

CAN HIGH PERFORMANCE WORK SYSTEMS TRANSFER  
ORGANIZATIONAL CITIZENSHIP BEHAVIOR FROM A DISCRETIONARY TO  
A SUSTAINABLE ADVANTAGE? THE QUESTIONS OF *HOW*, *WHY*, AND *WHEN*

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A Thesis Submitted to the School of Graduate Studies in Partial Fulfillment of the  
Requirements for the Degree Doctor of Philosophy

DOCTOR OF PHILOSOPHY (2014)  
(DeGroote School of Business)  
McMaster University, Hamilton, ON, Canada

TITLE: Can High Performance Work Systems Transfer Organizational  
Citizenship Behavior from A Discretionary to A Sustainable  
Advantage? The Questions of *How*, *Why*, and *When*

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NUMBER OF PAGES: xii, 191

## Abstract

One issue that has been neglected and is gaining currency in the organizational citizenship behavior (OCB) literature is the extent to which individuals consider OCB to be part of the job (OCB role definition). A recent meta-analytic review reveals that employees are more likely to perform OCB when they define OCB as in-role rather than as extra-role. However, little attention has been paid to the influences of organizational practices on employee OCB role definition. This neglect is of particular relevance because researchers have argued that how employees view their role obligations are likely to be subject to some purposeful organizational practices. Thus, this paper focuses on the effects of high-performance work systems (HPWS) on employee OCB role definition.

This paper adopts multiple theoretical perspectives (e.g., social exchange, organizational identification, ability-motivation-opportunity, and trust) to understand *how, why, and when* HPWS cause employees to expand their job requirements to include OCBs like helping and voice. Using a multisource data collected at 4 waves from 208 supervisor-employee dyads in Taiwan, I examined the following: (a) the direct effect of employee-experienced HPWS on employee helping and voice role definitions, (b) the mediating roles of employee helping and voice role definitions in the employee-experienced HPWS and actual employee helping and voice

relationships, (c) the mediating roles of employee social exchange and organizational identification perceptions toward the organization, as well as employee efficacy, instrumentality, and autonomy perceptions toward helping and voice in the relationships between employee-experienced HPWS and OCB role definitions, (d) the direct effect of employee trust in supervisor on employee helping and voice role definitions, and (e) the moderating role of employee trust in supervisor in the relationships between employee-experienced HPWS and employee helping and voice role definitions. The results confirm the direct effects of employee-experienced HPWS and trust in supervisor, the mediating effects of employee helping and voice role definition, and employee efficacy, instrumentality, and autonomy perceptions toward helping and voice, as well as the moderating effects of employee trust in supervisor, such that employee trust in supervisor strengthened the effects of employee-experienced HPWS on employee helping and voice role definitions when trust in supervisor was high than when it was low. Implications for research and practice are discussed.

## Dedication

I wish to dedicate my dissertation to my grandfather, Wang Chao-Ying, and my grandmother, Lin Rui-Lan, who have always smiled at me from above when I needed it the most and blessed me with the heavenly strength.



## **Acknowledgements**

For the past four years, I have been thinking about writing this section of the dissertation. Today, I consider myself the luckiest person in the universe. I have been living away from home for more than four years but never a single day did I feel being far away from home. Most of all, my wonderful family in Taiwan. Thank you, my father, mother, and my brother, for all the endless love and support that you have given me across distance to make this dream a reality.

Thank you, McMaster University, for having me in your great school where learning is fun and nothing but kindness and encouragement from one to another. I would not have the knowledge and skills necessary to complete my dissertation if I have not taken the Ph.D. seminars from Baba, Willi, Isik, Benson, Aaron, Catherine, Ying, and Rick. And a research project with John. I am also thankful to all my colleagues and the always cheerful Deb of the Ph.D. program for their encouragement, laughter, and assistance. I wish to represent the school well in every step I take.

I would like to acknowledge and truly thank my supervisor, Dr. Vishwanath Baba, for your guidance, insightful criticisms, and valuable feedback. You influenced me profoundly, way beyond the scope of a dissertation or a degree. You are such a great role model for me to look up to. The lunch after the oral defence at the faculty club will be cherished forever.

I would also like to acknowledge and thank my supervisory committee members, Drs. Rick Hackett and Ying Hong. Thank you for all your priceless advice, support, and feedback. Your involvement in my dissertation was greatly needed and appreciated. I am also thankful to my external examiner, Dr. Greg Irving.

Finally, I would not have got far without you. Thank you, Ting-Ting, my love, for always supporting me through thick and thin. It feels great to be able to have you by my side in this journey. Now, let's go home together!

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## List of Abbreviations

OCB	Organizational citizenship behavior
HPWS	High-performance work systems
HRM	Human resource management
SHRM	Strategic human resource management
AMO	Ability-motivation-opportunity
KSAs	Knowledge, skills, and abilities
NT\$	New Taiwan dollar
CAD\$	Canadian dollar
PD	Power distance
COL	Collectivism
E EI	Employee exchange ideology
SE	Social exchange
O I	Organizational identification
HE	Helping efficacy
VE	Voice efficacy
HI	Helping instrumentality
VI	Voice instrumentality
HA	Helping autonomy
VA	Voice autonomy
T	Trust in supervisor
HR	Helping role definition
VR	Voice role definition
H	Helping

V	Voice
<i>M</i>	Mean
<i>SD</i>	Standard deviation
$\alpha$	Cronbach's alpha
$\beta$	Standardized regression coefficients
$R^2$	Coefficient of Determination
F	F value
<i>p</i>	P value
$\chi^2$	Chi-square value
<i>df</i>	Degrees of freedom
CFI	Comparative fit index
TLI	Tucker-Lewis index
RMSEA	Root-mean-square error of approximation
CI	Confidence interval
Z	Z value
SE	Standard error

# Chapter 1

## Introduction

Ever since its introduction in the early 1980s, organizational citizenship behavior (OCB) has had profound implications for organizational research and practice.

Considerable evidence has demonstrated the essential role of OCB in individual, group, and organizational effectiveness (Nielsen, Bachrach, Sundstrom, & Halfhill, 2012; Podsakoff, Podsakoff, Mackenzie, Maynes, & Spoelma, 2013; Podsakoff, Whiting, Podsakoff, & Blume, 2009; Podsakoff & Mackenzie, 1997; Whitman, Van Rooy, & Viswesvaran, 2010). Thus, understanding how to enhance OCB is a vital concern for organizations. Although much of the existing research on OCB has been focused on identifying employee dispositional and attitudinal antecedents and has greatly contributed to the field (e.g., Chiaburu, Berry, Li, Gardner, & Oh, 2011; Hoffman, Blair, Meriac, & Woehr, 2007; Ilies, Nahrgang, & Morgeson, 2007), such as personality traits, job satisfaction, and leader-member exchange, one issue that has been neglected and is gaining currency in the literature is the coexistence of employee role perceptions (McAllister, Kamdar, Morrison, & Turban, 2007; Morrison, 1994; Tepper, Lockhart, & Hoobler, 2001; Zellars, Tepper, & Duffy, 2002). Researchers relating role perceptions to employee citizenship performance refer to OCB role definition as “the extent to which individuals consider OCB to be part of the job or

role defined” (Kamdar, McAllister, & Turban, 2006: 841). A recent meta-analytic review of 34 studies suggests that employees are more likely to perform OCB when they define OCB as in-role rather than as extra-role (Jiao, Richards, & Hackett, 2013). One further point which merits emphasis from the meta-analysis is that the authors found that role definition correlates more strongly with OCB than do other commonly-associated antecedents, such as job satisfaction, conscientiousness, and leader-member exchange. Given that improving the frequency with which employees perform citizenship behaviors means greater organizational performance as was noted above, such finding shows that how broadly employees define their OCB matters a great deal and needs to be taken into account when examining OCB. In a related vein, scholars have argued that measuring OCB role definition separately offers greater precision in studies of employee citizenship behaviors (Coyle-Shapiro, Kessler, & Purcell, 2004; Kamdar et al., 2006; Tepper et al., 2001).

With regard to role definition in the OCB literature, Morrison (1994) was the first to test the often assumed discretionary nature of OCB. The author argued and reported empirical evidence that OCB role definitions are idiosyncratic in nature where employees have different obligations regarding their OCBs, even those in similar work environments. Findings from subsequent studies have provided validation evidence that some employees regarded citizenship behaviors to be more

in-role than extra-role and employees are more likely to engage in OCB when they perceive it as in-role (Coyle-Shapiro et al., 2004; Lam, Hui, & Law, 1999; Tepper et al., 2001; Vey & Campbell, 2004). To understand why some employees define OCB as part of their jobs, researchers to date have mostly examined individual and contextual variables that influence employee OCB role definition (Farh, Hackett, & Chen, 2008; Hofmann, Morgeson, & Gerras, 2003; Kamdar et al., 2006; Kim, Van Dyne, Kamdar, & Johnson, 2013; Lam et al., 1999; Vey & Campbell, 2004; Zellars et al., 2002). On the other hand, little attention has been paid to the influences of work context and task characteristics on employees' perceived obligations to perform OCBs (Morrison, 1994; Tepper et al., 2001). This neglect is of particular relevance to the OCB literature because researchers have argued that how employees view their obligations are likely to be subject to some purposeful organizational interventions and practices (Coyle-Shapiro, Kessler, & Purcell, 2004; Jiao et al., 2013; Morgeson, 1999). For instance, practices such as total quality management can expand employees' role perceptions toward communicating with others in the workplace to improve group performance as a role obligation (Parker, Wall, & Jackson, 1997). This, in turn, enhances the likelihood of participation- (Van Dyne, Graham, & Dienesch, 1994) or some forms of OCB (i.e., taking charge) (Morrison & Corey, 1999) being considered by employees as "in-role". Therefore, the present dissertation is an attempt



to respond to this neglect and to address repeated calls in the literature for an investigation of the influences of organizational practices on employees' perceptions of OCB as in-role or extra-role (Dierdorff, Rubin, & Bachrach, 2012; Morrison, 1994; Tepper et al., 2001).

To fill this gap in the literature the present dissertation focuses on the effects of human resource management (HRM) practices that convey or modify organizational information likely to impact whether employees consider OCB as in-role or extra-role. This central thesis derives from the behavioral perspective of the strategic human resource management (SHRM) literature. It states that organizations use HRM practices as a means to elicit desired employee behaviors (Jackson, Schuler, & Rivero, 1989; Schuler & Jackson, 1987) and that organizations can use HRM practices to create an atmosphere that encourages OCBs (Morrison, 1996; Organ, Podsakoff, MacKenzie, 2006; Skarlicki & Latham, 1996). Organizations use systems of HRM practices to establish employment relationships with their employees rather than isolated HRM practices which are less powerful in defining such relationships (Delery, 1998; Tsui, Pearce, Porter, & Tripoli, 1997). Moreover, given that HRM practices seldom work in isolation, and the effectiveness of each HR practice often depends on the other practices (Lepak, Liao, Chung, & Harden, 2006; Wright & Boswell, 2002), scholars have long recognized the utility of a systematic examination of HRM

practices over isolated practices (Delery, 1998; Huselid, 1995). For these reasons, I focus on the effects of high performance work systems (HPWS)—a group of separate but interconnected HRM practices that are designed to improve employees' competence, attitudes, and motivation in order to enhance employee and organizational performance (Huselid, 1995)—on employees' OCB role definition.

Building on Morrison's (1994) role enlargement process where employees with more positive attitudes toward organizations first expand their job requirements to include OCB, which, in turn, motivate them to perform OCB more frequently, I seek to examine the mediating effect of employees' role definition between HPWS and their OCB. This examination contributes to the existing OCB literature by addressing the calls to explore the influences of organizational practices on employee OCB role definition, as previously noted. An investigation of this nature also responds to the trend in the HPWS literature by exploring beyond the direct HPWS-OCB relationship (Messersmith, Patel, & Lepak, 2011; Snape & Redman, 2010) and investigating OCB role definition as a primary mediating variable linking HPWS to OCB. However, scholars have argued that expecting discretionary OCBs to increase following implementation of a HPWS may not produce enduring increases in OCB (Messersmith et al., 2011). A central premise of the current dissertation is that an enduring sustainable impact of HPWS on OCB is most likely when the HPWS

broadens employees' role definitions to include what is typically considered OCB.

To further explore the influences that HPWS have on employees' OCB role definition, I aim to capture a more complete understanding of the underlying processes between HPWS and OCB role definition. In other words, *how*, *why* and *when* do HPWS cause employees to expand their job requirements to include OCBs? To answer the questions of *how* and *why*, I propose two processes for this relationship — namely, by examining the “employment relationship” and “ability-motivation-opportunity (AMO)” frameworks — both of which are affected by HPWS and to affect employee OCBs (Frenkel & Sanders, 2006; Jiang, Lepak, Hu, & Baer, 2012; Riketta, 2005; Takeuchi, Lepak, Wang, & Takeuchi, 2007; Tsui et al., 1997). First, in terms of employment relationship, I plan to adopt social exchange (Shore, Tetrick, Lynch, & Barksdale, 2006) and organizational identification (Ashforth & Mael, 1989) perspectives to suggest that HPWS cause employees to regard OCBs as in-role because either employees feel obligated as the result of HPWS to expand their job boundaries; or HPWS intensify a sense of oneness with the organization among employees, thereby resulting in employees adopting their organization's goals as their own.

Second, with regard to the AMO framework of HRM (Boxall & Purcell, 2003; Jiang et al., 2012), the researchers suggest that HPWS enhance employees' ability,

motivation, and opportunity to perform, which, in turn, lead to positive organizational outcomes. Moreover, previous OCB literature has highlighted the complexities and difficulties of OCBs and has argued that motivation alone does not guarantee that employees will perform OCBs; employees also need to have the ability and opportunity to perform OCBs (Zellars & Tepper, 2003). Thus, I plan to examine the influence processes of HPWS on employees' OCB role definition; specifically examining associations between HPWS' and employees' perceived ability (efficacy perceptions), motivation (instrumentality perceptions), and opportunity (job autonomy perceptions) to perform OCB.

In a review of trust research, Dirks and Ferrin (2001) proposed that trust has both direct and indirect effects on desirable outcomes, such as OCBs. On one hand, past research has shown that the quality of relationship with supervisors is related to expanded employee OCB role definition (e.g., Hofmann et al., 2003; Kamdar et al., 2006; Van Dyne, Kamdar, & Joireman, 2008). On the other hand, employees' trust in the leadership can moderate how employees interpret HRM practices (e.g., Alfes, Shantz, & Truss, 2012; Innocenti, Pilati, & Peluso, 2011). Thus, to answer the question of *when* do HPWS influence employees to include OCBs within their job role definition, I expect the extent to which employees trust their supervisors plays a critical role in expanding employee job role definitions and in strengthening how

employees perceive HPWS implemented by the organization and their OCB role definitions.

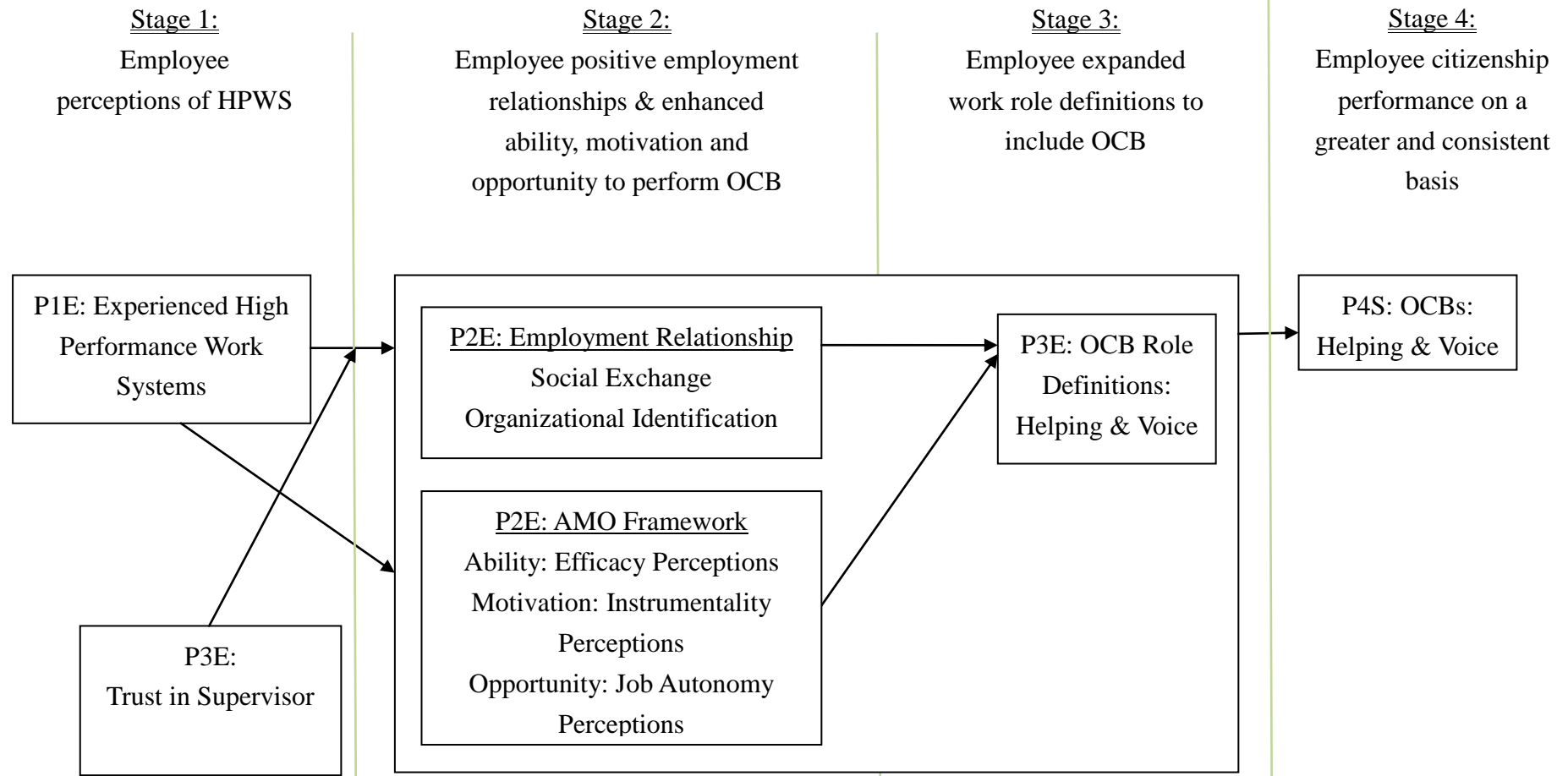
Traditionally, SHRM research has mostly adopted a macro-level approach to investigating the impact of HR practices using the organization as the focus of analysis (Lepak et al., 2006; Wright & Boswell, 2002). In most studies, one key informant from each organization provided the information about HR practices in his or her organization. However, in the present dissertation, the level of focus is employee experience of HPWS for two reasons. First, assuming uniformity in the use of HRM practices within the organization is troublesome (Wright & Boswell, 2002). For example, in a review of the HPWS literature, Lepak and his colleagues (2006) stressed that organizations may use different HRM practices to manage different employee groups in the organization at the same time because different employees are of different strategic value to the organization. Lawler (2005) noted that today's organizations do not have a single contract, but rather several contracts, to manage the diversity of their organizational needs. Consistent with this, researchers have also provided empirical evidence to suggest that each employee experiences HR practices differently and employee experience of HPWS are proximal determinants of individual attitudes and behaviors (Liao, Toya, Lepak, & Hong, 2009; Nishii, Lepak, & Schneider, 2008). Thus, researchers have argued that when examining the effects of

HPWS on employee-level outcomes, it is best to examine employee experience of HPWS (Jensen, Patel, & Messersmith, 2013). Second, employee role perceptions and definitions toward OCBs are idiosyncratic in nature (Dierdorff et al., 2012; McAllister et al., 2007; Tepper et al., 2001; Van Dyne et al., 2008) such that even employees in the same job will differ in how they define OCBs as part of the job.

As can be seen in Figure 1, taken collectively, it is proposed here that employee OCB role definitions mediate the effects of experienced HPWS on actual employee OCBs, and employee social exchange, organizational identification, as well as efficacy, instrumentality, and autonomy perceptions to perform OCBs mediate the relationships between experienced HPWS and employee OCB role definitions. Further, trust in supervisor is expected to have main and interactive effects on employee OCB role definitions.

I now briefly review the literature on HPWS and OCB, respectively, and follow this with a discussion of studies reporting HPWS-OCB associations. Next, I build a case for OCB role definition as a mediator of associations between HPWS and OCB. Subsequently, I explicate the processes by which HPWSs affect OCB role definitions.

Figure 1. Theoretical model of the job role enlargement process resulting from experienced HPWS.



Note. P1E: Phase 1 employee survey; P2E: Phase 2 employee survey; P3E: Phase 3 employee survey; P4S: Phase 4 supervisor evaluations.

## **Chapter 2**

### **Theoretical Background and Hypotheses**

#### **HPWS**

In light of the significant organizational and market changes over the past few decades, scholars in the SHRM field have made considerable progress towards understanding how a system of HRM practices contributes to organizational performance and competitiveness. Unlike traditional HRM studies, SHRM research (Becker & Huselid, 2006) emphasizes the impact of the overall HR system on firm-level performance outcome (e.g., return on asset and gross return on assets) as opposed to the effects of individual HRM practices (e.g., training) on individual-level outcomes (e.g., turnover and task performance). As a field, SHRM holds the following two primary assumptions. First, the resource based view of the firm (Barney, 1991) suggests that a primary source of competitive advantage for an organization that explains performance differences is its human capital pool and how it is managed through HRM practices. Organizations possessing valuable resources that other competitors cannot easily imitate will outperform others. Second, a system of synergistic and mutually reinforcing HRM practices can deliver greater impacts than the sum of individual practices (Huselid, 1995). Support for these two assumptions was found in a meta-analysis by Combs and his colleagues (Combs, Liu, Hall, &



Ketchen, 2006).

To further develop our understanding of how HR systems enhance organizational performance, scholars in the field have proposed a number of different HR systems, for example, high commitment (Arthur, 1994) and high involvement (Patterson, West, & Wall, 2004) systems. More recently, scholars have suggested that HPWS not only include both characteristics of high commitment and high involvement systems but also are larger in scope (Zacharatos, Barling, & Iverson, 2005). It is therefore not surprising that HPWS have received the most scholarly attention owing to their performance-enhancing nature (Combs et al., 2006; Lepak et al., 2006). In this vein, researchers have examined the use of HPWS to improve employees' knowledge, skills, and abilities (KSAs), motivate employees to use those KSAs, and empower them to contribute in ways that would not only increase employee performance but also enhance organizational performance (Becker & Huselid, 1998). A growing body of research has provided support for this claim, linking the use of HPWS with both operational and financial measures of organizational performance. In the operational domain, studies have demonstrated the importance of HPWS in enhancing employee productivity and lowering turnover rates (Arthur, 1994; Huselid, 1995). In the financial domain, many studies have documented the significance of HPWS as a determinant of return on equity and return on asset (Delery & Doty, 1996) and firm

market value (Huselid, 1995). Several meta-analyses have confirmed the relationship between the use of HPWS and these operational and financial outcomes (Combs et al., 2006; Jiang et al., 2012; Subramony, 2009). For instance, Combs et al. (2006) found that a one standard deviation increase in the level of HPWS was associated with a 4.6% increase in return on assets and 4.4% decrease in turnover.

Notably, although disagreement remains among researchers regarding what HRM practices should be included in HRM systems (Becker & Gerhart, 1996; Dyer & Reeves, 1995), more recently it seems scholars have generally reached a consensus on the nature and categorization of practices. To contribute to performance outcomes, it is normally agreed that HPWS should include mutually reinforcing HRM practices aimed at promoting workforce ability, motivation, and opportunity to create value (Lepak et al., 2006; Wright & Boswell, 2002). Meta-analyses (Combs et al., 2006; Jiang et al., 2012) supported that HRM practices can be summarized along these three dimensions. However, another issue that remains prominent in the SHRM literature is the identification of the intermediate linkages through which HPWS influence organizational performance (Batt, 2002; Becker & Gerhart, 1996; Bowen & Ostroff, 2004; Guest, 1997; Lepak et al., 2006), such as market, financial, and organizational performance. Given that organizations use HRM practices to establish employment relationships with their employees (Rousseau, 1995; Tsui et al., 1997), scholars have

often suggested that one way to uncover the “black box” linking HPWS and performance is to examine how HPWS influence individual employees (Collins & Smith, 2006; Evans & Davis, 2005; Snape & Redman, 2010; Takeuchi et al., 2007; Wright & Boswell, 2002).

One stream of research (e.g., Evans & Davis, 2005; Messersmith et al., 2011; Sun et al., 2007) has sought to understand the relationship between HPWS and organizational performance through employees’ behaviors that go beyond their normally prescribed roles, such as OCB. Next, I briefly review research on OCB and empirical studies of relationships between HPWSs and OCB.

## **OCB**

The root of the OCB literature can be dated back to the early works of Barnard (1938) and Katz (1964), which underscored the importance of “willingness to cooperate” and “innovative and spontaneous behaviors” for organizational survival and effectiveness. However, it was only after Organ and his colleagues (Bateman & Organ, 1983; Smith, Organ, & Near, 1983) first introduced the term OCB in the early 1980s to describe these behaviors that greater scholarly and practical attention to this topic rose drastically. In his original description, Organ (1988) defined OCBs as employee discretionary behaviors that are not directly or formally rewarded by the

organization, but which, in the aggregate, contribute to organizational effectiveness. However, in light of research showing that some managers and employees consider OCBs to be part of an employee's role responsibilities (Lam et al., 1999; Morrison, 1994), Organ (1997: 88) suggested that, "It would be preferable to avoid, if we could, reference to extra-role behavior in defining OCB."

There is ample empirical evidence for the effects of OCB on employee effectiveness such as job satisfaction (Bateman & Organ, 1983) and job performance (MacKenzie, Podsakoff, & Fetter, 1991), on group performance such as group production quantity and quality (Podsakoff, Ahearne, & MacKenzie, 1997); and on organizational outcomes such as customer service quality (Dunlop & Lee, 2004) and profitability (Koys, 2001). A recent meta-analysis provided further support for the importance of OCB in predicting various important outcomes for organizations (Podsakoff et al., 2009). Given the importance of OCB as mentioned above, a great deal has been written in the field on identifying the variables that may predict employee citizenship performance. Several meta-analyses have documented the relationships between employee-level variables and OCB, such as personality traits (Chiaburu et al., 2011), justice perceptions (Fassina, Jones, & Uggerslev, 2008), job satisfaction (Organ & Ryan, 1995), leader member exchange (Ilies et al., 2007), organizational commitment (Lepine et al., 2002), role stressors (Eatough, Chang,

Miloslavic, & Johnson, 2011), trust (Colquitt, Scott, & LePine, 2007), and perceived organizational support (Rhoades & Eisenberger, 2002).

However, despite this wealth of research, in a comprehensive review of the OCB literature, Podsakoff and his colleagues (Podsakoff, Mackenzie, Paine, & Bachrach, 2000) identified approximately 30 forms of OCB and noted distinctions among them with respect to their antecedents or consequences. They thus suggested that future researchers focus on different forms of OCB rather than OCB in general. In this thesis I emphasize both affiliative- and challenging-oriented citizenship behaviors (Van Dyne, Cummings, & McLean-Parks, 1995). Affiliative OCBs are interpersonal, cooperative, and noncontroversial. They are the spontaneous acts that strengthen relationships. Challenging OCBs are change oriented and focus on the possibility of improved ways of doing things. Both of them are important components of employee citizenship behavior and have been found to foster the effective functioning of the organization (Organ et al., 2006). In particular, I investigate helping behaviors towards colleagues as an example of affiliative OCB and voice as an example of challenging OCB.

Helping behaviors are voluntary and cooperative actions aimed at helping another person with a work problem (Organ, 1990). They build and maintain relationships and they emphasize interpersonal harmony in the workplace (Van Dyne

& LePine, 1998). Scholars have suggested that the role of helping behaviors in today's organizations is likely to be especially valuable as organizations become less hierarchical and more flexible (Frenkel & Sanders, 2006). Voice has been defined as "promotive behavior that emphasizes expression of constructive challenge intended to improve rather than merely criticize" (Van Dyne & LePine, 1998: 109). It challenges the status quo and attempts to promote positive organizational change. Thus, it is likely to involve more risk than altruistic behaviors (Lepine & Van Dyne, 2001), such as helping. For the organization, LePine and Van Dyne (1998) argued that as organizations continue to strive for innovation and continuous improvement, voice has become an important issue. For the employee, a meta-analysis by Ng and Feldman (2012) has demonstrated the positive impact of voice on employee performance outcomes, such as other-rated in-role performance and creativity.

Jiao et al.'s (2013) meta-analytic findings demonstrate that helping behaviors are more likely to be considered as part of one's job than is voice. Therefore, inclusion of citizenship behaviors both broadens consideration of OCB beyond altruistic helping behaviors, which have dominated this literature, and responds to the call by Jiao et al. (2013) to study the effects of HRM practices on employees' role definitions that encompass voice.

Moreover, scholars have bemoaned our scant knowledge of how (i.e. the

processes by which) HRM practices, including HPWS, relate to OCB (Morrison, 1996; Organ et al., 2006). Such concerns have motivated studies examining the effects of HPWS, which I now turn to.

### **Research Examining Relationships between HPWS and OCB**

Only a few studies have examined the relationship between the use of HPWS and employee citizenship performance. From 81 hotels in China, Sun and his colleagues (2007) found that high-performance HRM practices, rated by the HR manager of each hotel, were positively related to service-oriented OCB, measured by supervisors of frontline subordinates. Moreover, they found that service-oriented OCB partially mediated the relationship between high-performance HRM practices and hotel productivity and turnover, as evaluated by HR managers. In a sample of 454 firms in China, Gong and his associates (2010) reported that HPWS, as rated by the HR manager of each firm, related positively to collective OCB, as mediated through the collective affective commitment of middle managers. HPWS, OCB, and affective commitment were all evaluated at the middle manager level.

Snape and Redman (2010) found the cross-level effects of HPWS at the workplace level, measured by the HR manager of each workplace, were positively related to employee OCBs through employee perceived job influence. Employee

perceived job influence and OCBs were both rated by employees in the workplaces.

The sample consisted of 519 employees from 28 workplaces in the United Kingdom.

In a large sample of managers and employees from 91 public service departments in

Wales, Messersmith and his colleagues (2011) found that the aggregate level of OCBs

of employees in the department partially mediated the relationship between managers'

ratings of HPWS (at the department level), and departmental performance.

Furthermore, the relationship between HPWS at the department level and aggregate

OCB was partially mediated by the aggregate levels of employee job satisfaction,

organizational commitment, and psychological empowerment. Finally, in a study of

employees at a large multiunit food service organization, Kehoe and Wright (2013)

found that the relationship between employees' perceptions of HPWS at the job group

level and employee citizenship behaviors was partially mediated by employee

affective commitment.

From these studies examining HPWS and OCB, several concerns emerge. First, two of them (Kehoe & Wright, 2013; Snape & Redman, 2010) relied on single-source data, which may result in an overstatement of relationships among the variables.

Second, because all of the above studies employed cross-sectional designs, issues

regarding causality remain unanswered. For instance, less committed and less

satisfied employees may consider their employment relationship with the organization



to be purely transactional which could influence the way they perceive the use of HRM practices in their workplace. Third, previous studies linking HPWS and OCB depended solely on social exchange process explanations, in which employees are obligated to reciprocate the organization's investments with discretionary actions that benefit the organization. Researchers have called for exploring other explanations for the effects of HPWS on OCB (e.g., Snape & Redman, 2010).

Fourth, these studies examined only an employee's motivation (e.g., organizational commitment) to perform OCB and have yet to examine the influences of an employee's ability and opportunity to perform OCB. Researchers (e.g., Zellars & Tepper, 2003) have pointed out that such neglect is common in the OCB literature. Especially in today's rapidly changing organizational context, employees need also the ability and the opportunity to perform OCB. Finally, Messersmith and her colleagues (2011) have noted the challenge of studies linking HPWS to organizational performance through OCB that might result from relying on discretionary actions from employees as a source of competitive advantage. Thus, the important question that remains to be addressed is whether employee OCB can be sustained over time as the results of HPWS.

The present dissertation aims to address these methodological and theoretical issues; and it examines OCB role definition as a mediator of the relationship between

perceptions of HPWSs and actual employee OCBs. First, I consider the research evidence on the effects of employee definition of OCBs as in-role in the OCB literature.

### **The Potential Benefits of OCB as In-Role**

Theoretically, Coyle-Shapiro and colleague (2004) argued that employees who perceived OCB as in-role are more likely to perform OCB on a continuing basis. Empirically, the most commonly identified outcome of employee OCB in-role definition has long been employees are more likely to engage in OCBs when they define them as in-role, rather than extra-role (Morrison, 1994). This argument has received considerable support in the literature (Chiaburu & Byrne, 2009; Coyle-Shapiro et al., 2004; Coyle-Shapiro & Kessler, 2002; Hofmann et al., 2003; McAllister et al., 2007; Tangirala, Kamdar, Venkataramani, & Parke, 2013; Tepper & Taylor, 2003; Vey & Campbell, 2004; Zellars et al., 2002). More recently, Jiao and his colleagues (Jiao et al., 2013) report the meta-analytic evidence supporting the argument that employee OCB in-role definition is a predictor of actual employee OCBs, such as both supervisor- and self-rated helping and voice.

In addition to the aforementioned research, there is also a stream of work that explores various interactive effects of employee role definition on important

organizational phenomena. For example, Zellars et al. (2002) found that abused employees were not likely to withhold their OCBs when they defined OCBs as in-role rather than extra-role. Van Dyne et al. (2008) found employee OCB in-role definition make up for the negative impact of low leader-member exchange relationship on employee helping, and increase the positive impact of high leader-member exchange relationship on employee voice. In other words, employee helping was lower only when employee reported lower levels of leader-member exchange and considered helping as extra-role, and employee voice was higher only when employee reported higher levels of leader-member exchange and considered voice as in-role. Other researchers (Kamdar et al., 2006; Tepper et al., 2001; Zellars et al., 2002) also found employees engaged in OCB least when they perceived procedural injustice and defined OCB as extra-role. It should be noted that I do not wish to promote poor-quality supervision nor unfair employee treatment at this point, but to focus on the benefits of employee OCB in-role definition, such as higher levels of OCBs that are associated with desirable organizational outcomes (e.g., Jiao et al., 2013) and the ability to enhance the positive effects of employee perceptions like high-quality leader-member exchange (e.g., Van Dyne et al., 2008).

## **Influence of HPWS on OCB through Broadened Role Perceptions**

To the extent that employee OCB symbolizes a source of competitive advantage and OCB in-role definition leads to higher levels of employee OCBs, I believe there are both theoretical and empirical reasons to argue that HPWS may be viewed as an organization's strategy to send consistent and reinforcing messages to employees that prompt them to expand work roles to include the citizenship behaviors typically assumed to be extra-role.

Based on role making, psychological contract, and social information processing theoretical frameworks, Morrison (1994) suggested the following three reasons for employee OCB role definitions changing over time. First, job requirements in organizations are rarely fixed. Second, employees' and employers' perceptions of employment obligations differ substantially from one another. Third, jobs are socially constructed over time in which employees constantly make sense of informational cues from their social contexts in organizations. Research on psychological contracts lends support to the reasons noted above. Rousseau (1995) and Guest (1998) noted that HRM practices often convey messages from the organization that employees use to define the employee-organization exchange relationship and mutual expectations.

Further, Bowen and Ostroff (2004: 213) argued that, "An HRM system high in distinctiveness, consistency, and consensus should enhance clarity of interpretation in

the setting,...as well as to create an *influence situation* whereby individuals yield to the message and understand the appropriate ways of behaving.” HRM practices can also communicate what the desired behaviors are and the incentives and outcomes associated with the behaviors (Bowen & Ostroff, 2004). In line with this reasoning, the behavioral perspective of SHRM suggests that organizations use HRM practices as a means to communicate, elicit, and sustain needed employee behaviors (Jackson et al., 1989; Schuler & Jackson, 1987), such as OCBs (Snape & Redman, 2010). Similarly, Pfeffer’s (1981) symbolic action perspective argued that HRM practices operate at a symbolic level and communicate to employees the desired role behaviors. From the citizenship behavior standpoint, Organ (1997: 88) made a comparable point, noting that OCBs “evolve as a function of expectations and role-sending.” Following these contentions and findings, I argue that strong HPWS could significantly influence the boundaries employees place around their work roles, particularly in the area of citizenship behaviors. Next, I discuss how HRM practices that constitute HPWS may individually and collectively expand employee OCB role definition.

Selective staffing allows organizations to incorporate the value of citizenship behaviors into their staffing processes to select the right job applicants on the basis of not only their tendency to display citizenship behaviors (Allen, Fecteau, & Fecteau, 2004; Latham & Skarlicki, 1995; Podsakoff, Whiting, Podsakoff, & Mishra, 2011),

but also the extent to which they consider OCB as part of the job (Jiao et al., 2013; Kamdar et al., 2006). Practices such as personality tests, structured interviews, job samples, and realistic job previews convey messages to employees to expect OCB more as a role obligation. For example, behavioral interview questions like “tell me about a time that you helped a new employee with a work-related problem (Podsakoff et al., 2011)” or situational interview questions like “what would you do if your innovative suggestion to improve the current operating procedure was not received well?” can send a message to potential employees that organizations value the exercise of helping and voice, and consider it to be part of the job.

On the other hand, organizations can use training practices to encourage employees to extend their abilities and be confident to perform the broader roles (Organ et al., 2006; Sonnentag & Grant, 2012), and to prompt them to consider OCBs as parts of their jobs (Kamdar et al., 2006; Tepper & Taylor, 2003). Formal or informal training programs emphasize the importance of OCBs with regard to personal benefits (e.g., promotability) and organizational success (e.g., workplace efficiency). On this basis, organizations directly conceptualize OCBs as behaviors needed for successful role performance.

Opportunity-related practices such as information sharing, working in teams, and participation may be viewed as an organization’s commitment to autonomy,

interdependence, and social support, which in turn is related to the extent to which employees develop feelings of organizational obligation (Van Dyne et al., 1994), feel their jobs as intrinsically rewarding (Appelbaum, Bailey, Berg, & Kalleberg, 2000), and consider OCB as central to their performance (Dierdorff et al., 2012). In addition, participation practices suggest that organizations provide greater discretion for employees to participate in decisions and to suggest improvements, which leads to the development of broader OCB role definitions among employees.

Performance appraisal and contingent compensation allow organizations to signal unambiguously which employee actions are valued. Two meta-analyses (Podsakoff et al., 2009; Podsakoff, Mackenzie, Paine, & Bachrach, 2000) provided meta-analytic evidence that citizenship behaviors account for as much weight for employee performance appraisal as task performance, and influence supervisors' decisions about rewards, promotions, and training opportunities. Previous research has also shown employee helping and voice behaviors to have incremental effects on performance appraisal evaluations even when task performance was considered simultaneously (Whiting, Podsakoff, & Pierce, 2008). Employees who engaged in OCBs as part of their jobs may receive more favorable evaluations from their organizations (Tepper et al., 2001). Dierdorff et al. (2012) argued and found that employees who believe OCBs are important for successful role performance engage

in greater OCBs, as rated by supervisors. Collectively, practices such as performance appraisal and contingent compensation infer that organizations value OCBs and perceive them to be part of employees' job responsibilities which, in turn, cause employees to define OCBs as part of the job in order to obtain positive evaluations and rewards (Morrison, 1994; Podsakoff et al., 2000). Considering this information, contingent compensation and performance appraisal are going to generate greater synergistic impact on employee OCB role definition when they are associated with job security and internal promotion.

As was noted earlier, the effectiveness of one HR practice depends greatly on the application of other practices to send consistent messages to employees. For instance, organizations that incorporate the significance of OCB into their selection processes, but assess and reward only task performance are likely to send confusing messages to employees about organizations' role expectations concerning OCB and are unlikely to broaden employee OCB role definitions. Jiao and colleagues (2013) provided meta-analytic evidence that OCB role definition was the strongest predictor of citizenship behaviors. Thus, it is reasonable to predict that HPWS will create greater employee citizenship behaviors as the result of an expanded employee OCB role definition.



*Hypothesis 1a:* Employees' experience of HPWS will be positively related to the degree to which they include helping within their job role definition.

*Hypothesis 1b:* Employees' experience of HPWS will be positively related to the degree to which they include voice within their job role definition.

*Hypothesis 1c:* Employee helping role definition (i.e., the degree to which they include helping within their job role definition) will mediate the positive relationship between employees' experience of HPWS and their helping behaviors.

*Hypothesis 1d:* Employee voice role definition (i.e., the degree to which they include voice within their job role definition) will mediate the positive relationship between employees' experience of HPWS and their exercise of voice.

To explore the underlying mechanisms that link HPWS to employee OCB role definition, I will discuss two employee attitudes — social exchange and organizational identification — that have been shown to be both affected by HPWS and to influence employee OCBs.

## **The Mediating Influence of Social Exchange on the HPWS-OCB Role**

### **Definition**

Building on Blau's (1964) concept of social exchange and the norm of reciprocity (Gouldner, 1960), social exchange theorists suggest that employees tend to reciprocate the organization's inducements in positive ways (Cropanzano & Mitchell, 2005; Wayne, Shore, & Liden, 1997). In support of this argument, scholars have operationalized a number of constructs to capture the extent of social exchange between employee and organization, such as perceived organizational support (Robert Eisenberger, Huntington, Hutchison, & Sowa, 1986), affective commitment (Meyer & Allen, 1997), and psychological contract (Rousseau, 1995). More recently, researchers (e.g., Shore et al., 2006) have argued that these constructs only captured limited exchanges that occur between employees and employers and suggested that a more complete and parsimonious approach is to examine the employee perspective of shared investment, trust, and long-term relationship with the organization.

There are both theoretical and empirical grounds to claim that HPWS influence an employee's social exchange relationship with the organization. As noted earlier, organizations use HRM practices to shape employee perceptions. Practices in HPWS, such as job security, participation, training and development opportunities, and internal promotion, reflect the extent to which the organization values its employees

(Tsui et al., 1997). For instance, extensive training programs signal the organization's commitment to trust and invest in employees. Shore and Shore (1995) argued that training and development practices satisfy employees' developmental and recognition needs. Such perceptions lead employees to consider themselves as being in a social exchange relationship with the organization. Therefore, it is intuitively obvious that HPWS will foster the employee's perception of their relationship with their organization as being mutually invested, trustworthy, and enduring. These perceptions lead to the formation of social exchange between an employee and the organization (Shore et al., 2006). Evidence from across the globe shows that HPWS is associated with enhanced social exchange perceptions among employees. For example, in the United States, Collins and Smith (2006) found that commitment-based HRM practices, such as incentives, training and development, and selection, influence the development of organizational social exchange climates. Takeuchi and his colleagues (2007) found a strong positive link between the use of HPWS in Japanese organizations and aggregated employee perceptions of social exchange. In China, Hom and his associates (2009) found that middle managers' mutual investment relationship with the organization is associated with greater social exchange than under-investment.

A stronger social exchange with the organization is likely to not only motivate

employees to reciprocate with OCBs that benefit the organization but to also generate a greater obligation among employees to consider these OCBs as part of the job to help their organization. There are several good reasons to argue that social exchange may influence how employees report OCBs as part of their formal role. First, there is some indirect evidence from other constructs based on social exchange principles.

Within the literature of psychological contract, studies found that employees do reciprocate a supportive work environment cognitively through expanding their job obligations to include helping behaviors (Coyle-Shapiro & Kessler, 2002; Robinson, Kraatz, & Rousseau, 1994; Shih & Chen, 2011). Empirical evidence also suggests that employees expand their work role boundaries to include helping and voice behaviors as a way to reciprocate perceived organizational support (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001), leader-member exchange (Hofmann et al., 2003), and organizational commitment (Chiaburu & Byrne, 2009; Coyle-Shapiro et al., 2004).

Second, social exchange implies a long-term and continuous relationship between employees and the organization (Shore et al., 2006) and thus employees “who desire to maintain mutually beneficial social exchange relationships are careful to meet partner expectations, and they consider such behavior a role obligation within the relationship irrespective of whether it is formally prescribed (Kamdar et al., 2006:

842)'' On this basis, I argue that employees who perceive their relationship with the organization in terms of social exchange are more likely to shape their roles based on what they think the organization expects and to consider OCBs to be role-defined because of the positive association between OCBs and organizational effectiveness.

Taken together, HPWS signal an organization's long-term commitment of time and resources in employees, which causes employees to view their employment relationship with the organization as social, as opposed to economic, thereby causing employees to incorporate OCBs into their role set.

*Hypothesis 2a:* Employee social exchange will mediate the positive relationship between employees' experience of HPWS and helping role definition.

*Hypothesis 2b:* Employee social exchange will mediate the positive relationship between employees' experience of HPWS and voice role definition.

Models of social exchange provide a strong foundation to understand the effects of HPWS on employee behaviors as well as the motivational basis for OCB. However, scholars have also noted an over-reliance of social exchange theory in both HPWS and citizenship research (Coyle-Shapiro & Conway, 2004; Snape & Redman, 2010;

Zeller & Tepper, 2003). In a parallel argument, Kehoe and Wright (2013) have suggested the possibility of other attitudinal factors, independent of social exchange framework, explain the effects of experienced HPWS on employee OCBs. van Knippenberg and Sleebos (2006) suggested that the social identity approach (e.g. as captured in organizational identification) would complement the social exchange approach in shedding more light on certain facets of the organization-employee relationship that may be best understood by both perspectives. Next, I am responding to these calls to go beyond social exchange theory by discussing the role of organizational identification.

### **The Mediating Influence of Organizational Identification on the HPWS-OCB Role Definition Relationship**

Organizational identification is the perception of oneness with the organization (Ashforth & Mael, 1989). The construct has its roots in both social identity and self-categorization theories (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). It suggests that people strive for a positive self-concept and they not only define themselves in terms of individual characteristics, but also on the basis of their membership in social groups and the value associated with that membership. Being a member of an organization provides a partial answer to the essential question

of “who I am?” because it serves the individual’s needs for belonging, safety, uncertainty reduction, and self-enhancement (Ashforth & Mael, 1989; Pratt, 1998). Therefore, the stronger the identification with the organization, the more people will think from the organization’s perspective and act on what is best for the organization (Mael & Ashforth, 1992; van Knippenberg, 2000). The organization’s perspective and interest is then experienced as self-interest and people become psychologically intertwined with the fate of the organization. A meta-analysis by Riketta (2005) has demonstrated the desirable effects of organizational identification on a variety of valuable positive outcomes, such as job satisfaction, job involvement, turnover intention, task performance and OCB. Moreover in a comprehensive study that involved multiple samples from different occupational groups and countries, as well as a longitudinal design, researchers found organizational identification to be consistently associated with higher levels of helping colleagues and making suggestions at work (Van Dick, Grojean, Christ, & Wieseke, 2006)

Researchers have argued that organizations can provide features that distinguish themselves from other organizations as a means to enhance their members’ organizational identification (Dutton, Dukerich, & Harquail, 1994). Many studies have demonstrated that HRM practices are likely to increase the extent to which employees identify with the organization, especially by satisfying the individual

employee's concern for belonging, safety, uncertainty reduction, and self-enhancement. For example, Liu and his associates (2012) argued that participation allows employees to minimize the uncertainties associated with the decision-making process supporting a positive relationship between participation and psychological ownership. Rigorous and selective staffing practices may cause those being selected to consider their organization as the one that outsiders hold in high regard. Employees are more likely to identify with an organization that has perceived external prestige because they see themselves as a member of a prestigious social group, which enhances their self-esteem and satisfies their needs for self-enhancement (Dutton et al., 1994; Smidts, Pruyn, & Riel, 2001). Job security, internal promotion, and career development are likely to meet employees' concern of safety (Guest, 1999), which then leads to organizational identification (Ashforth & Mael, 1989). Studies found that communication practices communicate organizational information that employees can use to distinguish their organization from others, which then is related to organizational identification (Bartels, Peters, Jong, Pruyn, & van der Molen, 2010; Smidts et al., 2001).

With regard to information sharing, it is likely that when the department keeps employees informed about organizational objectives, employees will find deeper meaning associated with the organization and build stronger identification with it



(Morrison, 1996). More information allows employees to see how their work roles contribute to the collective goals of the organization. On the contrary, lack of communication practices may cause confusion and make it complicated for employees to identify with the organization. Moreover, extensive training, rewards, and performance appraisals will meet the employees' needs for personal enhancement. These practices will also satisfy one's sense of belonging and uncertainty reduction because they allow employees to understand what is expected of them (Lawler, 1989).

Organizational identification brings out a sense of oneness with or belonging to the organization, which makes employees who are highly identified take on the organization's goals and objectives as their own. For at least three reasons, I argue that this psychological linkage with the organization is likely to cause employees to consider OCBs that benefit the organization as part of the job. First, organizational identification reflects the extent to which the organizational interest is experienced as self-interest and employees become internally motivated to act on the organization's interest (Ashforth & Mael, 1989; Van Knippenberg & Ellemers, 2003). As a consequence, it appears that employees who are highly identified with the organization are more likely to internalize helping and voice behaviors than employees who weakly identify with the organization. Those highly identified with the organization regard helping other coworkers with work-related problems as an

expected part of their job because organizational membership enhances part of their self-concept. Empirical evidence supports this notion, as researchers have found that employee's organization identification was positively associated with greater OCB role definitions (Jiao & Hackett, 2007). Second, when employees define themselves at least partly in terms of their membership in the organization, the organization's success and failure become their own success and failure (Ashforth & Mael, 1989). For that reason, identification should provide a strong motive for employees to treat voice behaviors as part of the job, as employees see providing constructive suggestions to improve workplace effectiveness as their own effectiveness. Third, indirect evidence from the emotional labor research literature showing that employees highly identified with the organization are more likely to internalize organizationally desired feelings during customer interactions, instead of surface acting (Mishra, Bhatnagar, D'Cruz, & Noronha, 2012), suggesting that those highly identified can also be expected to internally broaden their work responsibilities to include OCBs.

Based on the above discussion, HPWS are likely to strengthen employees' sense of belonging to their organization, safety, self-development and contribution, thereby nourishing organizational identification. It thus seems plausible that employees will include OCBs (i.e. helping and voice) within their work role when organizational identification is high.

*Hypothesis 3a:* Employee organizational identification will mediate the positive relationship between employees' experience of HPWS and helping role definition.

*Hypothesis 3b:* Employee organizational identification will mediate the positive relationship between employees' experience of HPWS and voice role definition.

In the next section, I discuss how HPWS is likely to expand employee role definition through providing employees with the abilities, motivation, and opportunities to perform OCB.

### **Ability, Motivation, and Opportunity as Mediators of the HPWS-OCB Role Definition Relationship**

Most studies in the OCB literature examined an employee's motivation to perform OCB (e.g., Coyle-Shapiro et al., 2004; Zellars & Tepper, 2003). However, equally important but under-researched is that an employee must also believe in his or her ability to perform OCB and have the opportunity to engage in such behaviour. Consistent with this view, researchers (Gong et al., 2010; Snape & Redman, 2010) have called for attention to examine how HPWS influence employees' abilities (A),

motivation (M), and opportunities (O) to carry out OCB. Consequently, I apply this AMO framework to examine the influence of HPWS on employee OCB role definition, as mediated through employee abilities, motivation, and opportunities to perform OCB. In particular, I examine efficacy perceptions as employee abilities, instrumentality perceptions as employee motivation, and job autonomy perceptions as employee opportunity to perform helping and voice behaviors.

I argue employee ability, motivation, and opportunity to perform OCB are more likely to act as mediators, rather than moderators, of the relationship between HPWS and employee OCB role definitions. First, it is generally agreed in the SHRM literature that HPWS affect organization performance through increasing employees' ability to perform by way of providing KSAOs, motivation to perform by giving them incentives and rewards, and opportunities to perform, which together enhance employee involvement, participation, and empowerment (Jiang et al., 2012). Moreover, from the perspective of role theory, Morgeson et al. (2005) argued that employees sharing the same job title may conceptualize their work roles very differently and that limitations in abilities and opportunities to perform will cause employees to limit how they define their job roles. Their reasoning is as follows. First, if employees are unable to successfully complete their tasks it is unlikely that these tasks will be fully integrated into their perceived work role. Thus, broadening of an

employee's perceived job role requires that the employee be able to perform the tasks he or she considers part of that role. Second, research shows that providing greater opportunity for building additional behaviors into one's job role associates positively with expanded role definitions. Third, employees with higher levels of abilities are likely to receive enhanced role expectations from their supervisors, which will lead to expanded job role definitions taken up by the employee.

I now build a case for employee efficacy, instrumentality, and job autonomy perceptions as mediators between HPWS and expanded job role definitions that include greater levels of helping and voice.

**Efficacy perceptions.** Employee efficacy perceptions refer to employee beliefs about their competence to perform OCB (McAllister et al., 2007). Rooted in Bandura's (1977) social learning theory, acquisition of knowledge, skills, and abilities over time is expected to promote greater efficacy perceptions. In a review of the self efficacy literature, Bandura and Locke (2003: 87) stated that "efficacy beliefs predict not only the behavioral functioning between individuals at different levels of perceived self-efficacy but also changes in functioning in individuals at different levels of efficacy over time." This suggests that employee efficacy perceptions as related to OCB are likely to be influenced by HPWS. In the present dissertation, I

adopt the approach of McAllister and his colleagues' (2007) to more specifically explore employee efficacy perceptions toward OCB, focusing mainly on helping and voice behaviors instead of examining employee self-efficacy in general. The rationale for this approach is that when considering both general efficacy and task-specific efficacy perceptions, only the task-specific efficacy perceptions predict employee behaviors that are above what is formally required in a given job (e.g., Ohly & Fritz, 2007).

HPWS are likely to be positively associated with employees' beliefs about their abilities to exercise OCB. Researchers have long argued that one way that HPWS can increase organization performance is through HRM practices that recruit, select, and train desirable employee knowledge, skills, and abilities in a way that affects performance and is valuable for the organization (Jackson & Schuler, 1995; Huselid, 1995; Wright & Snell, 1991). For example, rigorous staffing processes allow organizations to select higher quality employees (Delaney & Huselid, 1996). Empirical evidence has confirmed the often assumed but rarely tested relationship between HPWS and human capital (Liao et al., 2009; Takeuchi et al., 2007). These arguments and findings provide insight into why HPWS are likely to increase employees' efficacy perceptions to carry out helping and voice behaviors.

Selective staffing practices ensure applicants selected possess superior

knowledge. Comprehensive training and development programs provide employees with opportunities to both improve and gain new job-related knowledge, skills, and abilities. Information sharing increases one's knowledge about all relevant business issues. Participation in decision making gives employees experience in making suggestions about immediate work processes. Given that one's efficacy level is largely based on his or her ability level (Bandura, 1997), these practices are likely to increase one's efficacy perceptions towards helping other colleagues with work-related problems, such as helping someone with a heavy workload and sharing resources, as well as making constructive suggestions to improve work flow. Moreover, research has found that job enrichment practices, such as allowing employees to make full use of skills and providing employees with control over their immediate tasks, are positively related to greater employee confidence in exercising a broader role (Parker, 1998), such as analyzing a long-term problem to find a solution and presenting information to colleagues.

On the other hand, enhanced efficacy perceptions are likely to cause employees to perceive OCB as in-role. As previously noted, researchers of the OCB literature have mostly adopted the discretionary characterization of OCB, which resulted in greater scholarly attention to the influences of personality and attitudinal variables on OCB, rather than on ability or knowledge. However, there are a few reasons as to why

it is important to consider the ability to perform OCB when examining employee OCB role definition. Scholars have long recognized that ability to perform OCB may be a prerequisite to certain types of citizenship behaviors (Organ & Ryan, 1995). In a parallel argument, Zellar and Tepper (2003) suggested that helping a coworker with a complex task may be extremely difficult and requires the ability and experience to help. Consistent with this suggestion, Lepine and Van Dyen (1998) found that employees who reported high levels of self-esteem also engaged in voice behaviors with greater frequency.

Supporting this suggestion is research evidence (McAllister et al., 2007) linking employee OCB efficacy perceptions to taking charge, a challenging-oriented OCB similar to voice behavior. Other empirical studies of related forms of OCB have provided further support. For example, one's perceived ability to perform a broader job role positively predicts his or her tendency to make improvement suggestions (Axtell et al., 2000), to engage in proactive idea implementation and problem solving (Parker, Williams, & Turner, 2006), and to carry out personal initiative and taking charge (Sonnentag & Spsychala, 2012). In an experimental study, Brockner et al. (1998) showed that subjects in the higher capability condition (i.e., where they were made to feel more capable to voice their ideas) reported higher levels of satisfaction in their voice behaviors than did subjects in the lower capability condition. Furthermore,



Morgeson and his associates (2005) have claimed that employees must be capable of performing the tasks that constitute the broader role in order to increase role breadth and reported supportive findings that cognitive ability and job-related skills are needed to broaden one's work role. McAllister et al. (2007) also found that employee efficacy perceptions toward helping and taking charge were strongly correlated with employee role definitions toward these two behaviors.

For these reasons the use of HPWS should enhance employees' ability to help others with work-related problems and provide constructive suggestions, which then cause employees to feel more confident about carrying out these behaviors and to integrate them into their work role.

*Hypothesis 4a:* Employee helping efficacy perception (i.e., the degree to which they feel capable of helping) will mediate the positive relationship between employees' experience of HPWS and helping role definition.

*Hypothesis 4b:* Employee voice efficacy perception (i.e., the degree to which they feel capable of expressing voice) will mediate the positive relationship between employees' experience of HPWS and voice role definition.

**Instrumentality perceptions.** Employee instrumentality perceptions refer to the extent to which individuals perceive a direct connection between performance of an OCB and personal outcomes at work, such as rewards and punishment (Haworth & Levy, 2001; Hui, Lam, & Law, 2000). Although most studies stated that employee OCBs could be largely explained by social exchange motives, some have argued that employees often perform OCB in exchange for desirable outcomes (Haworth & Levy, 2001; Hui et al., 2000; Hui, Lee, & Rousseau, 2004; Jiao & Hackett, 2007; McAllister et al., 2007). For instance, in a longitudinal study, Hui and his colleagues (2000) found that employees who see OCB to be more instrumental to promotion are more likely to perform higher levels of OCB prior to the promotion than are employees who see OCB to be less instrumental. Haworth and Levy (2001) used Vroom's (1964) expectancy theory to provide a rationale for how employees will more likely perform OCB when they perceive a potential reward to be worthy, see a connection between OCB and the reward, and anticipate that attaining the desirable outcome helps in attaining broader goals, such as a positive reputation that satisfies one's desire for self-enhancement.

Extending their logic and findings, it may be the case that employee OCB instrumentality perceptions are shaped by the HPWS. With regard to performance appraisal, there is growing evidence that OCB relates to managerial evaluations of

employee performance (Podsakoff et al., 2009; Podsakoff et al., 2000). In a meta-analytic review of the research on OCB and individual outcomes, Podsakoff and his colleagues (2009) found employee OCBs to be significantly related to performance ratings, reward allocation decision, reward recommendations, and actual rewards. Likewise, Jawahar and Ferris (2011) examined how subordinate OCBs relate to supervisor-rated promotability, revealing the importance of citizenship performance in promotability judgments. They found that task and citizenship performance contribute unique variance in judgments of promotability and employees who excel in both aspects of performance were found to be more suitable for promotion than those who only excel in one. All of these are not surprising given the link between employee OCBs and the effective functioning of the organization, as stated earlier.

Having established the potential influence of performance appraisal on employee OCB instrumentality perceptions, I expect that the implementations of other HRM practices are likely to work in concert with performance appraisal to create synergistic effects on whether employees associate OCB with valuable personal rewards (Jiang et al., 2012). For example, performance-contingent compensation and incentives that reward employees fairly and reflect one's effort are likely to allow employees to attach a greater value to the outcome. This is especially true when rewards are aligned with what employees prefer. In the same way, extensive training programs that

broaden employee skills motivate employees to perform OCB in order to obtain positive regard from their supervisor and receive training opportunities. Group-based pay and team work are also likely to enhance employee instrumentality perceptions toward helping coworkers and suggesting improved procedures for the department because the group's success is considered as own success (Ellemers, De Gilder, & Haslam, 2004; Kim & Gong, 2009). In support of these theoretical arguments, researcher have shown that employee experience of HRM practices like promotion and career development, extensive training, and financial rewards incrementally predicted employee voice behaviors (Wang, Weng, McElroy, Ashkanasy, & Lievens, 2014).

I further argue that employee OCB instrumentality perceptions will lead to the inclusion of helping and voice behaviors into the job role. Research shows that employees' perceived instrumentality perceptions of helping and taking charge correlated significantly with their role definitions toward these behaviors (McAllister et al., 2007). By defining these citizenship behaviors as in-role, their behaviors should become more consistent throughout time and across targets, which will then be more likely to be regarded positively by the supervisors (Eastman, 1994; Tepper et al., 2001).

Building on the above arguments, the use of HPWS should increase employees'

instrumentality perceptions of assisting other colleagues with work-related problems (helping) and providing helpful suggestions to the department (voice), which then causes employees to incorporate these behaviors (helping and voice) into their role definitions.

*Hypothesis 5a:* Employee helping instrumentality perception (i.e., the degree to which they see helping as instrumental to garnering favorable personal job related outcomes) will mediate the positive relationship between employees' experience of HPWS and helping role definition.

*Hypothesis 5b:* Employee voice instrumentality perception (i.e., the degree to which they see expressing voice as instrumental to garnering favorable personal job related outcomes) will mediate the relationship between employees' experience of HPWS and voice role definition.

**Autonomy perceptions.** Employee job autonomy perceptions refer to the degree to which the employee perceives discretion over their work environment and in completing their work tasks (Hackman & Oldham, 1975). When employees perceive high job autonomy, they are more likely to see the work outcome as dependent on

their actions instead of on them strictly adhering to the standard job description; thereby resulting in a greater sense of felt responsibility. In contrast, low perceived job autonomy limits the amount of choice that employees have in carrying out their tasks and narrows role perceptions (Parker et al., 1997). For these reasons, several meta-analytic reviews have found that job autonomy leads to greater job satisfaction (Fried, 1991; Loher, Noe, Moeller, & Fitzgerald, 1985). In addition, scholars have noted that employees who perceived their jobs as autonomous are more intrinsically motivated and committed to their organization (Piccolo & Colquitt, 2006), as well as feel more enthusiastic about work (Grandely, 2008). As a result, scholars have stressed the importance of job autonomy in providing a sense of ownership to employees which, in turn, motivates them to take on more responsibility, such as proactive behavior, despite obstacles (Den Hartog & Belschak, 2012).

The use of HPWS is likely to improve the level of job autonomy and responsibility employees have over their work roles. Kirkman and Rosen (1999) argued that HRM practices concerned with empowering and delegating decision making down the hierarchy, such as participation and work teams, increase employees' collective level of autonomy. For instance, participation allows employees to take part in the decision making and performance appraisal process, which increases their perceived influence over work processes. Work teams give employees greater

responsibility and autonomy, which encourage them to take on a more active role instead of a passive role. As a whole, studies have confirmed the relationship between HPWS and related forms of autonomy. For example, HPWS were found to increase employee psychological empowerment (Aryee, Walumbwa, Seidu, & Otake, 2012; Liao et al., 2009; Messersmith et al., 2011) and perceived job influence (Snape & Redman, 2010). In such circumstances, HPWS enable employees to interact with colleagues and supervisors across different levels and become well informed about organizational issues, such as goals and new developments, thereby giving employees greater opportunities to assist others and to suggest ideas to improve organizational processes.

High job autonomy will also likely enable employees to incorporate greater job aspects into their job roles. Parker (1998) argued that autonomous jobs provide employees with continuous opportunities to experience and master new tasks. Employees in high autonomy jobs are also more likely to feel self-determined, recognize a broader range of behaviors and skills needed for their roles, and expand the boundaries of their roles. They are also generally more proactive than their counterparts (Crant, 2000) and engage in alternative thinking (Hackman & Oldham, 1976). On the other hand, employees in low autonomy conditions are more likely to be constrained by job descriptions and for that reason, are less able to perform beyond

their formal work roles. A narrow job description and rules are likely to prevent employees from engaging in unspecified tasks, such as OCB (Morrison, 1996). In support of these arguments, job autonomy is recognized as one of the critical antecedents of employee OCBs (Anderson & Williams, 1996; Farh, Podsakoff, & Organ, 1990; Piccolo, Greenbaum, Den Hartog, & Folger, 2010).

Moreover, scholars have argued that jobs with high autonomy tend to have less clear definitions for in-role and extra-role behaviors, which will likely cause employees in high autonomy jobs to have broader role definitions (Chiaburu & Byrne, 2009; Coyle-Shapiro et al., 2004). Evidence supports this. Employees who experience higher levels of job autonomy were more likely to feel personally responsible for a wider range of work tasks, such as production problems (Parker et al., 2006; Parker et al., 1997), than employees who experience lower levels of job autonomy. Morgeson et al. (2005) found that job autonomy was positively related to role definition and provided further support for the importance of job autonomy in increasing one's role definition. McAllister et al. (2007) found that employees' perceived autonomy in helping and taking charge were significantly correlated with their role definitions toward helping and taking charge.

Collectively, the use of HPWS is likely to enhance employees' feelings of control and responsibility over their jobs, all of which encourage employees to perform such



behaviors as helping coworkers and making constructive recommendations about issues that affect the workplace and then include these behaviors into their work.

*Hypothesis 6a:* Employee helping autonomy perception (i.e., the degree to which they feel their jobs provide the autonomy to help others) will mediate the positive relationship between employees' experience of HPWS and helping role definition.

*Hypothesis 6b:* Employee voice autonomy perception (i.e., the degree to which they feel their jobs provide the autonomy to express voice) will mediate the positive relationship between employees' experience of HPWS and voice role definition.

I argue that individual supervisors can play an enabling role in both expanding employee job role definitions as well as in strengthening how employees perceive HPWS implemented by the organization. First, organizations are increasingly relying on supervisors to implement HRM practices, such as job security, recruitment, training, performance appraisal, compensation, information sharing, and job design (Den Hartog, Boon, Verburg, & Croon, 2013; Purcell & Hutchinson, 2007). Thus,

employees often perceive supervisors as agents of the organization (Rhoades & Eisenberger, 2002). Second, the interpersonal relations between employees and supervisors have been considered essential to understanding workplace citizenship behavior in the greater Chinese context and in collectivist Asia (Hui et al., 2004; House, Wright, & Aditya, 1997). Given the study site of this dissertation, Taiwan, is a relatively collectivistic country, I next examine the direct and interactive effects of trust in supervisor on expanded employees' helping and voice role definitions.

## **Trust in Supervisor as an Antecedent of Expanded OCB Role**

### **Definitions**

In research on trust, although researchers have applied different trust definitions, Rousseau and her colleagues' (1998: 395) definition of trust "as a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another" has been widely used. This definition of trust includes an individual's expectations about the outcomes of trusting another person and willingness to assume risk involving the trustee. It also differentiates trust as a psychological state from trust as a trait of the trustor, like propensity to trust (Colquitt et al., 2007). One's trust in his or her supervisor has been identified as a central aspect of the interpersonal trust within the context of the organization and is generally associated

with a range of positive work outcomes for employees and organizations. In a meta-analysis, Dirk and Ferrin (2002) found significant correlations between trust in supervisor and such positive outcomes as job performance, OCBs, intention to quit, organizational commitment, job satisfaction, belief in information, and decision commitment in terms of group and organizational performance. Furthermore, employee trust in supervisor can also be related to group and organizational performance (e.g., Davis, Schoorman, Mayer, & Tan, 2000; Dirks, 2000).

In their meta-analytic review, Dirk and Ferrin (2002) also summarized previous studies on trust in supervisor which can be viewed as two qualitatively different theoretical perspectives: a relationship-based perspective and a character-based perspective. With respect to the relationship-based perspective, trust in supervisor is rooted on the basis of a social exchange process in which employees perceive mutual concern and obligations in the relationship. This perspective corresponds with affect-based sources of trust (e.g., benevolence) in that employees reciprocate the supervisor's demonstration of concern and care with OCBs (Dirks & Skarlicki, 2004; Konovsky & Pugh, 1994). With respect to the character-based perspective, trust in supervisor is an evaluation of a supervisor's character and fairness. This perspective corresponds with cognitive-based sources of trust (e.g., integrity) in that when employees trust their supervisor's integrity, they will become comfortable in engaging

in risk taking (Dirks & Skarlicki, 2004; Mayer, Davis, & Schoorman, 1995). However, more recently, McEnvily and Tortoriello (2011) suggested that adoption of a trust measure should reflect the research questions examined. Thus, in this dissertation, I adopted Podsakoff and his colleagues' (1990) definition of trust in one's supervisor as the amount of faith in the supervisor's integrity and intentions as well as the extent of loyalty to the supervisor. This definition has been chosen for the following reasons. First, trust in supervisor represents a more proximal influence on employee in-role performance and citizenship behavior than does trust in senior management because supervisors tend to involve employees' daily activities whereas senior management tends to perform more strategic functions (Mayer & Gavin, 2005). Second, in order to elicit employee citizenship behavior, supervisors need both cognitive and affective facets of trust (Dirks & Skarlicki, 2004), and Podsakoff et al. (1990)'s definition covers both these facets (Dirks & Ferrin, 2002; Rubin, Bommer, & Bachrach, 2010). Third, the aim of this dissertation is to evaluate the effects of employees' perceived supervisor integrity and loyalty to the supervisor on how employees perceive HPWS and consider OCB role definitions.

In light of the definition above, trust in supervisor is likely to expand one's job role definition to include helping and voice for the following reasons. First, supervisors play a vital role in clarifying job roles with employees (Schaubroeck, Ganster, Sime, &

Dittman, 1993; Turnipseed & Wilson, 2009). Second, the meta-analysis by Dirks and Ferrin (2002), as noted above, detected a strong positive link between trust in supervisor and helping behavior. Aryee, Budhwar, and Chen (2002) found that trust in supervisor had a positive relationship with organizationally directed OCB, such as voice. Dirks and Ferrin (2002) suggested that trustworthy supervisors elicit employee OCBs because when employees believe their supervisors to have integrity and have demonstrated care for them, they become not only more comfortable in engaging in behaviors that put them at risk, such as voice behavior, but also more willing to engage in activities that are beyond their traditional job role. For instance, perceptions that one's supervisor is fair and considerate were found to be positively linked to subordinate voice (Detert & Treviño, 2010; Takeuchi, Chen, & Cheung, 2012). Third, researchers have argued and shown that trust in supervisor can increase employees' confidence in their capabilities to perform job tasks and their perception of psychological safety at the workplace (Li & Tan, 2013). Trust in supervisor is also associated with enhanced levels of employee prosocial motivation to benefit others (Grant & Sumanth, 2009) and higher ability to focus on value-producing activities (Mayer & Gavin, 2005). All of the variables noted above are indicative of greater job role definition in general (Morgeson et al., 2005) and expanded job role definition to include voice (Tangirala et al., 2013).

Finally, the quality of relationship with the supervisor is positively related to expanded OCB role definition. Research supports this. For example, leader-member exchange relationship, the quality of the exchange relationship between an employee and his or her supervisor, is positively related to expanded safety citizenship role definition (Hofmann et al., 2003), as well as expanded helping and voice role definitions (Van Dyne et al., 2008). Kamdar and his colleagues (2006) found that supervisory procedural justice, the experience of fair treatment from supervisors, was related to expanded role definition to include helping and loyal boosterism. Hence, trust in supervisor should be associated with expanded job role definition to include helping and voice.

*Hypothesis 7a:* Trust in supervisor will be positively related to employee helping role definition.

*Hypothesis 7b:* Trust in supervisor will be positively related to employee voice role definition.

## **Interactive Effect of Employees' Experience on HPWS and Trust in Supervisor**

In a quantitative review of trust at the workplace, Dirks and Ferrin (2001) note that

while the majority of research on trust examined the direct effects of trust, trust may actually function as a moderator between motivation constructs and workplace behaviors, such as OCBs. They argued that trust may act as a moderator that creates an interactive effect by positively or negatively assessing the future behavior of the trustor and interpreting the past or present behaviors of the trustor. For instance, Crossley, Cooper, and Wernsing (2013) have documented the moderating role that “trust in manager” plays in the relationship between challenging unit goals and unit sale performance. They found that when employees trust their supervisors, they are more likely to interpret supervisors’ past behaviors more favorably and to accept supervisors’ future behaviors toward achieving challenging goals. Taking these arguments and evidence further, I believe that trust in supervisor may strengthen the relationship between experienced HPWS and expanded OCB role definitions to include helping and voice.

Previous research provides some empirical support for the importance of trust as a moderator that fosters employee experience of HRM practices. So far, only three studies have focused on the moderating effects of different referents of trust in leadership. For example, Farndale, Hope-Hailey, and Kelliher (2011) found in a sample of employees in the UK that employee perceptions of performance management practices is more positively related to employee commitment and perceived

organizational justice when trust in senior management is high than when it is low. In a sample of employees in Italy, Innocenti, Pilati, and Peluso (2011) found that the influence of HRM practices on employee attitude towards the organization is more positive when trust in direct supervisor is high than when it is low. More recently, from a sample of employees in the UK, Alfes, Shantz, and Truss (2012) found that trust in employer moderated the relationships between perceived HRM practices and task performance, turnover intentions, and well-being.

Research examining the moderating roles of other indicators of the high-quality exchange relationship with supervisor has shown similar positive relationships. For instance, the extent to which employees perceive their organizations to be investing in employee development is more positively related to work effort, work quality, and helping behavior when employees experience high levels of supervisor support (Kuvaas & Dysvik, 2010).

Theoretically, Bowen and Ostroff (2004) argued that supervisors play a critical role in how well HRM practices are implemented to elicit the desired employee behaviors and how the behaviors are reinforced with associated incentives and outcomes. For these reasons, it would seem that trust in supervisor may strengthen the influences of HPWS practices on how employees expand their job role definitions to include helping and voice. When employees perceive a high level of trust in their supervisors, they may



interpret such HPWS practices as job security, internal promotion, training, and job design more positively, such that they believe the intention of the implementation of practices to be worker-centered. Employees are encouraged to utilize and develop their skills in the organization over the long haul. In this case, HPWS practices are less likely to be considered as manipulative. Moreover, supervisors can represent a source of uncertainty and distract employees from their daily activities if employees cannot trust them (Mayer & Gavin, 2005). Thus, when employees are confident in the integrity of their supervisors and are loyal to them, they are more likely to believe that their supervisors will continue to value such OCBs as helping and voice in performance appraisal and compensation. Employees are more prone to accept these practices. Therefore, I expect trust in supervisor to positively enhance the influence of HPWS practices on employee helping and voice role definitions by strengthening the practice intentions in the eyes of employees.

*Hypothesis 7c:* Trust in supervisor will moderate the positive relationships between experienced HPWS and expanded helping role definition, such that the relationship will be stronger when trust in supervisor is high.

*Hypothesis 7d:* Trust in supervisor will moderate the positive relationships

between experienced HPWS and expanded voice role definition, such that the relationship will be stronger when trust in supervisor is high.

## **Chapter 3**

### **Method**

#### **Sample**

I contacted two Taiwanese companies and they both agreed to participate, providing me with access to 247 employees and 83 immediate supervisors. The participants were evenly distributed across two companies. Company 1 is one of the major telecommunication companies in Taiwan, in which 139 employees and 45 supervisors participated. Company 2 is one of the major transportation companies in Taiwan, in which 108 employees and 38 supervisors participated. Employee data were collected at three phases separated by approximately four weeks, with the exception of the second phase. The second phase started six weeks after the initial mailing of the first-phase survey because of the Chinese Lunar New Year holiday. Supervisors provided assessments two weeks after the last employee data-collection phase. Both employee and supervisory data were collected through the use of Internet survey. Employee demographic information was obtained from the company archival data. NT\$40 (CAD\$1.45) was donated to a foundation for Down syndrome in Taiwan on behalf of participants for each completed survey to encourage participation. Participants were also entered in a drawing for department store gift certificates.

Out of the 247 surveys distributed to the employee participants, 226 responded to

the Phase 1 survey (91% response rate); 214 responded to the Phase 2 survey (87% response rate); 210 responded to the Phase 3 survey (85% response rate). Out of the 83 surveys distributed to supervisors, 78 surveys were received (94% response rate). After deleting surveys with missing data and those that could not be matched to a supervisor, 208 matched employee-supervisor surveys were usable, which was equivalent to an overall response rate across two companies of 84% (83% and 85% for Company 1 and 2, respectively). On average, each supervisor provided assessments of 3 employees (minimum = 1, maximum = 5). Of these 208 employee participants, 58% were male. Average age was 42.84 years, and average organizational tenure was 16.77 years. 62.5% had college/university education, and 32.2% had a master's degree.

In terms of non-response bias, a series of *t*-test revealed that respondents did not appear to be significantly different from non-respondents on the demographic variables obtained (e.g., age and education). I also tested for differences between respondents and non-respondents to the Phase 2 survey. The *t*-test results indicated that there were no significant differences on collectivism, power distance, employee exchange ideology, and the HR dimensions measured, except for extensive training. The respondents reported a slightly higher extensive training experience than non-respondents (3.88 vs. 3.36;  $t = 2.17$ ;  $p < .05$ ). As for the differences between

respondents and non-respondents to the Phase 3 survey, there were no significant differences in terms of social exchange, organizational identification, as well as efficacy and instrumentality perceptions for helping and voice. However, the respondents reported slightly lower opportunity perceptions for helping (3.87 vs. 4.00;  $t = -.44$ ;  $p < .05$ ) and voice (3.34 vs. 3.77;  $t = -.97$ ;  $p < .05$ ). Given that there were few significant differences when compared to the number of  $t$ -tests conducted, it is assumed that non-response bias did not bias the present results.

## **Procedures**

Employee data were collected at three phases in time, with each pertaining to the presumed causal sequences; that is, employees' experience of HPWS elicits social exchange and organizational identification, as well as enhanced efficacy, instrumentality, and autonomy to perform helping and voice, which in turn lead to an expanded job role definition to include helping and voice, and ultimately lead to actual employee helping and voice behaviors. Such a multi-wave design reduces common source variance by diminishing respondent's ability to answer subsequent questions with prior responses, as well as by collecting the outcome measures from the employees' direct supervisors, two weeks after the last phase of employee survey (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Separate online questionnaires

were developed and administered to employees and supervisors. Each participant was given a unique research code that serves as the only personal identification and dyad-pairing purpose in this study. At the beginning of each wave, the respondents received a customized email containing a cover letter, an endorsement from senior management, detailed procedures, link of the online survey website, as well as the respondent's research code. Both employee and supervisor participants were told that their participation was voluntary and provided assurance of confidentiality and informed that there are no right or wrong answers. Participants were encouraged to contact me by email if they had any concerns or problems. In each phase, a reminder note was emailed to each participant who had not completed the survey after one and three weeks (Dillman, 2000). Thank-you notes were emailed to those who had completed the survey after two weeks. These notes were meant to encourage continuous participation and to emphasize on the importance of responding all surveys.

**Phase 1: Employees' experience of HPWS and controls.** At Phase 1, employee participants were asked to complete measures of HPWS, power distance, collectivism, and employee exchange ideology. Employee participants were not asked to provide any information on their demographics, but instead, employee

demographic information, such as gender, age, education, and tenure, was obtained from the company archival data at this phase.

**Phase 2: Employees' attitudes and OCB perceptions.** At Phase 2, employee participants were asked to complete the second survey that assessed their levels of social exchange, organizational identification, as well as their efficacy, instrumentality, autonomy perceptions with respect to helping and voice.

**Phase 3: Employees' OCB role definitions and trust in supervisor.** At Phase 3, employee participants who completed both previous surveys were asked to complete the third survey that included measures of role definitions for helping and voice, as well as trust in supervisor.

**Phase 4: Supervisor-rated employee OCB.** At Phase 4, two weeks after the initial mailing of the Phase 3 survey, supervisory participants provided assessments on employee helping and voice.

## **Survey Translation**

All of the measures in this study were first translated from English into

Traditional Chinese by me, a native Taiwanese, and then translated back into English by a professional translator in Taiwan without having access to the original measurements. To ensure translation equivalence, I worked closely with the translator to identify, discuss, and resolve any discrepancies. To further validate the translation and to ensure conceptual equivalence, I also asked two Taiwanese professionals working in the area of HR who are not involved in this study to read through the Traditional Chinese version of the measurements. One of them is a HR consultant, works at a multinational professional services firm that provides HR consulting. Another one is a HR generalist, works at a large Taiwanese high-tech firm. A few items and instructions were modified. Finally, surveys were reviewed by the senior management at the two companies to ensure the relevance of the items.

## **Measures**

Unless stated otherwise, a five-point scale was used for all the following measures (1 = *strongly disagree* to 5 = *strongly agree*).

**Helping and voice behavior.** A 4-item scale developed in the Taiwanese context by Farh et al. (1997) was used to measure employee helping behavior. The scale has received excellent reliability in previous studies (e.g., Farh, Hackett, &



Liang, 2007; Li, Liang, & Crant, 2010). Sample items include “This particular employee assists new colleagues to adjust to the work environment” and “This particular employee helps colleagues solve work related problems.” Van Dyne and LePine’s (1998) 6-item scale was used to measure employee voice behavior. The reliability of this scale has been demonstrated in previous studies (e.g., Liu, Zhu, & Yang, 2010; Takeuchi et al., 2012). Sample items are “This particular employee develops and makes recommendation concerning issues that affect this work group” and “This particular employee communicates his/her opinions about work issues to others in this group even if his/her opinion is different and others in the group disagree with him/her.” Each employee’s immediate supervisor was asked to assess the extent to which they agree or disagree concerning each of their employees’ performed helping and voice behaviors. The internal consistency reliabilities were .89 for helping and .93 for voice. The scale items are listed in Appendix 1.

**HPWS.** Although the specific HRM practices included in the HPWS scale varied between studies (Combs et al., 2006), most studies examining HPWS covered HR dimensions that are designated to increase employee skills, enhance employee motivation and empower employees to perform (Gardner, Wright, & Moynihan, 2011; Jiang et al., 2012). The eight HR dimensions (subscales) included in the scale were

employee security, selective hiring, extensive training, internal promotion, teams and participation, information sharing, contingent compensation, and job design.

The scale and its items were mainly taken from Liao et al.,'s (2009) scale that the authors developed based on measures from previous studies (Delery & Doty, 1996; Zacharatos et al., 2005). A sample item for employee security is "I can be sure of being employed in my organization as long as I do good work." A sample item for selective hiring is "When new employees are hired, they must go through an extensive hiring process in which they are interviewed a number of times." A sample item for extensive training is "There are formal training programs to teach new hires the skills they need to perform their jobs." A sample item for internal promotion is "I have clear career paths within the organization." Sample items for teams and participation are "My organization places a great deal of importance on team development" and "I feel in control of things that occur around me while at work." A sample item for information sharing is "I am given enough information to understand my role in this organization." A sample item for contingent compensation is "Part of my compensation is based on how well my workgroup or department performs." A sample item for job design is "I have lots of opportunity to decide how to do my work." Employees were asked to indicate the extent to which they considered each practice describes their organization. A high score reflects a high level of perceived

adaptation in their organization. The detailed information about the HPWS scale is presented in Table 1. The scale items are listed in Appendix 2.

Consistent with other studies in the SHRM research (Chuang & Liao, 2010; Liao et al., 2009; Zacharatos et al., 2005), a unitary index of HPWS was calculated by the subscale aggregation approach. First, the mean scores of each dimension were calculated, which was justified by the high internal reliability of each dimension as indicated in Table 1, ranging from .69 to .86. Then the index of HPWS was calculated by averaging the eight dimensions, which was justified by the high internal reliability of .88 across dimensions. Furthermore, the unidimensionality of the dimensions was confirmed by performing a principal factor analysis where only one factor emerged from the data and accounted 55.19% of the total variance.

Table 1

*High-Performance Work Systems (HPWS) Scale*

HPWS ( $\alpha = .88$ )						
Practice dimension	Source	Items	<i>M</i>	<i>SD</i>	<i><math>\alpha</math></i>	Loading
Employment security	Zacharatos et al., 2005	5	3.98	.59	.78	.61
Selective hiring	Zacharatos et al., 2005	5	3.87	.59	.79	.58
Extensive training	Delery & Doty, 1996	4	3.88	.75	.86	.81
Internal promotion	Delery & Doty, 1996	4	3.16	.68	.77	.84
Teams & Participation	Zacharatos et al., 2005	5	3.56	.61	.79	.82
Information sharing	Zacharatos et al., 2005	6	3.52	.60	.84	.84
Contingent compensation	Zacharatos et al., 2005	5	3.52	.66	.69	.67
Job design	Zacharatos et al., 2005	5	3.68	.52	.71	.71

**Social exchange.** An eight-item social exchange scale by Shore et al.'s (2006) was used to measure employee social exchange. The reliability of this scale has been demonstrated in previous studies (e.g., Hom et al., 2009; Loi, Mao, & Ngo, 2009). Sample items are “My organization has made a significant investment in me” and “My relationship with my organization is based on mutual trust.” The scale had a coefficient alpha of .88. The scale items are listed in Appendix 3.

**Organizational identification.** A 6-item scale by Mael and Tetrick (1992) was used to measure employee organizational identification. The reliability of this scale has been demonstrated in previous studies (e.g., Van Knippenberg & Sleebos, 2006; Zhang, Kwan, Everett, & Jian, 2012). Sample items include “When someone criticizes the organization, it feels like a personal insult” and “This organization’s successes are my successes.” The scale had a coefficient alpha of .92. The scale items are listed in Appendix 4.

For the employee helping and voice perceptions and role definitions, similar to earlier studies on OCB role definitions (e.g., Kamdar et al., 2006; McAllister et al., 2007; Zellars et al., 2002), the same items for helping and voice behaviors were used to measure employee efficacy, instrumentality, autonomy, and role definition

perceptions with respect to helping and voice behaviors. Employees were given the list of helping and voice items separately (e.g., helping behavior items were presented first and then followed by voice behavior items) and instructed to focus on one measurement at a time (e.g., assessed helping efficacy perception first and then followed by voice efficacy perception).

**Efficacy perceptions.** McAllister et al.'s (2007) approach was used to assess employee helping and voice efficacy perceptions with the statement "I am completely confident in my capabilities when engaging in this behavior." For efficacy perceptions, the internal consistency reliabilities were .86 for helping and .84 for voice. The scale items are listed in Appendix 5.

**Instrumentality perceptions.** Jiao and his colleagues' (2010) approach was used to assess employee helping and voice instrumentality perceptions with the statement, "The extent to which you agree that your supervisor will value and reward you formally or informally for performing this behavior." This statement was chosen over McAllister et al.'s (2007) statement, "I see a direct connection between whether I engage in this behavior and my outcomes at work," because Jiao et al.'s (2010) statement has been tested in the Chinese context and has received excellent reliability.

For instrumentality perceptions, the internal consistency reliabilities were .85 for helping and .85 for voice. The scale items are listed in Appendix 6.

**Autonomy perceptions.** McAllister et al.'s (2007) approach was used to assess employee helping and voice autonomy perceptions with the statement, "I have complete freedom to choose whether or not I engage in this behavior." For autonomy perceptions, the internal consistency reliabilities were .93 for helping and .94 for voice. The scale items are listed in Appendix 7.

**Trust in supervisor.** Podsakoff et al.'s (Podsakoff, Mackenzie, Moorman, & Fetter, 1990) 6-item scale was used to measure employees' trust in supervisor. The reliability of this scale has been demonstrated in previous studies (e.g., Podsakoff, MacKenzie, & Bommer, 1996; Rubin, Bommer, & Bachrach, 2010). Sample items include "I feel quite confident that my supervisor will always try to treat me fairly" and "My supervisor would never try to gain an advantage by deceiving workers." The scale had a coefficient alpha of .91. The scale items are listed in Appendix 8.

**Helping and voice role definitions.** Following previous research on employee OCB role definitions (McAllister et al., 2007; Morrison, 1994), I directly

measured employee helping and voice role definitions with the statement, “For each item, please indicate the extent to which you consider this behavior to be part of your job.” Responses were made on a 5-point scale ranging from 1 (definitely exceeds my job requirements) to 5 (definitely part of my job). A higher score indicated that the respondent defined the behavior as in-role and a lower score indicated that the respondent defined the behavior as extra-role. For role definitions, the internal consistency reliabilities were .86 for helping and .91 for voice. The scale items are listed in Appendix 9.

**Control variables.** Eight control variables were included. The first is a company dummy variable because the data were collected in two organizations (Company 1 = 0; Company 2 = 1). Four traditional demographic variables were also included, namely, gender, age, education, and tenure. Gender was coded 1 for female and 2 for male. Age and tenure were reported in years. Education had four categories (1 = high school, 2 = post-secondary, 3 = master, 4 = Ph.D.). Measures of these demographic variables were obtained from the company archival data.

The sixth and seventh controls are employee collectivism and power distance. Researchers (Jiao et al., 2013) examining cross-cultural differences in OCB role definition have found that Confucian Asians are more likely to consider OCB as



in-role than do their Anglo counterparts and have suggested that cultural differences in individualism and power distance might have important implications. Since Taiwan is heavily rooted in Confucian values and is typically regarded as high on collectivism and power distance (Hofstede, 2001), employee power distance and collectivism were included as controls. Controlling for these cultural variables helps to set a high standard by assuring that the findings are not culturally bound and by enhancing the generalizability of the findings to other countries. Dorfman and Howell's (1988) scale was used to measure employee power distance (6 items) and collectivism (6 items). A sample item for power distance is "Managers should make most decisions without consulting subordinates." A sample item for collectivism is "Employees should only pursue their goals after considering the welfare of the group." The internal reliability coefficients were .72 for power distance and .80 for collectivism. The scale items are listed in Appendices 10 and 11.

Finally, employee exchange ideology was included as a control. The extent to which employees believe that it is appropriate to base their concern for the organization's welfare and their work effort on how well they have been treated by the organization has been shown to be related to employee OCB role definition (Chiaburu & Byrne, 2009). Specifically, employees with a strong exchange ideology have narrower role definitions than those with weak exchange ideologies. Thus,

Eisenberger et al's (1986) eight-item scale was used to measure employee exchange ideology and a sample item is "An employee should only work hard if his or her efforts will lead to a pay increase, promotion, or other benefits." The internal reliability coefficient was .77. The scale items are listed in Appendix 12.

### **Analytical Approach**

Although all constructs and relationships were conceptualized at the individual level of analysis, supervisors in the present sample provided helping and voice data for multiple employees, which may have violated the independence assumption. To examine the possible clustering effects, a one-way analysis of variance (ANOVA) with supervisor as the independent variable and supervisor-rated helping and voice as the dependent variables was performed. The ANOVA results showed no significant between-cluster differences in rated helping ( $F = 1.32, p > .05$ ) or voice ( $F = 1.10, p > .05$ ), which provided robust support for the independence of supervisor assessment. Thus, the data were analyzed at the individual level, as hypothesized.

## Chapter 4

### Results

Table 2 presents means, standard deviations, correlations, and reliabilities for the study variables. Each of the reported correlations is in the anticipated direction.

#### Control Variables

As stated earlier, eight variables were initially included as control variables, but Table 2 shows that power distance, collectivism, and employee exchange ideology were significantly correlated with employees' helping and voice role definitions. The non-significant findings of employee gender, age, and tenure corroborated previous findings suggesting that these demographic variables are not related to employee OCB role definition (Chiaburu & Byrne, 2009; Morrison, 1994; Vey & Campbell, 2004). As such, I examined the effects of the control variables using regression and found only collectivism and employee exchange ideology had significant effects on helping and voice role definitions. As expected, regression results indicate that employees' collectivism orientation had a positive relationship with helping role definition ( $\beta = .17, p < .05$ ) and voice role definition ( $\beta = .23, p < .01$ ), whereas, employees' exchange ideology with the organization had a negative relationship with helping role definition ( $\beta = -.17, p < .05$ ) and voice role definition ( $\beta = -.18, p < .05$ ).

The results of regressions are presented in Table 3. Therefore, only collectivism and employee exchange ideology were included in the analyses. The remaining six controlled variables (e.g., company, demographics, and power distance) were dropped from analyses.

Table 2

*Descriptive Statistics and Intercorrelations Among Study Variables*

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Company	.44	.50													
2. Gender	1.58	.49	-.21**												
3. Age	42.84	9.94	-.12	.19**											
4. Education	2.38	.56	.10	.05	-.41**										
5. Tenure	16.77	11.62	-.18*	.12	.92**	-.51**									
6. PD	2.42	.51	-.04	.03	-.04	-.17*	-.028	(.72)							
7. COL	3.69	.53	.04	.07	.21**	-.05	.24**	-.07	(.80)						
8. EEI	2.56	.57	.02	.04	-.39**	.25**	-.36**	.16*	-.35**	(.77)					
9. HPWS	3.62	.46	-.09	.15*	.12	-.13	.18**	-.10	.39**	-.34**	(.88)				
10. SE	3.91	.59	-.12	.26**	.20**	-.10	.24**	-.07	.38**	-.35**	.69**	(.88)			
11. OI	4.19	.57	-.04	.10	.31**	-.09	.35**	-.14*	.38**	-.32**	.42**	.60	(.92)		
12. HE	4.19	.49	.07	-.02	.32**	-.13	.30**	-.31**	.25**	-.40**	.18**	.21**	.43**	(.86)	
13. VE	3.65	.50	.14*	-.04	.19**	-.02	.18*	-.13	.19**	-.23**	.31**	.29**	.40**	.39**	(.84)

Table 2 (Continued)

*Descriptive Statistics and Intercorrelations Among Study Variables*

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13
14. HI	4.07	.70	-.02	.07	.08	-.12	.12	-.01	.11	-.06	.43**	.38**	.28**	.24**	.19**
15. VI	3.22	.57	.08	.03	-.01	-.10	.05	-.09	.25**	-.19**	.54**	.43**	.31**	.17*	.19**
16. HA	3.87	.65	.06	-.06	.05	.01	.04	-.15*	.25**	-.19**	.33**	.32**	.37**	.40**	.36**
17. VA	3.34	.99	.08	.19**	.09	-.05	.07	-.04	.24**	-.19**	.41**	.34**	.24**	.18**	.38**
18. T	3.53	.83	-.09	.21**	.12	-.06	.13	-.11	.24**	-.23**	.54**	.52**	.35**	.23**	.32**
19. HR	3.85	.75	.08	.07	.12	.01	.10	-.14*	.24**	-.24**	.42**	.36**	.32**	.36**	.24**
20. VR	3.35	.76	-.03	.10	.12	-.02	.11	-.09	.30**	-.26**	.41**	.38**	.38**	.33**	.47**
21. H	4.05	.68	.01	.12	.11	.06	.10	-.10	.26**	-.18**	.32**	.27**	.27**	.23**	.21**
22. V	3.73	.71	-.09	.18**	.12	-.02	.12	-.11	.34**	-.19**	.36**	.34**	.27**	.16*	.32**

Table 2 (Continued)

*Descriptive Statistics and Intercorrelations Among Study Variables*

Variables	14	15	16	17	18	19	20	21	22
14. HI	(.85)								
15. VI	.42**	(.85)							
16. HA	.42**	.40**	(.93)						
17. VA	.26**	.30**	.25**	(.94)					
18. T	.39**	.44**	.34**	.35**	(.91)				
19. HR	.52**	.35**	.56**	.31**	.46**	(.86)			
20. VR	.35**	.37**	.46**	.56**	.54**	.53**	(.91)		
21. H	.19**	.13	.23**	.18*	.30**	.42**	.26**	(.89)	
22. V	.14*	.17*	.18**	.24**	.34**	.22**	.38**	.54**	(.93)

*Notes.*  $N = 208$ . Internal consistency reliabilities appear in parentheses along the diagonal.

PD = power distance; COL = collectivism; EEI = employee exchange ideology; HPWS = high-performance work systems; SE = social exchange; OI = organizational identification; HE = helping efficacy; VE = voice efficacy; HI = helping instrumentality; VI = voice instrumentality; HA = helping autonomy; VA = voice autonomy; T = trust in supervisor; HR = helping role definition; VR = voice role definition; H = helping; V = voice.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 3

*Regression Results of Control Variables on Helping and Voice Role Definitions*

Initial control variables	Helping role definition	Voice role definition
Company dummy	.08	-.02
Gender	.07	.09
Age	.07	.06
Education	.04	.02
Tenure	-.04	-.08
Power distance	-.09	-.05
Collectivism	.17*	.23**
Employee exchange ideology	-.17*	-.18*
R <sup>2</sup>	.11	.13
F(8, 199)	3.07**	3.67**

*Notes.* Standardized beta coefficients are reported.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .



## **Discriminant Validity**

Before testing the hypotheses, I first evaluated whether the measures of OCB perceptions (e.g., autonomy, instrumentality, and autonomy), role definitions, and actual OCBs (e.g., supervisor-rated employee helping and voice) were distinct, as well as whether there was discriminant validity between all the constructs in the study (e.g., social exchange, organizational identification, and OCB perceptions).

As shown in Table 2, the measures of OCB perceptions (e.g., efficacy, instrumentality, and autonomy) and role definitions were only moderately correlated among themselves: .24 to .56 for helping and .19 to .56 for voice. In addition, helping's perceptions and role definition correlated more strongly with supervisor-rated helping than voice. Vice versa, voice's perceptions and role definition correlated more strongly with supervisor-rated voice than helping. I also ran a set of confirmatory factor analyses (CFA) to examine the distinctiveness of the OCB measures using AMOS 22. Specifically, I first examined the fit of a 10-factor model that had items loaded on their respective factors: helping efficacy, voice efficacy, helping instrumentality, voice instrumentality, helping autonomy, voice autonomy, helping role definition, voice role definition, supervisor-rated helping, and supervisor-rated voice. As the fit statistics in Table 4 demonstrate, the 10-factor model fit the data well ( $\chi^2 = 1,489.07$ , CFI = .95, TLI = .94, RMSEA = .04). I then compared

this 10-factor model to more parsimonious nested alternatives: (a) a six-factor model with efficacy for helping and voice combined into one factor, instrumentality for helping and voice combined into one factor, autonomy for helping and voice combined into one factor, and role definition for helping and voice combined into one factor, (b) a four-factor model with all efficacy, instrumentality, autonomy, and role definition for helping combined into one factor, and all efficacy, instrumentality, autonomy, and role definition for voice combined into one factor, (c) a two-factor model that was created by combining all employee ratings into one factor and all supervisor rating into one factor, and (d) a one-factor model where all items were combined into one factor. See Table 4 for alternate model fit comparisons. In every instance, the 10-factor model was significantly better than any alternative model. Taken collectively, the results suggest that the measures of OCB were distinct.

Table 4

*Results of Confirmatory Factor Analysis for the Measures of OCB Variables Studied*

Model	Description	$\chi^2$	df	CFI	TLI	RMSEA	Change from Model 1	
							$\Delta\chi^2$	$\Delta df$
1	10-factor <sup>a</sup>	1,489.07	1106	.95	.94	.04		
2	6-factor <sup>b</sup>	1,913.15	1124	.89	.88	.06	424.08***	18
3	4-factor <sup>c</sup>	2,545.34	1125	.80	.78	.08	1,056.27***	19
4	2-factor <sup>d</sup>	3,257.87	1136	.70	.67	.10	1,768.80***	30
5	1-factor	3,972.35	1138	.60	.56	.11	2,483.28***	32

*Note.* All  $\chi^2$  values are significant at  $p < .001$ . CFI = comparative fit index; TLI = Tucker-Lewis Index; RMSEA = root-mean-square error of approximation.

<sup>a</sup>Hypothesized model. <sup>b</sup>Efficacy for helping and voice combined into one factor, instrumentality for helping and voice combined into one factor, autonomy for helping and voice combined into one factor, and role definition for helping and voice combined into one factor. <sup>c</sup>All efficacy, instrumentality, autonomy, and role definition for helping combined into one factor, and all efficacy, instrumentality, autonomy, and role definition for voice combined into one factor. <sup>d</sup>All employee ratings into one factor and all supervisor ratings into one factor.

Second, to ensure the distinctiveness of the constructs in the study, I used CFA to compare the fit of the measurement model (a 16-factor model: HPWS, social exchange, organizational identification, helping efficacy, helping instrumentality, helping autonomy, voice efficacy, voice instrumentality, voice autonomy, trust in supervisor, helping role definition, voice role definition, actual helping, actual voice, employee exchange ideology, and collectivism) to a number of theoretically plausible alternative models: (a) a 15-factor model in which social exchange and organizational identification are combined into one factor, (b) a 12-factor model in which efficacy for helping and voice are combined, instrumentality for helping and voice are combined, and autonomy for helping and voice are combined, (c) a 11-factor model in which efficacy for helping and voice are combined, instrumentality for helping and voice are combined, autonomy for helping and voice are combined, helping and voice role definitions are combined, and actual helping and voice are combined, (d) a 2-factor model in which employee ratings are combined and supervisor ratings are combined, and (e) a 1-factor model in which all items are combined into one factor. Andersen and Gerbing (1988) suggested that the discriminant validity of the study constructs must be assessed before assessing the fit of the hypothesized model.

Given the complexity of the measurement model and the sample size, I followed previous studies (e.g., Bolino & Turnley, 2005; Chen, Lam, & Zhong, 2007; De

Hoogh & Den Hartog, 2009; Ferris, Brown, & Heller, 2009) and used randomly created parcels of items as indicators for each construct. Parcels of items help to maintain a manageable indicator-to-sample size ratio, which can impact the standard errors and stability of the estimates (Landis, Beal, & Tesluk, 2000). I randomly assigned items to parcels for all the study constructs except HPWS, where the eight HR dimensions were used as indicators of the overall HPWS construct. Two parcels were formed for constructs that were measured with less than six items, with the exception of social exchange and employee exchange ideology, where three parcels were set as indicators. The results of the model fits are presented in Table 5. As shown, the hypothesized 16-factor measurement model showed acceptable fit with the data ( $\chi^2 = 956.68$ , CFI = .95, TLI = .93, RMSEA = .05) and none of the five alternative models fit the data as well as the measurement model. In sum, the fit indices demonstrated that the study constructs were distinct.

Table 5

*Results of Confirmatory Factor Analysis for the Measures of Construct Studied*

Model	Description	X <sup>2</sup>	df	CFI	TLI	RMSEA	Change from Model 1	
							Δx <sup>2</sup>	Δdf
1	16-factor <sup>a</sup>	956.68	611	.95	.93	.05		
2	15-factor <sup>b</sup>	993.60	623	.94	.93	.05	36.922***	12
3	12-factor <sup>c</sup>	1,996.88	666	.79	.75	.10	1,040.20***	55
4	11-factor <sup>d</sup>	2,273.83	676	.74	.70	.11	1,317.15***	65
5	2-factor <sup>e</sup>	4,005.33	730	.47	.44	.15	3,048.65***	119
6	1-factor	4,327.06	731	.42	.38	.15	3,370.38***	120

*Note.* All  $\chi^2$  values are significant at  $p < .001$ . CFI = comparative fit index; TLI = Tucker-Lewis Index; RMSEA = root-mean-square error of approximation.

<sup>a</sup>Measurement model. <sup>b</sup>Social exchange and organizational identification are combined into one factor. <sup>c</sup>Efficacy for helping and voice are combined, instrumentality for helping and voice are combined, and autonomy for helping and voice are combined. <sup>d</sup>Efficacy for helping and voice are combined, instrumentality for helping and voice are combined, autonomy for helping and voice are combined, helping and voice role definitions are combined, and actual helping and voice are combined. <sup>e</sup>Employee ratings are combined and supervisor ratings are combined.

## Tests of the Hypotheses

In the present study, four data analytic approaches were used to test the research model presented in Figure 1. To examine the first part of the research model as presented in Figure 1, that is, the indirect effects of helping and voice role definitions on actual helping and voice, as well as the multiple indirect effects of social exchange, organizational identification, helping and voice efficacy perceptions, helping and voice instrumentality perceptions, and helping and voice autonomy perceptions on helping and voice role definitions, I employed hierarchical multiple regressions, the Sobel test (Sobel, 1982), and the bootstrapping approach (Preacher & Hayes, 2008). The 4-condition mediation testing technique by Baron and Kenny (1986) and Preacher and Hayes's (2008) macro were used in this section of analysis. The first condition of Baron and Kenny's (1986) mediation is that the independent variable and dependent variable are significantly related. The second condition is the independent variable is significantly related to the mediating variable. The third condition is that the mediator and dependent variable are significantly related while controlling for the independent variable. The last condition is that the relationship between the independent variable and dependent variable should be significantly reduced (partial mediation) or nonsignificant (full mediation) when the mediator is added. Despite of its popularity, the mediation test by Baron and Kenny (1986) has

been argued to have low statistical power and low Type 1 error rates. Several researchers have argued the Sobel test (Mackinnon, Lockwood, & Williams, 2004) and the bootstrapping approach (Preacher & Hayes, 2008) to be the preferred approach to examine mediation effects. Following these suggestions, I cross-validated the results of hierarchical multiple regressions with Sobel test and bootstrapping approach. Specifically, I estimated 95% bias-corrected bootstrap confidence intervals (CI) using 1,000 bootstrap samples. Then, I used structural equation modeling (SEM) to test the first part of the research model. The different mediators within the same frames were examined simultaneously to demonstrate the uniqueness and relative merit of each pathway, conditional on the presence of other mediators. To examine the second part of the research model, I conducted hierarchical moderated regression analyses to test direct and interactive effects of HPWS and trust in supervisor on employees' helping and voice role definitions.

Hypothesis 1a and b predicts that employees' experience of HPWS will be positively related to helping and voice definitions. The results of the hierarchical regression analyses are shown in Tables 6 and 7. Step 1 includes the control variables, collectivism and employee exchange ideology. The direct effect of experienced HPWS was positively and significant on helping role definition ( $\beta = .36, p < .001$ ), as shown in Table 6, and voice role definitions ( $\beta = .32, p < .001$ ), as shown in Table 7.



Thus, Hypothesis 1a and b was supported.

To test Hypothesis 1c and d, that helping and voice role definitions mediate the relationships between experienced HPWS and actual helping and voice; I first used hierarchical multiple regressions with experienced HPWS as the independent variable, helping and voice role definitions as mediators, and actual helping and voice as dependent variables. Collectivism and employee exchange ideology were included as the control variables. Regression results shown in Table 6 indicate that the four conditions for mediation for Hypothesis 1c were met: (a) experienced HPWS was significantly related to actual helping ( $\beta = .24, p < .01$ ), (b) experienced HPWS was significantly related to helping role definition ( $\beta = .36, p < .001$ ), (c) helping role definition was significantly related to actual helping ( $\beta = .34, p < .001$ ), and (d) the effect of experienced HPWS was nonsignificant when helping role definition was also included in the model ( $\beta = .12, ns$ ). The results show the effect of experienced HPWS on actual helping was completely mediated by helping role definition. Moreover, the effects of two control variables (collectivism and employee exchange ideology) on helping role definition were significant, as previously mentioned. The effect of collectivism on actual helping was also significant ( $\beta = .22, p < .01$ ).

Regression results shown in Table 7 indicate that the four conditions for mediation for Hypothesis 1d were met: (a) experienced HPWS was significantly

related to actual voice ( $\beta = .27, p < .001$ ), (b) experienced HPWS was significantly related to voice role definition ( $\beta = .32, p < .001$ ), (c) voice role definition was significantly related to actual voice ( $\beta = .25, p < .001$ ), and (d) the effect of experienced HPWS dropped significantly when voice role definition was also included in the model (from  $\beta = .27, p < .001$ , to  $\beta = .19, p < .05$ ). The results show the effect of experienced HPWS on actual voice was partially mediated by voice role definition. Similar to the results for actual helping, not only were the effects of two control variables (collectivism and employee exchange ideology) on voice role definition significant, the effect of collectivism on actual voice was also significant.

To verify the regression results presented in Tables 6 and 7, I also conducted Sobel tests and bootstrapping tests. Table 8 summarized the results of Sobel and bootstrapping tests on the mediating roles of helping and voice role definitions. The Sobel tests indicated a significant mediation effect for helping role definition in the HPWS-actual helping relationship ( $Z = 4.07, p < .001$ ) and voice role definition in the HPWS-actual voice relationship ( $Z = 3.44, p < .001$ ). The results from the bootstrap samples indicated that the indirect effect HPWS on actual helping via helping role definition was .18 with a bootstrapped 95% CI did not contain zero (.09, .29) and the indirect effect HPWS on actual voice via voice role definition was .12 and a bootstrapped 95% CI did not include zero (.05, .22). These Sobel and bootstrapping

results cross-validate the regression results. Taken together, Hypothesis 1c and d was supported for helping and voice role definitions as mediators.

Table 6

*Regression Results of Helping Role Definition and Actual Helping (H1a & c)*

Variable	Helping role definition		Actual helping		
	Step 1	Step 2	Step 1	Step 2	Step 3
Collectivism	.18*	.07	.22**	.14	.12
Employee exchange ideology	-.18*	-.10	-.10	-.05	-.02
HPWS		.36***		.24**	.12
Helping role definition					.34***
R <sup>2</sup>	.09	.19	.08	.12	.22
F	9.75***	15.85***	8.28***	9.44***	13.93***

*Notes.* Standardized beta coefficients are reported.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 7

*Regression Results of Voice Role Definition and Actual Voice (H1b & d)*

Variable	Voice role definition		Actual voice		
	Step 1	Step 2	Step 1	Step 2	Step 3
Collectivism	.24**	.14	.32***	.24**	.20**
Employee exchange ideology	-.17*	-.10	-.08	-.02	.01
HPWS		.32***		.27***	.19*
Voice role definition					.25***
R <sup>2</sup>	.12	.20	.12	.18	.23
F	13.41***	16.62***	14.43***	14.91***	15.05***

*Notes.* Standardized beta coefficients are reported.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 8

*Results of Sobel and Bootstrapping Tests of the Indirect Effects of Helping and Voice Role Definitions (H1c & d)*

Mediator	The HPWS-actual helping relationship				
	Sobel	Bootstrapping (95% CI)			
	Z	Effect	SE	Lower	Upper
Helping role definition	4.07***	.18	.05	.09	.29
Mediator	The HPWS-actual voice relationship				
	Sobel	Bootstrapping (95% CI)			
	Z	Effect	SE	Lower	Upper
Voice role definition	3.44***	.12	.04	.05	.22

*Note.* 1,000-bootstrap samples; CI = confidence interval; SE = standard error.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

To test Hypotheses 2 to 6, that social exchange, organizational identification, efficacy perceptions, instrumentality perceptions, and autonomy perceptions mediate the relations between experienced HPWS and helping and voice role definitions, I first followed Baron and Kenny's (1986) 4-condition mediation testing technique with hierarchical regressions. Regression results are shown in Tables 9 and 10. For helping role definition as outcome, experienced HPWS was significantly and positively related to helping role definition ( $\beta = .36, p < .001$ ), given the support found for H1a. The first condition of mediation was met. The results in Table 9 show that experienced HPWS were significantly and positively related to four out of the five hypothesized mediators (social exchange:  $\beta = .62, p < .001$ ; organizational identification:  $\beta = .28, p < .001$ ; helping instrumentality perception  $\beta = .48, p < .001$ ; helping autonomy perception:  $\beta = .26, p < .001$ ), except for helping efficacy perception ( $\beta = .02, ns$ ), satisfying the second condition in the test of mediation with the exception of helping efficacy perception. As indicated in Table 9, instrumentality and autonomy perceptions also had significant positive relationships with helping role definition ( $\beta = .30, p < .001$  and  $\beta = .34, p < .001$ , respectively), whereas other three mediators (social exchange, organizational identification, and helping efficacy perception) had no significant relationship with helping role definition. These results satisfied the third condition for helping instrumentality and autonomy perceptions.

Finally, the effect of experienced HPWS became nonsignificant when helping instrumentality and autonomy perceptions were included in the model ( $\beta = .12, ns$ ). In sum, these results indicate that helping instrumentality and autonomy perceptions completely mediated the influence of experienced HPWS on helping role definition.

For voice role definition as outcome, the first condition was met given the support found for H1b that experienced HPWS was significantly and positively related to voice role definition ( $\beta = .32, p < .001$ ). The results in Table 10 show that experienced HPWS were significantly and positively related to all of the five hypothesized mediators (social exchange:  $\beta = .62, p < .001$ ; organizational identification:  $\beta = .28, p < .001$ ; voice efficacy perception:  $\beta = .25, p < .01$ ; voice instrumentality perception  $\beta = .53, p < .001$ ; voice autonomy perception:  $\beta = .37, p < .001$ ), satisfying the second condition. The third condition also was met: voice efficacy, instrumentality, and autonomy perceptions were significantly positively related to voice role definition ( $\beta = .23, p < .001, \beta = .14, p < .05, \text{ and } \beta = .37, p < .001$ , respectively). However, social exchange and organizational identifications did not satisfy the third condition as they were not significantly related to voice role definition. Finally, the effect of experienced HPWS was no longer significant when voice efficacy, instrumentality, and autonomy perceptions were included in the model ( $\beta = .02, ns$ ). Collectively, these results indicate that voice efficacy, instrumentality,



and autonomy perceptions completely mediated the influence of experienced HPWS on voice role definition.

To verify the regression results, I also employed Preacher and Hayes's (2008) bootstrapping approach. Such an approach has been argued to be the superior approach to examine mediation models with multiple mediators (Preacher & Hayes, 2008). The bootstrapping results are presented in Table 11. Regarding helping role definition as outcome, the total indirect effect including all the mediators was significant (indirect effect = .38, 95% CI [.19, .62]). However, instrumentality (indirect effect = .23, 95% CI [.14, .41]) and autonomy (indirect effect = .14, 95% CI [.05, .25]) perceptions were the only significant mediators. Other mediators (social exchange, organizational identification, and efficacy perception) included zero in their 95% CIs. Regarding voice role definition as outcome, the total indirect effect was also significant (indirect effect = .49, 95% CI [.29, .69]). The indirect effects of efficacy, instrumentality, and autonomy perceptions were significant (efficacy: indirect effect = .09, 95% CI [.03, .19]); instrumentality: indirect effect = .12, 95% CI [.03, .25]; autonomy: indirect effect = .22, 95% CI [.12, .35]). The bootstrapping results are consistent with the previous regression results. Moreover, Sobel tests (see Table 11) also indicate a significant mediation effect in the HPWS-helping role definition relationship for helping instrumentality perception ( $Z = 3.85, p < .001$ ) and helping

autonomy perception ( $Z = 3.71, p < .001$ ), and a significant mediation effect in the HPWS-voice role definition relationship for voice efficacy perception ( $Z = 2.97, p < .01$ ), voice instrumentality perception ( $Z = 2.22, p < .05$ ), and voice autonomy perception ( $Z = 4.52, p < .001$ ). In sum, these results provide support for Hypotheses 5a, 6a, 4b, 5b, and 6b, while Hypotheses 2a, 3a, 4a, 2b, and 3b were not supported.

Table 9

*Regression Results on Helping Role Definition via Hypothesized Mediators (H2a-6a)*

Variable	Helping role definition	Social exchange	Organizational identification	Helping efficacy	Helping instrumentality	Helping autonomy	Helping role definition
Step 1							
HPWS	.36***	.62***	.28***	.02	.48***	.26***	
$R^2$	.19	.50	.25	.18	.20	.13	
$F(3, 204)$	15.85***	68.84***	22.60***	14.42***	16.94***	9.89***	
Step 2							
HPWS							.12
Social exchange							.02
Organizational identification							-.03
Helping efficacy							.11
Helping instrumentality							.30***
Helping autonomy							.34***
$R^2$							.46
$F(8, 199)$							20.86***

*Notes.* This table does not show control variables (please refer to Table 6). Standardized beta coefficients are reported.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 10

*Regression Results on Voice Role Definition via Hypothesized Mediators (H2b-6b)*

Variable	Voice role definition	Social exchange	Organizational identification	Voice efficacy	Voice instrumentality	Voice autonomy	Voice role definition
<b>Step 1</b>							
HPWS	.32***	.62***	.28***	.25**	.53***	.37***	
$R^2$	.20	.50	.25	.12	.30	.18	
$F(3, 204)$	16.62***	68.84***	22.60***	8.90***	28.65***	14.38***	
<b>Step 2</b>							
HPWS							.02
Social exchange							.00
Organizational identification							.10
Voice efficacy							.23***
Voice instrumentality							.14*
Voice autonomy							.37***
$R^2$							.45
$F(8, 199)$							20.31***

*Notes.* This table does not show control variables (please refer to Table 7). Standardized beta coefficients are reported.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 11

*Results of Bootstrapping Tests for the Specific Indirect Effects (H2-6)*

Mediator	The HPWS-helping role definition relationship				
	Sobel	Bootstrapping (95% CI)			
	Z	Effect	SE	Lower	Upper
Social exchange	.41	.02	.09	-.16	.21
Organizational identification	-.29	-.01	.04	-.11	.06
Helping efficacy	1.73	.00	.01	-.02	.05
Helping instrumentality	3.85***	.23	.06	.14	.41
Helping autonomy	3.71***	.14	.05	.05	.25
Total indirect effect		.38	.11	.19	.62
Mediator	The HPWS-voice role definition relationship				
	Sobel	Bootstrapping (95% CI)			
	Z	Effect	SE	Lower	Upper
Social exchange	.14	.00	.09	-.16	.18
Organizational identification	1.80	.05	.03	-.01	.13
Voice efficacy	2.97**	.09	.04	.03	.17
Voice instrumentality	2.22*	.12	.05	.04	.25
Voice autonomy	4.52***	.22	.06	.12	.35
Total indirect effect		.49	.10	.29	.69

*Note.* 1,000-bootstrap samples; CI = confidence interval; SE = standard error.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

To examine the entire research model involving all the hypothesized relationships in Figure 1, I used SEM to compare the fit of the alternative models with the hypothesized model. The hypothesized model is based on the measurement model estimated earlier. As indicated in Table 5, the distinctiveness of the constructs in the hypothesized model was supported. The hypothesized model shown in Figure 2 predicts that helping and voice role definitions completely mediate the relations between experienced HPWS and actual OCB (helping and voice). Furthermore, social exchange, organizational identification, efficacy perception, instrumentality perception, and autonomy perception completely mediated the relations between experienced HPWS and OCB role definitions (helping and voice). As shown in Table 12, the goodness of fit indices indicates that the hypothesized full mediation model fit the data reasonably well,  $\chi^2(614) = 1,091.31$ , CFI = .92, TLI = .91, RMSEA = .06.

However, in order to examine the possibility that other theoretically plausible models that better explain the data, I then compared the fit of the hypothesized model shown in Figure 2 with two alternative models. In Model 1 (see Figure 3), direct paths from experienced HPWS to actual helping and voice were added to test the possibility that the mediation by helping and voice role definitions is partial. In Model 2 (see Figure 4), direct paths from experienced HPWS to helping and voice role definitions were added to explore the odds that experienced HPWS had both direct and indirect

effects on helping and voice role definitions. Both these alternative models represent proposed partial mediations between experienced HPWS and outcome variables. The full mediation hypotheses proposed in this study would be supported if the hypothesized full mediation model fits the data significantly better than other two alternative models. Table 12 presents the fit statistics for model comparisons. As shown in Table 12, the fit of alternative models was highly identical to that of the hypothesized model. Chi-square differences were not statically significant, which suggest no meaningful improvement from the hypothesized model was found.

However, according to the rule of parsimony, Model 1 ( $\chi^2(612) = 1,085.78$ , CFI = .92, TLI = .91, RMSEA = .06) was considered as the best-fitting model because Model 1 has the smallest Akaike information criterion (AIC = 1,345.38) value of the three models. The standardized path estimates for Model 1, the best-fitting model, are presented in Figure 3.

Taken as a whole, previous analyses (e.g., regression and bootstrapping) and the SEM analyses yield highly consistent results. As shown in Figure 3, helping role definition completely mediated the positive relationship between experienced HPWS and actual helping, whereas, voice role definition partly mediated the effect of experienced HPWS on actual voice. Thus, Hypothesis 1a was supported and Hypothesis 1b was partially supported. The path coefficients between experienced

HPWS and all of the hypothesized mediators in the experienced HPWS-OCB role definition relationships were significant, except for helping efficacy perception. Helping instrumentality perception, helping autonomy perception, voice efficacy perception, voice instrumentality perception, and voice autonomy perception met all the four mediation condition, providing support for Hypotheses 5a, 6a, 4b, 5b, and 6b.



Table 12

*Results of Model Comparisons*

Model	X <sup>2</sup>	df	CFI	TLI	RMSEA	Change from Model 1	
						$\Delta x^2$	$\Delta df$
H	1,091.31	614	.92	.91	.06		
<b>1</b>	<b>1,085.78</b>	<b>612</b>	<b>.92</b>	<b>.91</b>	<b>.06</b>	<b>5.53</b>	<b>2</b>
2	1,090.38	613	.92	.91	.06	.93	1

*Notes.* CFI = comparative fit index; TLI = Tucker-Lewis Index; RMSEA = root-mean-square error of approximation.

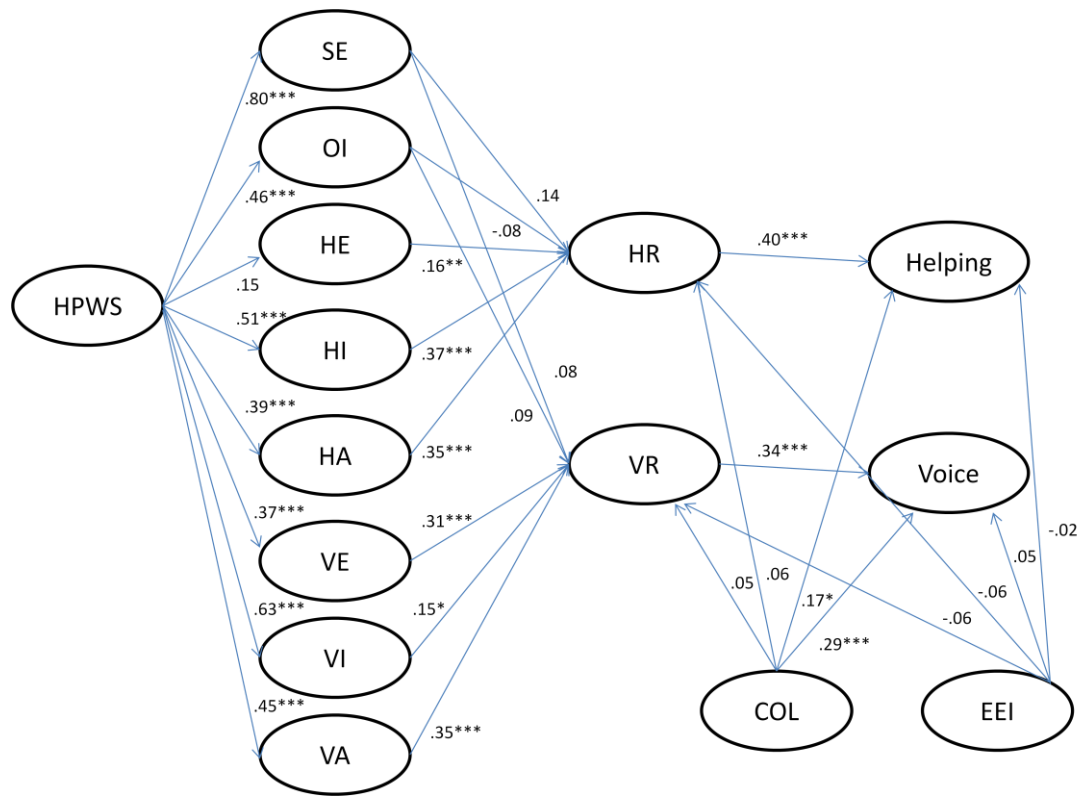
Model H is the hypothesized model.

Model 1 adds direct paths from experienced HPWS to helping and voice.

Model 2 adds direct paths from experienced HPWS to helping and voice role definitions.

The best-fitting model (M1) appears in bold.

Figure 2. Hypothesized model.

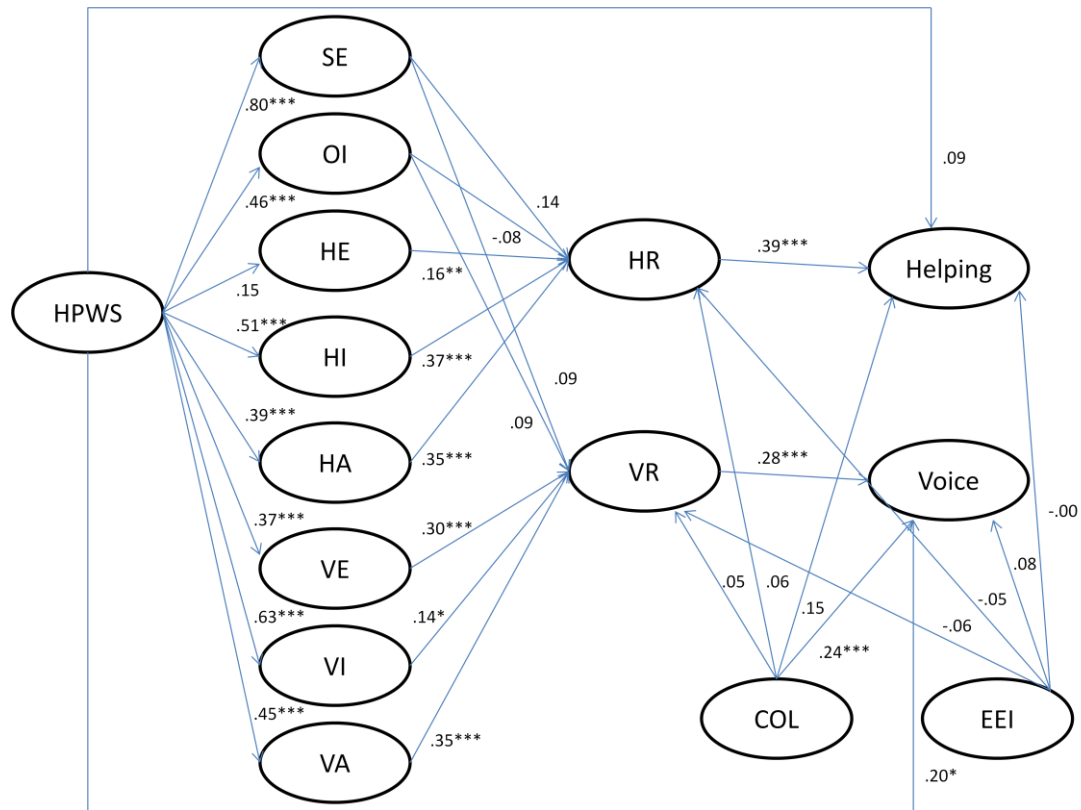


Notes. Path estimates are standardized coefficients.

HPWS = experienced HPWS; SE = social exchange; OI = organizational identification; HE = helping efficacy perception; HI = helping instrumentality perception; HA = helping autonomy perception; VE = voice efficacy perception; VI = voice instrumentality perception; VA = voice autonomy perception; HR = helping role definition; VR = voice role definition; H = helping; V = voice; COL = collectivism; EEI = employee exchange ideology.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Figure 3. Model 1 (the best fitting model).

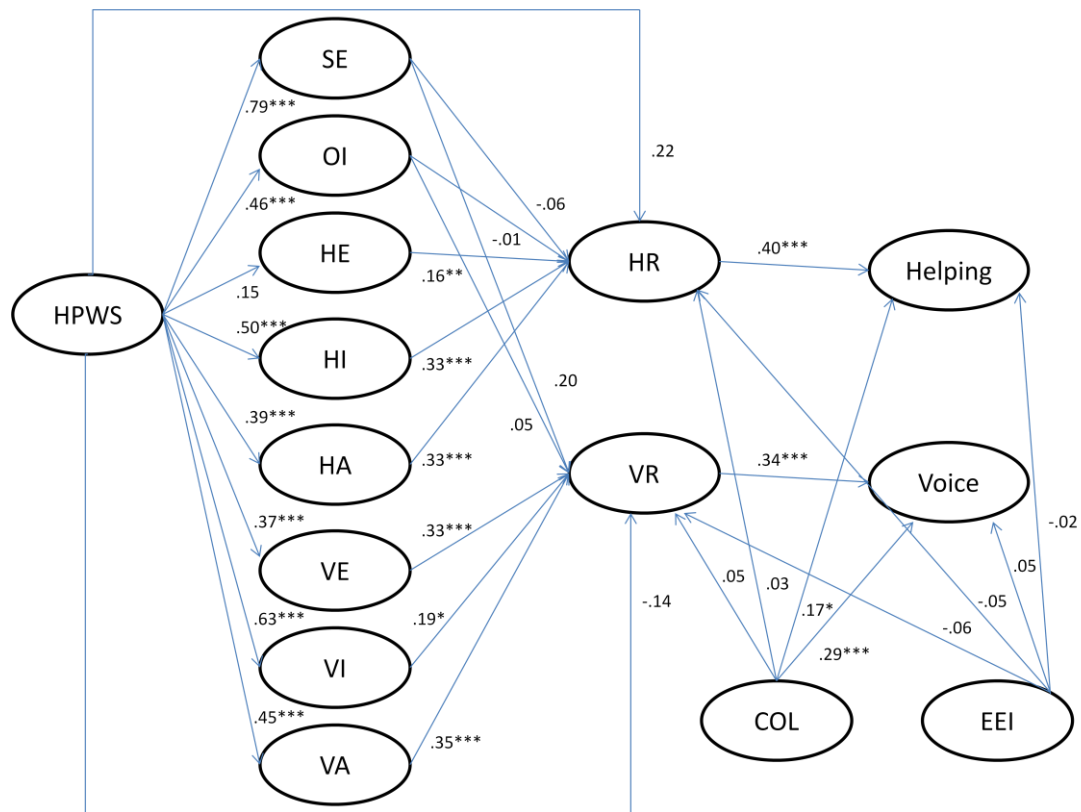


Notes. Path estimates are standardized coefficients.

HPWS = experienced HPWS; SE = social exchange; OI = organizational identification; HE = helping efficacy perception; HI = helping instrumentality perception; HA = helping autonomy perception; VE = voice efficacy perception; VI = voice instrumentality perception; VA = voice autonomy perception; HR = helping role definition; VR = voice role definition; H = helping; V = voice; COL = collectivism; EEI = employee exchange ideology.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Figure 4. Model 2.



Notes. Path estimates are standardized coefficients.

HPWS = experienced HPWS; SE = social exchange; OI = organizational identification; HE = helping efficacy perception; HI = helping instrumentality perception; HA = helping autonomy perception; VE = voice efficacy perception; VI = voice instrumentality perception; VA = voice autonomy perception; HR = helping role definition; VR = voice role definition; H = helping; V = voice; COL = collectivism; EEI = employee exchange ideology.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Hypotheses 7a and b predict that trust in supervisor will be positively related to an expanded job role definition to include helping and voice, respectively, whereas Hypothesis 7c predicts that the positive relationship between experienced HPWS and job role definitions of helping and voice will be stronger when trust in supervisor is high. I used hierarchical moderated regression analyses to examine the main and interactive effects of trust in supervisor on helping and voice role definitions.

Experienced HPWS and trust in supervisor were mean-centered before creating the interaction term to reduce the potential multicollinearity problems. In the first step, collectivism and employee exchange ideology were included as the control variables. In the second step, experienced HPWS and trust in supervisor were added to examine the main effect of trust in supervisor. Experienced HPWS was included to statistically control for the confounding effect of HPWS on the outcome variables. The third step added the interaction between experienced HPWS and trust in supervisor. Results for the hierarchical moderated regression are shown in Table 13 where empirical support for the main and interactive effect of trust in supervisor can be seen. When controlling for the controls and experienced HPWS, trust in supervisor was significantly, positively related to helping role definition ( $\beta = .32, p < .01$ ) and expanded voice role definition ( $\beta = .44, p < .001$ ). Therefore, these results provide support for Hypotheses 7a and b.

Hypotheses 7c and d predict that trust in supervisor will moderate the positive relationships between experienced HPWS and expanded job role definitions of helping and voice, such that the relationship will be stronger when trust in supervisor is high. Significant interaction effects of experienced HPWS and trust in supervisor were also found for both helping ( $\beta = .19, p < .01$ ) and voice ( $\beta = .15, p < .05$ ) role definitions. To illustrate the relationships, the significant interactions were plotted in Figure 5 using procedures outlined by Aiken and West (1991). Scores for helping and voice role definitions were plotted at high (i.e., one standard above the mean) and low (i.e., one standard deviation below the mean) levels of trust in supervisor. In each case, the relationship between experienced HPWS and helping and voice role definitions were stronger when employees perceived high levels of trust in supervisor (helping role definition:  $t = 3.94, p < .001$ ; voice role definition:  $t = 2.60, p < .01$ ) than low levels of trust in supervisor (helping role definition:  $t = 1.28, ns$ ; voice role definition:  $t = .22, ns$ ). These results support Hypotheses 7c and d.

Table 13

*Results of Moderated Regression Analysis of Experienced HPWS and Trust in Supervisor on Expanded Helping & Voice Role Definitions (H7a-d)*

Variable	Helping role definition	Voice role definition
Step 2 (main effect)		
HPWS	.19*	.09
Trust in supervisor	.32***	.44***
R <sup>2</sup>	.26	.34
F(4, 203)	17.85***	25.57***
Step 3 (moderating effect)		
HPWS x trust in supervisor	.19**	.15*
ΔR <sup>2</sup>	.03	.02
F(5, 202)	16.76***	22.35***

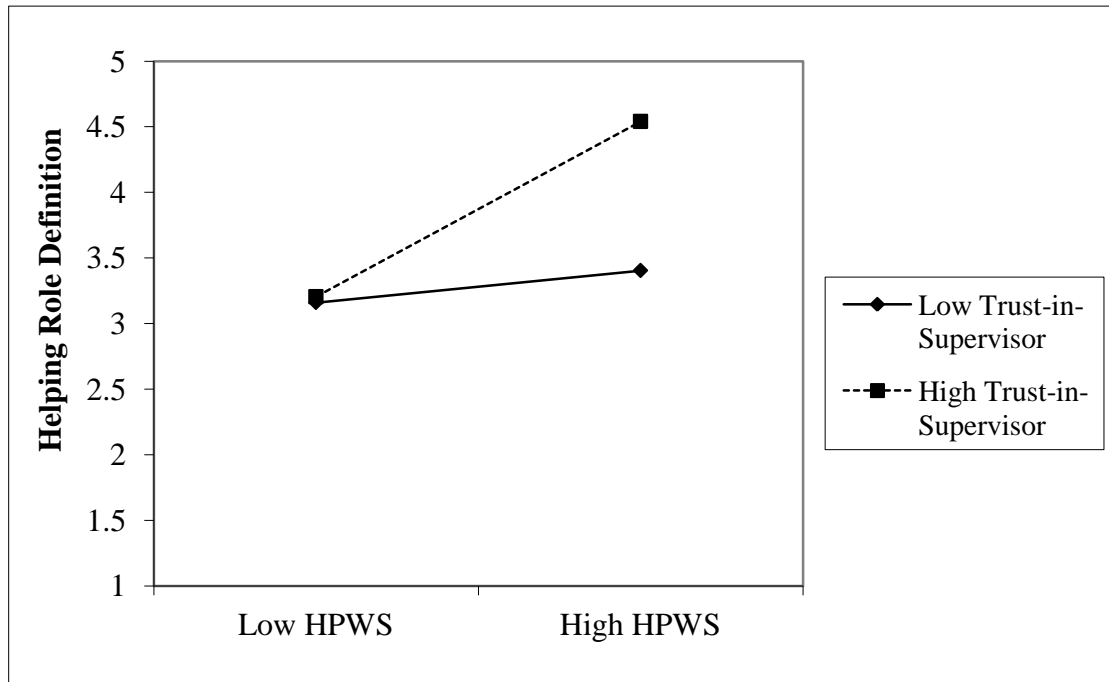
*Notes.* This table does not show control variables (please refer to Tables 6 and 7).

Standardized beta coefficients are reported.

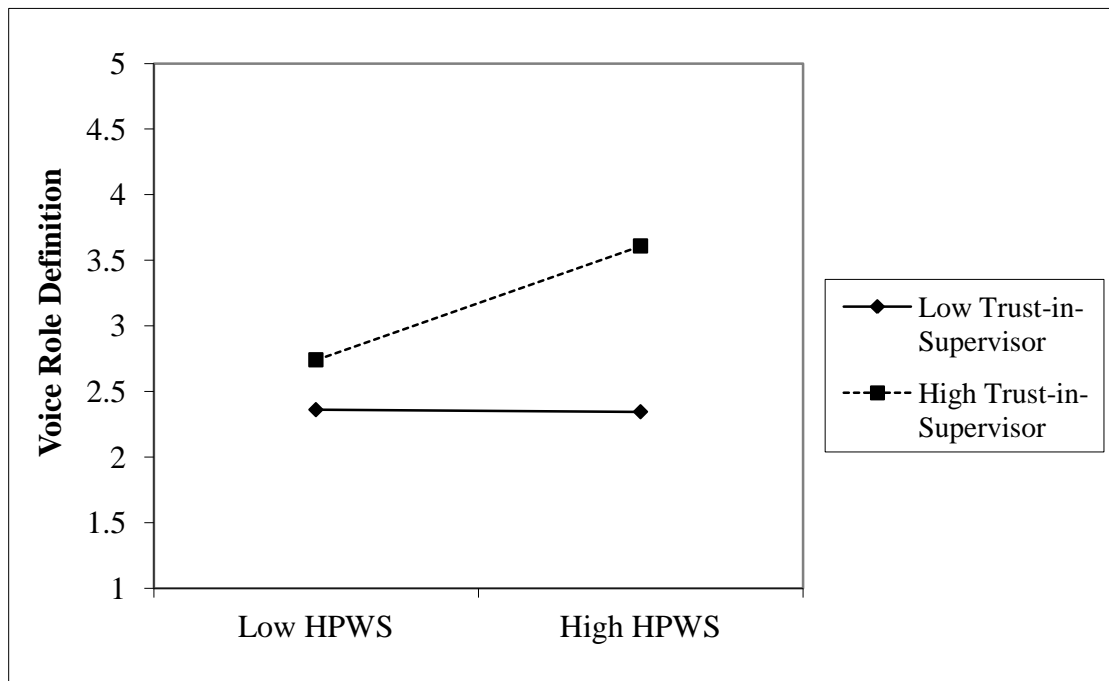
\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Figure 5. Moderating effects of trust in supervisor.

a) Helping role definition



b) Voice role definition





## **Additional Analyses**

Because I found efficacy, instrumentality, and autonomy perceptions concerning helping and voice to be significantly related to role definitions, I examined whether each of the OCB perceptions is a unique antecedent that will incrementally predict role definition over and above each other. To examine such possibility, hierarchical regressions were used. Collectivism and employee exchange ideology were entered in the first step as the control variables, followed by the three perceptions in the second step. Tests of these analyses are presented in Table 14. As shown by the results, helping instrumentality ( $\beta = .35, p < .001$ ) and autonomy ( $\beta = .35, p < .001$ ) perceptions both incrementally predicted helping role definition. Helping efficacy perception did not explain a significant portion of incremental variance in helping role definition ( $\beta = .09, ns$ ). Voice efficacy ( $\beta = .26, p < .001$ ), instrumentality ( $\beta = .17, p < .01$ ), and autonomy ( $\beta = .38, p < .001$ ) perceptions all contributed incremental variance explained in role definition.

Table 14

*Regression Results of Efficacy, Instrumentality, and Autonomy Perceptions on Helping and Voice Role Definitions*

Variable	Helping role definition	Voice role definition
Step 2 (independent)		
Efficacy	.09	.26***
Instrumentality	.35***	.17**
Autonomy	.35***	.38***
R <sup>2</sup>	.45	.44
F(5, 202)	32.52***	31.89***

*Notes.* This table does not show control variables (please refer to Tables 6 and 7).

Standardized beta coefficients are reported.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

## **Chapter 5**

### **Discussion**

As hypothesized, employee-experienced HPWS was positively related to employee helping and voice role definitions. With regard to the relationships between employee-experienced HPWS and actual employee helping and voice, I found the hypothesized indirect effects of helping and voice role definitions. More specifically, helping role definition fully mediated the experienced HPWS-actual helping relationship, whereas voice role definition partially mediated the experienced HPWS-actual voice relationship. With respect to the relationships between employee-experienced HPWS and employee helping and voice role definition, multiple mediators, including employee social exchange, organizational identification, efficacy perceptions, instrumentality perceptions, and autonomy perceptions, were examined simultaneously. The findings indicate that the experienced HPWS-helping role definition relationship was fully mediated by employee perceptions of helping instrumentality and autonomy. However, social exchange, organizational identification, and helping efficacy perception did not mediate the relationship. The findings also show that the experienced HPWS-voice role definition relationship was fully mediated by employee perceptions of voice efficacy, instrumentality, and autonomy. However, in contrast to expectations, the relationship was not mediated by social exchange and

organizational identification.

Furthermore, employee trust in supervisor was positively related to employee helping and voice role definitions. The findings also indicate that employee trust in supervisor strengthened the effects of experienced HPWS on helping and voice role definitions when trust in supervisor was high than when it was low. As for the control variables, I found that employee collectivism was positively related to helping and voice role definitions whereas employee exchange ideology was negatively related to helping and voice role definitions. Additional analyses also show that the employee helping instrumentality and autonomy perceptions explained incremental variance in employee helping role definition, whereas employee helping efficacy failed to show an incremental variance. On the other hand, employee voice efficacy, instrumentality, and autonomy perceptions each explained incremental variance in employee voice role definition. A summary of the hypothesized relationships is provided in Table 15.

These results have important implications for theory, practice, and future research directions, which I discuss next.

Table 15

*Summary of the Hypothesized Relationships*

Hypothesis		Support
Direct effects		
H1a	Employees' experience of HPWS will be positively related to the degree to which they include helping within their job role definition.	Y
H1b	Employees' experience of HPWS will be positively related to the degree to which they include voice within their job role definition.	Y
H7a	Trust in supervisor will be positively related to employee helping role definition.	Y
H7b	Trust in supervisor will be positively related to employee voice role definition.	Y
Indirect effects		
H1c	Employee helping role definition will mediate the positive relationship between employees' experience of HPWS and their helping behaviors.	Y
H1d	Employee voice role definition will mediate the positive relationship between employees' experience of HPWS and their exercise of voice.	P
H2a	Employee social exchange will mediate the positive relationship between employees' experience of HPWS and helping role definition.	N
H2b	Employee social exchange will mediate the positive relationship between employees' experience of HPWS and voice role definition.	N
H3a	Employee organizational identification will mediate the positive relationship between employees' experience of HPWS and helping role definition.	N
H3b	Employee organizational identification will mediate the positive relationship between employees'	N

	experience of HPWS and voice role definition.	
H4a	Employee helping efficacy perception will mediate the positive relationship between employees' experience of HPWS and helping role definition.	N
H4b	Employee voice efficacy perception will mediate the positive relationship between employees' experience of HPWS and voice role definition.	Y
H5a	Employee helping instrumentality perception will mediate the positive relationship between employees' experience of HPWS and helping role definition.	Y
H5b	Employee voice instrumentality perception will mediate the relationship between employees' experience of HPWS and voice role definition.	Y
H6a	Employee helping autonomy perception will mediate the positive relationship between employees' experience of HPWS and helping role definition.	Y
H6b	Employee voice autonomy perception will mediate the positive relationship between employees' experience of HPWS and voice role definition.	Y
	Interactive effects	
H7c	Trust in supervisor will moderate the positive relationships between experienced HPWS and expanded helping role definition, such that the relationship will be stronger when trust in supervisor is high.	Y
H7d	Trust in supervisor will moderate the positive relationships between experienced HPWS and expanded voice role definition, such that the relationship will be stronger when trust in supervisor is high.	Y

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*Note.* Y = supported; N = not supported; P = partial supported.

## **Implications for Theory**

In this section, I discuss several implications for SHRM and OCB literatures that I believe are of particularly important given the results of this dissertation.

**Implications for HPWS literature.** The present dissertation provides several important theoretical advances to the HPWS literature. First, researchers (e.g., Becker & Gerhart, 1996; Wright & Gardner, 2003) in the SHRM domain have long recognized the need to solve the “black box” between HPWS and organizational performance, the investigation of the intermediate linkages that translate HRM practices into performance measures. To open up this “black box,” some have called for greater attention to be given to the mediating variables by examining more proximal relationship in the HR systems-organizational performance relationship, such as employee perception of HRM practices, as well as employee attitudes and behaviors (Nishii et al., 2008; Takeuchi, Chen, & Lepak, 2009). This dissertation responds to these suggestions by examining employee experience of HPWS. The findings suggest that employee-experienced HPWS influence employee attitudes (social exchange and organizational identification), employee perceptions of citizenship behavior at work (helping instrumentality, helping autonomy, voice efficacy, voice instrumentality, and voice autonomy), and employee behaviors (helping and voice).

The findings also indicate that employee-experienced HPWS impact the extent to which employees include helping and voice within their job role definition.

Consequently, these results echo our existing knowledge of intervening mechanisms, such as employee attitudes and behaviors, as well as provide new insight on the role of employee OCB perceptions and role definitions in linking HPWS and actual employee citizenship behaviors that are associated with organizational competitive advantage. I argue that while it is critical to examine employee attitudes and behaviors, the value of employee perceptions and role definitions should not be understated when examining how HPWS relate to performance.

Second, in a recent review of SHRM literature, Jiang, Takeuchi, and Lepak (2013) (2013) argue that although the AMO model was developed to explain the effects of HRM practices on employee abilities, motivation, and opportunities to perform, most studies to date have focused on the effect of HPWS on one component of employee performance, for instance, employee motivation to perform (e.g., Boxall, Ang, & Bartram, 2011; Butts, Vandenberg, DeJoy, Schaffer, & Wilson, 2009; Ehrnrooth & Björkman, 2012; Kuvaas, 2008). Some have examined both employee abilities and motivation to perform (Liao et al., 2009). However, few have actually applied this model and examined all three components of employee performance (Jiang et al., 2013). These researchers further point out in their review that future research should



strive to examine multiple mediators in the HPWS-performance relationship simultaneously in a single study, which allows researchers and managers to determine the relative weight of each mediator. In this dissertation, I applied the AMO model to understand the effects of HPWS experienced by employees on employee efficacy, instrumentality, and autonomy to perform helping and voice. To the best of my knowledge, the present dissertation is the first to demonstrate how employee perceptions of abilities, motivation, and opportunities to perform helping and voice are positively affected by HPWS. This has also answered the call from Snape and Redman (2010) to examine the impact of HPWS to enhance employees' abilities, motivation, and opportunities to perform OCBs.

Moreover, multiple mediators - social exchange, organizational identification, efficacy perceptions, instrumentality perceptions, and autonomy perceptions - were also examined at the same time to obtain a deeper understanding of the intermediate linkages through which HPWS relate to employee role definitions with respect to helping and voice. With respect to employee helping role definition, the results of examining multiple mediators at the same time suggest that the effect of HPWS on employee helping role definition were translated through enhanced employee instrumentality and autonomy perceptions on helping and not through efficacy perception, social exchange, and organizational identification. With regard to employee

voice role definition, employee efficacy, instrumentality, and autonomy perceptions on voice mediate the influence of HPWS on employee voice role definition. The non-significant finding regarding the mediating roles of social exchange and organizational identification indicates that, when examining multiple mediators to explain the effect HPWS have on employee OCB role definitions at the same time, perceptions of efficacy, instrumentality, and autonomy are more critical than employee attitudes.

The mediating effects of employee instrumentality and autonomy perceptions toward helping, and the mediating effects of employee efficacy, instrumentality, and autonomy perceptions toward voice also extend the HPWS literature, specifically with regard to the underlying mechanisms that link HPWS and expanded employee role definitions. The results suggest that HPWS play a more critical role in influencing employee efficacy to engage in voice than helping. It is likely that employees consider helping colleagues to solve work related issues to be less difficult than speaking up about ideas for new projects.

Third, researchers have often linked employee OCBs as both an important outcome of HPWS (Gong et al., 2010; Snape & Redman, 2010) and a critical intervening mechanism between HPWS and organizational performance (Evans & Davis, 2005; Messersmith et al., 2011; Sun et al., 2007). However, because these

studies did not include employee role definition in their examination, it remains unclear whether the effect of HPWS on employee discretionary (i.e., extra-role) nature of OCB can be sustained over time. As stated by Messersmith and her colleagues (2011), “It bears noting that there are conceptual challenges that might result from relying on employee discretion as source of competitive advantage. Because there are discretionary behaviors, is it possible or even plausible to expect them to be sustained over time? Is this a sustainable phenomenon or one that is temporally limited as OCBs either become part of job requirements or disappear altogether” (p. 1114)? To provide an initial insight to that question, I tested two theoretical views, role enlargement process and behavioral perspective of HRM, on employee role definitions as the intervening mechanism through which HPWS impact employees' actual OCBs. The results of a multi-wave design in the present dissertation suggest that HPWS expand how employees define helping and voice as part of the job, which causes them to be more likely to engage in supervisor-rated helping and voice. Thus, I argue that an enduring sustainable impact of HPWS on organizational performance through employee OCBs is most likely when HPWS broaden employees' role definitions to include what is typically considered discretionary OCB. With that being said, I encourage future research to investigate further the specific linkages between HPWS, the expanded employee OCB role definitions resulting from HPWS, and the

relationships with broader and long-term organizational implications.

Finally, the present dissertation uncovers an important boundary condition regarding how the effect of HPWS on employee OCB role definitions can be enhanced through increasing employees' perception of trust in their supervisor. In particular, I found that the relationship between employee experience of HPWS and OCB role definition was stronger among employees who have high levels of trust in their supervisor. This interaction was significant for both employee helping and voice role definitions. These results contribute to researchers' understanding of OCB role definition by providing support for the notion that trust in supervisor may act as an enhancer for employees to interpret HRM practices. As such, the main effect of HPWS on employee OCB role definitions needs to be interpreted in light of employees' perception of trust in their supervisor. Such findings also corroborate with Dirk and Ferrin's (2001) claim that trust facilitates how employees interpret and expect organizational practices, and recent HPWS studies that claimed that trust in supervisor allows employees to perceive and to react to HRM practices more positively (Farndale et al., 2011; Innocenti et al., 2011).

**Implications for OCB literature.** The results of this dissertation contribute to the OCB literature in five ways. First, prior researchers (Dierdorff et al., 2012;

Kamdar et al., 2006; McAllister et al., 2007) have noted the importance of one's role perceptions when examining why some employees define certain OCBs as part of their jobs and others do not. Through a series of CFAs, this dissertation demonstrates the discriminant validity of one's OCB perceptions and role definition. Such finding echoes McAllister et al.'s (2007) observation in that they also found a distinctiveness between OCB perceptions and role definitions. While McAllister et al. (2007) found one's OCB perceptions and role definitions to be significantly related to one's actual OCBs, this dissertation builds on their study by demonstrating the independent effects of OCB perceptions on OCB role definitions. Moreover, OCB perceptions also incrementally predict OCB role definition, with the exception of helping efficacy perception. Thus, these findings have two important implications: (a) although one's OCB perceptions, such as efficacy, instrumentality, and autonomy, are related to one's OCB role definitions, it is not appropriate to consider them as one construct, and (b) employee efficacy, instrumentality, and autonomy perceptions are essential in understanding employee OCB role definition.

Furthermore, consistent with a prior study (McAllister et al., 2007) conducted in India, I adopted most of their approaches to measure employee OCB perceptions and role definitions and evidenced good reliabilities in a sample of Taiwanese respondents. The only exception is the measurement of employee OCB instrumentality perception

which I adopted from a previous study (Jiao et al., 2010) conducted in China. This measurement also showed good reliabilities and relationships as expected with other constructs in the present dissertation. The fact that these measurements received good reliabilities suggests that they might be useful for future researchers to examine the roles of employee OCB perceptions and role definitions in greater Chinese societies.

Second, given the positive outcomes associated with employees performing OCB, as noted in the introduction, it is not surprising that a great deal of practical implications from OCB studies have been around creating a work environment to increase, encourage, or even reward employee OCBs (Kim et al., 2013; Mackenzie, Podsakoff, & Podsakoff, 2011; Rubin, Dierdorff, & Bachrach, 2013; Sonnentag & Grant, 2012; Vey & Campbell, 2004). Notably, OCB researchers have suggested to practitioners that employee helping and voice can be influenced through HRM practices, such as compensation (Mackenzie et al., 2011; Marinova, Moon, & Van Dyne, 2010; Rubin et al., 2013; Tangirala et al., 2013), performance appraisal (Vey & Campbell, 2004), and training (Sonnentag & Grant, 2012). For instance, as stated by Mackenzie and his colleagues (2011), “One important implication of these findings is that managers should pay attention to and reward group members who exhibit challenge-oriented behaviors” (p. 585), such as voice.

Similarly, as alluded to earlier, researchers who have studied employee OCB role

definition have also suggested that employee OCB role definition should be encouraged (Kamdar et al., 2006; McAllister et al., 2007; Tepper et al., 2001; Tepper & Taylor, 2003; Turner, Chmiel, & Walls, 2005; Van Dyne et al., 2008). These researchers have argued that employee OCB role definition can be influenced by HRM practices like training, job design, selection, and compensation. For example, as noted by McAllister and colleagues (2007), “Job design might also be used to shape role perceptions and hence bring about higher levels of organizationally desirable behaviors” (p. 1209). The present dissertation addresses these suggestions by providing the first empirical evidence that HPWS can have a significant impact on how employees consider helping and voice to be part of their job. I found employee experience of HPWS to be positively related to employee role definitions toward helping and voice, and actual helping and voice. These findings contribute to the OCB literature by illustrating the positive effect of HPWS on employee OCB role definitions and by answering the calls by previous researchers (e.g., Jiao et al., 2013; Morrison, 1994; Tepper et al., 2001) to study the effects of organizational practices on employee OCB role definition.

Third, I found that employee experience of HPWS enhances high levels of both employee helping and voice role definitions, which then leads to higher actual employee helping and voice. Additionally, employees’ perception of trust in their

supervisor also leads to high levels of helping and voice role definitions. These findings have important implications for the study of OCB, as well as the study of HPWS.

Employee helping and voice are equally necessary and important in facilitating effective organizational functioning, as was the case in a recent study by Mackenzie et al. (2011) where the authors found that employee helping and voice work collectively to increase workgroup performance. More specifically, employee helping facilitates substituting for the negative impact of employee voice on group performance, such as relationship conflict, and enhances the positive impact of employee voice on group performance like structural social capital. This finding shows that to enhance organizational effectiveness, organizations need to have high levels of both employee helping and voice. However, employees often are more inclined to remain silent on important work issues than to speak up due to the high risk of voice behavior (Morrison, 2014). Jiao et al. (2013) also argued that affiliative OCBs, such as helping, maintain the status quo, whereas challenging OCBs, such as voice, challenge the status quo. They provided meta-analytic evidence that employees are more likely to consider helping as in-role than voice.

As indicated above, although prior HPWS research has attested to the positive relationship between HPWS and employee OCB, most of these studies have focused on employee OCB in general (Gong et al., 2010; Kehoe & Wright, 2013; Messersmith et



al., 2011; Sun et al., 2007), and helping in particular (Snape & Redman, 2010), but not both employee helping and voice. Thus, despite the progress, it had remained unclear whether HPWS lead to employee helping and voice. The results of the present dissertation provide insights into both OCB and HPWS literatures on how employee helping and voice can be maximized by the use of HPWS through expanded employee role definitions. It should be noted that I found employee experience of HPWS to have similar positive relationships with employee helping and voice role definitions, and employee actual helping and voice.

Fourth, I found that the relationship between employee experience of HPWS and actual employee helping was fully mediated by employee helping role definition, whereas the relationship between employee experience of HPWS and actual employee voice was partially mediated by employee voice role definition. This suggests that the direct effect of HPWS on employee helping might be explained by Morrison's (1994) role enlargement process. On the other hand, the direct effect of HPWS on employee voice might also be explained by the norm of reciprocity where employees reciprocating the implied obligation results from the organization's HPWS or from the perception of psychological safety in which employees are more comfortable in speaking up about issues at work because they feel that raising their voice will not result in a threat to their status in the organization. Both of these processes may not require

employees to cognitively expand their job role to include voice before engaging in actual voice. This finding echoes Coyle-Shapiro et al. (2004) in that the authors found the norm of reciprocity and role enlargement processes complementing each other to explain the relationship between employee's perception of mutual commitment with their organization and their OCB in general. A fruitful avenue of research could be to explore the conditions where employee voice is best explained by role enlargement process or other processes.

Fifth, as previously mentioned, the perceptions of ability, motivation, and opportunity to engage in OCB have long interested OCB researchers but have received less research attention (Coyle-Shapiro et al., 2004; Zellar & Tepper, 2003). For instance, given the risky nature of voice, voice researchers have particularly stressed the importance of one's ability to raise voice at the workplace (Morrison, Wheeler-Smith, & Kamdar, 2011; Morrison, 2014). The results of the present dissertation indicate the importance of efficacy, instrumentality, and autonomy in expanding one's role definitions to include helping and voice. In other words, in order to expand role definition, employees must be capable, motivated, and have discretion to engage in those behaviors. I feel that such finding has not only addressed the calls to examine the roles of ability and opportunity in explaining OCB, but more importantly, has extended the current understanding of key predictors in the nomological net surrounding OCB

role definition.

Finally, as pointed out by a recent meta-analysis on OCB role definition (Jiao et al., 2013), Confucian Asian employees were more likely to consider OCB as in-role than were Anglo employees. The authors argued that such finding can be attributed to the different cultural roots in these two groups, especially in terms of power distance and collectivism. The present dissertation found that one's collectivism was positively related to one's role definitions to include both helping and voice; however, the same relationship was not found for power distance. It is likely that employees who are highly collectivistic place greater emphasis on collective interests than self-interests (Hofstede, 2001) which causes them to consider helping others and expressing challenging but constructive concerns as a normal part of job behavior. Such finding underscores the importance of considering one's cultural difference, especially in terms of collectivism, when it comes to explaining employee OCB role definition and supports the theoretical argument on collectivism put forward by Jiao et al. (2013).

Future research should therefore continue to examine the potential effects of other cultural dimensions on OCB role definition, such as uncertainty avoidance and long-term orientation (Chinese Culture Connection, 1987; Hofstede, 2001). The possibilities of different relationships that various cultural dimensions might have with different types of OCB, such as sportsmanship (Organ, 1988) and self-development

(Podsakoff et al., 2000), should also be evaluated, as indicated by Lam et al. (1999).

## **Implications for Practice**

Given that employee OCBs are essential to the success of organizations (Podsakoff et al., 2009) and employees are more prone to perform OCBs when they perceive them as part of the job (Jiao et al., 2013), the findings of this dissertation have important implications for practitioners. First, as more organizations adopt the use of HPWS and experience a greater need for employees to take on a spontaneous initiative on important issues at work, it would be informative to inform practitioners that their use of HPWS is justified. The present results suggest that employee experience of HPWS leads to greater levels of employee helping and voice because employees recognize these behaviors, which are typically assumed to be extra-role, as part of the job. HPWS include such HRM dimensions as employment security, selective hiring, extensive training, internal promotion, teams and participation, information sharing, contingent compensation, and job design, and allow organizations to communicate to employees that certain behaviors like helping and voice are valued and expected on the job. Practitioners should also note that HRM practices that make up the HPWS need to be sending consistent messages to the employees. For example, if an upward communication behavior is emphasized in the hiring process, such behavior should also

be stressed by other HRM practices like performance evaluation, participation, and information sharing.

Second, in line with the AMO framework of HRM, the results demonstrate that HPWS are related to the extent to which employees include helping and voice in their job role via the enhanced efficacy, instrumentality, and autonomy perceptions to perform helping and voice. More specifically, enhanced instrumentality and autonomy perceptions are related to employee helping role definition, whereas enhanced efficacy, instrumentality, and autonomy perceptions are related to employee voice role definition. The fact that these perceptions were simultaneously significantly related to role definition suggests that any one perception is not redundant with any other and they function collectively to expand employee role definition to include helping and voice. Therefore, for organizations that want to increase the likelihood that employees consider a certain citizenship behavior as part of the job, HPWS should be strategically chosen and designed to increase employee self-efficacy and autonomy to engage in that behavior, as well as to establish a clear causal relationship between performing that behavior and positive employee rewards and outcomes. For instance, implement training programs that focus on communication skills, publicly encourage or reward interpersonal helping, and give opportunities to employees to raise their voice in their work environment.

Third, the results also suggest ways for practitioners seeking to further expand employee role definition. I found that employees' trust in supervisor goes beyond expanding employees' role definition to include helping and voice. The moderation results also show that trust in supervisor can improve the positive effects of HPWS on employee role definition such that when employees experienced the use of HPWS to be high, they were more inclined to expand their role definition to include helping and voice to a greater extent when trust in supervisor is high. On the other hand, when trust in supervisor is low, employees were less inclined to expand their role definition, diminishing the effects of HPWS on employee role definition. Thus, practitioners should emphasize increasing employees' trust in their supervisor through transformational leadership, justice perceptions, participative decision making, and perceived organizational support (Dirks & Ferrin, 2002).

## **Strengths and Limitations**

This dissertation has a number of strengths. First, in light of the majority of previous studies on HPWS in which OCB role definition and OCB relied on single-source data (Jiang et al., 2012; Jiao et al., 2013; Organ et al., 2006), data in the present dissertation were collected through multiple sources (employees, supervisors, and company archival data) to reduce concerns about common method bias (Podsakoff

et al., 2003) and to address repeated calls in the literatures for studies to include a multisource design. Second, I employed a multi-wave design to further minimize the threat of common method bias. The data were collected at four points in time, with a lag of 2 to 6 weeks. Finally, to the best of my knowledge, the present dissertation is the first study that has examined the effects of HPWS on employee OCB role definition. By controlling two individual variables (collectivism and employee exchange ideology) that are known to affect employee OCB role definition, the results of the present dissertation demonstrate the incremental validity of HPWS in relation to employee OCB role definition and exclude alternative explanations. For instance, it might be that employee exchange ideology is the one that is predicting employee OCB role definition.

Although the present dissertation has a number of strengths, some of the limitations should also be noted. These limitations also point to future research directions. First, the sample used in the present dissertation consisted of Taiwanese participants only, which may limit the generalizability of the findings to other cultural contexts. Although I explicitly controlled for these cultural dimensions in an attempt to make the results more applicable in other cultural contexts because Taiwan is normally regarded as high on collectivism and power distance, I cannot completely rule out the confounding effect of other unmeasured cultural factors, such as long-term orientation,

which may account for the hypothesized relationships. Thus, I recommend that future research explore other cultural factors when examining the relationship between HPWS and employee OCB role definition and replicate my findings in other cultures.

Second, although the data were collected in four separate waves, the nature of design in the present research is not longitudinal because the design does not include measurements of all variables of interest at all four points in time. Therefore, the findings of the present dissertation do not provide a definitive answer to the question of causality. Other alternative explanations such as the relationship between employee OCB role definition and actual OCB, as well as the relationship between experienced HPWS and employee efficacy, instrumentality, and autonomy perceptions, could be both reversed and reinforcing each other are possible. In other words, it may be that as employees engage in helping on their jobs over time, they might be more likely to perceive helping as a normal part of the job. Therefore, research employing longitudinal or quasi-experimental design is needed to establish the causality in the present dissertation. For example, Morrison (2014) describes employee voice as a process that evolves slowly over time. A longitudinal design could allow researchers to extend our understanding of the temporal dynamics linking HPWS, employee voice perceptions and definition, and actual voice over time. Moreover, participants could be randomly assigned to conditions in which the experience of HPWS is manipulated.



Such examinations might fruitfully be pursued in future research. Third, supervisor ratings of employee actual helping and voice, the commonly recommended source of employee OCB to reduce the common method bias, may be affected by employee impression management motives (Bolino, 1999). Future research should include additional other-reports of employee OCB, such as coworker rating of helping, to validate my findings.

### **Directions for Future Research**

The findings of the present dissertation suggest several new and fruitful avenues of future research directions. To begin with, I found that trust in supervisor moderates how employees experience HPWS and perceive their OCB role definitions. Future research could also examine how indicators of individual differences and work context might moderate the effects of HPWS on employee OCB role definition. For employees who are highly proactive (Crant, 2000) or extraverted (Lepine & Van Dyne, 2001), they may still be willing to raise their voice when the perceived experience of HPWS is low. Employees high in self-monitoring are more sensitive to situational cues about what is appropriate, so they may be more responsive to the messages that organizations try to communicate with HPWS and are more likely to regard helping as part of the job (Snyder, 1974). Employees in a highly interdependent work context may be more

inclined to engage in interpersonal helping behaviors when the perceived experience of HPWS is positive (Bachrach, Powell, Collins, & Richey, 2006).

Future studies can also explore whether the consistency of the HPWS (Bowen & Ostroff, 2004) or different forms of Tsui et al.' (1997) employee-organization exchange relationship (e.g., mutual investment versus underinvestment relationship) enhances or diminishes the effects of HPWS on employee OCB role definition. Moreover, the hypothesized relationships in the present dissertation were analyzed at the individual level. Future research taking a multilevel design that explores how unit level factors like empowerment climate (Aryee et al., 2012), psychological safety (Edmondson & Lei, 2014) or justice climate (Liao & Rupp, 2005) can influence employee OCB role definition is also needed. Such examinations will contribute to our understanding of context in organizational research (Johns, 2006) in which context variables at the organizational level may affect how employees interpret HPWS and regard OCB as part of the job.

Additionally, Jiang et al. (2012) argued that different HRM practices are often implemented in order to achieve different organizational objectives (i.e., an organization that seeks cooperation among employees versus an organization that requires employees to engage in self-development). For example, Gittell and her colleagues (Gittell, Seidner, & Wimbush, 2009) found that HPWS can be designed to

encourage relational coordination among employees who perform dissimilar jobs.

Consistent with this idea, researchers also suggested that organizations often use different HRM systems to manage different employee groups within organizations (Lepak et al., 2006; Wright & Boswell, 2002). As the focus of HPWS in the present dissertation is a general HPWS with the emphasis on employee performance, future research may explore whether a strategically designed HR system, such as customer service (Chuang & Liao, 2010) or safety (Zacharatos et al., 2005), can influence employee role definition to include such specific OCBs as service-oriented OCB (Sun et al., 2007) or safety-oriented OCB (Hofmann et al., 2003).

More work is also needed to explore employee role definition to include other types of OCBs. For instance, I found that perceptions of efficacy, instrumentality, and autonomy lead to expanded voice role definition, but only perceptions of instrumentality and autonomy lead to expanded helping role definition. Such findings are likely attributed to the fact that voice behavior often requires challenging the status quo in the organization, whereas interpersonal helping is considered easier. Future research may examine employees' helping toward supervisor which is likely to be more challenging than helping colleagues. Furthermore, in the present dissertation, I found that employee experience of HPWS was related to expanded role definition to include helping and voice, which are considered to be more visible in the eyes of supervisors

(Podsakoff et al., 2000). On a related note, results of the Marinova et al. (2010) paper suggest that employees perceived visible OCBs like helping and taking charge to be associated with greater perceptions of organizational rewards than compliance and sportsmanship which are less visible. Thus, future studies could examine whether HPWS can have the similar effect on OCBs that are less visible, such as courtesy (Organ, 1990), organizational loyalty (Graham, 1991), job dedication (Van Scotter & Motowidlo, 1996), and self-development (George & Brief, 1992).

With respect to other types of OCBs, future studies may also explore the effects of HPWS on different types of employee voice, such as promotive versus prohibitive voice (Liang, Farh, & Farh, 2012). Given that prohibitive voice is focused on speaking up about problems whereas promotive voice is focused on improvements, it is not surprising to expect that employees will perceive prohibitive voice to be more risky and require greater self-perceptions of efficacy, instrumentality, and autonomy in order to consider prohibitive voice to be role defined than promotive voice. Future research would be well to also examine the effects of HPWS on different targets of employee voice, such as voice to the direct supervisor versus voice to the upper management (Liu, Tangirala, & Ramanujam, 2013).

Finally, perhaps the most promising direction for future research is to examine the role of employee OCB role definition in the OCB literature in examining the negative

aspects of employee OCB (Bolino & Klotz, 2013). For instance, Van Dyne and Ellis (2004) discussed a conceptual model of job creep, the slow expansion of one's role breadth, which the authors argued threatens one's personal freedom. Bolino, Turnley, Gilstrap, and Suazo (2010) developed a concept of citizenship pressure which suggests that employees may feel pressured to perform OCBs even when they consider these OCBs as not required. The authors also showed that when employees feel pressured to perform OCB, they reported higher levels of work-family and work-leisure conflicts, turnover intention, and job stress. In a recent study by Bergeron, Shipp, Rosen, and Furst (2013), who found that in an outcome-based control systems (i.e., results are assessed by objective measures like sales), employees who spent more time on OCB received lower salary increases and advanced slower. Similarly, Rubin, Dierdorff, and Bachrach (2013) found evidence of a curvilinear relationship between employee OCB and task performance. The authors showed that initially employee OCB is positively related to task performance, but that this relationship diminishes as OCB increases.

It should be noted that although these researchers suggest that the expansion and high frequency of OCBs can have negative consequences for employees, their association with how employees consider OCB as part of the job remains unanswered. However, given that Rubin et al. (2013) found high levels of autonomy to lessen the diminishing returns of employee OCB on task performance and I found autonomy to

engage in OCB to lead to expanded OCB role definition, future research should explore whether employee OCB role definition is distinct from such concept as citizenship pressure. If so, the next step could be to explore whether the negative impact of citizenship pressure could be mitigated by employee OCB role definition or whether OCB role definition could magnify or diminish the positive returns of employee OCB on task performance. Furthermore, researchers interested in OCB role definition should be aware that the relationship between employee OCB and task performance is likely to be affected by different types of OCB and task performance. A meta-analysis by Ng and Feldman (2012) has applied both resource conservation and resource acquisition arguments to test the relationship between the exercise of voice and employee performance, the authors found support for the resource acquisition argument that voice behavior to be positively related to not only task performance, but also other performance indicators like creativity and implementation of new ideas. It is thus possible that different types of OCB, such as voice or helping, can have differential relationships with various dimensions of performance. How employee OCB role definition can play a role in such relationships is a question that future research can address. Future studies examining this direction of research could also consider how and when HPWS will positively or negatively influence employee attitudes and behaviors (e.g., Jensen, Patel, & Messersmith, 2013), which in turn

influence employees' OCB role definition and citizenship pressure.

## **Conclusion**

Employee helping and voice behaviors play a crucial role in enhancing organizational effectiveness, and employees are more likely to engage in helping and voice when they consider them to be part of the job. This dissertation extends the understanding of employee helping and voice role definitions in the following ways. First, I address the calls to explore the influences of organizational practices on employee OCB role definition and found that employee experience of HPWS was positively related to expanded employee helping and voice role definitions. Second, I also respond to the trend in the HPWS literature to explore beyond the direct HPWS-OCB relationship and identified employee OCB role definition as a primary mediating variable linking HPWS to actual employee OCB, which suggests that employee OCB role definition may be an important factor in explaining the black box between HPWS and organizational performance. Third, I provide insight into *how* and *why* employee OCB role definitions are transferred from extra-role into in-role as the results of experienced HPWS. The results suggest that HPWS broaden employees' role definitions to include helping and voice by providing employees with the necessary abilities, motivation, and opportunities to help coworkers and suggest

improvements to organizational processes. An investigation of this nature also responds to the calls to consider employees' ability, motivation, and opportunity to perform OCBs in explanatory models of OCB. Finally, I found trust in supervisor enhanced the effects of HPWS on employee helping and voice role definitions *when* trust in supervisor is high.



## Appendix 1

### Scale Instruction and Items for Supervisor-rated Helping & Voice

Instruction: To what extent do you agree or disagree with the following statements?

Responses: 1 (strongly disagree) to 5 (strongly agree).

<b>Helping</b>
1. This particular worker assists new colleagues to adjust to the work environment
2. This particular worker helps colleagues solve work related problems
3. This particular worker covers work assignments for colleagues when needed
4. This particular worker coordinates and communicates with colleagues
<b>Voice</b>
1. This particular worker develops and makes recommendation concerning issues that affect this work group
2. This particular worker speaks up and encourages others in this group to get involved in issues that affect the group
3. This particular worker communicates his or her opinions about work issues to others in this group even if his or her opinion is different and others in the group disagree with mine
4. This particular worker keeps well informed about issues where his or her opinion might be useful to this work group
5. This particular worker gets involved in issues that affect the quality of work life here in this group
6. This particular worker speaks up in this group with ideas for new projects or changes in procedures

## Appendix 2

### Scale Instruction and Items for Experienced HPWS

Instruction: This section of the survey focuses on how you think your organization manages employees who are like you in your department. For each item, please indicate your responses by circling the option that best represents your department.

Responses: 1 (strongly disagree) to 5 (strongly agree).

<b>Employment security</b>
1. I have work in my organization for as long as I want it
2. If I were to lose my current position, my organization would try very hard to place me in another position elsewhere in the organization
3. I can be sure of being employed in my organization as long as I do good work
4. This organization provides me with retirement security
5. I am not really sure how long I will be employed by my organization (R)
<b>Selective Hiring</b>
1. Getting a job here was certainly not easy
2. Only the best are hired to work in my organization
3. To get my job, I had to go through an extensive hiring process
4. When new employees are hired, they must go through an extensive hiring process in which they are interviewed a number of times
5. My organization does not pay a great deal of attention to the hiring of new employees (R)
<b>Extensive Training</b>
1. Extensive training programs are provided for me
2. I will normally go through training programs every few years
3. There are formal training programs to teach new hires the skills they need to perform their jobs
4. Formal training programs are offered to me in order to increase my promotability in this organization
<b>Internal Promotion</b>
1. I have clear career paths within the organization
2. I have very little future within this organization (R)
3. My career aspirations within the company are known by my immediate

supervisors
4. Employees in this job group who desire promotion have more than one potential position they could be promoted to
<b>Teams and Participation</b>
1. I feel I am really part of my work group
2. If there is a decision to be made, everyone is involved in it
3. My organization places a great deal of importance on team development
4. I do not have much say in the decisions that are made around here (R)
5. I feel in control of things that occur around me while at work
<b>Information Sharing</b>
1. I have enough information to do my job well
2. Information about how well my organization is doing financially is shared with me
3. The company does not let its employees know how it is performing (R)
4. I feel comfortable communicating information to management that is not necessarily what they want to hear
5. It is easy for me to communicate my thoughts to management
6. I am given enough information to understand my role in this organization
<b>Contingent Compensation</b>
1. How much I get paid is based totally on how long I have been with the company (R)
2. Part of my compensation is based on how well the organization is doing financially
3. Our pay in this company is higher than what competitors offer
4. Part of my compensation is based on how well my workgroup or department performs
5. I believe that I would be paid more fairly if I worked at another organization (R)
<b>Job Design</b>
1. My job is simple and quite repetitive (R)
2. I have lots of opportunity to decide how to do my work
3. If a problem emerges with my work, I can take action to remedy it
4. I have little opportunity to use my own judgment when doing my work (R)
5. I often feel bored at work (R)

### Appendix 3

#### Scale Instruction and Items for Social Exchange

Instruction: Please indicate your agreement with each of the following statements

based on your typical thoughts and feelings about your job

Responses: 1 (strongly disagree) to 5 (strongly agree).

1. My organization has made a significant investment in me
2. The things I do on the job today will benefit my standing in this organization in the long run
3. There is a lot of give and take in my relationship with my organization
4. I worry that all my efforts on behalf of my organization will never be rewarded (R)
5. I don't mind working hard today – I know I will eventually be rewarded by my organization
6. My relationship with my organization is based on mutual trust
7. I try to look out for the best interest of the organization because I can rely on my organization to take care of me
8. Even though I may not always receive the recognition from my organization I deserve, I know my efforts will be rewarded in the future

## Appendix 4

### Scale Instruction and Items for Organizational Identification

Instruction: To what extent do you agree or disagree with the following statements?

Responses: 1 (strongly disagree) to 5 (strongly agree).

1. When someone criticizes the organization, it feels like a personal insult
2. I am very interested in what others think about the organization
3. When I talk about the organization, I usually say “we” rather than “they”
4. This organization’s successes are my successes
5. When someone praises the organization, it feels like a personal compliment
6. If a story in the media criticized the organization, I would feel embarrassed

## Appendix 5

### Scale Instruction and Items for Helping and Voice Efficacy Perceptions

Instruction: I am completely confident in my capabilities when engaging in the following behaviors. For each item, please indicate the extent of your agreement or disagreement.

Responses: 1 (strongly disagree) to 5 (strongly agree).

<b>Helping</b>
1. To assist new colleagues to adjust to the work environment
2. To help colleagues solve work related problems
3. To cover work assignments for colleagues when needed
4. To coordinate and communicate with colleagues
<b>Voice</b>
1. To develop and make recommendation concerning issues that affect this work group
2. To speak up and encourage others in this group to get involved in issues that affect the group
3. To communicate my opinions about work issues to others in this group even if my opinion is different and others in the group disagree with mine
4. To keep well informed about issues where my opinion might be useful to this work group
5. To get involved in issues that affect the quality of work life here in this group
6. To speak up in this group with ideas for new projects or changes in procedures

## Appendix 6

### Scale Instruction and Items for Helping and Voice Instrumentality Perceptions

Instruction: The extent to which you agree that your supervisor will value and reward you formally or informally for performing the following behaviors. For each item, please indicate the extent of your agreement or disagreement.

Responses: 1 (strongly disagree) to 5 (strongly agree).

<b>Helping</b>
1. To assist new colleagues to adjust to the work environment
2. To help colleagues solve work related problems
3. To cover work assignments for colleagues when needed
4. To coordinate and communicate with colleagues
<b>Voice</b>
1. To develop and make recommendation concerning issues that affect this work group
2. To speak up and encourage others in this group to get involved in issues that affect the group
3. To communicate my opinions about work issues to others in this group even if my opinion is different and others in the group disagree with mine
4. To keep well informed about issues where my opinion might be useful to this work group
5. To get involved in issues that affect the quality of work life here in this group
6. To speak up in this group with ideas for new projects or changes in procedures

## Appendix 7

### Scale Instruction and Items for Helping and Voice Autonomy Perceptions

Instruction: I have complete freedom to choose whether or not I engage in the following behaviors. For each item, please indicate the extent of your agreement or disagreement.

Responses: 1 (strongly disagree) to 5 (strongly agree).

<b>Helping</b>
1. To assist new colleagues to adjust to the work environment
2. To help colleagues solve work related problems
3. To cover work assignments for colleagues when needed
4. To coordinate and communicate with colleagues
<b>Voice</b>
1. To develop and make recommendation concerning issues that affect this work group
2. To speak up and encourage others in this group to get involved in issues that affect the group
3. To communicate my opinions about work issues to others in this group even if my opinion is different and others in the group disagree with mine
4. To keep well informed about issues where my opinion might be useful to this work group
5. To get involved in issues that affect the quality of work life here in this group
6. To speak up in this group with ideas for new projects or changes in procedures



## Appendix 8

### Scale Instruction and Items for Trust in Supervisor

Instruction: To what extent do you agree or disagree with the following statements?

Responses: 1 (strongly disagree) to 5 (strongly agree).

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

## Appendix 9

### Scale Instruction and Items for Helping and Voice Role Definitions

Instruction: For each item, please indicate the extent to which you consider this behavior to be part of your job.

Responses: 1 (definitely exceeds my job requirements) to 5 (definitely part of my job)

<b>Helping</b>
1. To assist new colleagues to adjust to the work environment
2. To help colleagues solve work related problems
3. To cover work assignments for colleagues when needed
4. To coordinate and communicate with colleagues
<b>Voice</b>
1. To develop and make recommendation concerning issues that affect this work group
2. To speak up and encourage others in this group to get involved in issues that affect the group
3. To communicate my opinions about work issues to others in this group even if my opinion is different and others in the group disagree with mine
4. To keep well informed about issues where my opinion might be useful to this work group
5. To get involved in issues that affect the quality of work life here in this group
6. To speak up in this group with ideas for new projects or changes in procedures

## Appendix 10

### Scale Instruction and Items for Power Distance

Instruction: To what extent do you agree or disagree with the following statements?

Answer these using your "gut-reaction" (without thinking too hard), and be honest about indicating what your personal beliefs are.

Responses: 1 (strongly disagree) to 5 (strongly agree).

1. Managers should make most decisions without consulting subordinates
2. It is frequently necessary for a manger to use authority and power when dealing with subordinates
3. Manager should seldom ask for the opinions of employees
4. Manager should avoid off-the-job social contacts with employees
5. Employees should not disagree with management decisions
6. Managers should not delegate important tasks to employees

## Appendix 11

### Scale Instruction and Items for Collectivism

Instruction: To what extent do you agree or disagree with the following statements?

Answer these using your "gut-reaction" (without thinking too hard), and be honest about indicating what your personal beliefs are.

Responses: 1 (strongly disagree) to 5 (strongly agree).

1. Group welfare is more important than individual rewards
2. Group success is more important than individual success
3. Being accepted by the members of your work group is very important
4. Employees should only pursue their goals after considering the welfare of the group
5. Managers should encourage group loyalty even if individual goals suffer
6. Individuals may be expected to give up their goals in order to benefit group success

## Appendix 12

### Scale Instruction and Items for Employee Exchange Ideology

Instruction: To what extent do you agree or disagree with the following statements?

Responses: 1 (strongly disagree) to 5 (strongly agree).

1. Employees should not care about the organization that employs them unless that organization shows that it cares about its employees
2. Employees should only go out of their way to help their organization if it goes out of its way to help them
3. An employee should work as hard as possible no matter what the organization thinks of his or her efforts (R)
4. If an organization does not appreciate an employee's efforts, the employee should still work as hard as he or she can. (R)
5. An employee who is treated badly by a company should work less hard.
6. An employee's work effort should depend partly on how well the organization deals with his or her desires and concerns
7. An employee should only work hard if his or her efforts will lead to a pay increase, promotion, or other benefits
8. An employee's work effort should not depend on the fairness of his or her pay. (R)

## Hypotheses

*Hypothesis 1a:* Employees' experience of HPWS will be positively related to the degree to which they include helping within their job role definition.

*Hypothesis 1b:* Employees' experience of HPWS will be positively related to the degree to which they include voice within their job role definition.

*Hypothesis 1c:* Employee helping role definition (i.e., the degree to which they include helping within their job role definition) will mediate the positive relationship between employees' experience of HPWS and their helping behaviors.

*Hypothesis 1d:* Employee voice role definition (i.e., the degree to which they include voice within their job role definition) will mediate the positive relationship between employees' experience of HPWS and their exercise of voice.

*Hypothesis 2a:* Employee social exchange will mediate the positive relationship between employees' experience of HPWS and helping role definition.

*Hypothesis 2b:* Employee social exchange will mediate the positive relationship between employees' experience of HPWS and voice role definition.

*Hypothesis 3a:* Employee organizational identification will mediate the positive relationship between employees' experience of HPWS and helping role definition.

*Hypothesis 3b:* Employee organizational identification will mediate the positive relationship between employees' experience of HPWS and voice role definition.

*Hypothesis 4a:* Employee helping efficacy perception (i.e., the degree to which they feel capable of helping) will mediate the positive relationship between employees' experience of HPWS and helping role definition.

*Hypothesis 4b:* Employee voice efficacy perception (i.e., the degree to which they feel capable of expressing voice) will mediate the positive relationship between employees' experience of HPWS and voice role definition.

*Hypothesis 5a:* Employee helping instrumentality perception (i.e., the degree to which they see helping as instrumental to garnering favorable personal job related outcomes) will mediate the positive relationship between employees' experience of HPWS and helping role definition.

*Hypothesis 5b:* Employee voice instrumentality perception (i.e., the degree to which they see expressing voice as instrumental to garnering favorable personal job related outcomes) will mediate the relationship between employees' experience of HPWS and voice role definition.

*Hypothesis 6a:* Employee helping autonomy perception (i.e., the degree to which they feel their jobs provide the autonomy to help others) will mediate the positive relationship between employees' experience of HPWS and helping role

definition.

*Hypothesis 6b:* Employee voice autonomy perception (i.e., the degree to which they feel their jobs provide the autonomy to express voice) will mediate the positive relationship between employees' experience of HPWS and voice role definition.

*Hypothesis 7a:* Trust in supervisor will be positively related to employee helping role definition.

*Hypothesis 7b:* Trust in supervisor will be positively related to employee voice role definition.

*Hypothesis 7c:* Trust in supervisor will moderate the positive relationships between experienced HPWS and expanded helping role definition, such that the relationship will be stronger when trust in supervisor is high.

*Hypothesis 7d:* Trust in supervisor will moderate the positive relationships between experienced HPWS and expanded voice role definition, such that the relationship will be stronger when trust in supervisor is high.



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