that I can

perform effectively on many different tasks." The coefficient alpha was .96.

Work engagement. I measured the employees' work engagement using the seventeen-item Utrecht Work Engagement Scale (UWES), developed by Schaufeli and Bakker (2003). Sample items include "At my job I feel strong and vigorous" and "I find the work that I do full of meaning and purpose." The coefficient alpha was .96.

**Perceived social impact**. I adopted Grant's (2008) 3-item scale, which measures the extent to which employees feel that their work helps or benefits others. A sample item includes "I feel that my work makes a positive difference in other people's lives." The coefficient alpha was .94.

**Belongingness**. To measure the sense of belongingness, I adopted Den Hartog, De Hoogh, and Keegan's (2007) 3-item scale. A sample item includes "When at work, I really feel like I belong." The coefficient alpha was .88.

Job meaningfulness. I adopted the 10-item Work And Meaning Inventory, developed by Steger, Dik, and Duffy (2012). Sample items are "I understand how my work contributes to my life's meaning" and "I knew my work made a positive difference in the world." The coefficient alpha was .95.

# Measurements of Peer-rated Variables: Time 2

Social status. I asked peers to rate their team members' social status using the3-item scale from Anderson, John, Keltner, and Kring (2001). An example item is "s/he is able to persuade other people and change their opinions". The coefficient alpha was .93. Further, after obtaining scores from team members, I aggregated them into a single score (Rousseau, 1985). To examine whether the focal construct has sufficient between-group variance and within-group agreement, I calculated mean rwg and ICC; providing support

for the aggregation of team members' scores, results showed satisfactory aggregation statistics, such as mean  $r_{wg} = .85$ , ICC(1) = .35, and ICC(2) = .51 (James, Demaree, & Wolf, 1984; Bliese, 2000).

**Popularity**. To measure employee popularity, I adopted Scott and Judge's (2009) 8-item scale of popularity. A sample item is "S/he is viewed fondly". While the coefficient alpha was .97, mean  $r_{wg} = .85$ , ICC(1) = .37, and ICC(2) = .54. Based on these satisfactory aggregation statistics, I aggregated team members' rating into a single score.

# Measurements of leader-rated variables: Time 2

Task performance. I asked leaders to rate their followers' task performance, using the 7-item scale from Williams and Anderson (1991). A sample item is "This employee adequately completes assigned duties." The coefficient alpha was .98.

Contextual performance. I asked leaders to rate their followers' contextual performance, using the 16-item scale of Borman and Motowidlo (1993). Sample items include "This employee cooperates with others in the team" and "This employee voluntarily does more than the job requires to help others or contribute to unit effectiveness." The coefficient alpha was .95.

# **Analyses**

I tested hypotheses with adopting structural equation modeling (SEM) method; I report the chi-square value ( $\chi^2$ ), the Comparative Fit Index (CFI; Bentler, 1990), the Normed Fit Index (NFI; MacCallum, Roznowski, Mar, & Reith, 1994), and the Root-Mean-Square Error of Approximation (RMSEA; MacCallum, Browne, & Cai, 2006) as indicators of how well proposed model fits the data. For testing mediation hypotheses, I adopted the Sobel test (Sobel,

1982). Additionally, to test the moderated mediation hypotheses, I adopted Hayes' (2012) PROCESS macro to estimate 95% bias-corrected bootstrap confidence intervals for the conditional indirect effects. While SEM is based on maximum likelihood method, PROCESS macro is based on ordinary least square method. Thus, by adopting both methods, I intend to see whether the findings can be the same regardless of controlling for other outcome variables that are likely to be highly correlated (e.g., social status – popularity; task performance – contextual performance).

#### RESULTS

Table 1 shows the descriptive statistics and correlations among study variables. Among variables in the current study, those measured at the same time with the same rater showed relatively high correlations (i.e., work engagement, self-efficacy, perceived social impact, belongingness, and meaningfulness; social status and popularity; task performance and contextual performance), raising concerns about common rater bias and discriminant validity. To check the discriminant validity of these constructs, therefore, I conducted confirmatory factor analyses (CFA) of these focal variables; testing alternative models by integrating variables that exceed the correlation of .70 (Hu & Bentler, 1999; Marsh, Hau, & Wen, 2004). First, the CFA results for psychological states (i.e., work engagement, self-efficacy, perceived social impact, belongingness, and meaningfulness), the baseline model had the best fit compared with the alternative models. The fit indices of the baseline model were as follows:  $\chi^2$  (730) = 2815.6, p < .01, CFI = .84, NFI = .80, and RMSEA = .08, showing acceptable fit indices (Hair, Black, Babin, & Anderson, 2010; MacCallum, Browne, & Sugawara, 1996; Marsh et al., 2004). To the contrary, none of alternative models showed acceptable fit indices (integrating work engagement with self-efficacy:  $\chi^2$  (734) = 3370.1, p < .01, CFI = .79, NFI = .75, RMSEA = .10; work engagement with perceived social impact:  $\chi^2$  (734) = 3197.2, p < .01, CFI = .81, NFI = .76, RMSEA = .09; self-efficacy withperceived social impact:  $\chi^2$  (734) = 3031.8, p < .01, CFI = .82, NFI = .77, RMSEA = .09; self-efficacy with meaningfulness:  $\chi^2$  (734) = 3628.6, p < .01, CFI = .77, NFI = .73, RMSEA = .11).

On the other hand, the CFA results for social-relational (i.e., social

status and popularity) and performance (i.e., task performance and contextual performance) variables also showed that the baseline model had the better fit compared with an alternative model. For social-relational outcomes, while the baseline model fit indices showed good fit indices such as  $\chi^2$  (129) = 721.6, p < .01, CFI = .97, NFI = .96, and RMSEA = .05, alternative models (i.e., integrating social status with popularity) showed poorer fit indices than the indices of the baseline model ( $\chi^2$  (132) = 1362.1, p < .01, CFI = .93, NFI = .93, RMSEA = .08). Likewise, for performance variables, the baseline model showed a better fit ( $\chi^2$  (19) = 85.8, p < .01, CFI = .98, NFI = .98, RMSEA = .09) than the alternative model that integrates task performance with contextual performance ( $\chi^2$  (20) = 292.4, p < .01, CFI = .92, NFI = .92, RMSEA = .19). In overall, the above results suggest the discriminant validity of the proposed constructs. Table 2 summarizes the results of CFA analyses.

# Insert Table 1 and 2 About Here

As noted, I used SEM analyses to test the hypotheses proposed in the current dissertation. Specifically, I computed composite measures for each construct. I allow correlations among antecedents, mediators, and outcome variables, correspondingly; on the other hand, I did not allow direct correlations between antecedents and outcome variables, only allowing indirect effects from antecedents to outcomes through mediators. The hypothesized model provided a good fit to the data ( $\chi^2$  (55) = 121.2, p < .01, CFI = .98, NFI = .97, RMSEA = .05). First, Hypotheses 1 and 2 posited the self-focused and other-focused mechanisms (i.e., self-efficacy, work engagement, perceived social impact, and belongingness) in the relationship

between job crafting and meaningfulness as well as the moderating role of pro-self/-social motivation in the relationship among job crafting, self-/other-focused mechanisms, and meaningfulness. As shown in Figure 2, job crafting was positively associated with self-efficacy ( $\beta$  = .61, p < .01), work engagement ( $\beta$  = .64, p < .01), perceived social impact ( $\beta$  = .54, p < .01), and belongingness ( $\beta$  = .39, p < .01). On the other hand, while work engagement ( $\beta$  = .56, p < .01; indirect effect:  $\beta$  = .42, p < .01) and belongingness ( $\beta$  = .12, p < .01; indirect effect:  $\beta$  = .06, p < .05) were positively and significantly related to meaningfulness, perceived social impact was only marginally ( $\beta$  = .11, p < .10; indirect effect:  $\beta$  = .07, p < .10) and self-efficacy was not significantly ( $\beta$  = .10,  $\rho$  .  $\rho$ 

Regarding the interactive effects of job crafting and pro-self/-social motivation on self-/other-focused psychological states, the results did not support the hypothesized relationships. The interactive effects of job crafting and pro-self motivation on work engagement ( $\beta$  = -.04, n. s.) and those of job crafting and pro-social motivation ( $\beta$  = -.05, n. s.) were not significant. While the moderating role of pro-self motivation in the relationship between job crafting and self-efficacy was statistically significant, the nature of the moderation was the opposite of the expected direction ( $\beta$  = -.07, p < .05). Similarly, pro-social motivation marginally moderated the relationship between job crafting and belongingness ( $\beta$  = -.09, p < .10). Accordingly, the results did not support Hypothesis 1c, 1d, 2c, and 2d. Although the moderated mediation hypotheses were not supported, I found that work engagement and

belongingness did act as mediators in relationship between job crafting and meaningfulness. In considering that work engagement is a self-focused psychological state whereas belongingness is other-focused psychological state, the results provided empirical supports on the existence of multiple mechanisms in achieving meaningfulness.

Insert Figure 2 About Here

Hypothesis 3 involves the social-relational implications of job crafting through multiple mechanisms. Given the above results showing a substantial impact of job crafting on both self-focused and other-focused psychological states (i.e., work engagement, self-efficacy, perceived social impact, and belongingness), I further examined the effects of psychological states on social-relational variables. Specifically, Hypothesis 3a posited the effects of job crafting on social status via work engagement and self-efficacy. Although work engagement was not significantly related to social status ( $\beta$  = .03, n. s.), self-efficacy was positively associated with social status ( $\beta$  = .20, p < .01; indirect effect:  $\beta$  = .13, p < .01), providing partial support of the hypothesis. On the other hand, Hypothesis 3b received full support; both perceived social impact ( $\beta$  = .13, p < .01; indirect effect:  $\beta$  = .08, p < .01) and belongingness ( $\beta$  = .12, p < .01; indirect effect:  $\beta$  = .05, p < .01) were positively associated with popularity. In general, the results showed substantial social-relational implications of job crafting.

Hypothesis 4, which suggests the moderated moderation effects of pro-self/-social motivation in the relationship between job crafting and social-relational outcomes through self-/other-focused psychological mechanisms,

was not supported; I did not find expected moderation effects of pro-self/social motivation in the relationship between job crafting and self-/other-focused psychological states.

Hypothesis 5 posited performance implications of job crafting activities. Specifically, Hypothesis 5a suggested the mediating role of selfefficacy and work engagement in the relationship between job crafting and task performance. According to the results, however, self-efficacy was not significantly related to task performance ( $\beta = .01$ , n. s.), failing to support the hypothesis. Though, I found that work engagement was positively associated with task performance ( $\beta = .12$ , p < .01), and I also found a positive relationship between job crafting and work engagement ( $\beta = .64$ , p < .01); furthermore, the indirect effect of job crafting on task performance via work engagement was also significant ( $\beta = .10$ , p < .05). In overall, results provided partial supports for Hypothesis 5a. On the other hand, Hypothesis 5b suggested the mediating role of perceived social impact and belongingness in the relationship between job crafting and contextual performance. Results showed a statistically marginal relationship between perceived social impact and contextual performance ( $\beta = .08$ , p < .10); likewise, the indirect effect of job crafting on contextual performance through perceived social impact showed marginal significance ( $\beta = .06$ , p < .10), providing marginal support for Hypothesis 5b. On the mediating role of belongingness, however, results showed non-significant effects of belongingness on contextual performance ( $\beta$ = .06, n. s.), failing to support the hypothesis.

Finally, Hypothesis 6 posited the moderated mediation relationship among job crafting, pro-self/-social motivation, and job performance through

self-/other-focused psychological mechanisms. Given that I found non-significant or the opposite direction moderation effects of pro-self/-social motivation, results did not support Hypothesis 6. Table 3 summarizes the overall results on hypotheses testing.

Insert Table 3 About Here

# **Supplementary Analyses**

In addition to the above hypotheses testing, I conducted several additional supplementary analyses. First and the foremost, due to the nature of data such that employees are nested in teams in organizations, one may suspect the existence of systematic group-level co-variances. To examine whether there are cross-level influences of group on individual employees, I calculated group-level ICC statistics on all study variables. According to the results in Table 4, all self-rating variables showed a low-level of ICC(1) score. However, I found high-level of ICC scores from peer-/leader-rated outcome variables (i.e., social status, popularity, task performance, and contextual performance). Although it may not be due to the substantial group-level effects, it implies the existence of rater-influences. Thus, to exclude group-level rater influences, I applied group-mean centering by subtracting group-level mean score of outcome variables and ran additional SEM using group-mean centered outcome variables. As Figure 3 indicates, even after controlling for the rater impact, results showed the same pattern in general thus justifying the current analytic strategy that adopts single-level instead of multi-level SEM.

Insert Table 4 & Figure 3 About Here

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Second, I examined whether there are significant effects in nonhypothesized relationships. First, I investigated whether pro-self/-social motivation moderates the impact of job crafting on other-/self-focused psychological mechanisms. Although the model fit better than the baseline model ( $\chi^2$  (55) = 103.9, p < .01, CFI = .99, NFI = .97, RMSEA = .05), these differences are perhaps due to the significant direct effects of pro-social motivation on self-efficacy ( $\beta = .22, p < .01$ ) and work engagement ( $\beta = .19, p$ < .01). Aside from the significant relationships detailed above, none of the interactive effects of job crafting and pro-self/-social motivation in predicting self-/other-focused psychological states were significant. Likewise, I examined non-hypothesized effects of self-focused psychological states on popularity and on contextual performance, as well as the effects of other-focused psychological states on social status and on task performance. First, the model fit better than the baseline model ( $\chi^2$  (39) = 76.7, p < .01, CFI = .99, NFI = .98, RMSEA = .05). In addition, I found significant relationship of self-efficacy with popularity ( $\beta = .22$ , p < .01), belongingness with social status ( $\beta = .10$ , p< .01), and self-efficacy with contextual performance ( $\beta = .25$ , p < .05).

Third, I further examined the direct interactive effects of job crafting and pro-self/-social motivation in predicting social-relational and performance outcomes, excluding all mediators. I ran these analyses since the direct interactive effects of job crafting and pro-self/-social motivation can be different from the moderated mediation through self-/other-focused psychological mechanisms, owing to the possibilities of some other mechanisms that may show contradictory patterns. As shown in Figure 4, I found some significant interactive effects of job crafting and pro-self/-social

motivation in predicting outcomes; interestingly, I found the opposite moderating role of pro-self/-social motivation in relationship between job crafting and outcome variables. On the one hand, pro-self motivation weakens the effects of job crafting on task performance ( $\beta$  = -.13, p < .10) and on social status ( $\beta$  = -.19, p < .05). On the other hand, pro-social motivation facilitates the effects of job crafting on contextual performance ( $\beta$  = .18, p < .05) and on popularity ( $\beta$  = .23, p < .01). On direct effects of job crafting, I found only significant effects for the relationships between job crafting with meaningfulness ( $\beta$  = .37, p < .01), with task performance ( $\beta$  = .16, p < .10), and with contextual performance ( $\beta$  = .18, p < .01).

Insert Figure 4 About Here

Fourth, based on the above findings regarding direct moderation effects of pro-self/-social motivation in the effect of job crafting on social-relational/performance outcomes, I examined the alternative moderated mediation model on job crafting, pro-self/-social motivation, and job performance through social-relational factors. I tested the interactive effects of job crafting and pro-self motivation on task performance through social status as well as the interactive effects of job crafting and pro-social motivation on contextual performance through popularity. As shown in Figure 5, the relationship between job crafting and task performance was mediated by social status, depending on the pro-self motivation of employees. Bootstrapping results showed that social status mediates the job crafting—task performance relationship when pro-self motivation is low (ab = .14, 95% CI [.04, .30]), but not when pro-self motivation is high (ab = .06, 95% CI [.02, .18]). Second,

the relationship between job crafting and contextual performance was mediated by popularity, depending on pro-social motivation. Bootstrapping results showed a mediating role of popularity when pro-social motivation is high (ab = .10, 95% CI [.02, .23]), but not when pro-self motivation is low (ab = .03, 95% CI [-.06, .15]). Table 5 shows the moderated mediation results.

Insert Figure 5 & Table 5 About Here

Finally, I tested a model that includes three-way interaction effects of job crafting, pro-self motivation, and pro-social motivation. The model indicated better fit than the baseline model ( $\chi^2$  (61) = 116.9, p < .01, CFI = .99, NFI = .97, RMSEA = .05), and the results also showed two significant three-way interactions. The three-way interaction was significantly associated with self-efficacy ( $\beta$  = .13, p < .05) and it was marginally related to perceived social impact ( $\beta$  = .12, p < .10). Figure 6 and 7 depict the nature of the relationships.

Insert Figure 6 & 7 About Here

Given the significant three-way interactive effects on self-efficacy and perceived social impact, I examined the moderated mediation effects of these three-way interactions in predicting the outcome variables. First, the three-way interaction effect of job crafting, pro-self motivation, and pro-social motivation in predicting meaningfulness was mediated by self-efficacy; the mediating effect being non-significant when pro-self motivation is high and pro-social motivation is low (ab = .18, 95% CI [-.05, .40]). When predicting social status, the results showed a similar pattern of moderated mediation (social status: ab = .10, 95% CI [-.01, .26]). In predicting task performance,

however, I did not find significant indirect effects.

Second, the three-way interaction effect of job crafting, pro-self motivation, and pro-social motivation in predicting meaningfulness was mediated by perceived social impact. When pro-self motivation is high and pro-social motivation is low, the mediating effect of perceived social impact was not significant (ab = .18, 95% CI [-.01, .40]). In predicting social-relational and performance outcomes, however, I did not find significant indirect effects. Table 6 summarizes the moderated mediation results.

Insert Table 6 About Here

#### DISCUSSION

In the current dissertation, I proposed and tested an integrative model on personal, social-relational, and performance implications of job crafting, by integrating the notion of meaningfulness, the agency/communion framework on the self-view and social judgment, and the SCOOM model. In the following, I describe empirical results of the hypotheses testing and articulate alternative reasoning for findings that deviate from the hypotheses.

Findings on the Mediating Role of Self-/Other-focused Mechanisms and the Moderating Role of Pro-self/-social Motivation in the Job Crafting—Meaningfulness Relationship

First, Hypothesis 1 and 2 suggested the multiple (i.e., self-/other-focused) mechanisms in the relationship between job crafting and meaningfulness as well as the moderating role of pro-self/-social motivation in the underlying mechanisms. On one hand, results showed that job crafting is associated with both self-focused and other-focused psychological states.

From self-/other-focused psychological states to meaningfulness route, however, I found that self-efficacy is not significantly related to meaningfulness, while other three psychological states (i.e., work engagement, perceived social impact, and belongingness) are significantly related to meaningfulness. Regarding the current result, I suggest that the dynamic nature of self-efficacy may provide the cue for a plausible interpretation (Bandura, 1997). When an employee experiences the enhancement of the sense of self-efficacy through involving in certain activities such as the completion of the mission, for instance, it may increase the expectation level of the focal person (Locke & Latham, 2002); accordingly, while the one may

increase one's performance, the one may not gain the sense of fulfillment as a result of the enhancement in the expectation level. On the other hand, a limitation in research design may cause the current result. Given that the current study adopted cross-sectional survey method, I could not ensure the causality between job crafting and self-efficacy; in considering that self-efficacy is a result of interplay among numerous internal and external factors surrounding an individual (Bandura, 1977; 1997), some other factors may lower the level of self-efficacy whereas self-efficacy contributes to the enhancement of the sense of meaningfulness at work. Future research could be fruitful by adopting experiment or quasi-experiment method (Grant & Wall, 2009). For instance, a researcher could provide an intervention that induce the enhancement of self-efficacy by letting participants to engage in job crafting activities; this method enables to test not only whether job crafting increases self-efficacy, but also whether the enhancement of self-efficacy results in higher meaningfulness.

On the moderating effects of pro-self/-social motivation in relationship among job crafting, self-/other-focused psychological mechanisms, and meaningfulness, I found that two significant, but opposite direction from the initial expectation, and two non-significant interactive effects in predicting self-/other-focused psychological states; accordingly, the results failed to provide empirical support for Hypothesis 1c, 1d, 2c, and 2d. In further elaboration on the results of the moderating effects, first I found that pro-self motivation reduces the positive relationship between job crafting and self-efficacy, while pro-social motivation mitigates the positive relationship between job crafting and perceived social impact. Given the high level of

positive correlations among job crafting, pro-self(-social) motivation, and self-efficacy (perceived social impact), and the high mean score of these variables, current results could be attributable to the ceiling effects.

To summarize, I found the existence of multiple (self-/other-focused) mechanisms explaining the relationship between job crafting and meaningfulness, which supports the integrative framework on meaningfulness at work (Rosso et al., 2010). On the moderating role of pro-self/-social motivation, I failed to find support for moderation hypotheses. These results not only imply the possibilities of the additional moderating factors, but also suggest the possibility of the alternative logic: substituting role of work behaviors and motivation in predicting psychological states of employees. Future research could clarify the current mixed findings by adopting more rigorous research design such as quasi-experimental method.

## Findings on the Social-relational Implications of Job Crafting

In general, results showed a substantial impact of job crafting in predicting social-relational outcomes. Specifically, I found that job crafting affects social status through self-efficacy; job crafting also affects popularity through perceived social impact and belongingness. Work engagement did not act as a mediator for the job crafting—social status relationship. I speculate that these differences could be due to the differential nature of the constructs; while self-efficacy and belongingness are easy to be revealed to others in the form of behaviors or attitudes, work engagement and perceived social impact are more internal, self-directed psychological states so these are less likely to be observed by others (Rosso et al., 2010). Given that, since the social cognition on agency/communion necessitates the observation from others,

social-relational effects of self-efficacy or belongingness are likely to be stronger than those of work engagement or perceived social impact. Future research could investigate further detailed processes through the direct measurement of social cognitions (i.e., competence, warmth) and testing those relationships.

Hypothesis 4, which posits the interactive effects of job crafting and pro-self/-social motivation on social-relational outcomes through self-/otherfocused psychological mechanisms, was not supported as the above moderating effects of pro-self/-social motivation were not significant or were in the opposite direction to my expectations. The suppressive moderating effects of pro-self/-social motivation, however, indicates that the impact of job crafting on social-relational outcomes can be differential, depending on the level of pro-self/-social motivation of the focal employee. To examine this further, I conducted a supplementary test by modeling direct moderation effects of pro-self/-social motivation in the relationship between job crafting and social-relational outcomes. Interestingly, I found that pro-self motivation and pro-social motivation moderated the job crafting—social-relational outcomes relationship in the opposite ways; while pro-self motivation weakened the effects of job crafting on social status, pro-social motivation strengthened the effects of job crafting on popularity. This may imply the existence of additional mechanisms that go beyond hypothesized self-/otherfocused mechanisms, and could be explained by attributions; for instance, employees with self-benefitting intentions are less likely to be viewed favorable, whereas employees who seem to benefit others are more likely to get favorable responses from others (Grant, Parker, & Collins, 2009).

To sum up, results showed substantial social-relational implications of job crafting; Hypothesis 3 received partial support, but Hypothesis 4 was not supported. I also found some conflicting findings on the interactive effects of job crafting and pro-self/-social motivation in predicting social-relational outcomes; while pro-self motivation suppresses the relationship through perceived social impact in general, pro-social motivation enhances the relationship in some circumstances, suggesting the existence of additional mechanisms. I encourage future researchers to adopt qualitative method such as direct observation and interview so that researchers can directly capture when, where, and how job crafting is viewed, interpreted, evaluated, so it results in social-relational impact.

# Findings on the Performance Implications of Job Crafting

Finally, I examined the managerial implications of job crafting. With respect to Hypothesis 5, which posits the effects of job crafting on task/contextual performance through self-/other-focused mechanisms, results showed mixed findings. While work engagement mediated the relationship between job crafting and task performance, self-efficacy did not work as a mediator on the relationship due to the non-significant association between self-efficacy and task performance. Perceived social impact was marginally related to contextual performance so it provided marginal supports for the hypothesis, but belongingness was not significantly related to contextual performance, failing to support the hypothesis. On the other hand, Hypothesis 6 did not receive support, as the moderating role of pro-self/-social motivation in the relationship between job crafting and self-/other-focused psychological mechanisms were insignificant or contrary to the expected interaction pattern.

# **Additional Findings**

In the first supplementary analysis, I found that self-focused psychological states can be related to warmth-related outcome (i.e., popularity) as well as contextual performance, whereas other-focused psychological states can be associated with competence-related outcome (i.e., social status). In other words, self-efficacy and belongingness were significantly related to both social status and popularity. Given the high correlation between social status and popularity (r = .88, p < .01), this can be a result of spurious effect rather than reflecting the pure impact of the perception of competence/warmth. Alternatively, the current social-relational variables may not be good indicators for reflecting competence/warmth-related relational outcome. Additional study that adopts experimental design may be fruitful, as it can manipulate the perception of competence/warmth exclusively.

Interestingly, on the other hand, I found the significant relationship between self-efficacy and contextual performance ( $\beta$  = .25, p < .05). Given the non-significant relationship between self-efficacy and task performance ( $\beta$  = .01, n. s.), it requires further elaboration and interpretation on the results. First, contextual performance, in compare to task performance, is more likely to be determined by psychological factors than purely ability-relevant factors. Even though self-efficacy are highly related with competence and ability, still there are possibilities of gap between perception and reality. Second, in considering that prior research showed the positive effect of pro-self motivation on pro-social behavior (Grant & Mayer, 2009), it is possible that self-efficacy may work as a mediator in the relationship between pro-self motivation and pro-social behavior.

In addition, based on additional findings from supplementary analyses, I conducted the test of an alternative model that links job crafting, social-relational outcomes, and performance outcomes, and these relationships are moderated by pro-self/-social motivation of employees. As shown in Figure 5 and Table 5, results provided general support for the alternative model; proself motivation mitigated the linkage of job crafting, social status, and task performance, while pro-social motivation strengthened the linkage of job crafting, popularity, and contextual performance. In considering the substantial impact of interpersonal supports in predicting employee performance (Humphrey et al., 2007; Rhoades & Eisenberger, 2002), this alternative model also offers a plausible explanation for the relationship between job crafting and job performance.

In explaining the nature of moderated mediation of pro-self/-social motivation, as indicated above, attribution theory can be a good candidate for the theoretical framework (Grant et al., 2009; Grant & Sumanth, 2009). When an employee engages in job crafting activities, it can be viewed differently because of different attribution processes of others; an employee with pro-self motivation would be viewed negatively, while an employee with pro-social motivation would be viewed favorably. As a result of differences in attribution processes, the impact of job crafting on social-relational outcomes will become different, resulting in differential impact on performance of the job crafter. Conducting future research that adopts more rigorous research design such as experimental, quasi-experimental, or longitudinal research could be fruitful to confirm causality in testing models such as this alternative model.

Third, I examined the effect of three-way interactions among job

crafting, pro-self motivation, and pro-social motivation in predicting self-/other-focused psychological states. Finding significant three-way interaction effects on self-efficacy and perceived social impact, I further conducted threeway moderated mediation analyses, as shown in Table 6. In general, results suggested that not only personal, but also social-relational impact of job crafting becomes non-significant when the focal actor possesses a high level of pro-self motivation with a low level of pro-social motivation. The current results imply the following. First, when employees with high pro-self, but low pro-social motivation engage in job crafting, this may reflect a self-centered motive; alternatively, the actions of these employees may be viewed and interpreted as selfish behaviors. Second, given the significant social-relational impact of job crafting, the results reflect the fact that social aspect is one important facet of job crafting and it is important for experiencing meaningfulness. This finding is also in line with the finding of Leana and colleagues (2009) that showed the predictive validity of collaborative crafting over individual crafting. These findings imply that the predictive validity of job crafting will be enhanced when job crafting is divided into pro-self and pro-social crafting; I encourage future researchers to constitute the pro-self/social crafting taxonomy and examine their differential antecedents and outcomes across multiple levels at work.

Overall, the results of hypotheses tests and supplementary analyses indicate significant impact of both self-/other-focused mechanisms that link job crafting and meaningfulness. In addition, I found that self-focused mechanisms lead a higher level of social status and task performance, while other-focused mechanisms lead a higher level of popularity and contextual

performance; these results indicate differential social-relational and performance implications of job crafting through different psychological mechanisms. On the moderating role of pro-self/-social motivation, even though my initial expectation based on the SCOOM model was not supported, the results showed that pro-self/-social motivation play an important role in causing a differential impact of job crafting activities. Based on the findings, in the following section, I elaborate on the theoretical, practical implications, as well as the limitations of the research described in this dissertation.

# **Theoretical Implications**

The current dissertation intended to advance the literature of job crafting by examining the integrative implications of job crafting activities. As I expected, job crafting activities were related to not only self-focused psychological states, but also other-focused psychological states; these selfand other-focused psychological states are recognized, seen, and evaluated by others, resulting in differences on social-relational outcomes. Likewise, I found that job crafting led to a higher level of task performance via selffocused psychological states, whereas it led to a higher level of contextual performance via other-focused psychological states, indicating the differential impact of job crafting on performance outcomes through different types of psychological mechanisms. To the extent of my knowledge, this is the first attempt to examine the social-relational implications of job crafting; given the current findings, future research could investigate wider ranges of socialrelational implications of job crafting. While the current dissertation examined how an employee's job crafting activities impact others' evaluation of the focal person, such social perception may impact the observing others' attitudes and

behaviors. For instance, observing an employee's job crafting activities may change observers' affective or cognitive states, which may result in changes in the behaviors of the observers (e.g., Barsade, 2002). When observers perceive the behavior as positive one, they may imitate the same behavioral job crafting patterns; when they perceive the behavior as negative one, to the contrary, they may engage in counter-productive behaviors toward the actor (Chartrand & Lakin, 2013). In addition, expanding the scope from individual or dyad-level to group-level, future research could investigate collective level implications of job crafting; while there have been a number of studies that elaborate collective job crafting activities or group-level implications of job crafting, these did not account for the social-relational implications. Therefore, investigating job crafting at the collective-level with capturing underlying social-relational dynamics among employees will be helpful for a better understanding of the nature of job crafting.

Second, this dissertation is the first attempt to examine multiple mechanisms that underlie the achievement of meaningfulness at work; in this sense, the present findings contribute to the literature of meaningfulness. Even though the concept of meaningfulness has been considered a crucial factor for employees at work (Rosso et al., 2010), researchers rarely treated it as a crucial indicator for an employee's psychological states or a dependent variable. In the dissertation, I have shown that (1) job crafting is positively related to meaningfulness, confirming Wrzesniewski and Dutton's (2001) proposition, (2) meaningfulness is determined by multiple psychological mechanisms (i.e., self-focused and other-focused), and (3) specific routes for achieving the sense of meaningfulness can vary depending on individual or

contextual differences.

Based on the findings documented herein, I raise the following suggestions for future research. First, future research could conduct longitudinal studies on job crafting, psychological mechanisms, and meaningfulness to examine potential reciprocal relationship among these constructs. For instance, a low-level of meaningfulness may motivate employees to engage in job crafting activities. Likewise, a high-level of meaningfulness may increase positive psychological states (Spreitzer, 1996), resulting in more job crafting behaviors. Second, by adopting experience sampling method (Dimotakis, Ilies, & Judge, 2013), researchers can capture the dynamical nature of job crafting and meaningfulness; for instance, one could examine when and how an employee's job crafting raises, sustains, or decreases meaningfulness. Third, although I found a somewhat complicated moderating role of pro-self/-social motivation, there could be some other individual differences that change the relationships between job crafting and meaningfulness. For instance, when employees engage in challenging, autonomous, and impactful jobs for the first time, their job crafting activities may focus more on efficiency enhancement thus not affecting meaningfulness (Berg et al., 2010). Therefore, I suggest that future studies examine various contextual factors that change the job crafting—meaningfulness relationship.

Third, by adopting an integrative approach, I aimed to advance the literature of agency/communion framework on the self-view and social cognition on others. In spite of sharing the same concept, these two theories have been developed separately (e.g., Fiske et al., 2006; Hogan, 1983). To be sure, this is understandable since these two theories tap into different area of

psychology (i.e., personal value/motivation, interpersonal cognition). In the current dissertation, however, I used both theories to propose a wide range of implications of job crafting. Such an integrative approach would be also useful for explaining multi-level interpersonal phenomena that occur at both individual- and group-levels with adopting multi-level modeling approach (Klein & Kozlowski, 2000; Klein, Tosi, & Cannella, 1999). For instance, the concept of agency/communion motivation may explain the nature of employees' value/motivation and their influences on work-related attitudes and behaviors (individual-level phenomena), while social cognition on agency/communion can explain how such motivational states of employees are viewed and interpreted by others so these are associated with diverse phenomena in group dynamics such as the observers' reactions, resulting in differential group outcomes depending on the differences in the observers' reactions (dyad-/group-level phenomena).

Fourth, the current dissertation intends to contribute to the SCOOM model by adopting the theory to explain the moderation role of pro-self/-social motivation in the relationship between job crafting and self-/other-focused motivational psychological states. The current application of the SCOOM model is unique, such that I treated work behavior of employees (i.e., job crafting) as an informational cue that has both pro-self and pro-social facets. Such an application of the SCOOM model suggests that not only external environmental factors, but also the focal actor's own behaviors work as informational cue, which leads selective information processing. Although results of the entire sample did not support the proposed hypotheses, in the public organizations sample, I found results that are in line with my

expectations. To integrate, these findings imply the possibilities of additional moderating role of social context in the SCOOM model; in certain circumstances, pro-self/-social motivation may mitigate, not facilitate, relevant self-/social-focused thoughts. Future research could conduct further examinations to find potential contextual factors that change the nature of motivated information processing.

Finally, I intended to advance the literature on job performance by showing that job crafting activities lead different types of job performance through differential psychological (or alternatively, social-relational) mechanisms. While the current study showed that the impact of job crafting can be differential depending on the focal employee's pro-self/-social motivation, future research could take more integrative approach. For instance, since job crafting of an employee can be harmful for one's coworkers (Tims et al., 2015), future research could investigate the relationship between job crafting and counter-productive work behaviors. On the other hand, considering the finding of Leana et al. (2009) that suggests different performance implications of collaborative crafting and individual crafting, it is plausible that individual differences lead to differences in job crafting activities (Bakker et al., 2012), working as antecedents rather than working as moderators. Future research could adopt experimental research design to articulate the clear role of individual differences.

## **Practical Implications**

The current thesis has some practical implications that can be fruitful for managers. First, this study showed the positive impact of job crafting in achieving a high level of meaningfulness, task performance, and contextual

performance. While prior literature suggested that job crafting is not necessarily beneficial for the organization (Wrzesniewski & Dutton, 2001), based on the current results, I can argue that job crafting can be beneficial for both the focal employee and the organization where the focal individual works.

Second, given the positive impact of job crafting on job performance, I suggest that the specific benefits of job crafting can be different depending on individual differences (i.e., pro-self/-social motivation), through diverse mechanisms (self-/other-focused psychological states). For instance, the present results suggest that employees with high pro-self motivation is less likely to gain a high level of task performance as they engage in job crafting activities. Thus, for enhancing the task performance of employees with high pro-self motivation, managers need to find different ways of HR practices that motivate employees (e.g., providing extrinsic rewards). Likewise, as managers facilitate job crafting activities toward their followers would show a higher level of contextual performance, especially when the followers have a high level of pro-social motivation.

Third, the current dissertation's findings on the social-relational implications of job crafting indicate that job crafting can be an useful practice for employees to build their positive relationships and to gain a high level of social status at work. Also, the results from an alternative model imply that such social-relational impact of job crafting activities may be positively associated with job performance of the focal actor. Based on the findings, managers could encourage their followers to engage in job crafting, since its positive impact can be wider than expected; it is personally meaningful, relationally beneficial, and effective for high job performance. Given the

social-relational impact of job crafting, furthermore, managers could get more fruitful results when they facilitate job crafting activities toward all of their followers, rather than focusing on limited members of the team. For instance, differentiated social status and popularity among followers in the group may lead to the differentiation in leader-member relationships, resulting in negative impact on group dynamics (Liden, Erdogan, Wayne, & Sparrowe, 2006). In addition, as Leana et al. (2009) as well as Tims et al. (2013) showed, engaging in collective job crafting activities can be positive in enhancing not only individual-level performance, but also collective, group-level performance. Thus, the findings imply the need for collective job crafting intervention.

## Limitations

The current dissertation also has a number of limitations. First, in terms of research design, this study adopted cross-sectional design so that it cannot establish causality in the relationships among the study variables. Even though I collected the data twice with two-weeks of the time gap, the threat of variance inflation due to same source bias was not eliminated (Podsakoff et al., 2003). To exclude alternative explanations, future research could adopt more rigorous methods such as an experimental design that manipulates pro-self/social motivation, or a quasi-experimental design that provides an intervention for facilitating job crafting activities, or longitudinal designs that measure variables on multiple occasions.

Second, this dissertation has limitations in terms of the measurement of job crafting. As described earlier, I depended on a survey questionnaire for my study and adopted the 15-items scale provided by Slemp and Vella-Brodrick (2013). Although the scale shows satisfactory construct validity, due

to the very nature of the survey method, it captures only limited portions of the job crafting activities. In addition, the survey method cannot capture the nuances in the differences in job crafting activities. For instance, consider the case when employees change the scope or types of tasks that the one completes at work (Slemp & Vella-Brodrick, 2013). An employee may contract or expand the scope of tasks or take up more self- or other-benefitting tasks (Brunning, 2014). Capturing all these differences in one dimension may result in misleading conclusions. However, in this study, I adopted the survey method since it can efficiently obtain the responses of a large number of participants. Moreover, since the participants of this study have different background (in terms of industry, organization, tenure, rank, etc.), asking about specific job crafting episodes (e.g., Lyons, 2008) creates difficulties in (1) constructing a set of job crafting episodes, (2) categorizing the episodes into meaningful sub-dimensions, and (3) differentiating the implications of the job crafting activities of each dimension. Furthermore, the measurement by Slemp and Vella-Brodrick (2013) is the latest, as well as the finest, scale that captures the three dimensions of job crafting, as proposed by Wrzesniewski and Dutton (2001). As part of future research, researchers should target one specific industry or organization so that they can develop more refined measurements for job crafting that reflect the idiosyncratic nature of the firm and its employees. Alternatively, future research would adopt multiple methods, such as the survey and interview methods, to generate refined measurement of job crafting.

Third, to assess self-/other-focused psychological mechanisms, I measured indicators of those psychological states (self-efficacy for

individuation, work engagement for self-connection, perceived social impact for contribution, belongingness for unification), instead of capturing the construct per se. Although all measured variables are important factors that tap into each dimension, I cannot conclude these are the representative constructs over other constructs such as autonomy, self-esteem, authenticity, self-concordance, significance, identification, or commitment. While the current study is an integrative investigation on self-/other-focused psychological mechanisms, future study can conduct more detailed investigation to articulate one specific psychological mechanism.

Fourth, this study only captured a number of social-relational and performance variables. Specifically, I measured social status and popularity as social-relational variables, while measured task performance and contextual performance as performance variables. In considering the potential multi-level implications of job crafting, however, such implications can be expanded to the group-level; thus, future research would be better to capture collectivelevel psychological states (e.g., group-efficacy, group identification, group viability) and collective-level performance (e.g., efficiency, adaptability) so that we can take multi-level approach for investigating the job craftingrelevant phenomena. On the other hand, I did not measure negative socialrelational/performance outcomes such as envy, jealousy, social undermining, incivility, and counter-productive work behaviors. Although I found a positive impact of job crafting in general, job crafting can be harmful for others in some circumstances; moreover, in considering the moral licensing view on citizenship behavior, positive impact and negative impact of job crafting can coexist (Klotz & Bolino, 2013).

### Conclusion

In the face of drastically changing work and business environments, self-initiative actions of employees are crucial factors for achieving successful organizational functioning and job crafting is such a self-initiated action (Grant & Ashford, 2008; Grant & Parker, 2009). Thus, for enhancing the understanding on the effects of job crafting, the current dissertation presents an integrative model of personal, social-relational, and performance implications of job crafting. The results confirmed the co-existence of self-/other-focused mechanisms and corresponding differential social-relational as well as performance outcomes. Based on the current findings, I suggest future research to investigate wider ranges of social implications of job crafting and the corresponding impact of job crafting across multiple levels.

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 Table 1 Means, Standard Deviations, and Intercorrelations among Variables

	Variable	Mean	Standard Deviation	1	2	3	4	5	6	7	8	9	10	11	12
1	Job Crafting	5.00	0.90	(.92)											
2	Pro-self Motivation	5.60	0.94	.48**	(.77)										
3	Pro-social Motivation	5.08	1.12	.68**	.31**	(.82)									
4	Work Engagement	4.96	1.03	.64**	.36**	.54**	(.96)								
5	Self-efficacy	5.23	1.11	.62**	.38**	.54**	.83**	(.96)							
6	Perceived Social Impact	5.29	1.06	.58**	.36**	.50**	.74**	.82**	(.94)						
7	Belongingness	5.62	1.11	.52**	.30**	.52**	.63**	.67**	.61**	(.88)					
8	Meaningfulness	5.01	1.08	.58**	.30**	.54**	.80**	.73**	.68**	.59**	(.95)				
9	Social Status	5.30	1.03	.24**	.09	.26**	.30**	.36**	.26**	.43**	.26**	(.93)			
10	Popularity	5.38	1.06	.22**	.07	.26**	.28**	.35**	.28**	.44**	.25**	.88**	(.97)		
11	Task Performance	5.78	1.20	.25**	.11	.20**	.21**	.26**	.22**	.29**	.13*	.41**	.39**	(.98)	
12	Contextual Performance	5.53	1.36	.27**	.08	.24**	.17**	.26**	.21**	.27**	.15*	.38**	.38**	.87**	(.95)

*Note*. The correlations are based on N = 358 employees in 77 teams. \*p < .05, \*\*p < .01 (two-tailed).

 Table 2 Confirmatory Factor Analyses for Comparison with Alternative Models

Model	$\chi^2$	df	CFI	NFI	RMSEA	$\Delta \chi^2$
CFA Models on Psychological States						
The baseline model - 5 factors (self-efficacy, work engagement, perceived social impact, belongingness, and meaningfulness)	2815.6	730	.84	.80	.08	
Alternative model 1 - Integrating self-efficacy with work engagement	3370.1	734	.79	.75	.10	554.5**
Alternative model 2 - Integrating self-efficacy with perceived social impact	3197.2	734	.81	.76	.09	381.6**
Alternative model 3 - Integrating self-efficacy with meaningfulness		734	.77	.73	.11	813.0**
CFA Models on Social-relational Outcomes						
The baseline model - 2 factors (social status, popularity)	721.6	129	.97	.96	.05	
Alternative model 1 - Integrating social status with popularity	1362.1	132	.93	.93	.08	640.5**
CFA Models on Performance Outcomes						
The baseline model - 2 factors (task performance, contextual performance)	85.8	19	.98	.98	.09	
Alternative model 1 - Integrating 2 factors	292.4	20	.92	.92	.19	206.6**

*Note.* N = 358 employees in 77 teams. \*p < .05, \*\*p < .01 (two-tailed).

 Table 3 Summary of Hypotheses Testing Results

	Hypothesized Relationship	Results
Hypothesis 1a	The indirect effect of job crafting on meaningfulness via self-efficacy	Not supported
Hypothesis 1b	The indirect effect of job crafting on meaningfulness via work engagement	Full support
Hypothesis 1c	The interactive effect of job crafting and pro-self motivation on meaningfulness via self-efficacy	Not supported
Hypothesis 1d	The interactive effect of job crafting and pro-self motivation on meaningfulness via work engagement	Not supported
Hypothesis 2a	The indirect effect of job crafting on meaningfulness via perceived social impact	Marginal support
Hypothesis 2b	The indirect effect of job crafting on meaningfulness via belongingness	Full support
Hypothesis 2c	The interactive effect of job crafting and pro-social motivation on meaningfulness via perceived social impact	Not supported
Hypothesis 2d	The interactive effect of job crafting and pro-social motivation on meaningfulness via belongingness	Not supported
Hypothesis 3a	The indirect effect of job crafting on social status via self-efficacy and work engagement	Partial support
Hypothesis 3b	The indirect effect of job crafting on popularity via perceived social impact and belongingness	Full support
Hypothesis 4a	The interactive effect of job crafting and pro-self motivation on social status and via self-efficacy and via	Not supported
	work engagement	
Hypothesis 4b	The interactive effect of job crafting and pro-social motivation on popularity via perceived social impact	Not supported
	and via belongingness	
Hypothesis 5a	The indirect effect of job crafting on task performance through self-efficacy and work engagement	Partial support
Hypothesis 5b	The indirect effect of job crafting on contextual performance through perceived social impact and	Marginal support
	belongingness	
Hypothesis 6a	The interactive effect of job crafting and pro-self motivation on task performance via self-efficacy and	Not supported
	work engagement	
Hypothesis 6b	The interactive effect of job crafting and pro-social motivation on contextual performance via perceived	Not supported
-	social impact and belongingness	

 Table 4 ICC Information at Group-level

Variable	ICC(1)	ICC(2)	Variable	ICC(1)	ICC(2)
Job crafting	.04	.16	Social-relational Outcomes		
Pro-self motivation	.01	.04	Social status	.30	.67
Pro-social motivation	.11	.36	Popularity	.30	.67
Self-efficacy	.13	.41			
Work engagement	.05	.18	<b>Performance Outcomes</b>		
Perceived social impact	.07	.25	Task performance	.58	.87
Belongingness	.14	.44	Contextual performance	.62	.88
Meaningfulness	.08	.28			

*Note*. N = 358 employees in 77 teams.

Table 5 Moderated Mediation Results of An Alternative Model

Model	Level of the Moderator	Coefficient	SE	95% Lower CI	95% Upper CI
Joh Crafting > Social Status > Took Derformance	Low	.14	.06	.05	.30
Job Crafting -> Social Status -> Task Performance	High	.06	.05	02	.18
Ich Crafting > Depularity > Contaytual Derformance	Low	.03	.05	06	.15
Job Crafting -> Popularity -> Contextual Performance	High	.10	.05	.02	.23

*Note.* N = 358 employees in 77 teams. 5,000 bootstrapping samples.

 Table 6 Moderated Mediation Results of An Three-way Interactive Effect Model

Model	Pro-self Motivation	Pro-social Motivation	Coefficient	SE	95% Lower CI	95% Upper CI
	Low	Low	.31	.09	.16	.49
Job Crafting -> Self-efficacy -> Meaningfulness	Low	High	.29	.07	.16	.45
Job Craiting -> Sen-efficacy -> Meaningfulliess	High	Low	.18	.11	05	.40
	High	High	.32	.07	.19	.47
	Low	Low	.18	.06	.08	.33
Job Crafting -> Self-efficacy -> Social Status	Low	High	.15	.06	.06	.29
Job Claring -> Sen-efficacy -> Social Status	High	Low	.10	.06	01	.26
	High	High	.16	.05	.08	.30
	Low	Low	.09	.05	.02	.22
Job Crafting -> Self-efficacy -> Task Performance	Low	High	.08	.05	.01	.21
Job Clatting -> Sen-efficacy -> Task Performance	High	Low	.07	.05	.00	.21
	High	High	.07	.05	.01	.20
	Low	Low	.23	.08	.10	.40
Job Crafting -> Perceived Social Impact -> Meaningfulness	Low	High	.18	.08	.09	.35
300 Crarting -> 1 crecived Social impact -> intenting timess	High	Low	.17	.10	01	.39
	High	High	.25	.07	.10	.39
	Low	Low	.07	.04	.02	.19
Job Crafting -> Perceived Social Impact -> Popularity	Low	High	.05	.04	.01	.15
300 Claring -> 1 electived Social impact -> 1 opularity	High	Low	.07	.05	.01	.21
	High	High	.08	.05	.01	.20
	Low	Low	.03	.03	02	.12
Job Crafting -> Perceived Social Impact -> Contextual Performance	Low	High	.03	.04	03	.14
300 Craiting -/ 1 erceived Social impact -/ Contextual refformance	High	Low	.02	.03	02	.13
	High	High	.04	.06	05	.17

*Note*. N = 358 employees in 77 teams. 5,000 bootstrapping samples.

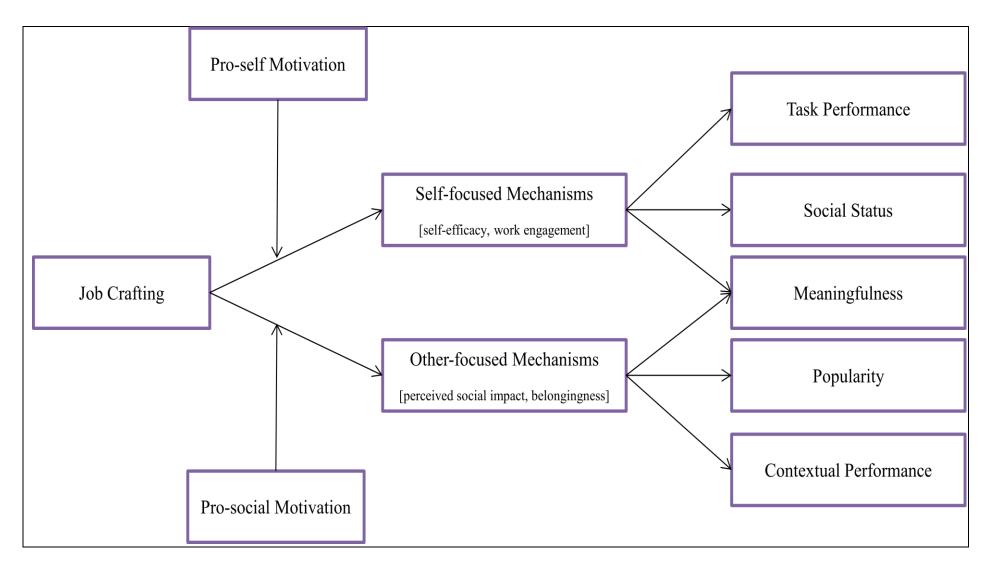


Figure 1 Hypothesized Model

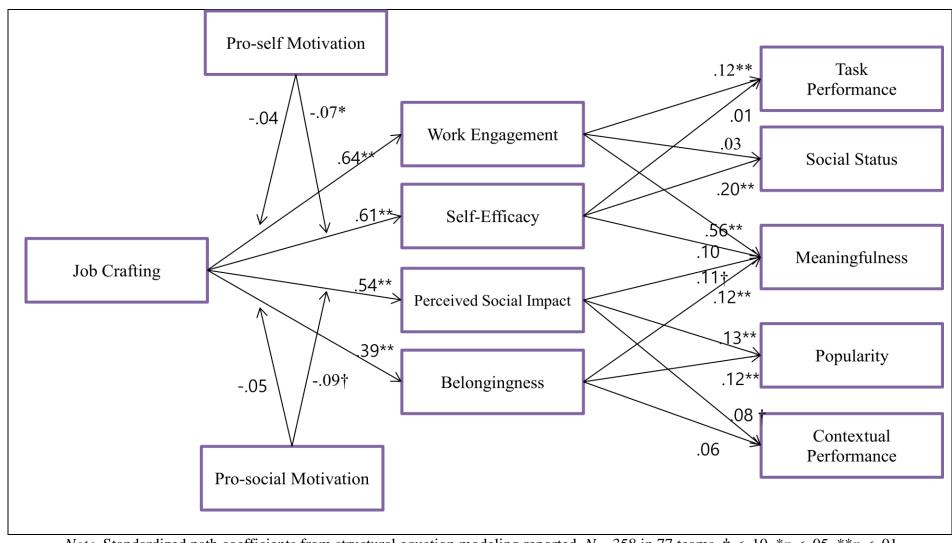


Figure 2 Summary of Results

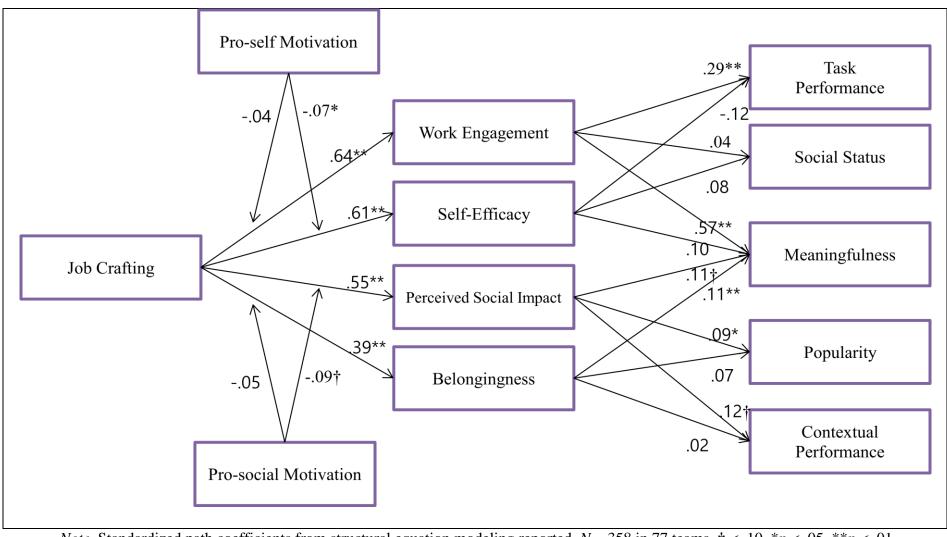


Figure 3 SEM Results Using Group-mean Centered Outcome Variables

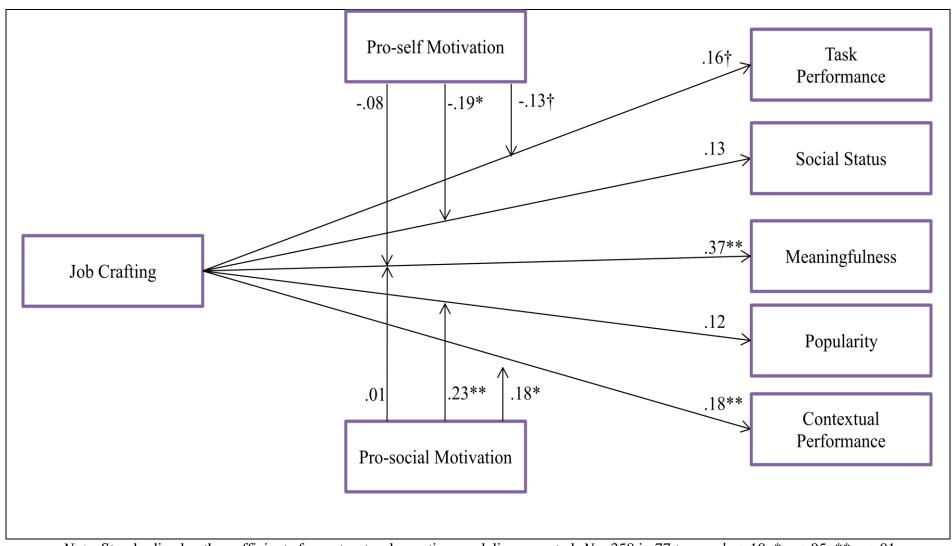


Figure 4 Direct Path Model of Job Crafting and Personal/Social-relational/Performance Outcomes

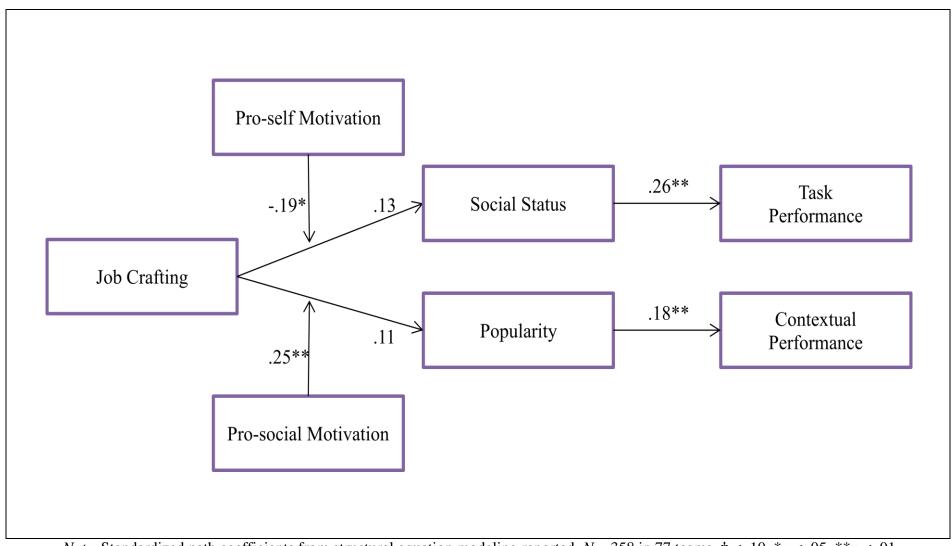


Figure 5 An Alternative Moderated Mediation Model of Job Crafting

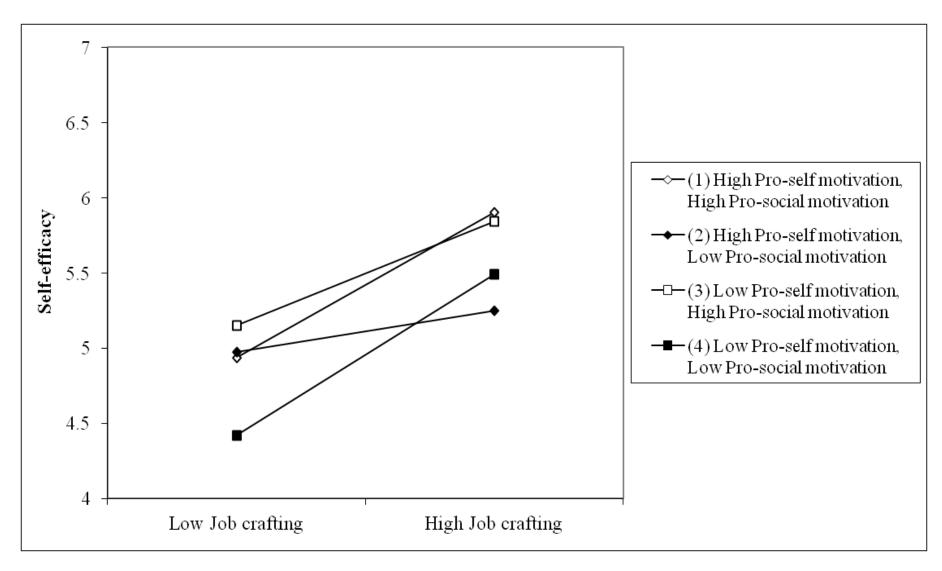


Figure 6 The Interactive Effect of Job Crafting, Pro-self Motivation, and Pro-social Motivation on Self-efficacy

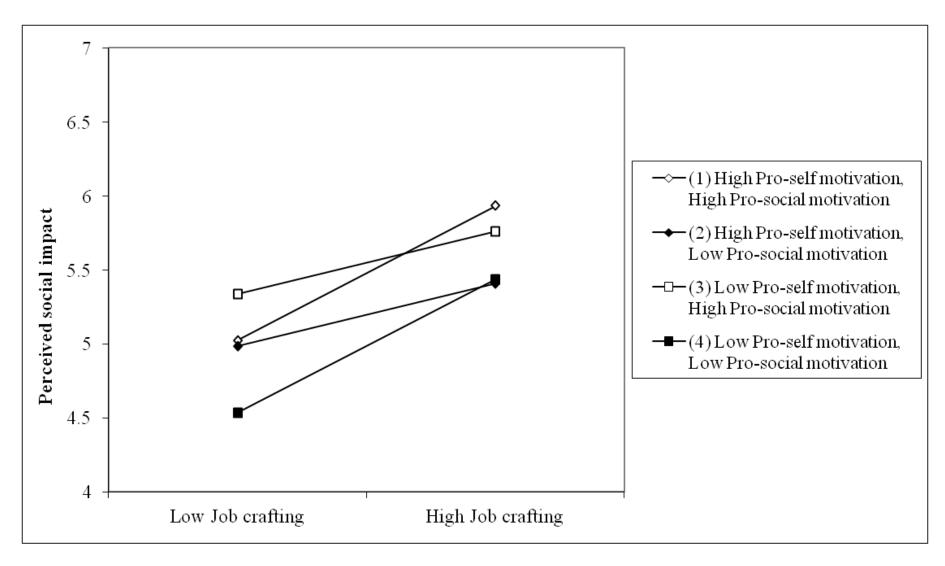


Figure 7 The Interactive Effect of Job Crafting, Pro-self Motivation, and Pro-social Motivation on Perceived Social Impact

### APPENDIX: SCALES USED IN THE STUDY

## Job crafting (Slemp & Vella-Brodrick, 2013)

- 1. Introduce new approaches to improve your work
- 2. Change the scope or types of tasks that you complete at work
- 3. Introduce new work tasks that you think better suit your skills or interests
- 4. Choose to take on additional tasks at work
- 5. Give preference to work tasks that suit your skills or interests
- 6. Think about how your job gives your life purpose
- 7. Remind yourself about the significance your work has for the success of the organization
- 8. Remind yourself of the importance of your work for the broader community
- 9. Think about the ways in which your work positively impacts your life
- 10. Reflect on the role your job has for your overall well-being
- 11. Make an effort to get to know people well at work
- 12. Organize or attend work related social functions
- 13. Organize special events in the workplace (e.g., celebrating a co-worker's birthday)
- 14. Choose to mentor new employees (officially or unofficially)
- 15. Make friends with people at work who have similar skills or interests

## Pro-self/-social motivation (De Dreu & Gupta, 2009)

- 1. I am concerned about my own needs and interests
- 2. My personal goals and aspirations are important to me
- 3. I consider my own wishes and desires to be relevant.
- 1. I am concerned about the needs and interests of others such as my colleagues
- 2. The goals and aspirations of colleagues are important to me
- 3. I consider others' wishes and desires to be relevant

## Self-efficacy (Chen, Gully, & Eden, 2001)

- 1. I will be able to achieve most of the goals that I have set for myself.
- 2. When facing difficult tasks, I am certain that I will accomplish them.
- 3. In general, I think that I can obtain outcomes that are important to me.
- 4. I believe I can succeed at most any endeavor to which I set my mind.

- 5. I will be able to successfully overcome many challenges.
- 6. I am confident that I can perform effectively on many different tasks.
- 7. Compared to other people, I can do most tasks very well.
- 8. Even when things are tough, I can perform quite well.

## Work engagement (Schaufeli & Bakker, 2003)

- 1. At my work, I feel bursting with energy.
- 2. At my work I always persevere, even when things do not go well.
- 3. I can continue working for very long periods at a time.
- 4. At my job, I am very resilient, mentally.
- 5. At my job I feel strong and vigorous.
- 1. To me, my job is challenging.
- 2. My job inspires me.
- 3. I am enthusiastic about my job.
- 4. I am proud on the work that I do.
- 5. I find the work that I do full of meaning and purpose.
- 1. When I am working, I forget everything else around me.
- 2. Time flies when I am working.
- 3. I get carried away when I am working.
- 4. It is difficult to detach myself from my job.
- 5. I am immersed in my work.
- 6. I feel happy when I am working intensely.

# Job meaningfulness (Steger, Dik, & Duffy, 2012)

- 1. I have found a meaningful career.
- 2. I understand how my work contributes to my life's meaning.
- 3. I have a good sense of what makes my job meaningful.
- 4. I have discovered work that has a satisfying purpose.
- 5. I view my work as contributing to my personal growth
- 6. My work helps me better understand myself.
- 7. My work helps me make sense of the world around me.
- 8. My work really makes no difference to the world.
- 9. I know my work makes a positive difference in the world.

10. The work I do serves a greater purpose.

# Social status (Anderson, John, Keltner, & Kring, 2001)

- 1. S/he is able to persuade other people and change their opinions
- 2. S/he fails to direct and steer meetings in his/her favor
- 3. S/he is able to build coalitions to get things done.

# Popularity (Scott & Judge, 2009)

- 1. The person is popular
- 2. The person is quite accepted
- 3. The person is well-known
- 4. The person is generally admired
- 5. The person is liked
- 6. The person is socially visible
- 7. The person is viewed fondly
- 8. The person is not popular

## Task performance (Williams & Anderson, 1991)

This employee...

- 1. Adequately completes assigned duties.
- 2. Fulfills responsibilities specified in job description.
- 3. Performs tasks that are expected him/her.
- 4. Meets formal performance requirements of the job.
- 5. Engages in activities that will directly affect his/her performance evaluation.
- 6. Neglects aspects of the job he/she is obligated to perform.
- 7. Fails to perform essential duties.

## Contextual performance (Borman & Motowidlo, 1993)

While performing his or her job, how likely is it that this person would:

- 1. Comply with instructions even when supervisors are not present.
- 2. Cooperate with others in the team.
- 3. Persist in overcoming obstacles to complete a task.
- 4. Display proper military appearance and bearing.
- 5. Volunteer for additional duty.
- 6. Follow proper procedures and avoid unauthorized shortcuts.
- 7. Look for a challenging assignment.
- 8. Offer to help others accomplish their work.
- 9. Pay close attention to important details.
- 10. Defend the supervisor's decisions.
- 11. Render proper military courtesy.
- 12. Support and encourage a coworker with a problem.
- 13. Take the initiative to solve a work problem.
- 14. Exercise personal discipline and self-control.
- 15. Tackle a difficult work assignment enthusiastically.
- 16. Voluntarily do more than the job requires to help others.