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An Exploratory Study of Reception of Organizational Citizenship Behaviors and Work Related Outcomes: It is Good for Your Co-workers

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An Exploratory Study of Reception of Organizational Citizenship Behaviors and Work

Related Outcomes: It is Good for Your Co-workers

by

Xinxuan Che

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Art
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Keywords: Personality, Job Performance, Job Stress, Job Satisfaction, Organizational
Commitment, Counterproductive Work Behavior

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DEDICATION

I dedicate this thesis to my parents, Yan Liu and Chengzhi Che, who have supported me throughout the years both emotionally and financially and have always been there to pick me up when I was at the lowest points. I could not have done it without you.

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ABSTRACT

The predictors of organizational citizenship behavior (OCB) - performance that supports the social and psychological environment in which task performance takes place - have been studied extensively in previous research. Surprisingly, only a few studies have looked into OCB's effects on individuals who might benefit from it. The purpose of the current study was to explore effects of individual-level OCB on its recipients. Reception of OCB (ROCB) is described and proposed to be related to targets' performance, job stress and job strains. In addition, narcissism and proactive personality were explored as predictors of reception of OCB also as moderators of the relationships between reception of OCB and job-related outcomes. I sampled 372 employed students through online surveys. Results showed that ROCB is positively related to the recipients' proactive personality, narcissism, overall job performance, organizational citizenship behavior, job satisfaction, organizational affective commitment, and negatively associated with recipients' work interfere with family and turnover intension. Moreover, the study found no moderating effects of proactive personality or narcissism on these relationships. It was showed that ROCB is an important construct that needs to be taken into account in future organizational studies since it has significant relationships with other commonly studied organizational variables. Future studies should try to replicate the current results using different samples. Moreover, longitudinal design should be used to study the casual relationships between ROCB and organizational variables.

INTRODUCTION

Increasing research attention has been paid to the construct of Organizational Citizenship Behavior (OCB) (Bateman & Organ, 1983; Organ & Konovsky, 1989; Podsakoff, Niehoff, MacKenzie, & Williams, 1993; Podsakoff, Mackenzie, Paine, & Bachrach, 2000; Schnake, 1991; Smith, Organ, & Near, 1983; Williams & Anderson, 1991), which is considered a type of behavior having a more volitional and spontaneous character than “core job” contributions that distinguish it from “task” or “technical performance” (Farh, Zhong, & Organ, 2004). For instance, research showed that OCB can be predicted by the performers’ attitudinal and dispositional traits such as personality (Borman, Penner, Allen, & Motowidlo, 2001; Konovsky & Organ, 1996; Organ & Ryan, 1995), employee attitudes (Bateman & Organ, 1983; Organ & Ryan, 1995; Konovsky & Pugh, 1994), employee perceptions of fairness (Moorman, 1991; Niehoff & Moorman, 1993), leader behaviors (Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Pillai, Schriesheim, & Williams, 1999), and a variety of task characteristics (Podsakoff, MacKenzie, & Bommer, 1996; Piccolo & Colquitt, 2006).

In a recent meta-analytical study examining the relationships between OCB and individual- (performer) and organizational-level outcomes, Podsakoff et al. (2009) reported that OCB is related to a number of individual-level outcomes on the performers’ end, including managerial ratings of employee performance, reward allocation decisions, and a variety of withdrawal-related criteria (e.g., employee turnover intentions, actual

turnover, and absenteeism). In addition, OCB was found to be associated to a number of organizational-level outcomes (e.g., productivity, efficiency, reduced costs, customer satisfaction, and unit-level turnover). Although both antecedents and outcomes of OCB have been studied extensively, little is known about how OCB affects its recipients. Will it lead to beneficial outcomes on individual level? The purpose of the present research is to improve our understanding of OCB's effects on recipients' performance, job stress and strains.

Podsakoff and MacKenzie (1994) nested the altruism, courtesy, cheerleading and peacekeeping dimensions of OCB (Organ, 1988a) into one single helping behavior dimension (helping OCB). Behaviors in this dimension are directed to individual employees and have a "helping" and "support" nature. Since studies have shown that perceived organizational support (POS) and perceived supervisor support (PSS) are related to job satisfaction, organizational commitment, job strain and job performance (Shanock & Eisenberger, 2006), it is logical to conclude that other support at work should influence recipients at work, so does helping OCB. However, when research about organizational support is considered, support and help from co-workers which is not required by formal job duties have rarely been studied. Whereas performing OCB accounts for variance in performers' performance, will receiving OCB also influence performance of recipients, or account for variance in other job-related variables?

Within the limited research on effects of receiving helping OCB, only group- and organizational-level effects have been documented (Karambayya, 1989; Podsakoff & MacKenzie, 1994; Podsakoff, Ahearne, & MacKenzie, 1997; Nur & Organ, 2006). The results showed that perceived helping OCB was positively correlated to unit-, group-, and

organizational-level productivity and employees' job satisfaction. By missing the data on individual-level effects, these findings cannot provide us with complete information about the influence of OCB. Thus, the question of whether individual employees will benefit from helping OCB was raised in this study.

Individual-level of support has been empirically studied and demonstrated to be relevant in general. Researchers have found that support from social relationships leads to positive emotions, higher satisfaction and better health outcomes (House, Umberson, & Landis, 1988; Uchino, Uno, & Holt-Lunstad, 1999). Despite the fact that the effectiveness of individual-level support has been demonstrated in social psychology, researchers have not studied co-worker as the source of the support specifically. Moreover, the outcomes of individual-level support studied in social psychology are more general and cover a variety of aspects of life, less attention was paid to work-related outcomes. The current study addressed this issue by looking at more specific work-related outcomes.

In sum, predictors and outcomes of OCB and organizational support have been extensively studied (Bateman & Organ, 1983; Organ & Konovsky, 1989; Podsakoff, Niehoff, MacKenzie, & Williams, 1993; Podsakoff, Mackenzie, Paine, & Bachrach, 2000; Schnake, 1991; Smith, Organ, & Near, 1983; Williams & Anderson, 1991; Shanock & Eisenberger, 2006). To my knowledge, there is no empirical study that has explored the individual-level effects of help and support from other individuals at work, especially when that help and support are results of OCB. Since there is always an emphasis on job performance, and OCB is part of it, the investigation of the individual effects of receiving OCB should be critical for employee training and job design. Thus, the present study

explored the relationship between reception of OCB and several work-related outcomes. In the following sections, I described OCB and discussed its dimensions based on previous studies, defined the construct of *reception of OCB* and distinguished it from similar constructs, then proposed and tested the hypotheses of this study.

Organizational Citizenship Behavior

The concept of ‘willingness to cooperate’ is the first origin of the concept of organizational citizenship behavior (Barnard, 1938). Later, Katz (1964) described a framework of citizenship behaviors from other organizational behaviors and discussed employees’ motivation for doing them. He proposed those behaviors as one basic type of behaviors which is essential for a functioning organization: ‘People must perform innovative and spontaneous activity that goes beyond role prescriptions’ (Katz, 1964, p. 132). Smith, Organ and Near (1983) argued that all organizations depend daily on a myriad of acts of cooperation, helpfulness, suggestions, gestures of goodwill, altruism, and other instances of what we might call citizenship behavior. Therefore, Organ (1988a, p. 4) defined OCB as ‘individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system and that in the aggregate promotes effective functioning of the organization’.

Almost a decade later, Organ (1997, p. 95) revised the definition to ‘the performance that supports the social and psychological environment in which task performance takes place’ to avoid the difficulty with viewing OCB as extra-role behavior which might not be recognized by the formal reward system. Borman (2004, p. 238) defined organizational citizenship performance as ‘behaviors that go beyond task performance and technical proficiency, instead supporting the organizational, social, and

psychological context that serves as the critical catalyst for tasks to be accomplished'. In summary, OCB is distinct from task performance since OCB is similar across occupations and predicted by motivational characteristics and dispositional variables rather than KSAOs. Because of the nature of OCB, most studies have focused on identifying the antecedents and outcomes of OCB from the view of organizations and the employees who are engaging in those behaviors.

Research has found that task characteristics and leader fairness are correlated with OCB (Farh, Podsakoff, & Organ, 1990); as well as fairness/satisfaction (Konovsky & Organ, 1996; Schnake, 1991); job cognitions (Organ & Konovsky, 1989); perceived equity (Schnake, 1991); job attitudes of perceived fairness, organizational commitment, leader supportiveness, and dispositional variables (Organ & Ryan, 1995); employee characteristics, job attitudes, task characteristics, and leader behaviors (Podsakoff, Mackenzie, Paine, & Bachrach, 2000). Some other commonly studied predictors include employee attitudes (e.g., satisfaction and commitment), personality, mood and emotion, and leader exchange (Borman, Penner, Allen, & Motowidlo, 2001; Cohen-Charash & Spector, 2001; LePine, Erez, & Johnson, 2002; Organ & Ryan, 1995; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Spector & Fox, 2002).

In terms of work-related outcomes, research has found significant relationships between organizational citizenship behavior and organizational effectiveness (Podsakoff & MacKenzie, 1997), manager perceptions of employee performance as well as organizational performance and success (Podsakoff, Mackenzie, Paine, & Bachrach, 2000). Such behavior is important at multiple levels within an organization (Chang, Johnson, & Yang, 2007). In other words, OCB is discretionary behaviors that benefit

organizations and their members by improving the social and psychological context in which the technical core of the organization operates (Borman, 2004).

Dimensionality of OCB

Much research has demonstrated that OCB is a multi-dimensional construct. However there has been a lack of consensus on the dimensionality of this construct. Podsakoff et al. (2000) identified more than 30 dimensions of OCB from previous studies. Some previous works on OCB dimensionality include Van Dyne et al.'s (1994) political theory interpretation of OCB as civic citizenship comprising obedience, loyalty, and participation; a four-factor model of OCB proposed by Graham (1989) in terms of interpersonal helping, individual initiative, personal industry, and loyal boosterism. One of the prominent conceptualizations of OCB is Smith, Organ and Near's (1983) two dimension model of altruism and generalized compliance which can be predicted by environmental, personality, and demographic variables. In their model, altruism concerns helping an individual, whereas compliance concerns helping an organization in general (e.g. efficient use of time, following work procedures, respecting company property). Another attempt of understanding the dimensionality of OCB is a five sub-dimensions model proposed by Organ (1988a): altruism, courtesy, sportsmanship, conscientiousness, and civic virtue. This is a further development of his previous three-dimensional model of courtesy, sportsmanship and civic virtue (Organ, 1988b). Specifically, courtesy concerns actions to prevent problems of associates, sportsmanship relates to willingness to deal with minor inconveniences without protest, and civic virtue refers to being responsible and constructively involved in governing the organization (Smith, Organ, & Near, 1983; Organ, 1988b; Organ & Ryan, 1995).

Later Skarlicki and Latham (1995) described a two-factor model of OCB in terms of helping an individual (OCBI) or being a good citizen toward an organization (OCBO). Coleman and Borman (2000) has further developed this model by conducting a factor analyses and multidimensional scaling analyses. A revised three-dimension model of citizenship performance emerged: Personal support (OCB-P), Organizational support (OCB-O), and Conscientious initiative (CI). The personal support dimension is virtually the same as the earlier helping and cooperating with others dimension. The organizational support dimension combines the conscientiousness and organizational support dimensions of an earlier 5-dimension model (Borman & Motowidlo, 1993), and the conscientious initiative dimension reflects the extra effort and volunteering dimensions of that model.

Despite their differences, there is a great deal of conceptual overlap between these dimensions. Thus, Podsakoff et al. (2000) organized them into seven common dimensions: (1) Helping Behavior, (2) Sportsmanship, (3) Organizational Loyalty, (4) Organizational Compliance, (5) Individual Initiative, (6) Civic Virtue, and (7) Self development. Conceptually, helping behavior involves voluntarily helping others with, or preventing the occurrence of, work-related problems. Organ (1990, p. 96) has defined sportsmanship as "a willingness to tolerate the inevitable inconveniences and impositions of work without complaining". Organizational Loyalty entails promoting the organization to outsiders, protecting and defending it against external threats, and remaining committed to it even under adverse conditions. Organizational Compliance appears to capture a person's internalization and acceptance of the organization's rules, regulations, and procedures, which results in a scrupulous adherence to them, even when no one observes

or monitors compliance. Individual Initiative is extra-role only in the sense that it involves engaging in task-related behaviors at a level that is so far beyond minimally required or generally expected levels that it takes on a voluntary flavor. Civic Virtue represents a macro-level interest in, or commitment to, the organization as a whole. Self development includes voluntary behaviors employees engage in to improve their knowledge, skills, and abilities.

The present study was interested in the dimension of the behaviors directly toward individuals, namely helping behavior (helping OCB) or OCB-I. Podsakoff et al. (2000) described that there are two parts of helping OCB, the first part represents the behaviors that help others with work problems and it is composed by Organ's altruism, peacemaking, and cheerleading dimensions (Organ, 1988a; 1990); Graham's (1989) interpersonal helping; Williams and Anderson's OCB-1 (Williams & Anderson, 1991); Van Scotter and Motowidlo's interpersonal facilitation (Van Scotter & Motowidlo, 1996), and the helping others constructs from Brief and Motowidlo (1992) and George and Jones (1997). The second part of helping OCB captures Organ's (1988a; 1990) notion of courtesy, which involves helping others by taking steps to prevent the creation of problems for coworkers. Both parts include the behaviors which are directed to individuals at work.

Helping OCB has been demonstrated to be related to descriptive OCB norms in the group (Ehrhart & Naumann, 2004); unit-level performance (Ehrhart, Bliese, & Thomas, 2006); the quality and quantity of the group's work in the paper producing industry (Podsakoff, Ahearne, & MacKenzie, 1997); and other indicators of unit- or organizational-level performance in different settings (Karambayya, 1992; Podsakoff &

MacKenzie, 1994). Based on the literatures I could find, helping OCB has been only studied on the unit- and organizational-level. The items used by those studies generally ask the participants to rate their own or their unitmates' or groupmates' overall helping OCB toward all members in the unit or the group. Therefore, research looking into the effects of helping OCB on the individual level would be helpful in terms of understanding how those behaviors could promote performance and influence others' individual-level job-related outcomes.

Reception of OCB

Most of the research on OCB outcomes focused on the relationship between individual's engagement in OCB and their job performance which should be obvious, since the nature of the OCB is to take more responsibility. No research that I could find has examined the effects of OCB from the perspective of individual target, or what might be called *reception of organizational citizenship behavior (ROCB)* from co-workers within the organization. In this study, I would like to define ROCB as a process that individual employee receiving helping OCB and OCB-I from other individuals at work such as co-workers. For example, a co-worker voluntarily takes time to help another employee to finish his or her task, this target employee is considered a recipient of OCB and the process is *ROCB*.

A ROCB scale was developed for this study. Twenty three items were chosen from the helping behavior dimension of several different OCB inventories (described in the method section) to indicate the helping behavior dimension of OCB. Each of the items represents a behavior that directly helps or supports individuals at work. Participants were asked to rate how often they received those behaviors from their

co-workers.

ROCB as a Form of Social Support

Social support refers to the positive, potentially health promoting or stress buffering aspects of social relationships such as instrumental aid, emotional caring or concern, and information (House, Umberson, & Landis, 1988). According to this definition, ROCB could be considered as receiving social support, since ROCB process is part of social relationships which essentially should be beneficial for the recipient.

Studies in social psychology have long been interested in the outcomes of social support, however, most of these studies focused on the relationship between social support and potential health outcomes (both physical and psychological) (Cassel, 1976; Cobb, 1976); family related outcomes (Berkman & Syme, 1979); and other general life outcomes (House, Robbins, & Metzner, 1982).

During the last two decades, more attention from I/O psychologists has been put into the research of social support at work, relationships between social support and work-family, job stress and employee emotions have been documented (Kossek, Pichler, Bodner, & Hammer, 2011; Perrin, Yragui, Hanson, & Glass, 2011; Torp, Gudbergsson, Dahl, Fosså, & Fløtten, 2011). In these studies, social supports that were been studied usually come from family, organization (perceived organizational support) or supervisor (perceived supervisor support); less attention has been paid on support from co-workers. Further, to my knowledge, there is no empirical study which has looked at the support provided by co-workers which goes beyond their job duties. Since helping OCB is a type of social support from co-worker at work, and those behaviors are not required by the formal job description, it would be interesting to explore the effects of ROCB as a form

of social support at work.

Specifically, when an employee is helped by his/her coworker's helping OCB, will those behaviors have an influence on the recipient's behaviors and feelings? The purpose of the present study was to explore the relationships between ROCB and work related outcomes of the recipients of OCB such as job performance, OCB, counterproductive work behavior (CWB), job satisfaction, organizational commitment, work family conflicts, interpersonal conflict and co-worker exchange. Additionally, this study explored the potential moderating roles of proactive personality (Crant, 1995), and narcissism (Baumeister, Smart, & Boden, 1996) on the above relationships.

ROCB and Recipients' Job Performance

Van Dyne and LePine (1998) have demonstrated the construct validity of helping OCB. In their study, the predictive validity of this construct has also been described as the explanatory power of OCB in accounting for variance in employee performance ratings. In their study, they measured respondents' helping OCB toward a working group and the performer's job performance and demonstrated there is a positive relationship between helping OCB and job performance of the performer. Ehrhart et al, (2006) has also demonstrated that unit-level helping OCB was positively related to the unit effectiveness. However in both studies, the effects of helping OCB were measured on unit-level. Therefore, it is reasonable to believe that on the individual level, recipients' performance can be predicted by ROCB.

Moreover, studies of perceived organizational support have shown that perceived organizational support is related to employees' job performance and so is perceived supervisor support (Shanock & Eisenberger, 2006). These supports make employees

believe the organizations care about their values and well-being, and want to trade their effort for potential rewards. Since ROCB can be considered as a form of receiving social support, there should be a positive relationship between ROCB and the recipient's overall job performance.

The present study measured the effects of ROCB on individual-level job performance, specifically, I propose that recipient's overall job performance will be increased if he/she receive helping OCB from his/her coworker. For example, receiving OCB in a form of getting advice or having co-worker's help on accomplishing work-related tasks should improve recipients' overall job performance, because employees can get good advice and helps here and there, so the aggregated effect should be shown on overall performance.

Hypothesis 1: ROCB will be positively related to the recipients' overall job performance.

ROCB and Recipients' Performance of OCB

Homans (1958, p. 606) noted that: 'Social behavior is an exchange of goods, material goods but also non-material ones, such as symbols of approval or prestige. People give much to others try to get much from them, and persons that get much from others are under the pressure to give much to them'. According to this theory, employees who have received helping OCB will under the pressure to give help to other people, and it could be exhibited in a manner of engaging in OCB.

Further, recipients who benefit from ROCB are likely to develop a strategy of using OCB to trade for more help. Thus a social norm within an organization will be formed if more and more people use this strategy. Research has also demonstrated this by

showing that helping OCB is related to descriptive OCB norms in the group (Ehrhart & Naumann, 2004). According to the descriptive OCB norm, individuals' performance of spontaneous behaviors is likely to be encouraged or discouraged by the group context. They discussed the nature and effects of citizenship behavior norms on employees in their paper and their proposed model suggests that when a strong citizenship behavior norm is presented in a work group or in an organization, individuals are more likely to perform citizenship behaviors, especially for those who respect the group norm more strongly. So it is likely that ROCB will encourage performance of OCBs.

Furthermore, LePine et al. (2002) found perceived supervisory support (PSS) had a positive relationship with OCB. This means if the 'help' is from someone who is higher than you in the organization, individuals will be likely to engage in OCB. Thus, it would be interesting to study the effect of receiving OCB from someone at the same level with you. Therefore, I proposed an increase in OCB performance by recipient of the OCB.

Hypothesis 2: ROCB will be positively related to the recipients' performance of OCB.

ROCB and Recipients' Performance of CWB

Counterproductive work behavior (CWB) is defined as harmful behaviors toward the organization and/or people in the organization (Spector, 2011). Both environmental conditions and personality variables are shown to be related to CWB (Berry, Ones, & Sackett, 2007; Herscovis, Turner, Barling, Arnold, Dupré, & Inness, 2007). A relevant model of CWB is the stressor-emotion model proposed by Spector and Fox (2005). In their model, CWB is a reaction to job stressors that are indicators of a poor working condition.

In the present study, a negative relationship between ROCB and CWB was proposed. In the social psychology literature, social support has been defined as support that will promote health and buffer stress (House, Umberson, & Landis, 1988). In essence, supportive relationships directly provide something that people need to adapt to stress (Gore, 1981). Since helping OCB is considered as a type of social support, it's logical to conclude that ROCB will reduce job stressors such as workload by helping people work more efficiently. According to Spector and Fox's (2005) model, when employees experience lower stressors, their CWB performance should be lower. So it is likely that the recipient of the OCB will engage in less CWB.

Also according to organizational support theory, employees see the other individuals at work as the agents of the organization (Shanock & Eisenberger, 2006). ROCB from the people at work will be perceived as a support from the organization. Research has already showed that there is a negative relationship between perceived organizational support and CWB (Shanock & Eisenberger, 2006). Thus, I proposed that ROCB will reduce the recipients' counterproductive behaviors.

Hypothesis 3: ROCB will be negatively related to the recipients' performance of CWB.

ROCB and Recipients' Job Satisfaction

Research has shown that job satisfaction is related to job stressors, other work conditions, and personal traits (Karasek & Theorell, 1990; Hackman & Oldham, 1976; Babakus, Yavas, Karateppe, & Avci, 2003; Rhoades, Eisenberger, & Armeli, 2001). In these studies, negative relationships between job stressors and job satisfaction were demonstrated. As I described in the previous section, reception of OCB could help

employees reduce workload and cope with job stressors, ROCB will leads to reduced stress, which leads to lower strains such as dissatisfaction. So a positive relationship between ROCB and job satisfaction should be found.

Nur and Organ (2006) have found that job satisfaction is positively related with perceived OCB on a group level ($r = .88$). Also positive relationships between job satisfaction and POS and PSS were found in previous research (Shanock & Eisenberger, 2006). Furthermore, Aiken et al. (2002a; 2002b; 2001) demonstrated positive relationships between organizational support and job satisfaction in nursing populations. Since helping OCB can be considered as a form of social support, I expect to find a positive relationship between job satisfaction and ROCB.

Moreover, several studies have demonstrated that overall job performance is positively related with employees' job satisfaction. Judge et al. (2001) performed a comprehensive quantitative review of the research on the job satisfaction - job performance relationship and concluded that these two variables were at least moderately correlated (corrected correlation = .30). With enhanced job performance caused by ROCB from co-workers, employees' job satisfaction should also be enhanced.

Hypothesis 4: ROCB will be positively related to the recipients' job satisfaction.

ROCB and Recipients' Organizational Commitment

According to organizational support theory, perceived organizational support is positively related to affective organizational commitment (Settoon, Bennett, & Liden, 1996). This is proposed based on the social exchange theory and the norm of reciprocity (Gouldner, 1960). Helping OCB can be considered a type of support behavior from individuals at work. As an employee working in an organization, he or she will perceive

the support from others as a sign of the organization's commitment toward the employees. Thus, the employees are likely to become committed to the organization. Thus, there should be a positive relationship between ROCB and recipients' organizational affective commitment.

According to social identity theory, people will commit to an organization when they feel they belong to it. Help and support from the members of the organization is a social symbol of acceptance. Thus the employees will have a feeling of belonging, and then they are more likely to commit to the organization.

Hypothesis 5: ROCB will be positively related to the recipients' organizational affective commitment.

ROCB and Recipients' Turnover Intention

Turnover intention has been shown to be negatively related to job satisfaction and organizational commitment; and positively related to job stress (Carsten & Spector, 1987; Spector, et al., 2007). According to social support theory, supportive social relationship will help people adapt to stress (House, Umberson, & Landis, 1988). This notion can also be applied to work settings. ROCB should reduce individual's job stressors and increase job satisfaction, and since there are demonstrated relationships between job stressors, job satisfaction and turnover intention, turnover intention would be reduced if individual receive help from co-workers.

Organizational support theory proposed a negative relationship between perceived organizational support and turnover intention (Dawley, Houghton, & Bucklew, 2010). ROCB can be viewed as part of support in the organization which will reduce employees' turnover intention. Also turnover intention has been demonstrated to be related work

conditions. Research has shown unit-level helping OCB will improve working conditions, which in turn reduces employees' turnover intention (Ehrhart & Naumann, 2004).

In sum, ROCB has a potential to increase job satisfaction, organizational commitment and to reduce job stress. Thus, the relationship between ROCB and turnover intention would be negative.

Hypothesis 6: ROCB will be negatively related to the recipients' turnover intention.

ROCB and Recipients' Work-family Conflict

Social support is defined as the physical and emotional comfort given to us by our family, friends, co-workers and others (Schwarzer & Leppin, 1991). The helping behavior dimension of OCB can be considered as a type of instrumental social support from co-workers which can lead to several positive outcomes. Within the family domain, Grzywacz and Mark (2000) have found a positive relationship between work-related social support and work-family facilitation which indicates that ROCB has a potential positive effect on work-family facilitation. Thus ROCB should decrease work-family conflict but not necessarily family work conflict.

Moreover, a sample item of the ROCB scale is "Finished something for you when you had to leave early". This situation can happen when an individual has some family issues that require leaving work early. If there is no one who could help this individual, this will lead to work interference with family conflict. The recipient of such behaviors can avoid work interfere with family conflict. Thus, I proposed a negative relationship between these two variables.

Hypothesis 7: ROCB will be negatively related to the recipients' work interfere

family.

ROCB and Recipients' Interpersonal Conflict

Interpersonal conflict in the workplace may range from minor disagreements between coworkers to physical assaults on others (Spector & Jex, 1998). Research has shown that interpersonal conflict is negatively related to co-worker exchange, LMX and perceived organizational support (Shanock & Eisenberger, 2006; Ma & Qu, 2011). Thus I expect a negative relationship between interpersonal conflicts with ROCB.

Further, not all employees in a work unit will be the target of OCB. There are certain people who would be targeted more than others. In the social context of organizations, only employees who follow the social norms will experience helping behaviors from others. They tend to be involved less in interpersonal conflicts.

Research has shown that the performer of OCB experiences less interpersonal conflict (Fox, Spector, Bruursema, Kessler, & Goh, 2007, August; Miles, Borman, Spector, & Fox, 2002). One proposed relationship in this study is a positive relationship between reception of OCB and performing OCB. Therefore the recipients of OCB should engage in more OCB, thus, they should experience less interpersonal conflict. Moreover, the helping behaviors can be considered as a strategy of avoiding interpersonal conflict, thus, it's possible that the recipient of the OCB could experience less interpersonal conflict.

Hypothesis 8: ROCB will be negatively related to the recipients' interpersonal conflict.

Potential Role of Personality

Among all the predictors of OCB, a lot of focus has been put into personality

factors. Ilies and colleagues (2009) found agreeableness and conscientiousness had both direct effects and indirect effects—through job satisfaction—on overall OCB (Konovsky & Organ, 1996). Research has also found that having a proactive personality was associated with employees establishing a high-quality exchange relationship with their supervisors (Li, Liang, & Crant, 2004); in turn, the quality of leader–member exchange was associated with greater job satisfaction and more organizational citizenship behaviors (Li, Liang, & Crant, 2004). Additionally, the relationship between proactive personality and organizational citizenship behavior was positively moderated by procedural justice climate within the group (Li, Liang, & Crant, 2004). Rioux and Penner (2001) found that pro-social values motives were most strongly associated with OCB directed at individuals, and organizational concern motives were most strongly associated with OCB directed toward the organization. Each of the motives accounted for unique amounts of variance in OCB.

Since personality plays an important role in predicting OCB, it's would be interesting to explore personality's role on ROCB. Research has shown that personality will influence individual's interpretation of other's behaviors and lead to different reactions (Allport & Odbert, 1936; Horton, Bleau, & Drwecki, 2006). Thus, when individuals receive OCB from co-workers at work, it is likely that individuals with different personalities will interpret those behaviors in different ways and react to them in different manners. Moreover, research on social support shows that personality moderates the relationship between social support and health and family outcomes (House, Umberson, & Landis, 1988; House, Robbins, & Metzner, 1982). It is reasonable to believe that personality has a potential role in ROCB.

Potential Role of Proactive Personality

Proactive personality is the extent to which individuals are prone to take steps to bring about change or affect their surroundings (Bateman & Crant, 1993). Crant (1995) defined proactive personality as a disposition with which people are more likely to take initiatives to change and influence their environments. Parker et al. (2001) proposed that proactive personality should moderate the effects of work characteristics on individual and organizational outcomes. For instance, people who are low in proactive personality will be reluctant to seek opportunity for change. Proactive personality may be more influential when the environment of the organization is less favorable, and its impact may change how organizational climate and policy influence employees' behaviors and feelings.

Proactive personality is also shown to be positively associated with role breadth self-efficacy (i.e., the extent to which workers feel capable of carrying out various work activities that extend beyond the prescribed technical core) (Hautau, et al., 2006). When employees who are high on proactive personality receive OCB and benefit from such behaviors, they are more likely to take initiative, influence the environment and make it more favorable. In contrast, when employees who are low on proactive personality receive helping OCB and benefit from such behaviors, they are less likely to take initiative, influence the environment rather just acclimatize to their surroundings rather than change them. Thus, it's possible that proactive personality moderates the relationship between ROCB and job-related outcomes.

Further, Gan and Cheung (2011) have demonstrated the correlation between OCB and proactive personality is significant. So I proposed a moderating effect of proactive

personality on the relationship between ROCB and OCB.

Moreover, when proactive employees facing difficulties at work and are helped by others, it is reasonable to believe such help will provoke more effort toward work tasks. Moreover, proactive personality was found to interact with leader-member exchange in predicting employees' job satisfaction and OCB, and interact with procedural justice climate in predicting OCB (Li, Liang, & Crant, 2004).

In sum, people who are high but not low on proactive personality should benefit from ROCB and therefore should have a stronger relationship of ROCB with outcomes.

Hypothesis 9: Proactive personality will moderate the relationship between ROCB and job performance; such that the positive relationship for high proactive personality employees is stronger than the positive relationship for those low on proactive personality.

The current study also explored the potential moderating role of proactive personality on the relationship between reception of OCB and other work-related outcomes. Although previous research about proactive personality in the workplace have shown that proactive personality could be a moderator on the relationship between ROCB and performance, this research isn't sufficient to make specific hypothesis about the other work-related outcomes. Thus, I raised a research question that instead of propose a hypothesis.

Research Question 1: What is the relationship between proactive personality and ROCB? What is the potential role of proactive personality on the relationship between ROCB and work-related outcomes?

Potential Role of Narcissism

Narcissism is defined as grandiose views of self-importance and superiority, low empathy, and an extreme sense of entitlement (Baumeister, Bushman, & Campbell, 2000). Baumeister and colleagues (Baumeister, Smart, & Boden, 1996; Bushman & Baumeister, 1998) proposed that acts of aggression are often caused by the combination of inflated self-esteem, as is found in narcissism, and an ego threat, which they described as any event that challenges or jeopardizes favorable views of the self. Results from social and personality psychology are consistent with the idea that narcissists, due to their alienating behavior, do not receive social support from others and, instead, are excluded and rejected by others (Horton, Bleau, & Drwecki, 2006; Otway & Vignoles, 2006). Social support cannot be a used stress buffering system by narcissists (Cisek, Hart, & Sedikides, 2008). So a narcissistic person will perceive helping behaviors in a different manner and may even feel threatened by such behaviors.

Smalley and Stake (1996) found individuals high in narcissism experienced increased hostility following negative feedback. Several of the behaviors in helping OCB focus on giving suggestions or advise to co-work. Under this circumstance, a narcissistic person would reject the help which will lead to different outcomes. In sum, instead of improving their performance and other work-related outcomes, narcissistic people will be negatively influenced by reception of OCB.

Hypothesis 10: Narcissism personality will moderate the relationship between ROCB and OCB; such that the positive relationship for high narcissism personality employees is weaker than the positive relationship for those low on narcissism personality.

However, from research evidence, it's hard to conclude whether narcissism would be a predictor of reception of OCB since narcissistic people tend to reject help as whole or narcissism might be a moderator of the relationship between reception of OCB and other work-related outcomes, because narcissistic people react to the help in a different way. Thus instead of proposing another hypothesis, I raised a research question as below.

Research Question 2: What is the relationship between narcissism personality and ROCB? What is the potential role of narcissism personality on the relationship between ROCB and work-related outcomes?

The Current Study

In sum, the purpose of the current study is to understand the relationship between reception of OCB and work related outcomes (job performance, OCB, CWB, job satisfaction, organizational commitment, turnover intension, interpersonal conflict, and work-family conflict) on the individual-level. The study also explored the moderating roles of two personality variables on the relationship between ROCB and performance. By collecting data from a working population, the current study specifically examined the effect of support from employees to their co-worker.

METHOD

The design of the study was cross-sectional, with all variables assessed using self-report surveys. The reliability and evidence for validity of the newly developed reception of OCB scale were analyzed using SPSS. Item analysis was performed to provide the psychometric properties of the newly developed scale. An exploratory factor analysis was performed to check the dimensionality of the items in this scale. The relationships of the variables were analyzed, and the moderator roles of personality were tested statistically using SPSS (Cohen, Cohen, West, & Aiken, 2003).

Participants

Participants were 372 employed students taking courses at the University of South Florida. They were recruited through an online participant pool system. Participants were compensated with course credits. The majority of the participants are white (61.1%). They were at least 18 years old with a mean age of 23.58 (SD = 6.04) and worked at least 20 hours per week with a mean time of 28.61 hours (SD = 9.87). In order to assure that participants had been on the job long enough to experience and engage in OCB, only data from participants who had been on their job for at least two months were included in the analyses. The sample ended up with a mean tenure of 28.91 months (SD = 31.86). Finally, the majority of the participants were female (76.0%).

Measures

Reception of Organizational Citizenship Behavior (ROCB)

The ROCB scale was developed to measure employees' ROCB that is performed by other individuals at work they interact with, especially co-workers. An initial 23 items of helping behavior and OCB-I dimension from three commonly used OCB scales were gathered (Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Williams & Anderson, 1991; Fox, Spector, Bruursema, Kessler, & Goh, 2007, August). Instead of indicating how often they engage in such behaviors, participants were asked to indicate whether they directly receive such behaviors from co-workers on a frequency response format ranging from "Never" to "Everyday". An example item was: "How often have any of your co-workers voluntarily take time to advice, coach, or mentor you". The psychometric properties of reliability and dimensionality of the scale are presented in the Results section.

Proactive Personality

Bateman and Crant's (1993) 17-item scale was used to measure employees' proactive personality. It is a 7-point Likert scale with responses options ranging from "strongly disagree" to "strongly agree". One example item was "I excel at identifying opportunities". The total score of proactive personality was the sum of scores to each item. Higher score indicates higher level on proactive personality. The scale had a coefficient alpha of .89, and an average inter-item correlation of .32 (Bateman & Crant, 1993).

Narcissism

The Narcissistic Personality Inventory (NPI) (Raskin & Hall, 1979) was developed using the DSM-III behavioral criteria as a conceptual template to measure

‘individual differences in narcissism in non-clinical populations’ (Raskin & Terry, 1988, p. 892). In that study, they identified seven factors that compose the NPI: (a) authority (e.g., I am a born leader); (b) self-sufficiency (e.g., I am more capable than other people); (c) superiority, (e.g., I am an extraordinary person); (d) exhibitionism (e.g., I really like to be the center of attention); (e) exploitativeness (e.g., I can read people like a book); (f) vanity (e.g., I like to look at my body); and (g) entitlement (e.g., If I ruled the world it would be a much better place). Construct validity of the NPI has been demonstrated by several previous studies (Gough, 1956; Raskin & Hall, 1981). The 40 NPI items were presented in a Likert scale format ranging from “disagree very much” to “agree very much”. High NPI scores indicate higher levels of narcissism.

Job Performance

Self-reported overall job performance was collected. This ad hoc single item asks the participants to rate their overall performance at their current job on a 5 point scale ranging from very effective to needs considerable improvement. This item was chosen from other performance measures because it measures the overall performance instead of focusing on any single facet of job performance.

Organizational Citizenship Behavior

The 10-item version of the Organizational Citizenship Behavior Checklist (OCB-C) (Spector, Bauer, & Fox, 2010) was used in this study to avoid artifactual measurement bias (Dalal, 2005). The OCB-C had a mean coefficient alpha of .80 for the employee forms. This checklist is a 5-point Likert scale. Participants were asked to indicate how often they engage in the behavior everyday (1=never; 5=everyday). Higher scores on both of the scales indicate higher ratings on the behavior of interest.

Counterproductive Work Behavior

The 10-item version of the Counterproductive Work Behavior Checklist (CWB-C) (Spector, Bauer, & Fox, 2010) was used in this study. Spector et al. reported an average internal consistency (coefficient alpha) of the CWB-C as .78 for the two employee forms (agreement and frequency). This checklist is a 5-point Likert scale. Participants were asked to indicate how often they engage in the behavior everyday (1=never; 5=everyday). Higher score on the scale indicates higher ratings on the behavior of interest.

Work-Family Conflict

Work-Family Conflict was assessed using the Carlson, Kacmar, and Williams (2000) multi-dimensional scale with an internal consistency reliabilities ranging from .78 to .87 for each of the subscales. The scale can be divided into six subscales. Each direction of WFC (WIF or FIW) is nested within each of the three dimensions of WFC (time-, strain-, and behavior-based conflict). There are three items in each subsection to yield a total of 18 items. An example item is “My work keeps me from my family activities more than I would like.” The total score of WFC, WIF and FIW were used. A five-point Likert-type scale was used with responses ranging from strongly disagree (1) to strongly agree (5). A higher score indicates a higher level of Work-Family Conflict.

Interpersonal Conflict

The Interpersonal Conflict at Work Scale (ICAWS) developed by Spector and Jex (1998) was used in this study to assess participants’ interpersonal conflict at work. Four items were rated on a 5 point frequency scale ranging from “less than once per month” to “several times per day”. An example item would be “How often do you get into arguments with others at work?” (Spector, Bauer, & Fox, 2010) reported a coefficient

alpha as .77. Higher score on the scale indicates higher rating on the interpersonal conflict.

Turnover Intention

Turnover intention was measured by one item (Spector, Dwyer, & Jex, 1988), “How often have you seriously considered quitting your present job?” The participants were asked to indicate the level of their intension on a 6 point frequency scale ranging from “Never” to “Extremely often”. Higher scores on the scale indicate higher levels of turnover intension.

Job Satisfaction

Job satisfaction was assessed with the 3-item general satisfaction scale from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979). The scale contains two positively worded and one negatively worded, reverse scaled item. Response choices ranged from 1 = strongly disagree to 6 = strongly agree, with high scores indicating high satisfaction. The coefficient alpha reported by them for the scale was .88. An example item would be “In general, I don’t like my job.”

Organizational Commitment

Meyer, Allen and Smith’s (1993) affective organizational commitment scale was adopted in this study. There are 6 items in this scale and a sample item would be “I would be very happy to spend the rest of my career with this organization”. Participants rated each of the items on a 6 point Likert scale ranging from “Disagree very much” to “Agree very much”. Three of the items need to be reverse-coded. This affective commitment scale has a reliability coefficient alpha of .82. Higher score on the scale indicates higher level of commitment.

Coworker Exchange

Coworker exchange was to establish the discriminant validity of the ROCB, because the contents of the two scales are similar. The 6 items from Ladd and Henry (2000) were used. This scale has a reliability coefficient alpha of .93. A sample item would be “My coworkers care about my opinions” and the participant need to rate the item on a 6 point Likert scale ranging from “Disagree very much” to “Agree very much”. Higher scores on the scale indicates higher levels of coworker exchange.

Procedure

I contacted subjects through a university based online participant pool. Registered users can either complete the survey on the SONA system or they were brought into a research lab. Participants were given a brief introduction of purpose of the study, requirement of working hours, and compensations. They were asked to finish an online self-report survey in the lab. The total survey took approximately 25 minutes to complete.

RESULT

Descriptive Statistics of the ROCB Scale

The original item pool for the ROCB scale included 23 items developed from existing OCB scales (Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Williams & Anderson, 1991; Fox, Spector, Bruursema, Kessler, & Goh, 2007, August). Item analyses were performed to check whether any item should be removed from future analysis. The descriptive statistics are presented in Table 1. This table includes sample size, mean, standard deviation, Kurtosis, skewness and observed range for all the items in the original ROCB scale. The observed ranges for all items are from 1 to 5. The distributions of scores on each of the item are normal based on the Kurtosis and skewness scores. The lowest mean of the 23 items is 2.33 and the highest mean is 3.39.

Factor Analysis

To explore the dimensionality of the ROCB scale, exploratory factor analysis (EFA) was conducted. All participants were included in the EFA since there is no missing data. The scree plot showed that there was a big bend after the first eigenvalue, and smaller ones after the second and third eigenvalues (Figure 1). Thus, I rotated 1, 2 and 3 factor solutions. Instead of using the default principal component extraction with Varimax rotation, I used Maximum Likelihood extraction with Promax oblique rotation, given the nature that the items should be inter-correlated with each other. The number of factors was decided base on eigenvalues the factor loadings and the content of factors identified

(Table 2, 3 and 4). As recommended by Tabachnick and Fidell (1996), only those items with a pattern coefficient greater than .40 were considered to load on the factor. Based on this criterion, the three factor solution was most informative. Together, they account for 54.68% (44.02%, 6.56% and 4.10% respectively) of the variance.

The pattern matrix of the three factor solution is shown in Table 4. Based on the above criterion, 6 items were chosen from factor 1, 4 items were chosen from factor 2 and 4 items were chosen for factor 3. Item 6 was excluded from further analyses because none of its loadings were greater than .40. Item 7, 10, 14, 15, 16, 17, 21 and 23 were excluded from further analyses because they cross-loaded too much on more than one factor. An EFA of the retained 14 items was performed and a three-factor solution was suggested (Table 5 and Figure 2). The three factors accounted for 59.29% of the total variance of the data (42.87%, 10.37% and 6.06% respectively). A confirmatory factor analysis showed the model fit of the three factor model is $\lambda^2 = 138.349$ ($p = .000$) and the RMSEA = .062 (95% confidence interval = .046, .078).

The three factors can be distinguished from each other easily based on the contents of the items. Items from factor 1 concern the direct aid and tangible help employees get from their co-worker's OCB behavior. Thus this factor was named *Tangible Support*. Examples include co-workers voluntarily finished something for you when you had to leave early (item 11), helped you when you had been absent to finish your work (item 19) and helped you lift a heavy box or other object (item 12).

Factor 2 consisted of items pertaining to the co-workers' OCB behaviors of mentoring, coaching and advice giving. Thus this factor was named *Informational Support*. Items loaded on this factor are: co-workers voluntarily Took time to advise,

coach, or mentor you (item 1), helped you learn new skills or shared job knowledge (item 2), helped you get oriented to the job (item 3), offered suggestions to help you improve how work is done (item 5).

Factor 3 has 4 items represent the personal care and intangible help employees get from their co-workers' OCB behaviors. Thus this factor was named *Intangible Support*. Examples of this factor are: co-workers voluntarily lent a compassionate ear when you had a work problem (item 4), took time to listen to your problems and worries (item 20), took personal interest in you (item 22). After comparing item 4 an item 20, I realized that these two items are quite similar. So a suggestion for using this scale in the future would be changing item 20 into took time to listen to your worries.

To assess the discriminant validity of the ROCB scale, another exploratory factor analysis was performed with the 16 items and 6 items from the Co-worker Exchange (COEX) Scale (Ladd & Henry, 2000). The reason that I chose COEX scale as my criterion is that there is underlying content overlaps between these two scales. For instance, the item: "My coworkers will help me when I have a problem" from the COEX scale is similar with the items in the *Intangible Support* factor of the ROCB scale; another item of the COEX scale: "My coworkers are willing to assist me to perform better" is overlapped with items in the *Tangible Support* factor of the ROCB scale. Instead of using the default principal component extraction with Varimax rotation, I used maximum Likelihood extraction with Promax oblique rotation, given the nature that the items should be inter-correlated with each other. The result of this EFA can be found in Table 6 and Figure 3. Although the values of the ROCB items have changed slightly, the three-factor solution is the same as original EFA. Moreover, all the COEX items loaded

on a single factor which is not overlapped with any ROCB factors indicating that these two scales are measuring different concepts. A confirmatory factor analysis showed the model fit of the four factor model is $\lambda^2 = 226.702$ ($p = .000$) and the RMSEA = .053 (95% confidence interval = .041, .064).

Item Analysis of the Sub-Dimensions of the Scale

Item analysis and internal consistency analysis were conducted for the overall scale and the three sub-scales. The difference of the means can be considered as small, which is a primary sign of internal consistency. The inter-item correlation matrix of the items for the overall scale and the subscales are shown in Table 7, 8, 9 and 10. The results confirmed the overall measure and the sub-scales displayed good internal consistency with the inter-item correlations ranging from .23 to .78. The overall reliability of the overall scale and the three subscales were .91, .84, .88 and .88 respectively. None of the 14 items need to be removed after item analysis.

Hypothesis Testing, Correlational Analyses

Correlational analyses were conducted to investigate the relationships between overall ROCB, and the three sub-dimensions with other studied variables. This analysis will provide evidence for testing the first 8 hypothesis and partially answer research questions 1 and 2. The results are displayed in Table 11 with scale reliabilities presented in the diagonal. The observed ranges of the measures' reliability are ranging from .83 to .94 indicating good internal consistency of all measures. The relationships varied greatly in magnitude and direction. For instance, the relationship between overall ROCB and OCB is .55 while the relationship between overall ROCB and turnover intention is -.21.

According to the statistics in Table 11, overall ROCB and the three sub-dimensions are positively correlated with OCB, job satisfaction, organizational affective commitment, proactive personality and narcissism at the .001 level (the correlation between informational support and narcissism was not significant, the correlations between proactive personality and two sub-dimensions were significant at .5 level) and overall performance at the .05 level (the correlations between informational support, tangible support and overall performance were not significant). Thus hypotheses 2, 4 and 5 which predict that ROCB is positively related to OCB, job satisfaction, organizational affective commitment are supported and hypothesis 1 which predicts that ROCB is positively related to job performance is partially supported. Part of the research question 1 and 2 have been answered since the result indicating proactive personality and narcissism are positively related to overall ROCB ($r = .20, p < .001$; $r = .20, p < .001$ respectively).

Furthermore, as expected, the results show that ROCB and the three sub-dimensions are negatively correlated with turnover intention at .001 level (tangible support is correlated with turnover intention at .05 level). Work interference with family is negatively correlated with overall ROCB and intangible support ($r = -.15, p < .05$; $r = -.14, p < .05$ respectively) as proposed, whereas only intangible support is correlated with the family interfere with work sub-dimension ($r = -.16, p < .05$). Thus hypothesis 6 which predicted that ROCB would be negatively correlated with turnover intention was supported, and hypothesis 7 which predicted that ROCB would be negatively correlated with WIF was partially supported. Unfortunately, the current study failed to find any support for hypotheses 3 and 8 which predict ROCB should be negatively correlated with

CWB and interpersonal conflict ($r = .08, p = .25$; $r = -.01, p = .91$, respectively).

Hypothesis Testing, Moderation Analyses

The last two hypotheses predict that proactive personality moderates the relationship between ROCB and job performance as well as narcissism moderates the relationship between ROCB and OCB. According to Table 11, overall ROCB and the three sub-dimensions are significantly correlated to OCB and overall ROCB and intangible support are significantly related to overall job performance. Thus I proceeded to use hierarchical regression to test hypotheses 9 and 10.

ROCB (either overall or the sub-dimensions) and personality variable were entered into the first step of the regression. Interaction terms were calculated by multiplying ROCB (either overall or the sub-dimensions) score and personality score and were entered into the second step. Overall performance and OCB were entered as dependent variable respectively.

The model statistics were presented in Table 12, 13, 14, 15, 16 and 17. None of the interaction terms in the analyses were statistically significant which means there are no significant moderating relationships found in the current sample. Thus, Hypotheses 9 and 10 were not supported by this data.

Exploratory Analyses, Research Question 1 and 2 and More

As mentioned above, the first research question has been partially answered by the correlational analyses; proactive personality is correlated with ROCB (either overall or the sub-dimensions) significantly (r ranges from .16 to .20, $p < .05$). At the meantime, the correlation matrix shows that proactive personality is significantly correlated to work related variables which are also significantly associated with ROCB (either overall or the

sub-dimensions), such as OCB, job satisfaction, organizational affective commitment, turnover intention and work interfere with family. Hence, I conducted several hierarchical regressions to test if proactive personality moderates the relationships between ROCB (either overall or the sub-dimensions) and work-related variables.

The model statistics are displayed in Table 18 to 35. ROCB shows incremental validity over proactive personality in predicting all dependent variables in all the analyses. It (either overall or the sub-dimensions) can predict OCB, job satisfaction, organizational affective commitment and turnover intention over and beyond proactive personality. Upon examination of the moderation effects, none of the analyses came back significant. Thus, the overall answer to research question 1 is that proactive personality is positively correlated with ROCB (either overall or the sub-dimensions).

Earlier analysis showed that narcissism is positively related to overall ROCB, tangible support and intangible support dimension (r ranges from .20 and .21, $p < .001$). Narcissism is also shown to be related to overall performance, job satisfaction and organizational affective commitment which can be significantly predict by ROCB (either overall or the sub-dimensions). Thus I went to explore the possibilities of narcissism being a moderator between the relationships of ROCB (either overall or the sub-dimensions) and these three work-related variables. The same steps I used for testing the moderation effect of proactive personality were used here to study the incremental validity of ROCB. The results are shown in Table 36 to 51.

ROCB shows incremental validity on predicting job satisfaction and organizational affective commitment over and beyond narcissism. However, none of the analyses support the idea that narcissism moderates the relationships between ROCB

(either overall or the sub-dimensions) and work-related outcomes. Thus the answer to research question 2 is that narcissism is positively correlated with ROCB (either overall or the sub-dimensions).

DISCUSSION

It has been shown that OCB is related to performers' personality, emotions, perceived justice, performance, job stressor, and job strain on the individual level (Podsakoff, Whiting, Podsakoff, & Blume, 2009). Several more studies further demonstrated that OCB can benefit the organization such as increasing productivity, increasing collective job satisfaction, reducing costs and increasing customer satisfaction (Whitman, Van Rooy, & Viswesvaran, 2010). Despite the fact that OCB has been studied extensively in organizational research (Borman, Penner, Allen, & Motowidlo, 2001; Cohen-Charash & Spector, 2001; LePine, Erez, & Johnson, 2002; Organ & Ryan, 1995; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Spector & Fox, 2002), most of the research attention has been paid to OCB performers. Thus the current study fills the gap in the literature by studying the individual-level outcomes of the recipients of the OCB.

The primary goals of this study were to introduce a new construct known as Reception of Organizational Citizenship Behavior and to explore its relationship with commonly studied work-related variables. Furthermore recipients' personality was taken into account in the studied relationships.

Using self-reported data, I developed a scale for measuring ROCB. Results of the study showed that there are three underlying factors composing the ROCB measuring tool. Identified factors include informational support, tangible support, and intangible support. *Informational support* represents the co-workers' OCB behaviors of mentoring,

coaching and advice giving. *Tangible Support* dimension contains the direct aid and tangible help employees get from their co-worker's OCB behavior. Factor three was named *Intangible Support* which represents the personal care and intangible help such as emotional support employees get from their co-workers' OCB behaviors. Considering the similarity in the wording of the co-worker exchange scale and the ROCB scale, an EFA was performed to check the discriminative validity of the ROCB construct. The analysis showed that there is no underlying overlap between any factors of ROCB and the COEX construct. All the 6 items of COEX loaded on a single factor other than the three factors of ROCB.

It was demonstrated that overall ROCB is positively related to recipients' job satisfaction, organizational affective commitment, overall performance and OCB; tangible support is positively related to recipients' job satisfaction, organizational affective commitment and OCB; informational support is positively related to recipients' job satisfaction, organizational affective commitment and OCB; tangible support is positively related to recipients' job satisfaction, organizational affective commitment and OCB. It was also shown that overall ROCB, tangible support, informational support and intangible support are negatively related to turnover intention and overall ROCB is negatively correlated with WIF.

ROCB is composed by three different types of support that employees can get from their co-workers. First, employees high on informational support were the ones who got more information about how to get their work done better from others. Utilizing this information will help the recipients improve their productivity and quality of their work. Second, when the recipients of OCB get tangible support from their co-worker such as

direct aid on a certain task or help on an unfinished assignment, the recipients' performance will be improved directly. Finally, employees' emotion and mood have been demonstrated to be related to their job performance (Barsade & Gibson, 2007), thus, if ones get intangible support such as emotional back up or help to make them feel better, the performance will be improved. Thus, as I found, overall ROCB and intangible support are positively related to job performance. The more the employees receive OCB from their co-worker, the better they perform on their own job.

According to social exchange theory, people who receive help and support from others will feel pressure to return the favor by providing support or help to others (Homans, 1958, p. 606). Thus, when employees receive supportive and helpful OCB from their co-workers and it resulted in improvement of their performance, they tend to return the favor by helping the direct performers or other co-workers by engaging in the same behaviors. Thus, as I found in the study, ROCB (either overall or the sub-dimensions) is positively related with the recipients' OCB. The more the employees receive OCB from their co-workers, the more they perform OCB themselves.

According to perceived organizational support theory, employees' job satisfaction and organizational affective commitment will be increased and their turnover intension will be decreased as a result of perceiving support from their organization (Dawley, Houghton, & Bucklew, 2010; Settoon, Bennett, & Liden, 1996; Shanock & Eisenberger, 2006). When employees perceive support from their co-workers as a result of receiving OCB, it is apparent that they will be more satisfied with their current job and more committed to it. As a result, the intension to leave will be decreased. Thus as I found in the study, the more the employees receive OCB from their co-worker, the more likely that

they are satisfied with and committed to their current job and less likely to leave it for other job options.

Finally, I found that overall ROCB and intangible support are negatively correlated with WIF. This finding can be explained by the potential effect of ROCB on job stressor. ROCB is composed by three different types of support employees can get from their co-worker. These supports can help employees to better perform their job and save them time and energy on their work. As a result, employees will have more time and energy to spend on their family matters. Moreover, one of the direct effects of ROCB which is proved by this study is that ROCB is positively related with job performance. The improvement on employees' job performance can potentially increase employees' salary or get them promotions. These can result in solving family's financial problems. Thus as I found in the study, the more the employees receive OCB from their co-worker, the less work-family conflict they experience.

Additionally, two personality traits of the recipients are positively related to ROCB (either overall or the sub-dimensions) – proactive personality and Narcissism (except for informational support). Two more research questions about these two types of personality's role in the relationship between ROCB and work-related variables have been answered. According to the findings, people who are high on proactive personality and narcissism will receive more OCB. These findings could be explained by the fact that proactive persons tend to change their surroundings in a more favorable way (Bateman & Crant, 1993; Crant, 1995), thus proactive persons may actively put themselves in an environment that co-workers are more willing to provide help and support as the form of OCB. Narcissistic individuals tend to feel the people who work with them consider them

to be important and takes their needs as high priority, thus they tend to rate the help and support from other people higher than anyone else to maintain a favorable image of self.

Besides the above findings, my data failed to support the hypotheses that ROCB (either overall or the sub-dimensions) is negatively related to interpersonal conflict and CWB. The proposed moderation effects of proactive personality on the relationship between ROCB and job performance and narcissism on the relationship between ROCB and OCB were also not statistically significant.

Possible explanations of non-significant results were discussed below. First, as shown in Table 1, the mean scores of interpersonal conflict (6.43 out of 20) and CWB (18.14 out of 50) are low. The standard deviation of interpersonal conflict is only 2.95 while the standard deviation of CWB is 6.77. Second, as shown in Figure 5 and 6, the distributions of both interpersonal conflict and CWB are negatively skewed. Thus, the data is not ideal to show the relationships between ROCB and any of these two variables.

Limitation

Cross-sectional design was used to identify the relationships between ROCB and work-related outcomes. Thus, causality conclusions can't be drawn from the current study. For example, the result shows that ROCB is positively related with job satisfaction, but we don't know whether ROCB cause people to be satisfied more with their jobs or satisfied employees tend to rate their job environment and co-workers' behaviors positively. Hereby, I suggest longitudinal design should be used in the future study to understand the causal relationship among the variables.

Using employed undergraduate students as subjects for organization study has long been questioned. Although only students who work more than 20 hours/week were

recruited in the study, the mean of the working hour of the sample is 28.48 (SD= 10.02) which indicates most of the participants work part-time instead of full-time. Therefore, the sample may differ in several meaningful ways from other employed samples. For example, the participants may be in an occupation which is not career-relevant, thus they may behave differently in a career-relevant job. Additionally, part-time employee may not be able to experience OCB at work since they don't work long enough. However, research has been shown that in reporting CWB, student sample is not different from other employed sample (Fox & Spector, 1999). This indicates it may not be a big problem to use employed student sample. Future research should be conducted using other sample to verify the current result.

Another limitation in this study is the use of self-reported data. Although one can argue that to assess ROCB, self-reported data should be the most appropriate way, however, many other variables used in this study should be assessed using other-reported data. For example, job performance has been demonstrated to be more appropriate measured using other-reported data (Spector & Brannick, 2010), especially when I failed to find a significant relationship between task performance and CWB . One suggestion could be to use employee-supervisor paired data to verify the relationships found currently in the future.

In the end, the participants were recruited from an online research subject pool and they were volunteers to participate in the study with little reward as extra credit for their classes. Scholars have been suspecting that volunteer sample would response to the survey differently from non-volunteer sample. One example would be that volunteer sample may be more altruistic or conscientious, and this could cause systematic bias in

the data and affect the result observed in the study. Thus, there may be a generalization issue associated with the current study. In the future, researcher should validate the results of the current study using observational design with the participants not knowing the study is going on.

Directions for Future Research

Measure validation should be done immediately in the future since ROCB is a newly defined concept and the scale measuring this variable was developed based on only one sample. More validity analyses should be performed in the future for evaluating the measure. A primary dimensionality analysis was conducted in the current study; a three-factor solution was identified. Future research should try to replicate it using different sample. One of the factors includes 8 items while the other two only contain 4 items. It's possible that these 6 items is more than necessary to represent one single factor. Thus, qualitative study such as interviews which can help the participants better remember the behaviors in the future can be helpful in reduce the number of items in the first factor.

Replication of the current results should be pursued with different samples with more balanced demographic properties. The current study failed to find some expected relationships between ROCB and work-relate variables, and most moderator effects failed to reach standard significance levels, one possible reason would be that the ages of the participants were relatively young and they tend to be helped by their co-workers more because they are new to the job. More work-related outcome variables should be studied such as job stress, job strain and other type of behavior. Moreover, personal factors as well as environmental factors should be taken into account when exploring the

relationships between ROCB and job related-outcomes.

Finally, ROCB should be incorporated into currently exist organizational research models. The current study has shown that ROCB has incremental validity in predicting several work-related outcomes above and beyond personality variables. This indicates that ROCB is an important organizational variable which should be taken into account in the studies of organizational behavior. Thus it's appropriate to develop theoretical models including ROCB. For example, future research can examine the relationship between ROCB and job stressor and job strain, and then revise the current job stress and strain model.

Conclusion

First, the current study proposed a new construct named Reception of Organizational Citizenship Behavior and developed a reliable scale to measure it. A primary dimensionality study of ROCB was also performed in this research, and a three-factor solution was identified. These three factors are named as intangible support, tangible support and informational support.

Second, this research was the first one to investigate the relationship between ROCB (either overall or the sub-dimensions) and commonly studied work-related variables. Six of the eight proposed correlations were significant. The result provides evidence to suggest that ROCB is a viable construct which can be used in predicting organizational behaviors and job strains. Besides, this study covers the gaps in OCB research by evaluate the outcomes of OCB from the recipient's point of view.

Additionally two personality variables were linked to ROCB in this research. Although the causality has not been proved, proactive personality and narcissism can

predict ROCB. Future research should test these hypotheses using a different sample.

At last, ROCB should be linked with other personality types and more job-related variables. As a newly developed construct, there is a lot of research questions of ROCB need to be considered in the future.

REFERENCES

- Aiken, L. H., Clarke, S. P., & Sloane, D. (2002a). Hospital staffing, organization, and quality of care: cross-national findings. *Nursing Outlook*, 50(5), 187-194.
- Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002b). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *JAMA*, 288(16), 1987-1993.
- Aiken, L. H., Clarke, S., Sloane, D., Sochalski, J., Busse, R., Clarke, H., et al. (2001). Nurses' reports on hospital care in five countries. *Health Affairs*, 20(3), 43-53.
- Allport, G. W., & Odbert, H. (1936). Trait names: A psycho-lexical study. *Psychological Review Monographs*, 7, 211.
- Babakus, E., Yavas, U., Karateppe, O. M., & Avci, T. (2003). The effect of management commitment to service quality on employees' affective and performance outcomes. *Journal of the Academy of Marketing Science*, 31(30), 272-286.
- Barnard, C. (1938). *The Functions of the Executive*. Cambridge, MA: Harvard University Press.
- Barsade, G. S., & Gibson, E. D. (2007). Why Does Affect Matter In Organizations? *Academy Of Management Perspectives*, 21(1), 36-59.
- Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior. *Journal of Organizational Behavior*, 14, 103-118.
- Bateman, T. S., & Organ, D. W. (1983). Job satisfaction and the good soldier: The

- relationship between affect and employee "citizenship". *Academy of Management Journal*, 26, 587- 595.
- Baumeister, R. F., Bushman, B. J., & Campbell, W. K. (2000). Self-esteem, narcissism, and aggression: Does violence result from low self-esteem or from threatened egotism? *Current Directions in Psychological Science* 1, 9(1), 26-29.
- Baumeister, F. R., Smart, L., & Boden, M. J. (1996). Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. *Psychological Review*, 3(1), 5-33.
- Berkman, L. F., & Syme, S. L. (1979). Social networks, host resistance, and mortality: A 9-year follow-up study of Alameda County residents. *Am. J. Epidemiol.*, 109(1), 86-204.
- Berry, C. M., Ones, D. S., & Sackett, P. R. (2007). Interpersonal deviance, organizational deviance, and their common correlates: A review and meta-analysis. *Journal of Applied Psychology*, 92, 410–424.
- Borman, W. C. (2004). The concept of organizational citizenship. *Current directions in Psychological science*, 13(6), 238-241.
- Borman, W. C., & Motowidlo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. *Personnel selection in organizations*, 71-98.
- Borman, W. C., Penner, L. A., Allen, T. D., & Motowidlo, S. J. (2001). Personality predictors of citizenship performance. *International Journal of Selection and Assessment*, 9, 52-69.
- Brief, A. P., & Motowidlo, S. J. (1992). Prosocial organizational behaviors. *Academy of Management Review*, 11, 710-725.

- Bushman, B. J., & Baumeister, R. F. (1998). Threatened egotism, narcissism, self-esteem, and direct and displaced aggression: Does self-love or self-hate lead to violence? *Journal of Personality and Social Psychology*, 75(1), 219-229.
- Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). The Michigan Organizational Assessment Questionnaire. *Unpublished manuscript, University of Michigan, Ann Arbor.*
- Carlson, D. S., Kacmar, K. M., & Williams, L. J. (2000). Construction and validation of a multidimensional measure of work-family conflict. *Journal of Vocational Behavior*, 56, 249-276.
- Carsten, J. M., & Spector, P. E. (1987). Unemployment, job satisfaction and employee turnover: A meta-analytic test of the Muchinsky model. *Journal of Applied Psychology*, 72, 374-381.
- Cassel, J. (1976). The contribution of the social environment host resistance. *Am. J. Epidemiology*, 102(2), 107-23.
- Chang, C. H., Johnson, R. E., & Yang, L. Q. (2007). Emotional strain and organizational citizenship behaviors: A meta-analysis and review. *Work & Stress*, 21(4), 312-332.
- Cisek, Z. S., Hart, M. C., & Sedikides, C. (2008). Do narcissists use material possessions as a primary buffer against pain? *Psychological Inquiry*, 19(3-4), 205-207.
- Cobb, S. (1976). Social support as a moderator of life stress. *Psychosom. Med.*, 38(5), 300-314.
- Cohen-Charash, Y., & Spector, P. E. (2001). The role of justice in organizations: a meta-analysis. *Organizational Behavior and Human Decision Processes*, 86, 278-321.

- Cohen, J., Cohen, P., West, G. S., & Aiken, S. L. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.
- Coleman, V. I., & Borman, W. C. (2000). Investigating the underlying structure of the citizenship performance domain. *Human Resource Management Review, 10*, 25-44.
- Crant, J. M. (1995). The proactive personality scale and objective job performance among real estate agents. *Journal of Applied Psychology, 80*(4), 532-537.
- Dalal, R. S. (2005). A Meta-analysis of the relationship between organizational citizenship behavior and counterproductive work behavior. *Journal of Applied Psychology, 90*, 1241-1255.
- Dawley, D., Houghton, J. D., & Bucklew, N. S. (2010). Perceived organizational support and turnover intention: The mediating effects of personal sacrifice and job fit. *The Journal of Social Psychology, 150*(3), 238-257.
- Ehrhart, M. G., & Naumann, S. E. (2004). Organizational citizenship behavior in work groups: A group norm approach. *Journal of Applied Psychology, 89*, 960-974.
- Ehrhart, M. G., Bliese, P. D., & Thomas, J. L. (2006). Unit-level OCB and unit effectiveness: Examining the incremental effect of helping behavior. *Human performance, 19*(2), 159-173.
- Farh, J., Podsakoff, P., & Organ, D. (1990). Accounting for organizational citizenship behavior: Leader fairness and task scope versus satisfaction. *Journal of Management, 16*, 705-721.
- Farh, J.-L., Zhong, C.-B., & Organ, D. W. (2004). Organizational citizenship behavior in

- the People's Republic of China. *Organization Science*, 15(2), 241-253.
- Fox, S., Spector, P. E., Bruursema, K., Kessler, S., & Goh, A. (2007, August). *Necessity is the mother of behavior: Organizational constraints, CWB and OCB*. Philadelphia, PA: Paper presented at the meeting of the Academy of Management.
- Fox, S., , & Spector, E. P. (1999). A Model of Work Frustration--Aggression. *Journal of Organizational Behavior*, 20, 915-931.
- Gan, Y., & Cheung, M. F. (2011). From proactive personality to organizational citizenship behavior: Mediating role of harmony. *Counselor Education and Supervision*, 50(3), 755-765.
- George, J. M., & Jones, G. R. (1997). Organizational spontaneity in context. *Human Performance*, 10, 153-170.
- Gore, S. (1981). Stress-buffering functions of social supports: An appraisal and clarification of research models. In B. .. B . S . Duhrenwend, *In Stressful Life Events and their Contexts*. New York: Prodist.
- Gough, H. H. (1956). *Manual for the California Psychological Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Gouldner, A. W. (1960). The norm of reciprocity. *American Sociological Review*, 25, 165-167.
- Graham, J. (1989). Organizational citizenship behavior: Construct redefinition, operationalization, and validation. *Unpublished working paper, Loyola University of Chicago, Chicago, IL*.
- Grzywacz, J. G., & Mark, N. F. (2000). Reconceptualizing the work-family interface: An ecological perspective on the correlates of positive and negative spillover between

- work and family. *Journal of Occupational Health Psychology*, 5(1), 111-126.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16, 250-279.
- Hautau, B., Turner, H. C., Carroll, E., Jaspers, K., Parker, M., Krohn, K., et al. (2006). Differential daily writing contingencies and performance on major multiple-choice exams. *J Behav Educ*, 15, 259-276.
- Hershcovis, M. S., Turner, N., Barling, J., Arnold, K. A., Dupré, K. E., & Inness, M. (2007). Predicting workplace aggression: A meta-analysis. *Journal of Applied Psychology*, 92, 228-238.
- Homans. (1958). *Social Exchange Theory*. York University.
- Horton, R. S., Bleau, G., & Drwecki, B. (2006). Parenting narcissus: What are the links between parenting and narcissism? *Journal of Personality*, 74(2), 345-376.
- House, J. S., Robbins, C., & Metzner, H. M. (1982). The association of social relationships and activities with mortality: Prospective evidence from the Tecumseh Community Health Study. *Am. J. Epidemiol.*, 116, 123-140.
- House, J. S., Umberson, D., & Landis, K. R. (1988). Structures and process of social support. *Annual review of sociology*, 14(1), 293-318.
- Ilies, R., Fulmer, I. S., Spitzmuller, M., & Johnson, M. D. (2009). Personality and citizenship behavior: The mediating role of job satisfaction. *Journal of Applied Psychology*, 94(4), 945-959.
- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127, 376-407.

- Karabayya, R. (1989). *Contexts for organizational citizenship behavior: Do high performing and satisfying units have better 'citizens.'* North York, Ontario, Canada: York University Working Paper.
- Karabayya, R. (1992). Dual earner couples: Attitudes and actions in restructuring work for family. *Journal of Organizational Behavior*, 13(6), 585-601.
- Karasek, R. A., & Theorell, T. (1990). *Healthy work: stress*. New York: Basic Books.
- Katz, D. (1964). The motivational basis of organizational behavior. *Behavioral Science*, 9, 131-133.
- Konovsky, M. A., & Pugh, S. D. (1994). Citizenship behavior and social exchange. *Academy of Management Journal*, 37, 656-669.
- Konovsky, M., & Organ, D. (1996). Dispositional and contextual determinants of organizational citizenship behavior. *Journal of Organizational Behavior*, 17, 253–266.
- Kossek, E. E., Pichler, S., Bodner, T., & Hammer, B. L. (2011). Workplace social support and work-family conflict: A meta-analysis clarifying the influence of general and work-family-specific supervisor and organizational support. *Personnel Psychology*, 64, 289–313.
- Ladd, D., & Henry, A.R. (2000). Helping Coworkers and Helping the Organization: The Role of Support Perceptions, Exchange Ideology, and Conscientiousness. *Journal of Applied Social Psychology*, 30(10), 2028-2049.
- LePine, J. A., Erez, A., & Johnson, D. E. (2002). The nature and dimensionality of organizational citizenship behavior: a critical review and meta-analysis. *Journal of Applied Psychology*, 87, 52-65.

- Li, N., Liang, J., & Crant, M. (2004). The role of proactive personality in job satisfaction and organizational citizenship behavior: A relational perspective. *Journal of Applied Psychology, 95*(2), 395-404.
- Ma, E., & Qu, H. (2011). Social exchanges as motivators of hotel employees' organizational citizenship behavior: The proposition and application of a new three-dimensional. *International Journal of Hospitality Management, 30*, 680–688.
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology, 78*, 538-551.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: a meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*, 20-52.
- Miles, D. E., Borman, W. E., Spector, P. E., & Fox, S. (2002). Building an integrative model of extrarole work behaviors: A comparison of counterproductive work behavior with organizational citizenship behavior. *International Journal of Selection and Assessment, 10*, 51-57.
- Moorman, R. H. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship? *Journal of Applied Psychology, 76*, 845-855.
- Niehoff, B. P., & Moorman, R. H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. *Academy*

of Management Journal, 36, 527-556.

Nur, Y. A., & Organ, D. W. (2006). Selected organizational outcome correlates of spirituality in the workplace. *Psychological Reports*, 98, 111-120.

Organ, D. W. (1988a). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.

Organ, D. W. (1988b). A restatement of the satisfaction-performance hypothesis. *Journal of Management*, 14, 547-557.

Organ, D. W. (1990). The subtle significance of job satisfaction. *Clinical Laboratory Management Review*, 4, 94-98.

Organ, D. W. (1997). Organizational citizenship behavior: It's construct cleanup time. *Human Performance*, 10, 85-97.

Organ, D. W., & Konovsky, M. (1989). Cognitive versus affective determinants of organizational citizenship behavior. *Journal of Applied Psychology*, 74, 157-164.

Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48, 775-802.

Otway, J. L., & Vignoles, L. V. (2006). Narcissism and childhood recollections: A quantitative test of psychoanalytic predictions. *Personality and Social Psychology Bulletin*, 132(1), 104-116.

Perrin, N. A., Yragui, N. L., Hanson, G. C., & Glass, N. (2011). Patterns of workplace supervisor support desired by abused women. *Journal of Interpersonal Violence*, 26(11), 2264-2284.

Piccolo, F. R., & Colquitt, A. J. (2006). Transformational leadership and job behaviors:

- The mediating role of core job characteristics. *Academy of Management Journal*, 49, 327-340.
- Pillai, R., Schriesheim, A. C., & Williams, S. E. (1999). Fairness perceptions and trust as mediators for transformational and transactional leadership: A two-sample study. *Journal of Management*, 25(6), 897-933.
- Podsakoff, N. P., Whiting, S. W., Podsakoff, P. M., & Blume, B. D. (2009). Individual- and organizational-level consequences of organizational citizenship behaviors: A meta-analysis. *Journal of Applied Psychology*, 94(1), 122-141.
- Podsakoff, P. M., & MacKenzie, S. B. (1994). Organizational citizenship behavior and sales unit effectiveness. *Journal of Marketing Research*, 31, 351-363.
- Podsakoff, P. M., & MacKenzie, S. B. (1997). The impact of organizational citizenship behavior on organizational performance: A review and suggestions for future research. *Human Performance*, 10, 133-151.
- Podsakoff, P. M., Ahearne, M., & MacKenzie, S. B. (1997). Organizational citizenship behavior and the quantity and quality of work group performance. *Journal of Applied Psychology*, 82(2), 262-270.
- Podsakoff, P. M., MacKenzie, S. B., & Bommer, W. H. (1996). Transformational leader behaviors and substitutes for leadership as determinants of employee satisfaction, commitment, trust, and organizational citizenship behaviors. *Journal of Management*, 22, 259-298.
- Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly*, 1,

107-142.

Podsakoff, P. M., Mackenzie, S. B., Paine, J., & Bachrach, D. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26, 513–563.

Podsakoff, P. M., Niehoff, B. P., MacKenzie, S. B., & Williams, M. L. (1993). Do substitutes for leadership really substitute for leadership? An empirical examination of Kerr and Jermier's situational leadership model. *Organizational Behavior and Human Decision Processes*, 54, 1-44.

Raskin, R., & Hall, C. S. (1979). A narcissistic personality inventory. *Psychological Reports*, 45-590.

Raskin, R., & Hall, C. S. (1981). The narcissistic personality inventory: Alternate form I reliability and further evidence of construct validity. *Journal of Personality Assessment*, 45(2), 159-162.

Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, 54(5), 890-902.

Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support. *Journal of Applied Psychology*, 86(5), 825–836.

Rioux, S. M., & Penner, L. A. (2001). The causes of organizational citizenship behavior: A motivational analysis. *Journal of Applied Psychology*, 86(6), 1306-1314.

Schnake, M. (1991). Organizational citizenship: A review, proposed model, and research agenda. *Human Relations*, 44, 735–759.

- Schwarzer, R., & Leppin, A. (1991). Social support and health: A theoretical and empirical overview. *Journal of Social and Personal Relationships*, 8(1), 99-127.
- Settoon, R. P., Bennett, N., & Liden, R. C. (1996). Social exchange in organizations: perceived organizational support, leader-member exchange, and employee reciprocity. *Journal of Applied Psychology*, 81, 219-227.
- Shanock, L. R., & Eisenberger, R. (2006). When supervisors feel supported: Relationships with subordinates' perceived supervisor support, perceived organizational support, and performance. *Journal of Applied Psychology*, 91(3), 689-695.
- Skarlicki, D., & Latham, G. (1995). Organizational citizenship in a university setting. *Canadian Journal of Administrative Sciences*, 12, 175-181.
- Smalley, R. L., & Stake, J. E. (1996). Evaluating sources of ego-threatening feedback: Self-esteem and narcissism effects. *Journal of Research in Personality*, 30, 483-495.
- Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology*, 68(4), 653-663.
- Spector, P. E. (2011). The relationship of personality to counterproductive work behavior (CWB): An integration of perspectives. *Human Resource Management Review*, 21, 342-352.
- Spector, P. E., & Fox, S. (2005). The stressor-emotion model of counterproductive work behavior. In P. E. Spector, & S. Fox, *Counterproductive work behavior: Investigations of actors and targets* (p. 151-174). Washington, DC: American Psychological Association.

- Spector, P. E., & Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: Interpersonal conflict at work scale, organizational constraints scale, quantitative workload inventory, and physical symptoms inventory. *Journal of Occupational Health Psychology, 3*(4), 356-367.
- Spector, P. E., Allen, T. D., Poelmans, S. A., Lapierre, L. M., Cooper, C. L., O'Driscoll, M., et al. (2007). Cross-national differences in relationships of work demands, job satisfaction and turnover intentions with work-family conflict. *Personnel Psychology, 60*, 805-835.
- Spector, P. E., Bauer, J. A., & Fox, S. (2010). Measurement artifacts in the assessment of counterproductive work behavior and organizational citizenship behavior: Do we know what we think we know? *Journal of Applied Psychology, 95*(7), 81-790.
- Spector, P. E., Dwyer, D. J., & Jex, S. M. (1988). Relation of job stressors to affective, health, and performance outcomes: A comparison of multiple data sources. *Journal of Applied Psychology, 73*, 11-19.
- Spector, E. P., & Fox, S. (2002). An emotion-centered model of voluntary work behavior: some parallels between counterproductive work behavior and organizational citizenship behavior. *Human Resource Management Review, 12*, 269-292.
- Spector, E. P., & Brannick, T. M. (2010). Common Method Issues: An Introduction To The Feature Topic In Organizational Research Methods. *Organizational Research Methods, 13*(3), 403-406.
- Tabachnick, G. B., & Fidell, L. S. (1996). *Using Multivariate Statistics* (3rd ed). New York: Harper Collins.
- Torp, S., Gudbergsson, B. S., Dahl, A. A. , Fosså, D. S., & Fløtten, T. (2011). Social

- support at work and work changes among cancer survivors in Norway. *Scandinavian Journal of Public Health*, 39(6), 33-42.
- Uchino, B. N., Uno, D., & Holt-Lunstad, J. (1999). Social Support, Physiological Processes, and Health. *Current Directions in Psychological Science*, 8(5), 145-148.
- Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, 4(1), 108-119.
- Van Dyne, L., Graham, J. W., & Dienesch, R. M. (1994). Organizational citizenship behavior: Construct redefinition, measurement, and validation. *Academy of Management Journal*, 37, 765-802.
- Van Scotter, R. J., & Motowidlo, S. J. (1996). Interpersonal facilitation and job dedication as separate facets of contextual performance. *Journal of Applied Psychology*, 81, 525-531.
- Whitman, S. D., Van Rooy, L. D., & Viswesvaran, C. (2010). Satisfaction, Citizenship Behaviors, and Performance in Work Units: A Meta-Analysis of Collective Construct Relations. *Personnel Psychology*, 63(1), 41-81.
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17(3), 601-617.

APPENDICES

Appendix A: Survey Given to Participants

AI Reception of OCB scale

Please provide a response for every question. In your CURRENT JOB, consider how often have any of your co-workers voluntarily done each of the following things for you on your present job?

1 = Never 2 = Once or twice 3 = Once or twice a month

4 = Once or twice a week 5 = Every day

Took time to advise, coach, or mentor you.	1	2	3	4	5
Helped you learn new skills or shared job knowledge.	1	2	3	4	5
Helped you get oriented to the job.	1	2	3	4	5
Lent a compassionate ear when you had a work problem.	1	2	3	4	5
Offered suggestions to help you improve how work is done.	1	2	3	4	5
Helped you when you had too much to do (when workload is heavy).	1	2	3	4	5
Picked up a meal for you at work.	1	2	3	4	5
Offered suggestions for improving your work environment.	1	2	3	4	5

Scale continued

AI Reception of OCB Scale Continued

Finished something for you when you had to leave early.	1	2	3	4	5
Lent a compassionate ear when you had a personal problem.	1	2	3	4	5
Changed vacation schedule, work days, or shifts to accommodate your needs.	1	2	3	4	5
Helped you lift a heavy box or other object.	1	2	3	4	5
Took phone messages for you when you were absent or busy.	1	2	3	4	5
Said good things about your employer in front of others.	1	2	3	4	5
Volunteered to help you deal with a difficult customer, vendor, or co-worker.	1	2	3	4	5
Went out of the way to give you encouragement or express appreciation.	1	2	3	4	5
Decorated, straightened up, or otherwise beautified common work space.	1	2	3	4	5
Defended you when you were being "put-down" or spoken ill of by another co-worker or supervisor.	1	2	3	4	5
Helped you when you had been absent to finish your work.	1	2	3	4	5
Took time to listen to your problems and worries.	1	2	3	4	5
Went out of his/her way to help you.	1	2	3	4	5
Took personal interest in you.	1	2	3	4	5
Passed along notices and news to you.	1	2	3	4	5

A2 Job Performance Scale (Overall Performance and Task Performance)

Please provide a response for every question. To what extent do you agree or disagree that each of the following statements is true of you IN YOUR CURRENT JOB?

1 = Needs considerable improvement 2 = Needs some improvement

3 = Neither effective nor ineffective 4 = Effective 5 = Very effective

Please rate your overall performance at your current job 1 2 3 4 5

1 = Disagree very much 2 = Disagree moderately

3 = Disagree slightly 4 = Neutral 5 = Agree slightly

6 = Agree moderately 7 = Agree very much

I adequately complete assigned duties. 1 2 3 4 5 6 7

I fulfill responsibilities specified in the job description. 1 2 3 4 5 6 7

I perform tasks that are expected of me. 1 2 3 4 5 6 7

I meet formal performance requirements of the job. 1 2 3 4 5 6 7

I engage in activities that will directly affect my performance evaluation. 1 2 3 4 5 6 7

I neglect aspects of the job I am obligated to perform 1 2 3 4 5 6 7

I fail to perform essential duties 1 2 3 4 5 6 7

A3 Job Satisfaction Scale

Please provide a response for every question. To what extent do you agree or disagree with each of the following statements IN YOUR CURRENT JOB?

1 = Disagree very much 2 = Disagree moderately

3 = Disagree slightly 4 = Neutral 5 = Agree slightly

6 = Agree moderately 7 = Agree very much

In general, I don't like my job.	1	2	3	4	5	6	7
All in all, I am satisfied with my job.	1	2	3	4	5	6	7
In general, I like working here.	1	2	3	4	5	6	7

A4 Organizational Affective Commitment Scale

Please provide a response for every question. To what extent do you agree or disagree with each of the following statements IN YOUR CURRENT JOB?

1 = Disagree very much 2 = Disagree moderately

3 = Disagree slightly 4 = Neutral 5 = Agree slightly

6 = Agree moderately 7 = Agree very much

I would be very happy to spend the rest of my career with this organization 1 2 3 4 5 6 7

I really feel as if this organization's problems are my own. 1 2 3 4 5 6 7

I do not feel a strong sense of belonging to my organization. 1 2 3 4 5 6 7

I do not feel "emotionally attached" to this organization. 1 2 3 4 5 6 7

I do not feel like "part of the family" at my organization. 1 2 3 4 5 6 7

This organization has a great deal of personal meaning for me. 1 2 3 4 5 6 7

A5 Turnover Intension Scale

Please provide a response for every question. To what extent do you agree or disagree with each of the following statements IN YOUR CURRENT JOB?

1 = Never 2 = Rarely 3 = Sometimes

4 = Somewhat often 5 = Quite often 6 = Extremely often

How often have you seriously considered quitting your present job? 1 2 3 4 5 6

A6 Organizational Citizenship Behavior – Checklist

Please provide a response for every question. How often have you done each of the following things on your present job?

1 = Never 2 = Once or twice 3 = Once or twice a month

4 = Once or twice a week 5 = Every day

Took time to advise, coach, or mentor a co-worker.	1	2	3	4	5
Helped co-worker learn new skills or shared job knowledge.	1	2	3	4	5
Helped new employees get oriented to the job.	1	2	3	4	5
Lent a compassionate ear when someone had a work problem.	1	2	3	4	5
Offered suggestions to improve how work is done.	1	2	3	4	5
Helped a co-worker who had too much to do.	1	2	3	4	5
Volunteered for extra work assignments.	1	2	3	4	5
Worked weekends or other days off to complete a project or task.	1	2	3	4	5
Volunteered to attend meetings or work on committees on own time.	1	2	3	4	5
Gave up meal and other breaks to complete work.	1	2	3	4	5

A7 Counterproductive Worker Behavior – Checklist

Please provide a response for every question. How often have you done each of the following things on your present job?

1 = Never 2 = Once or twice 3 = Once or twice a month

4 = Once or twice a week 5 = Every day

Purposely wasted your employer's materials/supplies.	1	2	3	4	5
Complained about insignificant things at work.	1	2	3	4	5
Told people outside the job what a lousy place you work for.	1	2	3	4	5
Came to work late without permission.	1	2	3	4	5
Stayed home from work and said you were sick when you weren't.	1	2	3	4	5
Insulted someone about their job performance.	1	2	3	4	5
Made fun of someone's personal life.	1	2	3	4	5
Ignored someone at work.	1	2	3	4	5
Started an argument with someone at work.	1	2	3	4	5
Insulted or made fun of someone at work.	1	2	3	4	5

A8 The Interpersonal Conflict at Work Scale

Please provide a response for every question. For the next questions, please use the following response options:

1 = Less than once per month or never 2 = Once or twice per month

3 = Once or twice per week 4 = Once or twice per day

5 = Several times per day

How often do you get into arguments with others at work?	1	2	3	4	5
How often to other people yell at you at work?	1	2	3	4	5
How often are people rude to you at work?	1	2	3	4	5
How often to other people do nasty things to you at work?	1	2	3	4	5

A9 Co-worker Exchange Scale

Please provide a response for every question. For the next questions, please use the following response options:

1 = Disagree very much 2 = Disagree moderately

3 = Disagree slightly 4 = Neutral 5 = Agree slightly

6 = Agree moderately 7 = Agree very much

My coworkers support my goals and values at work	1	2	3	4	5	6	7
My coworkers will help me when I have a problem	1	2	3	4	5	6	7
My coworkers really care about my well-being	1	2	3	4	5	6	7
My coworkers are willing to assist me to perform better	1	2	3	4	5	6	7
My coworkers care about my opinions	1	2	3	4	5	6	7
My coworkers will compliment my accomplishments at work	1	2	3	4	5	6	7

A10 Work-Family Conflict Scale

Please provide a response for every question. Please indicate your agreement or disagreement with each of the following questions.

1 = Strongly Disagree 2 = Disagree

3 = Neutral 4 = Agree 5 = Strongly Agree

My work keeps me from my family activities more than I would like. 1 2 3 4 5

The time I must devote to my job keeps me from participating equally in household responsibilities and activities. 1 2 3 4 5

I have to miss family activities due to the amount of time I must spend on work responsibilities. 1 2 3 4 5

The time I spend on family responsibilities often interfere with my work responsibilities. 1 2 3 4 5

The time I spend with my family often causes me to not spend time in activities at work that could be helpful to my career. 1 2 3 4 5

I have to miss work activities due to the amount of time I must spend on family responsibilities. 1 2 3 4 5

When I get home from work I am often too frazzled to participate in family activities/responsibilities. 1 2 3 4 5

I am often so emotionally drained when I get home from work that it prevents me from contributing to my family. 1 2 3 4 5

Scale continued

A10 Work-Family Conflict Scale Continued

Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy. 1 2 3 4 5

Due to stress at home, I am often preoccupied with family matters at work. 1 2 3 4 5

Because I am often stressed from family responsibilities, I have a hard time concentrating on my work. 1 2 3 4 5

Tension and anxiety from my family life often weakens my ability to do my job. 1 2 3 4 5

The problem-solving behaviors I use in my job are not effective in resolving problems at home. 1 2 3 4 5

Behavior that is effective and necessary for me at work would be counter-productive at home. 1 2 3 4 5

The behaviors I perform that make me effective at work do not help me to be a better parent and spouse. 1 2 3 4 5

The behaviors that work for me at home do not seem to be effective at work. 1 2 3 4 5

Behavior that is effective and necessary for me at home would be counter-productive at work. 1 2 3 4 5

The problem solving behavior that work for me at home does not seem to be as useful at work. 1 2 3 4 5

All Proactive Personality Scale

Below are statements that people use to describe themselves. Please CIRCLE the response that best describes you using the following choices for every question.

1 = Disagree very much 2 = Disagree moderately

3 = Disagree slightly 4 = Neutral 5 = Agree slightly

6 = Agree moderately 7 = Agree very much

I am constantly on the lookout for new ways to improve my life. 1 2 3 4 5 6 7

I feel driven to make a difference in my community, and maybe
the world. 1 2 3 4 5 6 7

I tend to let others to let the others take the initiative to start new
projects. 1 2 3 4 5 6 7

Wherever I have been, I have been a powerful force for
constructive change. 1 2 3 4 5 6 7

I enjoy facing and overcoming obstacles to my ideas. 1 2 3 4 5 6 7

Nothing is more exciting than seeing my ideas turn into reality. 1 2 3 4 5 6 7

If I see something I don't like, I fix it. 1 2 3 4 5 6 7

No matter the odds, if I believe in something I will make it
happen. 1 2 3 4 5 6 7

I love being a champion for my ideas, even against others
opposition. 1 2 3 4 5 6 7

Scale continued

A12 Proactive Personality Scale Continued

I excel at identifying opportunities.	1	2	3	4	5	6	7
I am always looking for better ways to do things	1	2	3	4	5	6	7
If I believe in an idea, no obstacle will prevent me from making it happen.	1	2	3	4	5	6	7
I love to challenge the status quo.	1	2	3	4	5	6	7
When I have a problem, I tackle it head on.	1	2	3	4	5	6	7
I am great at turning problems into opportunities.	1	2	3	4	5	6	7
I can spot a good opportunity long before others can.	1	2	3	4	5	6	7
If I see something in trouble, I help out in any way I can.	1	2	3	4	5	6	7

A12 Narcissism Scale

Below are statements that people use to describe themselves. Please CIRCLE the response that best describes you using the following choices..

1 = Disagree very much 4 = Agree slightly

2 = Disagree moderately 5 = Agree moderately

3 = Disagree slightly 6 = Agree very much

I have a natural talent for influencing people.	1	2	3	4	5	6
Modesty doesn't become me.	1	2	3	4	5	6
I would do almost anything on a dare.	1	2	3	4	5	6
I know that I am good because everybody keeps telling me so.	1	2	3	4	5	6
If I ruled the world, it would be a much better place.	1	2	3	4	5	6
I can usually talk my way out of anything.	1	2	3	4	5	6
I like to be the center of attention.	1	2	3	4	5	6
I will be a success.	1	2	3	4	5	6
I think I am a special person.	1	2	3	4	5	6
I see myself as a good leader.	1	2	3	4	5	6
I am assertive.	1	2	3	4	5	6
I like to have authority over other people.	1	2	3	4	5	6
I like to display my body.	1	2	3	4	5	6

Scale continued

A12 Narcissism Scale Continued

I find it easy to manipulate people.	1	2	3	4	5	6
I insist upon getting the respect that is due me.	1	2	3	4	5	6
I can read people like a book.	1	2	3	4	5	6
I like to take responsibility for making decisions.	1	2	3	4	5	6
I want to amount to something in the eyes of the world.	1	2	3	4	5	6
I like to look at my body.	1	2	3	4	5	6
I am apt to show off if I get the chance.	1	2	3	4	5	6
I always know what I am doing.	1	2	3	4	5	6
I rarely depend on anyone else to get things done.	1	2	3	4	5	6
Everybody likes to hear my stories.	1	2	3	4	5	6
I expect a great deal from other people.	1	2	3	4	5	6
I will never be satisfied until I get all that I deserve.	1	2	3	4	5	6
I like to be complimented.	1	2	3	4	5	6
I have a strong will to power.	1	2	3	4	5	6
I like to start new fads and fashions.	1	2	3	4	5	6
I like to look at myself in the mirror.	1	2	3	4	5	6
I really like to be the center of attention.	1	2	3	4	5	6
I can live my life in any way I want to.	1	2	3	4	5	6
I can make anybody believe anything I want them to.	1	2	3	4	5	6
I am a born leader.	1	2	3	4	5	6
I wish somebody would someday write my biography	1	2	3	4	5	6

Scale continued

A12 Narcissism Scale Continued

People always seem to recognize my authority.	1	2	3	4	5	6
I would prefer to be a leader.	1	2	3	4	5	6
I am going to be a great person.	1	2	3	4	5	6
I get upset when people don't notice how I look when I go out in public.	1	2	3	4	5	6
I am more capable than other people.	1	2	3	4	5	6
I am an extraordinary person.	1	2	3	4	5	6

A13 Demographic Information

Please provide a response for every question.

Are you? Male Female

Are you? Asian Black Hispanic White Other (specify) _____

Your Age _____ Years

How many hours do you typically work per week in a job? _____ hours

How long have you worked at this job _____ Months _____ Years

What is your job title? _____

Where do you work? _____

Appendix B: Figures

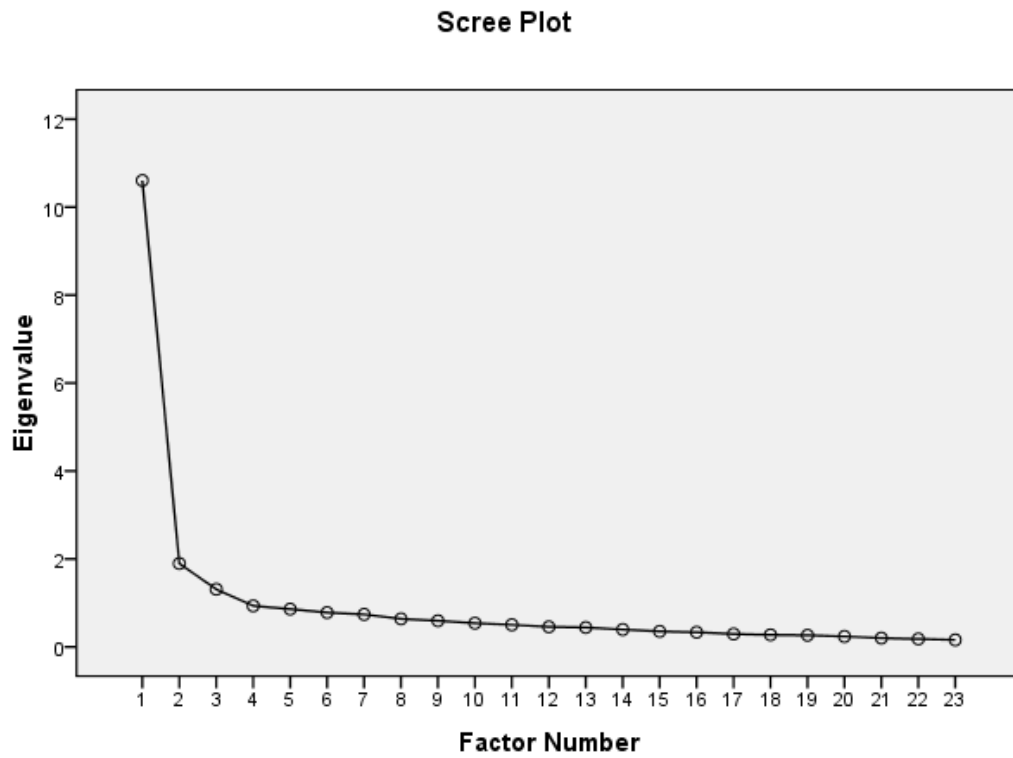


FIGURE 1. Scree Plot of Eigenvalues of EFA of ROCB scale with 23 items.

Scree Plot

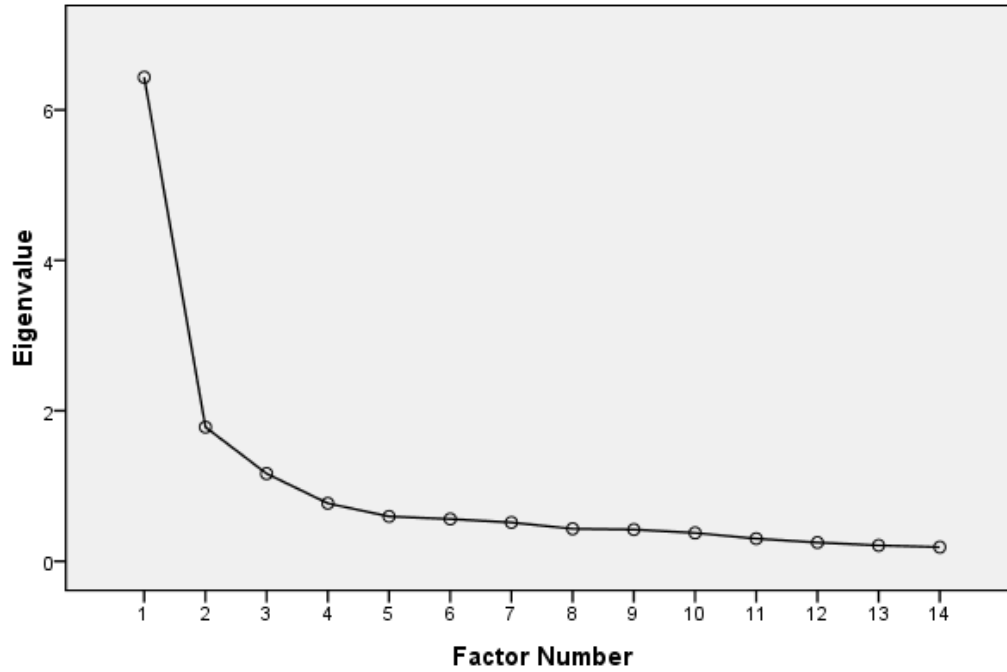


FIGURE 2. Scree Plot of Eigenvalues of EFA of ROCB scale with 14 items.

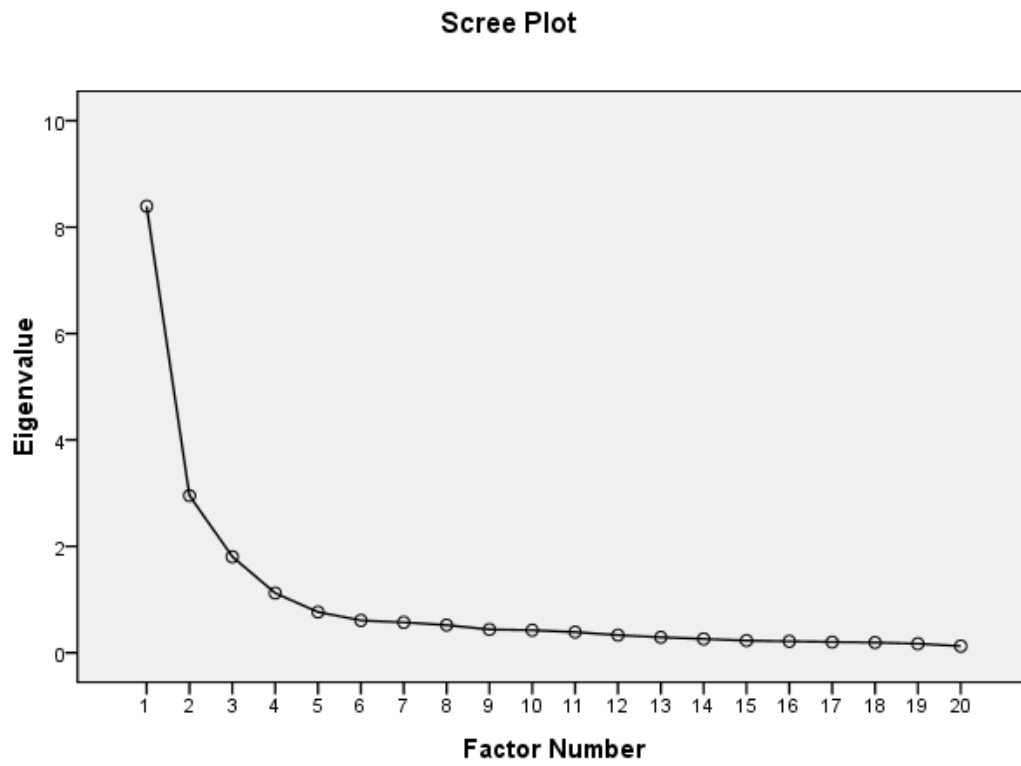


FIGURE 3. Scree Plot of Eigenvalues of EFA of ROCB (16 items) and COEX scale

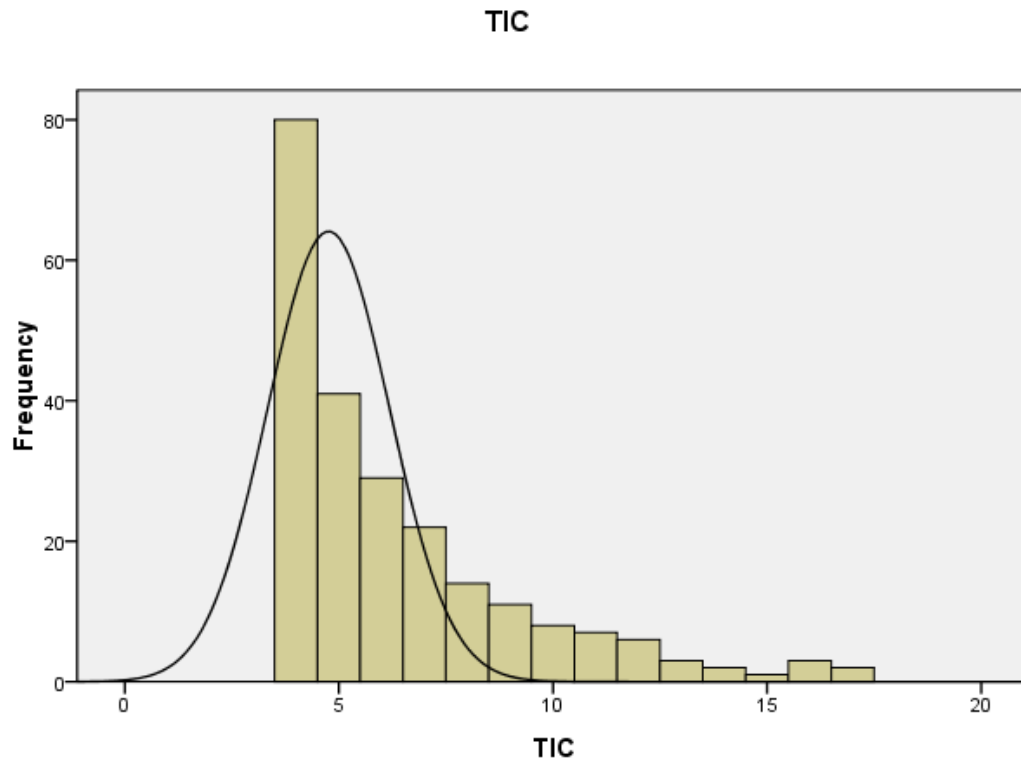


FIGURE 4. The Histogram of the Distribution of the Interpersonal Conflict Score

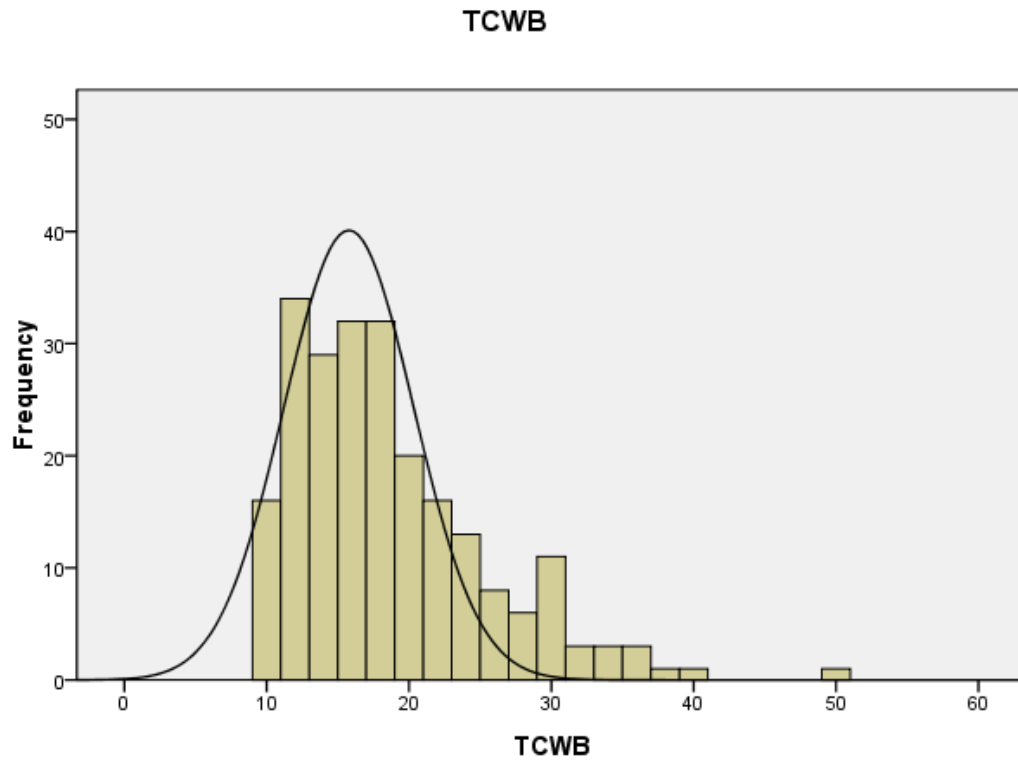


FIGURE 5. The Histogram of the Distribution of the Counterproductive Work Behavior Score

Appendix C: Tables

Table 01. Descriptive Statistics of ROCB Scale

Item	M	SD	K	Skew	Range
Took time to advise, coach, or mentor you.	3.00	1.15	-.91	.19	4
Helped you learn new skills or shared job knowledge.	3.19	1.05	-.84	.07	4
Helped you get oriented to the job.	2.95	1.09	-.76	.43	4
Lent a compassionate ear when you had a work problem.	3.32	1.12	-.79	-.25	4
Offered suggestions to help you improve how work is done.	3.03	1.05	-.66	.11	4
Helped you when you had too much to do (when workload is heavy).	3.25	1.16	-.85	-.22	4
Picked up a meal for you at work.	2.36	1.16	-.76	.47	4
Lent a compassionate ear when you had a personal problem.	3.04	1.22	-1.01	-.08	4
Changed vacation schedule, work days, or shifts to accommodate your needs.	2.42	1.05	-.47	.40	4
Offered suggestions for improving your work environment.	2.66	1.12	-.63	.31	4
Finished something for you when you had to leave early.	2.60	1.05	-.08	.52	4

Item	M	SD	K	Skew	Range
Took phone messages for you when you were absent or busy.	2.40	1.36	-1.05	.50	4
Helped you lift a heavy box or other object.	2.74	1.22	-.95	.18	4
Said good things about your employer in front of others.	2.94	1.15	-.78	.10	4
Volunteered to help you deal with a difficult customer, vendor, or co-worker.	2.92	1.18	-.88	.06	4
Went out of the way to give you encouragement or express appreciation.	2.91	1.12	-.84	.20	4
Decorated, straightened up, or otherwise beautified common work space.	2.77	1.24	-1.02	.15	4
Defended you when you were being "put-down" or spoken ill of by another co-worker or supervisor.	2.40	1.15	-.68	.46	4
Helped you when you had been absent to finish your work.	2.33	1.08	-.33	.62	4
Took time to listen to your problems and worries.	3.00	1.17	-.91	.12	4
Went out of his/her way to help you.	2.99	1.13	-.81	.10	4
Took personal interest in you.	3.10	1.25	-1.02	-.06	4
Passed along notices and news to you.	3.49	1.14	-.58	-.43	4

N=372

Table 02. Pattern Matrix Loadings for the One-Factor Solution

Item	Factor 1
Took time to advise, coach, or mentor you.	.549
Helped you learn new skills or shared job knowledge.	.623
Helped you get oriented to the job.	.563
Lent a compassionate ear when you had a work problem.	.638
Offered suggestions to help you improve how work is done.	.671
Helped you when you had too much to do (when workload is heavy).	.718
Picked up a meal for you at work.	.540
Lent a compassionate ear when you had a personal problem.	.724
Changed vacation schedule, work days, or shifts to accommodate your needs.	.583
Offered suggestions for improving your work environment.	.725
Finished something for you when you had to leave early.	.688
Helped you lift a heavy box or other object.	.588
Took phone messages for you when you were absent or busy.	.550
Said good things about your employer in front of others.	.618
Volunteered to help you deal with a difficult customer, vendor, or co-worker.	.757
Went out of the way to give you encouragement or express appreciation.	.748
Helped you when you had been absent to finish your work.	.664

Item	Factor 1
Defended you when you were being "put-down" or spoken ill of by another co-worker or supervisor.	.660
Decorated, straightened up, or otherwise beautified common work space.	.586
Took time to listen to your problems and worries.	.739
Went out of his/her way to help you.	.802
Took personal interest in you.	.712
Passed along notices and news to you.	.667

Table 03. Pattern Matrix Loadings for the Two-Factor Solution

Item	Factor 1	Factor 2
Took time to advise, coach, or mentor you.	-.120	.863
Helped you learn new skills or shared job knowledge.	-.107	.952
Helped you get oriented to the job.	-.051	.792
Offered suggestions to help you improve how work is done.	.093	.746
Helped you when you had too much to do (when workload is heavy).	.498	.286
Lent a compassionate ear when you had a work problem.	.494	.208
Picked up a meal for you at work.	.600	-.062
Lent a compassionate ear when you had a personal problem.	.819	-.083
Changed vacation schedule, work days, or shifts to accommodate your needs.	.554	.048
Finished something for you when you had to leave early.	.648	.061
Helped you lift a heavy box or other object.	.614	-.022
Took phone messages for you when you were absent or busy.	.579	-.026
Said good things about your employer in front of others.	.466	.191
Volunteered to help you deal with a difficult customer, vendor, or co-worker.	.575	.235
Went out of the way to give you encouragement or express appreciation.	.603	.195
Decorated, straightened up, or otherwise beautified common work space.	.459	.167

Item	Factor 1	Factor 2
Helped you when you had been absent to finish your work.	.684	-.009
Took time to listen to your problems and worries.	.915	-.180
Defended you when you were being "put-down" or spoken ill of by another co-worker or supervisor.	.697	-.035
Went out of his/her way to help you.	.827	-.004
Took personal interest in you.	.810	-.093
Passed along notices and news to you.	.524	.196
Offered suggestions for improving your work environment.	.412	.402

Table 04. Pattern Matrix Loadings for the Three-Factor Solution (23 items)

Item	F 1	F 2	F 3
Changed vacation schedule, work days, or shifts to accommodate your needs.	.602	.002	.029
Finished something for you when you had to leave early.	.839	-.001	-.098
Helped you lift a heavy box or other object.	.675	-.062	.009
Took phone messages for you when you were absent or busy.	.651	-.067	-.003
Defended you when you were being "put-down" or spoken ill of by another co-worker or supervisor.	.617	-.057	.140
Helped you when you had been absent to finish your work.	.916	-.094	-.113
Took time to advise, coach, or mentor you.	-.090	.865	-.040
Helped you learn new skills or shared job knowledge.	-.087	.940	-.013
Helped you get oriented to the job.	.012	.784	-.060
Offered suggestions to help you improve how work is done.	.054	.753	.039
Took time to listen to your problems and worries.	.113	-.187	.899
Took personal interest in you.	.145	-.059	.694
Lent a compassionate ear when you had a work problem.	-.224	.245	.746
Lent a compassionate ear when you had a personal problem.	-.017	-.074	.917
Picked up a meal for you at work.	.463	-.075	.183

Item	F 1	F 2	F 3
Went out of his/her way to help you.	.480	-.001	.393
Said good things about your employer in front of others.	.485	.182	.010
Offered suggestions for improving your work environment.	.466	.386	-.019
Went out of the way to give you encouragement or express appreciation.	.421	.204	.201
Volunteered to help you deal with a difficult customer, vendor, or co-worker.	.517	.222	.100
Decorated, straightened up, or otherwise beautified common work space.	.476	.153	.015
Passed along notices and news to you.	.047	.235	.478
Helped you when you had too much to do (when workload is heavy).	.214	.304	.300

Note. Factor 1 - Tangible Support; Factor 2 –Informational Support; Factor 3 –Intangible Support;

Table 05. Pattern Matrix Loadings for the Three-Factor Solution (14 items)

Item	F 1	F 2	F 3
Changed vacation schedule, work days, or shifts to accommodate your needs.	.549	.048	.091
Finished something for you when you had to leave early.	.740	.068	-.020
Helped you lift a heavy box or other object.	.543	.013	.106
Took phone messages for you when you were absent or busy.	.550	.020	.047
Defended you when you were being "put-down" or spoken ill of by another co-worker or supervisor.	.552	-.007	.181
Helped you when you had been absent to finish your work.	.953	-.022	-.121
Took time to advise, coach, or mentor you.	-.041	.815	-.013
Helped you learn new skills or shared job knowledge.	-.029	.934	.006
Helped you get oriented to the job.	.107	.735	-.061
Offered suggestions to help you improve how work is done.	.079	.679	.098
Took time to listen to your problems and worries.	.175	-.119	.809
Took personal interest in you.	.131	.000	.631
Lent a compassionate ear when you had a personal problem.	.003	-.047	.917
Lent a compassionate ear when you had a work problem.	-.142	.229	.722

Note. Factor 1 - *Tangible Support*; Factor 2 - *Informational Support*; Factor 3 - *Intangible Support*;

Table 06. Pattern Matrix Loadings for the Three-Factor Solution and Co-worker

Exchange

Item	F 1	F 2	F 3	F 4
My coworkers support my goals and values at work	.872	-.021	-.076	.067
My coworkers will help me when I have a problem	.891	-.101	.049	.029
My coworkers really care about my well-being	.855	.029	-.021	.016
My coworkers are willing to assist me to perform better	.935	-.019	.049	-.068
My coworkers care about my opinions	.871	.111	-.090	-.005
My coworkers will compliment my accomplishments at work	.802	.037	.097	-.021
Changed vacation schedule, work days, or shifts to accommodate your needs.	-.008	.549	.055	.087
Finished something for you when you had to leave early.	-.003	.745	.074	-.033
Took phone messages for you when you were absent or busy.	.065	.565	.007	.006
Defended you when you were being "put-down" or spoken ill of by another co-worker or supervisor.	-.018	.561	.002	.174
Helped you when you had been absent to finish your work.	-.016	.967	-.016	-.137
Helped you lift a heavy box or other object.	.009	.542	.017	.095
Took time to advise, coach or mentor you.	.107	-.034	.790	-.053

Item	F 1	F 2	F 3	F 4
Helped you learn new skills or shared job knowledge.	.018	-.023	.919	.006
Helped you get oriented to the job.	-.082	.103	.757	-.025
Offered suggestions to help you improve how work is done.	-.052	.081	.694	.118
Lent a compassionate ear when you had a work problem.	.014	-.133	.225	.718
Lent a compassionate ear when you had a personal problem.	-.033	.022	-.040	.919
Took time to listen to your problems and worries.	.009	.198	-.115	.782
Took personal interest in you.	.084	.148	-.010	.581

Note. Factor 1 – Co-worker Exchange; Factor 2 - Tangible Support; Factor 3 – Informational Support; Factor 4 –Intangible Support;

Table 07. Intercorrelation Matrix of ROCB Scale (16 items)

	1	2	3	4	5	8	9	11	12	13	18	19	20	22
Took time to advise, coach, or mentor you.														
Helped you learn new skills or shared job knowledge.	.74													
Helped you get oriented to the job.	.57	.69												
Lent a compassionate ear when you had a work problem.	.37	.46	.41											
Offered suggestions to help you improve how work is done.	.58	.70	.62	.48										
Lent a compassionate ear when you had a personal problem.	.30	.37	.29	.68	.40									
Changed vacation schedule, work days, or shifts to accommodate your needs.	.24	.33	.30	.34	.39	.45								

Table continues

Table 07 Continued

	1	2	3	4	5	8	9	11	12	13	18	19	20	22
Finished something for you when you had to leave early.	.30	.38	.35	.32	.41	.45	.46							
Helped you lift a heavy box or other object.	.25	.30	.25	.36	.30	.43	.38	.54						
Took phone messages for you when you are absent or busy.	.23	.29	.25	.30	.28	.36	.30	.50	.44					
Defended you when you were being "put-down" or spoken ill of by other co-workers or supervisor.	.26	.29	.33	.45	.38	.46	.44	.47	.46	.35				
Helped you when you have been absent to finish your work	.28	.34	.36	.32	.36	.44	.57	.64	.49	.50	.59			
Took time to listen to your problems and worries	.26	.34	.29	.59	.37	.78	.44	.48	.41	.41	.50	.52		
Took personal interest in you	.29	.33	.31	.48	.39	.62	.33	.45	.39	.39	.46	.39	.68	

Table 08. Intercorrelation Matrix of ROCB Factor 1 Sub-Scale (6 items)

	9	11	12	13	18	19
Changed vacation schedule, work days, or shifts to accommodate your needs.						
Offered suggestions for improving the work environment of yours.	.46					
Finished something for you when you had to leave early.	.38	.54				
Helped you lift a heavy box or other object.	.30	.50	.44			
Took phone messages for you when you are absent or busy.	.44	.47	.46	.35		
Said good things about your employer in front of others.	.57	.64	.49	.50	.59	

Table 09. Intercorrelation Matrix of ROCB Factor 2 Sub-Scale (4 items)

	1	2	3	5
Took time to advise, coach, or mentor you.				
Helped you learn new skills or shared job knowledge.	.74			
Helped you get oriented to the job.	.57	.69		
Offered suggestions to help you improve how work is done.	.58	.70	.62	

Table 10. Intercorrelation Matrix of ROCB Factor 3 Sub-Scale (4 items)

	4	8	20	22
Lent a compassionate ear when you had a work problem.				
Lent a compassionate ear when you had a personal problem.	.68			
Took time to listen to your problems and worries	.59	.78		
Took personal interest in you	.48	.62	.68	

Table 11. Correlational Matrix with Scale Alpha Coefficient Reliabilities on the Main Diagonal

	ROCB	ROCB	ROCB												
	ROCB	F1	F2	F3	OP	Turnover	TOCB	TCWB	TJS	TOC	WIF	FIW	TIC	TNP	TProac
ROCB	.91														
ROCB F1	.83**	.84													
ROCB F2	.75**	.48**	.88												
ROCB F3	.85**	.64**	.48**	.88											
OP	.17*	.06	.09	.16*	-										
Turnover	-.21**	-.15*	-.18**	-.19**	-.18**	-									
TOCB	.55**	.46**	.40**	.51**	.31**	-.11	.87								
TCWB	.08	.12	-.01	.06	-.33**	.29**	.04	.88							
TJS	.26**	.20**	.16*	.28**	.30**	-.77**	.23**	-.30**	.93						

Note: OP – Overall Performance; TaskP – Task Performance; JS – Job Satisfaction; OC – Organizational Affective Commitment; IC – Interpersonal conflict; Proac – Proactive Personality; NP – Narcissism Personality.

N = 372

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Table 11 Continued

	ROCB	ROCB F1	ROCB F2	ROCB F3	OP	Turnover	TOCB	TCWB	TJS	TOC	WIF	FIW	TIC	TNP	TProac
TOC	.35**	.32**	.19**	.35**	.29**	-.57**	.32**	-.17*	.69**	.83					
WIF	-.15*	-.10	-.10	-.14*	-.20**	.36**	-.00	.33**	-.38**	-.29**	.86				
FIW	-.04	.04	-.05	-.11	-.34**	.19**	-.11	.41**	-.28**	-.22**	.60**	.89			
TIC	-.01	-.00	.01	-.03	-.14*	.35**	-.00	.52**	-.33**	-.22**	.36**	.30**	.80		
TNP	.20**	.2**	.08	.21**	.22**	-.03	.33**	.06	.22**	.20**	.00	-.06	-.05	.91	
TProac	.20**	.17*	.16*	.16**	.38**	-.17**	.36**	-.33**	.33**	.27**	-.22**	-.30**	-.17**	.51**	.94

Note: OP – Overall Performance; TaskP – Task Performance; JS – Job Satisfaction; OC – Organizational Affective Commitment; IC – Interpersonal conflict; Proac – Proactive Personality; NP – Narcissism Personality.

N = 372

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Table 12. Moderated Regression of Overall Performance onto Overall ROCB and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Overall ROCB	.040	.640	.143**	18.929**
	Proactive Personality	.369	5.876**		
2	Overall ROCB	.027	.087	.000	12.569**
	Proactive Personality	.011	.395		
	Overall ROCB X Proactive Personality	.000	-.058		

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

Table 13. Moderated Regression of Overall Performance onto Intangible Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Intangible Support	.097	1.559	.151**	20.107**
	Proactive Personality	.361	5.815**		
2	Intangible Support	.400	1.023	.002	13.588**
	Proactive Personality	.507	2.593*		
	Intangible Support X Proactive Personality	-.360	-.786		

Table 14. Moderated Regression of OCB onto Overall ROCB and Narcissism

Step	N=372	Standardized β	t	R Square	Model F
		coefficient		Change	
1	Overall ROCB	.503	8.182**	.349**	60.645**
	Narcissism	.224	4.081**		
2	Overall ROCB	.490	1.482	.000	40.252**
	Narcissism	.217	1.177		
	Overall ROCB X Narcissism	.016	.040		

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

Table 15. Moderated Regression of OCB onto Tangible Support and Narcissism

Step	N=372	Standardized β	t	R Square	Model F
		coefficient		Change	
1	Tangible Support	.412	7.089**	.269**	41.588**
	Narcissism	.242	4.173**		
2	Tangible Support	.233	.623	.001	27.710**
	Narcissism	.169	1.040		
	Tangible Support X Narcissism	.209	.484		

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

Table 16. Moderated Regression of OCB onto Informational Support and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Informational Support	.372	6.414**	.244**	36.489**
	Narcissism	.297	5.111**		
2	Informational Support	.502	1.478	.001	24.285**
	Narcissism	.361	2.053		
	Informational Support X Narcissism	-.151	-.388		

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

Table 17. Moderated Regression of OCB onto Intangible Support and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Intangible Support	.463	8.197**	.311**	51.069**
	Narcissism	.229	4.056**		
2	Intangible Support	.278	.817	.001	34.042**
	Narcissism	.143	.862		
	Intangible Support X Narcissism	.222	.550		

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

Table 18. Moderated Regression of OCB onto Overall ROCB and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Overall ROCB	.498	9.223**	.367**	65.569**
	Proactive Personality	.262	4.851**		
2	Overall ROCB	.385	1.115	.000	43.577**
	Proactive Personality	.199	1.006		
	Overall ROCB X Proactive Personality	.140	.330		

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

Table 19. Moderated Regression of OCB onto Tangible Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Tangible Support	.413	7.278**	.294**	47.143**
	Proactive Personality	.290	5.115**		
2	Tangible Support	-.089	-.247	.006	32.221**
	Proactive Personality	.071	.425		
	Tangible Support X Proactive Personality	.586	1.404		

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

Table 20. Moderated Regression of OCB onto Informational Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Informational Support	.347	5.942**	.247**	37.003**
	Proactive Personality	.304	5.195**		
2	Informational Support	.446	1.195	.006	24.591**
	Proactive Personality	.354	1.803		
	Informational Support X Proactive Personality	-.118	-.267		

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

Table 21. Moderated Regression of OCB onto Intangible Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Intangible Support	.465	8.496**	.340**	58.169**
	Proactive Personality	.284	5.191**		
2	Intangible Support	.313	.907	.001	38.708**
	Proactive Personality	.211	1.226		
	Intangible Support X Proactive Personality	.180	.446		

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

Table 22. Moderated Regression of Job Satisfaction onto Overall ROCB and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Overall ROCB	.201	3.213**	.147**	19.514**
	Proactive Personality	.290	4.625**		
2	Overall ROCB	.630	1.577	.000	13.414**
	Proactive Personality	.529	2.311*		
	Overall ROCB X Proactive Personality	-.535	-1.087		

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

Table 23. Moderated Regression of Job Satisfaction onto Tangible Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Tangible Support	.152	7.278**	.131**	16.985**
	Proactive Personality	.304	5.115**		
2	Tangible Support	.336	.832	.001	11.355**
	Proactive Personality	.384	2.074*		
	Tangible Support X Proactive Personality	-.215	-.462		

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

Table 24. Moderated Regression of Job Satisfaction onto Informational Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Informational Support	.112	1.773	.121**	15.488**
	Proactive Personality	.311	4.926**		
2	Informational Support	.695	1.733	.008	11.100**
	Proactive Personality	.608	2.879*		
	Informational Support X Proactive Personality	-.701	-1.472		

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

Table 25. Moderated Regression of Job Satisfaction onto Intangible Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Intangible Support	.234	3.785**	.161**	21.757**
	Proactive Personality	.291	4.723**		
2	Intangible Support	.418	1.075	.001	14.532**
	Proactive Personality	.380	1.956		
	Intangible Support X Proactive Personality	-.219	-.481		

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

Table 26. Moderated Regression of Organization affective Commitment onto Overall ROCB and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Overall ROCB	.307	4.954**	.165**	22.273**
	Proactive Personality	.212	3.417**		
2	Overall ROCB	.584	1.474	.002	14.983**
	Proactive Personality	.366	1.614		
	Overall ROCB X Proactive Personality	-.345	-.707		

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

Table 27. Moderated Regression of Organization affective Commitment onto Tangible Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Tangible Support	.279	4.481**	.149**	19.862**
	Proactive Personality	.225	3.617**		
2	Tangible Support	.573	1.436	.002	13.400**
	Proactive Personality	.353	1.931		
	Tangible Support X Proactive Personality	-.343	-.746		

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

Table 28. Moderated Regression of Organization affective Commitment onto Informational Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Informational Support	.1512	2.359*	.096**	12.028**
	Proactive Personality	.248	3.869**		
2	Informational Support	.501	1.227	.003	8.261**
	Proactive Personality	.425	1.983*		
	Informational Support X Proactive Personality	-.420	-.867		

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

Table 29. Moderated Regression of Organization affective Commitment onto Intangible Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Intangible Support	.315	5.125**	.170**	23.205**
	Proactive Personality	.221	3.604**		
2	Intangible Support	.148	.381	.001	15.478**
	Proactive Personality	.141	.730		
	Intangible Support X Proactive Personality	.198	.437		

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

Table 30. Moderated Regression of Turnover Intension onto Overall ROCB and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Overall ROCB	-.182	-2.762**	.061**	7.298**
	Proactive Personality	-.135	-2.048*		
2	Overall ROCB	-.048	-.114	.000	4.880**
	Proactive Personality	-.060	-.250		
	Overall ROCB X Proactive Personality	-.167	-.322		

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

Table 31. Moderated Regression of Turnover Intension onto Tangible Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Tangible Support	-.126	-1.907	.44**	5.241**
	Proactive Personality	-.149	-2.259*		
2	Tangible Support	.328	.776	.005	3.891**
	Proactive Personality	.049	.253		
	Tangible Support X Proactive Personality	-.529	-1.088		

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

Table 32. Moderated Regression of Turnover Intension onto Informational Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Informational Support	-.161	-2.459*	.054**	6.483**
	Proactive Personality	-.144	-2.205*		
2	Informational Support	-.462	-1.107	.002	4.491**
	Proactive Personality	-.298	-1.355		
	Informational Support X Proactive Personality	.362	.730		

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

Table 33. Moderated Regression of Turnover Intension onto Intangible Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Intangible Support	-.170	-2.590**	.057**	6.825**
	Proactive Personality	-.143	-2.183*		
2	Intangible Support	.063	.152	.001	4.645**
	Proactive Personality	-.031	-.153		
	Intangible Support X Proactive Personality	-.276	-.570		

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

Table 34. Moderated Regression of Work Interfere Family Conflict onto Overall ROCB and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Overall ROCB	-.086	-1.309	.054**	6.485**
	Proactive Personality	-.200	-3.034**		
2	Overall ROCB	.416	-.990	.006	4.820**
	Proactive Personality	.080	-.333		
	Overall ROCB X Proactive Personality	-.627	-1.210		

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

Table 35. Moderated Regression of Work Interfere Family Conflict onto Intangible Support and Proactive Personality

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Intangible Support	-.087	-1.325	.054**	6.508**
	Proactive Personality	-.203	-3.098**		
2	Intangible Support	.326	.791	.004	4.683**
	Proactive Personality	-.005	-.024		
	Intangible Support X Proactive Personality	-.491	-1.015		

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

Table 36. Moderated Regression of Overall Performance onto Overall ROCB and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Overall ROCB	.070	1.059	.054**	6.458**
	Narcissism	.208	3.146**		
2	Overall ROCB	.370	.930	.002	4.492**
	Narcissism	.370	1.668		
	Overall ROCB X Narcissism	-.372	-.765		

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

Table 37. Moderated Regression of Overall Performance onto Intangible Support and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Intangible Support	.113	1.719	.062**	7.422**
	Narcissism	.198	3.010**		
2	Intangible Support	.540	1.363	.005	5.350**
	Narcissism	.397	2.052		
	Intangible Support X Narcissism	-.512	-1.092		

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

Table 38. Moderated Regression of Job Satisfaction onto Overall ROCB and Narcissism

Step	N=372	Standardized β	t	R Square	Model F
		coefficient		Change	
1	Overall ROCB	.223	3.448**	.095**	11.843**
	Narcissism	.172	2.659**		
2	Overall ROCB	.669	1.719	.005	8.358**
	Narcissism	.412	1.904		
	Overall ROCB X Narcissism	-.553	-1.162		

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

Table 39. Moderated Regression of Job Satisfaction onto Tangible Support and Narcissism

Step	N=372	Standardized β	t	R Square	Model F
		coefficient		Change	
1	Tangible Support	.165	2.526*	.073**	8.953**
	Narcissism	.184	2.809**		
2	Tangible Support	.265	.628	.000	5.963**
	Narcissism	.225	1.227		
	Tangible Support X Narcissism	-.116	-239		

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

Table 40. Moderated Regression of Job Satisfaction onto Informational Support and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Informational Support	.145	2.253*	.068**	8.268**
	Narcissism	.206	3.194**		
2	Informational Support	.601	1.599	.006	6.031**
	Narcissism	.432	2.219*		
	Informational Support X Narcissism	-.531	-1.231		

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

Table 41. Moderated Regression of Job Satisfaction onto Intangible Support and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Intangible Support	.246	3.817**	.105**	13.248**
	Narcissism	.166	2.574**		
2	Intangible Support	.755	1.951	.007	9.4562**
	Narcissism	.402	2.133*		
	Intangible Support X Narcissism	-.610	-1.334		

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

Table 42. Moderated Regression of Organizational Affective Commitment onto Overall ROCB and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Overall ROCB	.322	5.102**	.138**	18.078**
	Narcissism	.131	2.074*		
2	Overall ROCB	.997	2.639*	.012	13.268**
	Narcissism	.494	2.351*		
	Overall ROCB X Narcissism	-.837	-1.812		

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

Table 43. Moderated Regression of Organizational Affective Commitment onto Tangible Support and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Tangible Support	.289	4.523**	.118**	15.179**
	Narcissism	.138	2.158*		
2	Tangible Support	.847	2.070*	.007	10.796*
	Narcissism	.367	2.064*		
	Tangible Support X Narcissism	-.651	-1.381		

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

Table 44. Moderated Regression of Organizational Affective Commitment onto Informational Support and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Informational Support	.176	2.731**	.069**	8.426**
	Narcissism	.182	2.833**		
2	Informational Support	.786	2.098*	.011	6.5715**
	Narcissism	.485	2.500*		
	Informational Support X Narcissism	-.710	-1.652		

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

Table 45. Moderated Regression of Organizational Affective Commitment onto Intangible Support and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Intangible Support	.323	5.118**	.138**	18.163**
	Narcissism	.129	2.036*		
2	Intangible Support	.780	2.054	.006	12.631**
	Narcissism	.341	1.841		
	Intangible Support X Narcissism	-.548	-1.220		

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

Table 46. Moderated Regression of Turnover Intension onto Overall ROCB and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Overall ROCB	-.211	-3.173**	.043**	5.131**
	Narcissism	.015	.219**		
2	Overall ROCB	.305	-.761	.000	3.425*
	Narcissism	.036	-.162		
	Overall ROCB X Narcissism	.117	.238		

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

Table 47. Moderated Regression of Turnover Intension onto Tangible Support and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Tangible Support	-.151	-2.252*	.023	2.630
	Narcissism	.002	.035		
2	Tangible Support	.198	.457	.003	1.973
	Narcissism	.146	.776		
	Tangible Support X Narcissism	-.407	-.817		

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

Table 48. Moderated Regression of Turnover Intension onto Informational Support and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Informational Support	-.183	-2.791**	.034*	3.989*
	Narcissism	-.014	-.211		
2	Informational Support	-.672	-1.755	.007	3.227**
	Narcissism	-.256	-1.293		
	Informational Support X Narcissism	.569	1.296		

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

Table 49. Moderated Regression of Turnover Intension onto Intangible Support and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Intangible Support	-.195	-2.924**	.037*	4.369*
	Narcissism	.013	.188		
2	Intangible Support	-.235	-.582	.000	2.903*
	Narcissism	-.006	-.029		
	Intangible Support X Narcissism	.047	.099		

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

Table 50. Moderated Regression of Work Interfere Family Conflict onto Overall ROCB and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Overall ROCB	-.131	-1.942	.016**	1.886
	Narcissism	.026	.391		
2	Overall ROCB	.417	1.029	.008	1.889
	Narcissism	.321	1.426		
	Overall ROCB X Narcissism	-.679	-1.371		

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

Table 51. Moderated Regression of Work Interfere Family Conflict onto Intangible Support and Narcissism

Step	N=372	Standardized β coefficient	t	R Square Change	Model F
1	Intangible Support	-.125	-1.851*	.015	1.714
	Narcissism	.026	.384		
2	Intangible Support	.579	1.431	.013	2.1912**
	Narcissism	.353	1.790		
	Intangible Support X Narcissism	-.845	-1.765		

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

Table 52. Descriptive Statistics for Other Variables

Item	N	Mean	SD	Kurtosis	Range
Sex	372	1.76	.43	-.51	2
Race	372	3.51	.89	.35	5
Age	372	23.58	6.04	8.34	38
Hours	372	28.61	9.87	3.63	80
Month	372	28.91	31.86	6.70	215
Overall Performance	372	4.30	.72	2.56	4
Turnover Intension	372	2.91	1.45	-.54	5
OCB	372	30.79	7.70	.12	40
CWB	372	18.18	6.71	1.77	39
Job Satisfaction	372	14.99	4.82	-.25	18
Affective Organizational Commitment	372	23.50	8.27	-.39	36
Interpersonal Conflict	372	6.36	2.91	2.24	13
Work Interfere Family	372	25.07	7.18	-.13	36
Family Interfere Work	372	20.94	6.64	.70	36
Proactive Personality	372	89.95	14.56	.11	82
Narcissism Personality	372	153.9 0	23.01	.62	133

N=372

Appendix D: IRB Approval Letter

10/7/2011
Xinxuan Che
Psychology Department
University of South Florida

RE: **Exempt Certification** for IRB#: Pro00005670

Title: Personality as a Moderator of the Relationship between Reception of Organizational Citizenship Behaviors and Work Related Outcomes

Dear Xinxuan Che:

On 10/7/2011 the Institutional Review Board (IRB) determined that your research meets USF requirements and Federal Exemption criteria as outlined in the federal regulations at 45CFR46.101(b):

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

As the principal investigator for this study, it is your responsibility to ensure that this research is conducted as outlined in your application and consistent with the ethical principles outlined in the Belmont Report and with USF IRB policies and procedures. Please note that changes to this protocol may disqualify it from exempt status. Please note that you are responsible for notifying the IRB prior to implementing any changes to the currently approved protocol.

The Institutional Review Board will maintain your exemption application for a period of five years from the date of this letter or for three years after a Final Progress Report is received, whichever is longer. If you wish to continue this protocol beyond five years, you will need to submit a new application. Should you complete this study prior to the end of the five-year period, you must submit a request to close the study.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,



John A. Schinka, Ph.D., Chairperson
USF Institutional Review Board

Cc: Christina Calandro, USF IRB Professional Staff