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HELPING IN THE EYES OF THE BEHOLDER: THE IMPACT OF OCB TYPE AND  
FLUCTUATION IN OCB ON COWORKER PERCEPTIONS AND EVALUATIONS OF  
HELPFUL EMPLOYEES

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HELPING IN THE EYES OF THE BEHOLDER: THE IMPACT OF OCB TYPE AND  
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## Abstract

Organizational Citizenship Behavior (OCB) is often hailed for its positive linkages to individual outcomes and organizational effectiveness. Despite these findings, research on OCB often fails to consider how an individual's past OCB may influence the outcomes stemming from current OCB performance. Such a contextually bland image truncates our understanding of the impact of these behaviors. To this end, the theories that drive literature on OCB (e.g., social exchange, expectancy, conservation of resources) are socially focused. However, there is limited research examining how coworkers' responses to the OCBs, in light of past OCB performance, may alter the nature of coworker perceptions and behavior in response to OCB changes. Recent literature on OCB also calls for consolidation of OCB related typologies, but few efforts test the efficacy of composite frameworks (e.g., Marinova, Moon & Van Dyne, 2010). Accordingly, this effort investigates the impact that fluctuations (increase vs. decreases) in different types of OCB (orientation vs. direction) have on coworker perceptions and responses to OCB performers. This effort also sought to examine the impact that a coworker's assumptions regarding another employee's motivations for OCB has on the outcomes that stem from OCB. Limitations, implications, and future directions are discussed.

*Keywords:* Organizational citizenship behavior, fluctuation in OCB, OCB type, motivation, coworker perceptions

## **Introduction**

Organizational Citizenship Behaviors (OCBs) have historically been defined as “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that, in the aggregate, promotes the effective functioning of the organization” (Organ, 1988, p. 95). OCBs have become increasingly popular over the past 30 years, largely due to their linkages with positive individual and organizational outcomes. For example, OCBs are associated with improved organizational performance because they increase social capital, which leads to reductions in absenteeism and turnover (Bolino, Turnley, & Bloodgood, 2002; Koys, 2001; Podsakoff, Whiting, Podsakoff, & Blume, 2009). In addition, OCBs are linked to enhancements in productivity and efficiency as well as improvements in customer satisfaction (Podsakoff et al., 2009). Considering these linkages, it is not surprising that a wealth of research has examined the antecedents, mediators, and moderators associated with performance of OCB (Dalal, 2005; Eatough, Chang, Miloslavica, & Johnson, 2011; Ehrhart & Nauman, 2004).

Much of this research on the factors that influence OCB is supported by theories of social exchange (Bergeron, Ostoff, Schroeder, & Block, 2014; Bolino, Hsiung, Harvey, & Lepine, 2015; Korsgaard, Meglino, Lester, & Jeong, 2010), expectancy (Haworth & Levy, 2001), and the conservation of resources (Ellington, Dierdorff, & Rubin, 2014; Halbesleben & Wheeler, 2015). Support from these theories largely suggests that OCBs are social behaviors that influence tangible work outcomes through their influence on social relationships and organizational norms. Despite these theoretical linkages to social interactions, there is limited research on the responses that other people have to employees who perform OCBs and how the responses of others may alter the nature of OCB outcomes. What we do know about other’s responses to OCBs tends to be manager focused. For instance, OCBs can increase manager liking, positive evaluations, and

reward decisions (Allen & Rush, 1998; Bolino, Varela, Bande, & Turnley, 2006; Kiker & Motowidlo, 1999). Similarly, if perceived to be done for the right reasons, OCBs can work better than ingratiation for improving a manager's perceptions of an employee (Halbesleben, Bowler, Bolino, & Turnley, 2010). Research on managers responses to OCB is useful in working towards disentangling the impact of this behavior on individuals and the organization. However, coworkers should conceivably play a large, if not equal, role in OCB, yet much less is known about their perceptions of and responses to OCB.

Theoretical support for the nature of OCB also suggests that performance of OCB is maintained through the development of social norms and the establishment of reciprocal relationships between employees and their organizations or their coworkers (Bowler & Brass, 2006; Farmer & Van Dyne, 2014; Halbesleben & Wheeler, 2015; Korsgaard et al., 2010; Lam, Liang, Ashford, & Lee, 2015). The development of such norms and relationships for an individual employee occur over time. This inherently suggests that OCB performance and the norms associated with it are malleable. Yet, little research examines the influence of fluctuations in OCB. Existing research primarily focuses on the perspective of the employee who is completing OCBs, rather than the coworkers who are responding to the employee. For example, Lemoine, Parsons, and Kansara (2015) found that employees will change their OCB performance in response to feedback from peers and managers. These gaps in the research may be of note, given that measurement of fluctuation in other related constructs, such as job satisfaction, have shown to be more predictive of relevant outcomes than individual measurements (Chen, Ployhart, Thomas, Anderson, & Bliese, 2011).

When it comes to change in OCB performance, it appears unlikely that coworkers will respond to fluctuations in all types of OCB in exactly the same way. Sensibly, declines in OCBs

that are directly beneficial to the coworker may be viewed more negatively than declines in those OCBs that are indirectly beneficial. Among these relationships, the motivations coworkers ascribe to an employee's change in OCB will likely play an important role in how coworkers choose to respond to OCB changes. It is also known that OCBs are less well received by others when they are motivated by impression management or obligation rather than prosocial values (Bolino, Turnley, Gilstrap & Suazo, 2010; Bowler, Halbesleben, & Paul, 2010; Halbesleben et al., 2010). However, it should be noted that the role of OCB motivation in work-related outcomes is still being contested (Yang, 2011).

Based on these gaps in the literature, the purpose of this effort is three-fold. First, this effort investigates how coworkers perceive and respond to various types of employee OCB. Second, we examine how fluctuations in OCB may influence those responses. Third, this research seeks to better understand the mediating impact of that motivations ascribed to change in OCB, play in coworker responses to employees who perform OCBs. To provide additional assistance in the pursuit of these goals, this effort explores a wider range of outcomes (e.g., likelihood of OCB provision, perceptions of competence, willingness to collaborate, willingness to provide recommendations) than are typically investigated (i.e., narrowed focus on favorability of a coworker). Overall, the responses coworkers have to the employees who engage in OCB may alter workplace relationships in ways that influence organizational and individual-level outcomes. Given the ties OCB has to organizational performance, investigation of such influences are both useful and warranted.

### **Coworker Relationships**

Largely, the research on coworker relationships suggests that positive relationships will lead to positive outcomes, while negative coworker relationships will be detrimental. For

instance, satisfaction with one's coworkers has been linked to employee acts of trust and support within the organization (Krastev & Stanoeva, 2013). Additionally, according to a meta-analysis by Chiaburu and Harrison (2008), perceived support from coworkers increases employee job satisfaction, job involvement, organizational commitment, and OCB. Coworker support also appears to buffer the effects of work stress and mental strain (Karasek, Triantis, & Chaudhry, 1982), while also being negatively related to absenteeism, effort reduction, role ambiguity and role conflict (Chiaburu & Harrison, 2008).

In addition to positive outcomes for the individual employee, theories on social exchange and reciprocity suggest that coworkers can help set the norms for performance within the organization. Through the process of working to adhere to group norms, employees may use their coworker's behavior as a signal to inform their own behavior. Eder and Eisenberger (2008) specifically note that when coworkers exhibit withdrawal behaviors (e.g., absenteeism, tardiness, non-work-related conversations), employees are more likely to exhibit those behaviors as well. Korsgaard and colleagues (2010) also suggest that by exchanging personal time and resources through participation in OCB, an "obligation to reciprocate" and the "expectation of reciprocity" can develop. In these instances, coworkers who engage in OCBs may set the standard for new employees regarding OCB performance. Similarly, research on coworker support suggests that coworkers can prompt unmotivated employees to start engaging in more helping behavior (Kim, Van Dyne, Kamdar, & Johnson, 2013). This, of course, assumes that the specific employee values and expects social exchange and reciprocity from their colleagues (Ladd & Henry, 2000).

Overall, this research supports the idea that coworkers play a key role in workplace outcomes. The research conducted on the employee-coworker relationship is also helpful in understanding how coworkers may influence employee behaviors and workplace outcomes by

setting the standards for employee behavior through the development of expectations and norms. However, the focus of the current research on the perspective of the person performing OCB, fails to consider how the outcomes of OCB are inherently tied to how others perceive and choose to respond to helpful behavior.

### **OCB Direction and Orientation**

Before discussing how coworkers respond to employees' OCB, it is first important to discuss what type of behavior OCB includes. There a number of typologies for OCB that have been developed since the construct's founding. The first typology was developed by Organ (1988; 1990) and it included seven components: 1) altruism, 2) courtesy, 3) cheerleading, 4) peacekeeping, 5) sportsmanship, 6) civic virtue, and 7) conscientiousness. Although many of these dimensions are still used, contemporary literature focuses on other OCB distinctions. In the early 90's, researchers began to make the distinction between OCBI and OCBO (McNeely, & Meglino, 1994; Smith, Organ, & Near, 1983; Williams & Anderson, 1991). OCBI is helping behaviors that are directed at other individuals (e.g., helping a sick coworker). OCBOs are helping behaviors that are directed at the organization itself (e.g., attending a non-mandatory company fundraiser). Proponents of this approach suggest that OCBI and OCBO are separate factors that stem from differing antecedents and motivations and have disparate relationships with job satisfaction (Lee & Allen, 2002; Rioux & Penner, 2001).

Recent calls for consolidation of the research on OCB led Marinova, Moon and Dyne (2010) to suggest that these two typologies are not mutually exclusive. In fact, these authors suggest that OCBs vary along two different dimensions, direction (individual vs. organizational target) and orientation (promotive vs. protective). Direction refers to the target of the OCB, which could be interpersonal (i.e., others in the organization) or organizational (i.e., the target is

the organization itself). The orientation of an OCB (Podsakoff, MacKenzie, Paine, & Bachrach, 2000) refers to whether the OCB is intended to facilitate adaptation to unanticipated contingencies (promotive OCB) or if the OCB is intended to protect and maintain stability and smooth operations within the organization (protective OCB).

Taken together, the OCB dimensions of direction and orientation yield four primary OCB types. These types include: 1) promotive OCBI, 2) promotive OCBO, 3) protective OCBI, and 4) protective OCBO. Promotive OCBI refers to altruistic helping behaviors that are interpersonally directed and work to support the performance of a particular individual (e.g., covering for a sick coworker, taking initiative to assimilate new employees; Marinova et al., 2010; Organ, 1988; Van Dyne & Lepine, 1998). Similarly, protective OCBI are directed at the individual, but instead work to maintain interpersonal rapport (e.g., being flexible, and not complaining when given a less than preferred task). Conversely, promotive OCBOs are change-oriented and focus on improving organizational effectiveness through proactive behavior (e.g., taking initiative, providing constructive suggestions and working to improve workplace effectiveness; Marinova et al., 2010; Morrison & Phelps, 1999). Last, protective OCBOs are also directed at the organization, but focus on protection of and adherence to written and unwritten organizational norms in order to maintain cooperative organizational systems (e.g., adherence to organizational policies, avoidance of excessive breaks or absences, and a focus on efficient productivity; Marinova et al., 2010; Van Dyne, Graham, & Dienesch, 1994).

By working to integrate primary approaches to OCB typology, the dimensions described by Marinova and colleagues (2010) represent perhaps the most integrated description of what types of behavior can be considered an OCB. Despite the consolidative utility of this framework, it should be noted that these authors and others have discussed the need for additional research

on promotive and protective forms of citizenship (Parker, Williams, & Turner, 2006). For these reasons, the OCB dimensions of direction and orientation, as defined by Marinova and colleagues (2010) will be the focus of the present effort.

### **Employee Responses to Coworker OCB**

Minimal research has examined differences in coworkers' responses to different types of OCBs, and to the best of our knowledge, no research has examined coworkers' responses to OCB considering the dimensions of both direction and orientation (Marinova et al., 2010). Prior to discussing the impact of change in OCB on coworkers' responses to employees, it is first useful to discuss how coworkers may more generally respond to different types of employee OCBs. For this discussion we assume that all other forms of performance are equal. It is well known that despite their status as "extra-role" behaviors, OCBs are often evaluated in tandem with job performance (Bolino et al., 2006; Grant, Parker, & Collins, 2009; Kiker & Motowildo, 1999), which can make the two difficult to separate in practice (Conway, 1999).

Much of the research that examines coworker responses to OCB has focused on the direction dimension of OCB. For example, research suggests that when team members have good relationships with each other (i.e., high team-member exchange) that they will feel a strong sense of identification with their teammates, which will lead to more OCBI (Farmer, Van Dyne, & Kamdar, 2015). Bowler and Brass (2006) also suggest that social network ties are related to performance and the receipt of interpersonal citizenship behaviors (i.e., OCBI). Both social exchange theory and social identification theory suggest that the completion of OCBs, especially OCBI, will foster good relationships among coworkers. Given these positive relationships, coworkers may begin to feel a sense of identification and cohesion with their work group, which may result in more liking towards the members of that workgroup. Since promotive OCBI are



most closely associated with altruism (Marinova et al., 2010; Smith, Organ, & Near, 1983), and may directly benefit members of the workgroup (Williams & Anderson, 1991), coworkers who perform OCBI may be more well-liked than those who only perform OCBOs. Thus, the first hypothesis:

*H1: Coworkers will like employees who perform promotive OCBI more than coworkers who participate in the other forms of OCB.*

Although employees who engage in promotive OCBI are likely to be more well liked, those who perform promotive OCBOs are likely to be perceived as more competent. According to the behavioral theory of leadership, leadership is defined by the behaviors of initiating structure and consideration (Yukl, 2002). As discussed, promotive OCBOs will include behaviors that involve taking charge and providing constructive suggestions (Marinova et al., 2010). These behaviors seem similar to some of the behaviors that fall within the leadership behavior category of initiating structure. Initiating structure is defined as the extent to which a leader defines and organizes their work roles and the roles of others, is focused on goal achievement, and establishes communication within the group (Fleishman, 1973). Conversely, protective OCBI are primarily used to maintain interpersonal rapport and to limit group conflict. From the perspective of a coworker, these behaviors may seem functionally similar to leader consideration behaviors. Consideration is defined as the extent to which a leader demonstrates concern and respect for his/her followers, looks out for their wellbeing, and expresses his/her appreciation or support (Bass, 1990). Given the behavioral and functional overlap that promotive OCBOs and protective OCBI share with initiating structure and consideration, it is reasonable to suggest that employees who engage in these types of OCBs may be perceived by others to possess informal leadership characteristics. Thus, our second hypothesis:

*H2: Coworkers will see employees who perform either promotive OCBOs or protective OCBI as more competent than those who perform other forms of OCB.*

In a meta-analysis, Judge, Piccolo, and Ilies (2004) found that initiating structure demonstrates a moderately strong relationship with job performance and group-organization performance. These authors also found that consideration behaviors on the part of a leader had a moderately strong positive relationship to follower satisfaction, follower motivation, and leader effectiveness. When an employee is perceived to demonstrate behaviors of a leader, especially those that are associated with high performance, they are likely to be perceived as more competent and may be perceived as the more obvious choice for peer recommendations or other types of work-related awards (e.g., employee of the month). Similarly, when an employee is in a managerial role, the job dedication and interpersonal facilitation elements of OCBs are considered by others to be part of job performance (Conway, 1999). Such findings suggest that an employee who is engaging in behaviors that are associated with managerial performance may be seen as more fitting for a managerial role. Based on these associations, it is reasonable to suggest that coworkers would want to collaborate with employees who demonstrate leadership behaviors that function to accomplish group goals (i.e., promotive OCBO) and to minimize group conflict (i.e., protective OCBI), which may be likely to make group work less stressful and more successful. Thus, Hypotheses 3 and 4:

*H3: Coworkers will be more likely to recommend employees for organizational rewards who engage in either promotive OCBOs or protective OCBI than other forms of OCB.*

*H4: Coworkers will be more interested in collaborating with employees who engage in either protective OCBI or promotive OCBO than other forms of OCB.*

## **Fluctuation in OCB Over Time**

Most of the literature on OCB examines the presence or absence of OCB independent of an individual's previous OCB performance. Some research does suggest that measures of OCB are stable over time (Bergeron, Schroeder, Martines, Amdurer, & Van Esch, 2012). However, measurement of OCB stability fails to consider contextual changes that may influence OCB performance. Specifically, it has been suggested that contextual factors such as job satisfaction, organizational commitment, positive affective relationships, and justice perceptions influence the presence of OCB (Dalal, 2005; Moorman, Blakely, & Niehoff, 1998; Venkataramani & Dalal, 2007), and these contextual factors are not indefinitely stable. Therefore, it is reasonable to conclude that changes in these factors may result in changes to OCB performance. In fact, initial evidence from Turner and colleagues (2018a, 2018b) suggests that employees decrease their OCB participation when organizational justice is decreased, but increase their participation in OCB in the presence of high downsizing threat (i.e., a threat to job security).

Based on these findings and the changeable nature of organizations, it stands to reason that an employee's OCB performance may change over time as their work and personal circumstances evolve around them. Work in today's organizations is becoming increasingly complex and group based (Capelli & Rogovsky; Gordon, 1992; Harrison, Johns, & Martocchio, 2000). Coworkers who refuse to help others are arguably less functional in today's team and adaptability-focused society. OCBs often facilitate organizational functioning (Organ, 1988), and are associated with positive outcomes (e.g., increases in organizational performance and social capital, reductions in absenteeism, Bolino et al., 2002). In essence, a coworker working to improve social functioning and productivity around the office by increasing their performance of OCBs is likely to be perceived as more likeable and more competent by their peers.

Taking the malleability of OCB performance into account, expectancy theory and social exchange theory suggest that changes in helping behavior might violate coworker expectations, as well as the reciprocity norms that have been established within the group. Expectancy theory argues that expectations serve as framing devices that define our interpersonal interactions (Goffman, 1974). Blau (1964) also indicates that participation in helping behaviors can result in the development of reciprocity norms whereby “the obligation to reciprocate” and the “expectation of reciprocity” are developed and maintained (Gouldner, 1960). Violations to a coworker’s expectations about an employee’s behavior will distract the coworker from the task at hand and will, “heighten attention to the characteristics of the communicator, the relational implicature, and the meaning of the violation act” (Burgoon, 1993, p.35). If a specific employee has been the one to stand in for sick coworkers in the past, a seemingly sudden refusal to do so may lead coworkers to question the employee’s behavior and motives. The coworkers may also wonder about that employee’s performance of OCBs in the future. Given these theoretical underpinnings, it is reasonable to suggest that employees who disrupt the status quo in negative ways (e.g., refusing to help) will be considered less likeable and less competent than those who either 1) do not disrupt social norms or 2) disrupt group norms in ways that are beneficial to the individual or the group (e.g., agreeing to help when he/she had not previously). Thus,

Hypotheses 5 and 6:

*H5: Coworkers will like employees who decrease their OCB less than employees who increase their OCB.*

*H6: Coworkers will perceive employees who decrease their OCB as less competent than those who increase their OCB.*

Naturally, if a coworker likes an employee and perceives that employee to be competent, they are likely to be more willing to work with that employee and more willing to recommend them for organizational rewards. Beyond this connection, the conservation of resources theory suggests that people have limited time and energy resources. When given the option, employees will likely be strategic in choosing where and when to invest their resources (Halbesleben & Wheeler, 2015). When an employee reduces their participation in OCB, it may be unclear to the coworker why the employee is suddenly less willing to be helpful or if that employee will be willing to help in the future. According to the concept of diminishing marginal utility (Emerson, 1976), someone who often performs OCBs may not gain as much social reward for completing yet another OCB, while someone who does not typically engage in these behaviors may receive a greater amount of positive social feedback. If the coworker wants to receive the benefits that are traditionally associated with OCB and wants their job to be less difficult, a coworker who has recently started performing OCBs on a high level might be a better investment as a collaborator.

The social norms surrounding OCB also suggest that when an employee does OCBs, especially OCBs for a coworker (i.e., OCBI), that the coworker may feel a sense of social obligation to then provide OCBs to that employee in the future (Korsgaard et al., 2010). If an employee has recently increased their helpfulness in terms of covering for a sick coworker (promotive OCBI), being respectful of that coworker's time (protective OCBO), helping the coworker resolve group conflicts (protective OCBI), and taking the lead on organizing the coworker's team (promotive OCB), that coworker may feel that 1) "this is a good person to collaborate with because they will support me and the team" and 2) that "(as a coworker) I feel obligated to repay the employee's acts of kindness and respect." Should the opportunity present

itself, the OCBs that the coworker chooses to provide could come in the form of providing a recommendation for the employee. Thus, Hypotheses 7 and 8:

*H7: Coworkers will be more willing to recommend employees who increase their OCB than those who decrease their OCB.*

*H8: Coworkers will be more willing to collaborate with employees who increase their OCB than those who decrease their OCB.*

### **Employee Responses to Fluctuations in Different Types of OCBs**

Any change to the status quo in terms of helping behavior may be unsettling because change naturally involves a certain degree of instability. Although uncertainty avoidance varies somewhat by culture (Hofstede, 1980), people are generally prone to dislike unexpected changes to their environment. However, there is reason to believe that coworkers may respond more favorably to certain types of fluctuation than others. For instance, if the cycle of reciprocity among coworkers has to be disturbed, an increase in one's willingness to do favors for their coworkers (e.g., promotive OCBI) is likely to be perceived more positively than an increase in adherence to organizational norms (protective OCB).

Although some differences based on type are expected, the research in this area is limited and the relationships between fluctuations in all four types of OCBs and the outcomes of interest are not necessarily clear. For instance, it is unclear if coworkers would be more willing to work with coworkers who have recently increased their promotive OCBO (e.g., taking initiative) relative to those who have recently increased their protective OCBI (e.g., facilitating group cohesion). Protective OCBI are often associated with sportsmanship (Marinova, et al, 2010). Behaviors related to sportsmanship have been found to assist work group performance, cohesion, and the development of a positive workplace (Podsakoff, Ahearne, & MacKenzie, 1997).

Working with people who perform protective OCBI may make one's work life easier and may help everyone on the team to perform better. Conversely, we suggest that promotive OCBOs are likely to be associated with the leadership competency of initiating structure. Given that behaviors that initiate structure are associated with group-organization performance (Judge et al., 2004), employees who can successfully employ promotive OCBOs may be seen as more competent and may be more likely to be recommended for organizational rewards (e.g., promotion, employee of the month). Clear reasoning for why workers may respond positively to increases in both promotive OCBO and protective OCBI can be found. However, we lack information to explicitly suggest which type of OCB change coworkers would respond more positively to and which aspects of coworker evaluations of OCB performers would be most impacted.

In addition to lacking information about the comparative utility of increasing different types of OCBs, it is unclear if stability is preferred for some types of OCBs more than others. It is possible that stability in protective OCBOs (e.g., adherence to organizational norms) is preferred above stability in promotive OCBI (e.g., sharing personal supplies). Although employees may exhibit various levels of general organizational compliance, some minimum qualifier for adherence to organizational norms and policies is expected of all employees who wish to keep their job. In fact, behavior that strongly violates organizational and social norms is considered organizational misbehavior (Vardi & Wiener, 1996) and may be socially punished (See Coleman, 1988). Considering that a certain degree of organizational compliance is considered within-role, higher levels of performance for this type of OCB may not be as strongly rewarded as other forms of OCB are. When an employee suddenly decreases their protective OCBO, others may see the decline as particularly out of character and perhaps rude. As a result,

coworkers may prefer stability in promotive OCBs but increases in other types of OCB. A similar argument exists for protective OCBOs, which work to maintain social relationships, but research on stability preferences as it relates to different OCB performance remains minimal.

Given these limitations, the following research questions was proposed:

*RQ 1: Does fluctuation in OCB and type of OCB have an interactive effect on how coworkers perceive and respond to employees who engage in OCB?*

### **Perceived OCB Motivation**

Among the more recent research that has begun to examine the darker implications of OCB, the findings for OCB motivation have come to suggest that the reasons employees have for completing OCBs may change the nature of the outcomes that stem from this behavior. Bolino, Turnley, and Niehoff (2004) found that OCBs that are performed for self-serving reasons may result in negative consequences for the employee that engages in them. Similarly, OCBs that are motivated by obligation may become compulsory, which could make obligation a form of controlled motivation as defined by self-determination theory. Compulsory OCBs are well known to be associated with negative consequences, including increased role ambiguity, work overload, job stress, and work family conflict (Bolino & Turnley, 2003; Bolino, Turnley, & Bloodgood, 2002; MacDougall, 2015; Vigoda-Gadot, 2007). Controlled motivation is also known to increase employee burnout (Merriman, 2014) and reduce creativity (Gangé & Deci, 2005). Alternatively, positive motivations such as prosocial values and organizational concerns are negatively related to aspects of work-family conflict (MacDougall, 2015; MacDougall et al., 2016). These findings provide reasonable support for the idea that OCB motivation may influence the type, positivity, and strength of OCB outcomes.



Despite the utility of these findings, less is known about how motivations for OCB are perceived and responded to by others within the organization. The research that has been done on others' perceptions of OCB motivation largely focuses on managers' perceptions of image enhancement as a motive for OCB. For instance, managers will respond favorably to employee's OCBs, but only if those OCBs are not motivated by self-promotion or self-interest (Eastman, 1994; Halbesleben et al., 2010). Although research in this area focuses on managers, some data suggest that coworkers and leaders make different assumptions about the motivations of others based on their personal relationship with that individual. Specifically, when there is a strong positive leader-member exchange (LMX) relationship, both the manager and the employee within the relationship will assume that the other person is completing OCBs due to prosocial values or organizational concerns (Kim, O'Neill, & Cho, 2010; Mayer, Keller, Leslie, & Hanges, 2008). However, coworkers outside of the high LMX relationship may perceive the employee's OCB to be motivated by impression management (Kim et al., 2010). Research that primarily focuses on the perspectives of coworkers suggests that extra-role behaviors, when motivated by concern for the organization, are seen as less of an extra-role behavior when motivated by impression management (Bourdage, Lee, Lee, & Shin, 2012). Negative responses to self-promoting OCB make sense given that OCBs are sometimes used to signal superiority to other employees or to signal to managers that an employee is worthy of organizational rewards (Salamon & Deutsch, 2006), which could make them off-putting to managers and coworkers alike.

These findings for impression management are useful for describing the role that this particular motivation plays. However, other motivations for OCB do exist (e.g., organizational concern, obligation, prosocial values), and limited research examines the impact of these more

positive motivations on the perceptions that others have about employees who perform OCBs. The theoretical foundations of OCB (e.g., social exchange, resource conservation) combined with previous research give credence to the idea that coworkers will pay attention to employee motivation, and that their perceptions of this motivation may influence their responses to that employee. It is unlikely that employee OCB or the motivations employees have for OCB will remain stable for indefinite periods of time, and coworkers are likely to notice and personally adjust to changes in employee OCB performance and motivation. During this adjustment, the assumptions coworkers make about an employee's motivations for doing OCBs, whether accurate or not, play a role in how the coworkers perceive and respond to that employee. For example, coworkers may perceive an employee that suddenly increases his or her promotive OCBs (e.g., providing constructive suggestions) as being motivated by impression management. Following such incidents, coworkers may not like the employee as much and may later refuse to write the employee a recommendation letter because the employee is perceived to be too self-promoting. Based on the limited research in this area, it remains unclear exactly how coworkers' motivational assumptions for employee OCB will influence different types of work-related outcomes or how those motivational assumptions may vary depending on an employee's history of OCB participation. Thus, a second research question was warranted:

*RQ 2: Do the assumptions coworkers make about employees' motivation for OCB mediate the relationship between types of OCB, fluctuation in OCB, and OCB outcomes?*

## **Method**

### **Sample and Procedures**

Undergraduate psychology students from a large Midwestern university voluntarily participated in this study for course credit ( $N = 423$ ). Participants were predominantly white

(71%) and female (79%) with an average age of 19.30 years. Additionally, on average participants had 2.5 ( $SD = 1.8$ ) years of work experience.

This study utilized a 3 (increase in OCB, decrease in OCB, or stable OCB) x 4 (promotive OCBI, promotive OCBO, protective OCBI, or protective OCBO) full factorial between-subjects design. To examine the relationships of interest, a survey was administered online through Qualtrics. The survey took approximately one hour to complete. During the study, participants were embedded within a low-fidelity simulation where they were asked to take on the role of a junior-level marketing consultant working for a company focused on advertising educational technology. This initial scenario was taken from Johnson (2015) and modified for our purposes. Low-fidelity simulations have previously been used in research examining organizational behavior, including OCB (Aguinis & Bradley, 2014; Eastman, 1994; Podsakoff, Whiting, Podsakoff, & Mishra, 2011). Best practices for developing and utilizing low-fidelity simulations in organizational behavior research as defined by Aguinis and Bradley (2014) were taken into consideration during the course of this effort. These recommendations included practices such as allowing participants to respond in their own environment, providing a reasonable amount of contextual information, limiting the number of vignettes to prevent fatigue, and the usage of covariates.

At the start of the simulation, participants were provided with company background information and a description of their role within the company. In addition, participants received an account of the normative OCB culture at the company which included information about typical employee participation in each of the four types of OCB. This normative description of OCB participation was portrayed as moderate across the four types. For background information on the company and the description of normative OCB, see Appendix A.

Once embedded within the scenario, participants were provided with a vignette about one of their coworkers, Hannah. This vignette contained information about Hannah's recent helping behaviors and served as the manipulation. After reading through the vignette, participants were asked to evaluate their coworker in terms of how they perceived her (i.e., liking for coworker, perceptions of coworker competence) and how they anticipated that they would respond to her (i.e., willingness to collaborate with coworker, willingness to write a peer recommendation). Following these measures, participants were asked to describe what they believed was motivating this coworker's behavior at work. At the end of the survey, participants completed covariate measures, the manipulation checks, and a series of demographic questions.

### **Manipulations**

Once organizational background information had been provided, participants were randomly presented with one of twelve vignettes that described a coworker, Hannah. Each vignette contained information about the types of OCBs the coworker tended to perform (promotive OCBI, promotive OCBO, protective OCBI, or protective OCBO) and the coworker's OCB over time (increasing, decreasing, or stable). Examples of the coworker vignettes for each type of OCB can be found in Appendices B, C, D, and E.

### **Dependent Variables**

**Employee Likability.** Employee likability was assessed using the 4-item measure developed by Wayne and Ferris (1990). This measure asks participants to use a Likert-scale to indicate the extent to which they agree (1=*strongly disagree*; 5 = *strongly agree*) with statements about their perceived relationship with the coworker in question (e.g., I like this coworker).

Perceptions of Employee's Competence. Twelve items were written to assess participants' perceptions of their coworker's competence. These items asked participants to

indicate their level of agreement (1=*strongly disagree*; 5=*strongly agree*) with a series of statements about their coworker (e.g., Hannah knows how to perform her job). During data cleaning, four items were removed from this scale for demonstrating low reliability with the rest of the items. Exploratory Factor Analysis (EFA) was conducted on the remaining 8 items. Results of the EFA suggest that the items fit best on a one factor model (eigenvalue of 4.98). Additionally, all the items demonstrated high factor loadings on the one factor (.75 to .83) and indicated a high degree of reliability ( $\alpha = .91$ ). For the full list of items that were used to assess perceived competency, see Appendix F.

**Willingness to Collaborate with Employee.** Twelve items were written to assess participants' willingness to collaborate with the employee in question. These items asked participants to specify their level of agreement (1 = strongly disagree, 5 = strongly agree) with a grouping of statements related to collaboration (e.g., I would be willing to work with Hannah on a group project). Results of the EFA suggest that the items fit best on a one factor model (eigenvalue of 8.47). Additionally, all the items demonstrated high factor loadings on the one factor (.76 - .88) and indicated a high degree of reliability ( $\alpha = .96$ ). For a full list of items that were used to assess willingness to collaborate, see Appendix G.

**Willingness to Provide a Peer Recommendation.** Four items were written to assess participants' willingness to provide a peer recommendation to the employee in question. These items asked participants if they were willing to provide a recommendation within a specific organizational scenario (yes vs. no). If the participant was willing to provide a recommendation, they were then asked to indicate the positivity of that recommendation (1 = *highly negative*; 5 = *highly positive*). Reliability across items for the positivity of participants' recommendations was

reasonable ( $\alpha = .85$ ). For a full listing of the items that were used to assess willingness to provide peer recommendation, see Appendix H.

**Perceived Motivation for Employee OCB.** For the purposes of this effort, focus was given to the typology for OCB motivations that was developed by McDougall (2015). Although a variety of motivations for completing OCBs have been identified in the literature (Batson, 1987; Francis, Mary, & Barling, 2005), the typology developed by MacDougall is one of the most complete. Of the nine motivations identified by MacDougall (2015), six were deemed relevant to the context provided in this effort, including: 1) prosocial values (i.e., an employee engages in OCB because he/she has a strong moral compass and a desire to help others), 2) organizational concerns (i.e., an employee performs OCBs because he/she is devoted to the organization and wants it to do well), 3) image enhancement (i.e., an employee engages in OCBs so that he/she can make himself/herself look good), 4) obligation (i.e., OCBs are performed because the employee feels pressure to complete them), 5) functionality (i.e., an employee does OCBs because of their utility), and 6) social interests (i.e., an employee does OCBs because he/she enjoys meeting and developing relationships with others).

In order to assess the motivational attributions participants made for their coworkers, participants were asked to describe what they thought motivated the coworker in question. Responses to the open-ended questions about coworker motivation were rated by three trained graduate students for the six motivations (1 = *not present*; 5 = *present to a great extent*). Raters underwent frame-of-reference training (Bernardin & Buckley, 1981) prior to rating the full set of responses. As a part of the training, raters received operational definitions and benchmark rating scales for each motivation. The interrater reliability ( $*r_{wg}$ ) for motivation scores ranged from .86 to .95.

## **Covariates and Demographics**

Covariates included the big five personality inventory (John & Sirvastava, 1990), trait positive affectivity (Watson, Clark, & Tellegen, 1988), equity sensitivity (King & Miles, 1994), OCB instrumentality (Haworth & Levey, 2001), individual exchange ideology (Ladd & Henry, 2000), and participant's typical OCB performance (Marinova et al., 2010). Along with the covariate measures, participants provided demographic information related to their age, gender, ethnicity, college GPA, ACT score, year in college, number of psychology courses taken, prior work experience, and hypothesis guessing.

## **Analyses**

Prior to testing the hypotheses, the data were reviewed for quality. This review resulted in the removal of three participants who did not pass the attention checks and twelve additional participants who took less than fifteen mins to complete the study. This reduced the sample size to  $n = 408$ .

Hypothesis testing was conducted using analysis of variance (ANOVA), analysis of covariance (ANCOVA), and multivariate analysis of covariance (MANCOVA) where appropriate. Main and interactive effects of fluctuation in OCB and type of OCB were tested for each dependent variable of interest. Correlations were used to identify the set of covariates that would be influential to the analyses. The analyses were first conducted with the entire set of covariates. Non-significant covariates were later removed. In addition to ANOVA, path analysis was used to examine the mediational effect of attributed coworker motivation on the relationship between fluctuation in OCB and type of OCB on the dependent variables of interest. Table 1 presents the descriptive statistics and correlations between the dependent and covariate measures.

**Manipulation Checks.** Likert scales were used to assess participant agreement with statements about their coworker's behavior that were related to each of the manipulations (two questions per manipulation condition, 1 = *strongly disagree*; 5 = *strongly agree*). The manipulation checks were tested using independent samples *t*-tests. Overall, the effects of the manipulation for fluctuation in OCB were successful. Participants in the increased OCB condition reported significantly higher increases in their coworker's OCB ( $M = 4.25, SD = .76, p = .001$ ) than participants in the decrease ( $M = 2.02, SD = 1.03$ ) or stable ( $M = 3.63, SD = .77$ ) OCB conditions. The same results were found for the manipulation check scales examining the decrease in OCB and stable OCB. Contrary to the findings for fluctuation in OCB, the manipulation for type of OCB was less saliently perceived. Specifically, participants in the promotive OCBI conditions perceived significantly more promotive OCBI ( $M = 3.82, SD = .98$ ) than promotive OCBO ( $M = 3.43, SD = .86, p = .001$ ), protective OCBI ( $M = 3.38, SD = .95, p = .001$ ), or protective OCBO ( $M = 3.60, SD = .81, p = .09$ ). However, participants in the promotive OCBO, protective OCBI, and protective OCBO conditions did not significantly differentiate the type of OCB they received from other forms of OCB. Although non-preferable, these findings for type of OCB are consistent with previous literature which suggests that people have a hard time consistently defining and differentiating extra-role behavior (McAllister, Kamdar, Morrison, & Turban, 2007; Morrison, 1994). Interestingly, the results from the Marinova et al. (2010) scale indicate that when it comes to reporting their own OCB, participants did suggest that all four types of OCB were present. This may suggest that participants do perceive differences in OCB, but that it is harder to perceive distinct differences in OCB for others. Given these findings, the possibility of a subconscious effect of type on participant responses seemed conceivable. Therefore, hypothesis testing for type of OCB proceeded.



## Results

### Likability of Coworker

The guidelines for effect size estimation put forth by Cohen (1988) and Morris and Fritz (2013) suggest that partial eta squared values of .01, .06 and .14 are indicative of small, medium, and large effects, respectively. Using these guidelines, a large effect was found for fluctuation in OCB on coworker likability,  $F(3, 396) = 65.48, p = .001, \eta_p^2 = .25$ . Coworkers who decreased their OCB were less likeable ( $M = 12.99$ ) than coworkers who increased their OCB ( $M = 15.98, p = .001$ ) or maintained a moderate level of OCB ( $M = 16.65, p = .001$ ). There was also a small effect of type of OCB on coworker likability,  $F(3, 396) = 3.13, p = .03, \eta_p^2 = .02$ , such that coworkers who performed promotive OCBI were more likeable ( $M = 15.72$ ) than coworkers who performed protective OCBI ( $M = 14.69; p = .04$ ). There was no significant interaction effect between fluctuation in OCB and type of OCB. See Table 2.

### Perceived Competence of Coworker

Findings from the ANCOVA suggested that there was also a large effect of fluctuation in OCB,  $F(2, 396) = 32.42, p = .001, \eta_p^2 = .14$ , and a small effect of type of OCB,  $F(3, 396) = 5.69, p = .001, \eta_p^2 = .04$ , on participants' perception of their coworker's competence. Although these findings were promising, the results from the ANCOVA also indicated a significant violation of the homogeneity assumption (Levene's test  $p = .001$ ). In order to address this issue, the Brown-Forsythe ANOVA test was used. Consistent with the findings from the ANCOVA, the Brown-Forsythe ANOVA demonstrated a significant effect of fluctuation,  $F(2, 406) = 33.07, p = .001$ , and type of OCB,  $F(3, 405) = 5.00, p = .001$ , on the perceived competence of the coworker. See Table 2.

Given the violation of homogeneity, Games-Howell post hoc tests were used to examine mean differences. This post hoc test does not assume equal variances and is often recommended

to conserve power (Shingala & Rajayguru, 2015). Post hoc testing indicated that participants see coworkers who decrease their OCB as less competent ( $M = 3.41$ ) than coworkers who increase ( $M = 3.96, p = .001$ ) or maintain a stable level of OCB ( $M = 3.97, p = .001$ ). Additionally, participants saw coworkers who engaged promotive OCBI as more competent ( $M = 3.93$ ) than coworkers who performed promotive OCBOs ( $M = 3.64, p = .01$ ) or protective OCBI ( $M = 3.66, p = .03$ ). Coworkers who performed promotive OCBOs were also seen as marginally less competent ( $M = 3.64$ ) than coworkers who engaged in protective OCBOs ( $M = 3.88, p = .06$ ).

### **Willingness to Recommend Coworker**

The positivity of the recommendations that participants provided depended on whether or not the participant first agreed to provide a recommendation. Therefore, a MANCOVA was initially used to determine the combined effect of the manipulations. The multivariate effect of the number of recommendations participants were willing to make for their coworker and the positivity of those recommendations were significantly impacted by fluctuations in OCB,  $F(4, 720) = 25.79, p < .001$ ; Wilk's  $\Lambda = .77$ , partial  $\eta^2 = .13$ , and marginally impacted by type of OCB,  $F(6, 720) = 1.99, p < .06$ ; Wilk's  $\Lambda = .97$ , partial  $\eta^2 = .02$ . There was also an interactive effect of fluctuation in OCB and type of OCB on the set of dependent variables,  $F(12, 720) = 1.79, p < .05$ ; Wilk's  $\Lambda = .94$ , partial  $\eta^2 = .03$ . Given these findings, additional investigation using individual ANCOVAs for each dependent variable was warranted.

**Number of Recommendations.** Results of the ANCOVA indicated that there was a large effect of fluctuation in OCB,  $F(2, 361) = 37.38, p = .001, \eta_p^2 = .17$  on the number of recommendations participants were willing to provide (see Table 3). Additional ANOVA and post hoc tests were conducted to examine the nature of this effect. The results of the ANOVA suggested that there was a significant violation of the homogeneity assumption (Levene's test  $p =$

.001), so the Brown-Forsythe ANOVA results were used. Consistent with the findings of the original ANOVA, the Brown-Forsythe ANOVA also indicated that there was a significant effect of fluctuation,  $F(2, 406) = 62.48, p = .001$ , on the number of recommendations provided. The Games-Howell post hoc test was then used to examine mean differences. Post hoc testing indicated that participants provided fewer recommendations for coworkers who decreased their OCB ( $M = 1.76$ ) compared to those who increased ( $M = 3.14, p = .001$ ) or maintained a stable level of OCB ( $M = 3.11, p = .001$ ).

**Positivity of Recommendation.** Results of the individual ANCOVA suggested that there was a large effect of fluctuation,  $F(3, 361) = 42.20, p = .001, \eta_p^2 = .19$ , and a small effect of type of OCB,  $F(3, 361) = 2.75, p = .04, \eta_p^2 = .02$ , on the positivity of the recommendations participants provided (see Table 3). To further investigate these relationships an individual ANOVA and post hoc tests were conducted. The ANOVA suggested that there was a significant effect of fluctuation,  $F(2, 363) = 39.51, p = .001, \eta_p^2 = .18$  and a marginally significant effect of type of OCB,  $F(3, 363) = 2.50, p = .06, \eta_p^2 = .02$ , on the positivity of the recommendations participants provided. Post hoc testing revealed that participants provided more positive recommendations for coworkers who had recently increased their OCB ( $M = 4.44, p = .001$ ) or those that had maintained a stable level of OCB ( $M = 4.49, p = .001$ ) than for coworkers who had recently decreased their OCB ( $M = 3.90$ ). Similarly, participants provided more positive recommendations for employees who performed promotive OCBI ( $M = 4.43$ ) compared to those who performed protective OCBI ( $M = 4.20, p = .02$ ). In conjunction with these main effects, it should also be noted that a small interactive effect of type of OCB and fluctuation of OCB on the positivity of participants' recommendations was found within the ANCOVA,  $F(6, 363) = 2.74, p$

= .01,  $\eta_p^2 = .04$ . However, once the covariates were removed, additional post hoc analyses could not determine the nature of this interaction.

### **Willingness to Collaborate with Coworker**

Results from the ANCOVA indicate that there is a large effect of fluctuation in OCB,  $F(2, 395) = 78.63, p = .001, \eta_p^2 = .29$ , and a small effect of type of OCB,  $F(3, 395) = 4.00, p = .01, \eta_p^2 = .03$ , on participants' willingness to collaborate with their coworker. Results from the ANCOVA indicated a significant violation of the homogeneity assumption (Levene's test  $p = .05$ ), so the Brown-Forsythe ANOVA test was used. The Brown-Forsythe ANOVA demonstrated a significant effect of fluctuation,  $F(2, 406) = 78.96, p = .001$ , and type of OCB on participants' willingness to collaborate with their coworker,  $F(3, 405) = 3.00, p = .03$  (see Table 3).

Given evidence for the violation of the homogeneity of variance, the Games-Howell post hoc test was used to examine mean differences. Post hoc testing indicated that participants were less willing to collaborate with coworkers who had recently decreased their OCB ( $M = 2.97$ ), compared to those who had increased ( $M = 3.87, p = .001$ ) or maintained a stable level of OCB ( $M = 3.94, p = .001$ ). Additionally, participants were more willing to collaborate with coworkers who performed promotive OCBI ( $M = 3.76$ ) than those who had engaged in promotive OCBOs ( $M = 3.47, p = .05$ ).

### **Motivation Attributed to the Coworker**

Path analysis was used to examine the mediating impact of attributed motivation. Prior to conducting path analysis, descriptive statistics were reviewed for violations of normality. In addition, correlations were used to examine the potential relationships that attributed motivation had with the dependent variables. This process resulted in the retention of prosocial values and obligation as the primary motivations of interest.

Given that little evidence for interactive effects were found in the ANCOVA analyses, separate models were composed for fluctuation in OCB and type of OCB. Participants also did not demonstrate many significant differences in their responses to stable OCB and increases in OCB. Therefore, separate models were generated that independently compared increases in OCB (see Figure 1) and stable OCB (see Figure 2) to decreases in OCB. Similarly, models generated to examine type of OCB could only support the comparison of one dimension of OCB at a time. Since far less research has investigated the effects of orientation, promotive OCBs and protective OCBs were compared within the models provided (see Figure 3 and Figure 4). Similarly, when examining relationships between variables it became clear that likability of the coworker and perceived competence of the coworker were highly correlated. Although highly correlated ( $r = .67$ ), confirmatory factor analysis (CFA) suggested that these two measures were separate factors. Thus, likability and perceived competence were tested separately.

Before examining the models individually, a few points about model fit should be taken into consideration. Standards for model development indicate that a Comparative Fit Index (CFL) and a Tucker Lewis Index (TLI) greater than 0.95, a Root Mean Square Effort Approximation (RMSEA) less than 0.05 and a Standardized Root Mean Square Residual of (SRMR) of less than .05 are indicative of good model fit (Kline, 2015). Broadly, all models developed for this effort demonstrate moderate to good fit with these standards. Detailed information about the model fit statistics and  $R^2$  values for each dependent variable can be found in Table 4. As is standard, chi-square information was included for each model. It is often suggested that non-significant chi-square values provide evidence for good model fit. However, a significant chi-square value is often expected with models drawn from sample sizes greater than 400 (Kenny, 2015). Since this effort draws on a larger sample, the significant chi-square values

for models 1-4 are expected. Furthermore, even though the RMSEA values for 1-4 are slightly larger than this ideal, .05 is captured by the confidence interval for every model. This suggests a reasonable degree of model fit. Last, the CFI estimates for models 5-8 round to 1.00 in some cases, which may suggest slight overfit.

**Fluctuation in OCB.** As anticipated, the motivation that participants attributed to their coworker did often mediate the effect of fluctuation in the coworker's OCB on participants' perceptions of and projected responses to the coworker. Interestingly, the structure of the model stayed the same when stable OCB (Model 3 and Model 4, Figure 2) was put in place of increased OCB (Model 1 and Model 2, Figure 1). However, increases ( $\beta_{\text{Model 1}} = -0.14$ ) and decreases ( $\beta_{\text{Model 1}} = -0.30$ ,  $\beta_{\text{Model 2}} = -0.16$ ) in OCB had a negative relationship with the motive of prosocial values, while stable OCB demonstrated a positive relationship ( $\beta_{\text{Model 2}} = 0.14$ ). A similar set of relationships were found for obligation. This suggests that participants did not see changes in coworker OCB as driven by a sense of altruism or obligation. In addition to these findings, decreases in OCB were only related to obligation when compared to stable OCB ( $\beta_{\text{Model 2}} = -0.14$ ). Overall, decreases in OCB often demonstrated both direct and indirect paths to the dependent variables, while increases in OCB and stable OCB primarily had an influence on the dependent variables through their relationship with attributed motivation. This suggests that when coworkers decrease their OCB it is potentially more detrimental to their social relationships, while the effect of increases in OCB is dependent on the assumptions that others make regarding the motivations for increase in OCB.

Within all models examining the impact of fluctuation in OCB, the motivation of prosocial values had a positive effect on coworker likability, the perceived competence of the coworker, participants' willingness to collaborate with the coworker, and the number of

recommendations participants were willing to provide. Conversely, participants' perception that their coworker was motivated by obligation did not impact how much they liked their coworker or how competent they considered the coworker to be. However, perceived obligation did make participants' less willing to collaborate with the coworker and less likely to recommend them for organizational rewards. For the full models see Figure 1 and Figure 2.

**Type of OCB.** The type of motivation that participants attributed to their coworker often mediated the effect of type of OCB on participants' perceptions of the coworker and their projected responses to the coworker. The structure of the model stayed roughly the same when promotive and protective OCBOs (Model 7 and Model 8, Figure 4) were put in place for promotive and protective OCBI (Model 5 and Model 6, Figure 3). However, OCBOs were negatively related to the attributed motivation of prosocial values ( $\beta_{PMOCBO} = -0.15$ ;  $\beta_{PTOCBO} = -0.19$ ), while OCBI demonstrated a positive relationship ( $\beta_{PMOCBI} = 0.23$ ;  $\beta_{PTOCBI} = 0.12$ ). This suggests that participants did not perceive OCBs that were directed at the organization to be strongly driven by a sense of altruism. Interestingly, out of all four OCB types, participants only attributed promotive OCBOs to be driven by a sense of obligation ( $\beta_{PMOCBO} = 0.10$ ). When compared to the models for fluctuation in OCB, this suggests that participants attributed fluctuation in OCB, rather than type of OCB, to be more heavily driven by their coworker's internal sense of duty.

Similar to the previous models, when participants thought that their coworker was driven by prosocial motivation, they liked the coworker more, perceived them to be more competent, were more willing to work with the coworker, and were more likely to recommend them for organizational rewards. Alternatively, if participants perceived their coworker to be driven by obligation, they were less willing to work with them and less likely to recommend them for

organizational rewards. However, perceiving the coworker to be motivated by obligation did not impact how much the participant liked the coworker or how competent they perceived the coworker to be. The models also demonstrated that the effect of type of OCB on the dependent variables was largely mediated by attributed motivation. This is consistent with the findings from the ANCOVA, which suggest that fluctuation in OCB is more impactful than type of OCB. Despite these broad findings, protective OCBs did demonstrate both a direct and indirect relationship with likability and perceived competence of the coworker. When the coworker performed protective OCBOs, participants liked the coworker more and saw them as more competent. Conversely, when coworkers engaged in protective OCBI, participants liked the coworker less and perceived them as less competent. For the full models see Figure 3 and Figure 4.

### **Summary and Hypothesis Testing**

**Type of OCB.** Hypothesis 1, which suggested that participants would like coworkers who performed promotive OCBI (e.g., covering for a sick employee) more than coworkers who engaged other forms of OCB was partially supported. Participants liked coworkers who performed promotive OCBI more than those who performed protective OCBI. No significant difference between the likability of coworkers who completed promotive OCBO and protective OCBI were found. Hypotheses 2, 3, and 4 regarding the positive influence of promotive OCBO and protective OCBI were not supported.

**Fluctuation in OCB.** Hypotheses 5, 6, 7, and 8, which discussed the effect of fluctuation in OCB on participants' perceptions of the coworker (likability, perceptions of competence) and anticipated responses to the coworker (willingness to recommend coworker, willingness to collaborate with coworker), were supported. Participants liked coworkers who increased their



OCB more than those who decreased their OCB. Similarly, participants saw coworkers who decreased their OCB as less competent and were less willing to recommend and to collaborate with them. Despite these differences, increases in coworker OCB were not often significantly different from stable coworker OCB.

**Interactive Effects.** Research Question 1 refers to the interactive influence of changes in different types of OCB on the dependent variables. Surprisingly, there were very few interactive effects found in the analyses. When an interaction between fluctuation and type of OCB was found, the effect was often too small to statistically differentiate.

**Attributed Motivation.** Research Question 2 refers to the mediational effect of the motivations that participants attributed to their coworker on their perceptions and responses to the coworker. A mediational effect of attributed motivation on the relationship between fluctuation in OCB and type of OCB was found. Overall, the assumption that a coworker was motivated by prosocial values had the strongest and most consistent impact on participants' responses to their coworker. Additionally, changes in OCB (e.g., decreases and increases) were negatively associated with the motive of prosocial values. Although, decreases in OCB also had a direct negative impact on the participant's perception of and response to their coworker.

## **Discussion**

### **Theoretical and Practical Implications**

This effort provides some valuable insights into how coworkers may perceive and respond to OCBs. Overall, large effects of fluctuation on all the dependent variables were found. Specifically, employees who decreased their OCB were less well liked and perceived as less competent than employees who either increased their OCB or those who steadily maintained a moderate level of OCB. Drawing on those perceptions, coworkers were less willing to collaborate with employees who decreased their OCB and they recommended these employees

for fewer organizational rewards. Even if coworkers did choose to recommend an employee who had decreased their OCB, the recommendation that they provided was often less positive. Interestingly, increases in employee OCB and stable levels of moderate OCB yielded similar outcomes. For example, there were no differences between increases in employee OCB and stable employee OCB in terms of how willing coworkers were to work with that person or how many recommendations they were willing to provide.

These findings are in line with the conservation of resources theory, which suggests that in a relatively stable, and non-toxic, environment, coworkers will respond more negatively to resource loss than resource gain. In line with this conclusion, we found that employees were rewarded equally by their peers for increases in OCB to higher levels and for maintaining stable levels of OCB. Literature on OCB and the conservation of resources theory also suggests that over provision of OCB is likely to lead to citizenship fatigue (Bolino et al., 2015; Lepine, Erez, & Johnson, 2002). Given the other job demands employees face, it is reasonable to conclude that employees may only be able to maintain high levels of OCB for relatively short timeframes without taking away from the resources they have available to complete their job. Overall, these findings demonstrate that the social advantages gained through the provision of OCB might be best attained through sustained, moderate levels of OCB, rather than periods of high performance, followed by periods of burnout.

In conjunction with the findings for fluctuation in OCB, the results for type of OCB suggested that promotive OCBI (e.g., covering for a sick coworker) had the biggest impact on coworker's perceptions of and projected responses to employees who perform OCB. Employees who performed promotive OCBI were more well-liked than employees who engaged in protective OCBI (e.g., limiting complaining about menial tasks). Employees who engaged in

promotive OCBI were also seen as more competent by their coworkers than those who performed promotive OCBOs (e.g., offering constructive solutions) or protective OCBI. Although coworkers were not more willing to provide recommendations for employees who performed promotive OCBI, their recommendations were more positive than those provided to employees who engaged in protective OCBI. Coworkers were also more willing to work with employees who performed promotive OCBI than those who performed promotive OCBO. These findings may suggest that coworkers appreciated individualized helping behavior more than proactive behavior that assisted the organization as a whole.

Collectively, these results indicate that in terms of the reactions and responses from their coworkers, employees are benefitted the most by engaging in promotive OCBI. However, it should be noted that the means for the dependent variables were not lower than three for any OCB type, which suggests that coworkers did not negatively respond to the provision of any type of OCB. Logically, it makes sense that coworkers would be most sensitive to OCBI that directly benefit them and those that help them adapt to unforeseen change (i.e., becoming ill). If organizations wish to improve coworker relationships, it may be useful to work at developing a culture that broadly encourages helping behavior with a special focus on the provision of promotive OCBI. Despite the utility and relative consistency of these findings, the effect sizes for type of OCB were small and the manipulation checks did suggest that promotive OCBI were the only type of OCB that participants could consistently differentiate from the others. Therefore, the findings for type of OCB should be considered with caution.

These results also work to confirm that attributed motivation does have an effect on how OCBI influence work-related outcomes. When participants perceived their coworker to be motivated by obligation, OCB had a negative impact on the participant's willingness to

collaborate with the coworker and the number of recommendations they were willing to provide. However, when participants thought that their coworker was motivated by prosocial values, it positively influenced their liking for the coworker, their perceptions of the coworker's competence, their willingness to work with the coworker, and the number of recommendations they were willing to provide. Changes in OCB (i.e., increases and decreases) were also negatively associated with prosocial values. Specifically, participants assumed that decreases in coworker OCB were more strongly driven by obligation, while increases in OCB were not. This suggests that when employees alter their OCB performance, coworkers may assume that they are lacking in prosocial motivation. Additionally, if the change observed is a decrease in OCB, coworkers may assume that any remaining helping behavior is driven by a sense of obligation. Although the effect of increases in OCB was largely mediated by attributed motivation, decreases in OCB had both a direct and indirect effects. These findings work to reaffirm the conclusion that decreases in OCB are notably more harmful to coworker's perceptions of and responses to employees who perform OCBs.

As it relates to type, OCBOs were negatively associated with prosocial values, but positively associated with obligation. However, OCBI were positively related to prosocial values, and unrelated to obligation. These findings indicate that when an employee engages in OCBs that are personally directed at their coworkers, the coworkers are more likely to see that OCB as being driven by an internal sense of altruism. As it relates to the orientation dimension, the impact of protective OCBs had a direct relationship to the likability and perceived competence of the employee, while the impact of promotive OCBs on likability and perceived competence of the coworker were fully mediated by attributed motivation (e.g., prosocial values, obligation).

Taken together, the results for the effect of motivation on coworker-relevant outcomes suggests that employees will reap the most benefits from OCB if others in their workplace assume that an employee helps because he/she is altruistic. If change in OCB is negatively associated with altruism (i.e., prosocial values) employees should avoid sudden increases of OCB during times of change or perhaps directly before a promotion as this behavior may yield unintended negative results. Even for employees who are driven by prosocial motivation, OCB performance is likely to ebb and flow. In addition to encouraging promotive OCBI, managers may need to address the negative outcomes associated with instability in OCB performance. One solution may be for managers to develop a culture of OCB rotation whereby employees rotate helping responsibilities rather than leaving the most time-consuming or burnout facilitating helping behaviors (e.g., training new employees) to a select few. However, careful implementation of such an approach would be necessary in order to avoid perceptions of helping obligation.

### **Limitations**

Despite the utility of these findings, there are a few limitations of note. To begin, this study utilizes a low-fidelity simulation, which is inherently less salient than real workplace situations. Therefore, the outcomes associated with the simulation (e.g., actually having to work with the employee in question) may not be as striking as they would have been in real life. Similarly, participants' willingness to provide a recommendation and willingness to collaborate with an employee represent projected, rather than actual, behavior. It is possible that these projected actions do not equate to reality. Research suggests that helping others makes people feel good about themselves (Chancellor, 2013). If the salience of the outcomes is limited, it is possible that participants might have enhanced their self-esteem by overestimating their own

altruism when it comes to their projected responses to the employee they evaluated. Although these restrictions for low-fidelity simulations are of note, simulations have often proved useful in predicting future performance (Lievens, Keer, & Volckaert, 2010; Weekley, Hawkes, Guenole, & Ployhart, 2015), and their overall utility should not be discounted.

In order to provide control with the experiment, the normative level of OCB was set to moderate, participants were given only one fellow employee to evaluate, the gender of the employee was fixed to female, and the employee's job performance was described as moderate. Despite the control benefits these choices offered, in a real-world context people likely evaluate their coworkers collectively by comparing each coworker's job and OCB performance against other coworker's job and OCB performance rather than using broad information about organizationally normative OCB to make decisions. Additionally, research on OCB and social norms suggests that gender plays a role in the operation of OCB (Kidder, 2002). For example, Heilman and Chen (2005) found that managers evaluations of men were positively influenced by increases in altruistic OCBs, while women did not receive such benefits. Additionally, these authors found that women, but not men, were given more negative evaluations when they decreased altruistic helping performance. Given these findings, it is probable that different results would have been found if the gender of the simulated employee had been set to male rather than female. In line with these limitations, this study examined only one work context (i.e., marketing) at one point in time. It is possible that participant responses to employee OCBs in the context of a marketing position may not generalize to other positions, and one-time measurement does not allow for examination of change in coworkers responses to employee over time.

Furthermore, the inherent nature of certain OCBs (e.g., protective OCBOs) may make them less "observable" or less likely to be categorized as "extra-role" behavior from the

perspective of an observer. Such an effect is evidenced by the fact that participants did not consciously differentiate the four types of OCB within the manipulation checks but did present all four factors of OCB when reporting their own participation in OCB. The sample for this effort was also demographically and experientially limited. It is possible that given their limited experience, undergraduate students may have a less well-defined understanding of in-role and extra-role behavior. Last, the generalizability of this study relies on the assumption that coworkers and their organizations will act in ways that are logical and not aggressively competitive. Such an assumption does not account for the fact that there may be innate or organizationally facilitated pressures that lead some coworkers to try to triumph over others. In such cases, these coworkers may not be willing to collaborate with others or willing to provide peer recommendations as a matter of principle.

### **Future Directions**

Future research will be needed to address the generalizability of these findings to other contexts, other relevant outcomes, and a more diverse sample. Future designs may consider manipulating the gender of the evaluated coworker in order to examine how gender normative OCB expectations influence how people evaluate and respond to another employee's OCB. A sample containing a larger proportion of males would also be useful for investigating the evaluations people make for the OCBs conducted by individuals of the same sex versus a different sex.

Additionally, it is likely that existing organizational culture plays a role in how coworkers conceptualize and respond to OCBs. For example, in a culture where OCBs are non-normative, a sudden increase in helping behavior may be more highly rewarded. Conversely, in a culture where OCBs are supported and encouraged, sudden decreases in OCB may not lead to quite as

much resource loss for coworkers, but it may more strongly violate social norms. Similarly, the way that coworkers perceive and respond to OCBs may depend on the hierarchical level of the helper and the person receiving help. For instance, coworkers who are new to an organization, or at a low hierarchical level, may welcome OCBs that are intended to maintain organizational norms (i.e., protective OCBs), while more senior organizational members may see these OCBs as pretentious. In the same scenario, the senior employee may feel that the helping behavior is less pretentious if it is being performed by an even more senior employee compared to a more junior-level employee. To address these gaps, future research should investigate how coworkers respond to changes in OCB as a function of the existing organizational culture and the level of employees involved in the helping scenario.

Future endeavors should also seek to re-evaluate the two-dimensional framework proposed by Marinova and colleagues (2010) as well as the ability of coworkers to differentiate types of OCB. Given that a small effect for type of OCB was consistently found across the dependent variables and that participants did perceive differences in their own OCB, it is reasonable to suggest that the effect of OCB type may be somewhat unconscious. However, if coworkers truly cannot differentiate the types of OCB from each other, then the frameworks for differentiating OCB may only be useful to the extent that they predict individual behavior (i.e., turnover intention).

The theoretical work surrounding OCB suggests that these behaviors function through their influence on social relations (Bergeron et al., 2014; Bolino et al., 2015; Korsgaard et al., 2010). Given these underpinnings, future research should place more of an emphasis on examining the role these behaviors play in social networks. This future research should work to consider how the history of an individual's OCB performance and the assumptions that are made



based on that behavioral history influence social relationships and organizationally relevant outcomes. Last, future research should further examine the mediating role that other perceived motivations play in the outcomes associated with OCB. Due to restrictions in the data, this effort was only able to examine prosocial motivation and obligation as forms of attributed motivation, but there are many other motives that can drive OCB performance (e.g., image enhancement, personal discontent, organizational concerns).

### **Conclusions**

This effort provides valuable information about previously understudied aspects of OCB and their relationship to organizationally relevant outcomes. This research provides a better picture of how fluctuations in employee OCB may alter coworkers' perceptions of and behavioral responses to employees who perform OCBs. Previous research on OCB is largely predicated on the idea that OCBs are a positive behavior and result in positive outcomes (Allen & Rush, 1998; Bolino et al., 2002; Koys, 2001; Podsakoff et al., 2009). However, our findings suggest that the impact of employee OCB on coworker evaluations of and responses to that employee may only be positive if the employee's OCB is relatively stable, if it is explicitly directed at their coworkers, and if the coworkers perceive the employee's OCB to be altruistically driven. Moreover, findings from this effort suggest that OCB does not occur in a vacuum. If we are to truly understand the nature of and impact of OCB in organizations, the influence of type of OCB, the past OCB performance of the actors involved, and the reaction of the workgroup to that performance need to be collectively taken into consideration.

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## Appendix A: InnoTech Case

For the next few exercises you will be asked to take on the role of a junior marketing consultant at a firm named InnoTech. The below description includes information about your job and what it is like work at InnoTech. **Please keep this information in mind for the following exercises.**

### Page 1

You work for InnoTech Inc., a nation-wide organization based in Austin, Texas that specializes in marketing and advertising research for new classroom technologies. InnoTech conducts market research for a range of education focused products, including computer software, remote learning portals, and online textbooks. Most of this technology is geared towards use in high schools and some colleges.

Your job is a junior-level marketing consultant position. As a part of InnoTech, your position often involves working with a team of employees to collect and analyze data on customers' (i.e., school administrators and educators) buying habits and product needs. This part of your job often involves conducting focus groups with educators, attending conferences on education to discover new trends in educational technology or even conducting product demonstrations in the classroom. You also collect information and writeup reports about competitors' use of sales and marketing approaches. In addition, your job involves using market information and other data to determine the potential success of an education focused marketing campaigns. Once this market research is conducted, a team of employees is selected to create an effective advertising campaign based on the data collected through market research. Developing successful market research campaigns and advertising proposals is a lot of work, which means the employees at InnoTech regularly work together in order to get things done.

### Page 2

You have been in this position with InnoTech for a little over two years. During your time at InnoTech, you have appreciated that the employees in your department are generally respectful and pleasant with one another<sup>a</sup>. For example, your coworkers make an effort to show up to meetings on time<sup>d</sup>, to refill the office coffee pot<sup>a</sup> and to step outside to take personal phone calls<sup>a</sup>. In addition to being respectful, your coworkers are fairly kind and helpful. For example, when you first arrived as a new employee your coworkers took you to lunch<sup>b</sup>. Since then, you have found that people are usually willing to share resources<sup>b</sup> and that it isn't too hard to get assistance with something if you need it<sup>b</sup>.

All jobs are at times frustrating, but for the most part, your coworkers do their best to avoid complaining about small inconveniences<sup>c</sup>. During brainstorming discussions, people rarely get upset if their ideas aren't chosen for a campaign<sup>c</sup>. If there are disagreements between your coworkers, these conflicts are usually resolved without much difficulty<sup>c</sup>. Furthermore, your coworkers are almost always willing to provide constructive feedback<sup>d</sup> when you ask for it. You also find that people in your office generally strive towards improving the effectiveness and efficiency of the workplace<sup>d</sup>. Overall, InnoTech has always treated you fairly and you have enjoyed your time spent working there.

<sup>a</sup>Protective OCBO, <sup>b</sup>Promotive OCBI, <sup>c</sup>Protective OCBI, <sup>d</sup>Promotive OCBO

## Appendix B: Manipulation of Promotive OCBI

*Note.* The *no change* condition has been written to reflect a low - modest level of OCB performance that does not change over time.

As previously mentioned, given the amount of work that goes into each marketing and advertising campaign employees often have to work together in teams to get things done. Below is a description of one of the coworkers in your department that you often collaborate with. Based on what you know about InnoTech, please read through the description and provide some feedback about this coworker.

### Condition 1: *Increase* in Promotive OCBI

Hannah has been a coworker of yours at InnoTech for the last two years. In fact, you and Hannah were hired around the same time. Although the team of people assigned to any one project tends to shift, you have often worked on teams with Hannah. Generally, you find that Hannah performs adequately in her job role and that she is a decent coworker.

*Recently*, Hannah *has been more helpful around the office than usual*. Specifically, you have noticed that she *has been more willing to assist others when they ask for help* with complex analyses. Additionally, *last week* Hannah *volunteered to help run a two-day new intern orientation*. This *was surprising* to you because she *had never volunteered to play a role in the orientation program before*. On top of this, *today* Hannah *even helped to catch you up on what you missed last week after you had been out sick with the flu*.

### Condition 2: *Decrease* in Promotive OCBI

Hannah has been a coworker of yours at InnoTech for the last two years. In fact, you and Hannah were hired around the same time. Although the team of people assigned to any one project tends to shift, you have often worked on teams with Hannah. Generally, you find that Hannah performs adequately in her job role and that she is a decent coworker.

*Recently*, Hannah *has been less helpful around the office than usual*. Specifically, you have noticed that she *has been less willing to assist others when they ask for help* with complex analyses. Additionally, *last week* Hannah *did not volunteer to help run a two-day new intern orientation*. This *was surprising* to you because she *had volunteered to play a role in the orientation program before*. On top of this, *today* Hannah *even declined to help catch you up on what you missed last week after you had been out sick with the flu*.

### Condition 3: *No Change* in Promotive OCBI

Hannah has been a coworker of yours at InnoTech for the last two years. In fact, you and Hannah were hired around the same time. Although the team of people assigned to any one project tends to shift, you have often worked on teams with Hannah. Generally, you find that Hannah performs adequately in her job role and that she is a decent coworker.

Hannah *is reasonably helpful around the office*. For example, she *is sometimes willing to assist others when they ask for help* with complex analyses. Additionally, last week Hannah *volunteered to help pick up snacks for a two-day new intern orientation*. This *was normal* to you because she *had volunteered to play a role in the orientation program before*. On top of this, Hannah *occasionally helps catch you up on what you missed if you are out sick*.

## Appendix C: Manipulation of Protective OCBI

\**Note.* Directions from Appendix C to be inserted here. The *no change* condition has been written to reflect a low - modest level of OCB performance that does not change over time.

### Condition 4: **Increase** in Protective OCBI

Hannah has been a coworker of yours at InnoTech for the last two years. In fact, you and Hannah were hired around the same time. Although the team of people assigned to any one project tends to shift, you have often worked on teams with Hannah. Generally, you find that Hannah performs adequately in her job role and that she is a decent coworker.

**Recently, Hannah has been more helpful around the office than usual.** Specifically, you have noticed that she has been complaining less about how much work goes into research for a marketing campaign. Additionally, **last week** Hannah helped to resolve a conflict between two coworkers regarding differences in their ideas for an advertising campaign. This **was surprising** to you because she **had never been willing to help resolve conflicts before.** On top of this, even though it meant Hannah would be at work late, today Hannah agreed to reschedule a meeting in the conference room so that you could have the room for a client meeting in the morning.

### Condition 5: **Decrease** in Protective OCBI

Hannah has been a coworker of yours at InnoTech for the last two years. In fact, you and Hannah were hired around the same time. Although the team of people assigned to any one project tends to shift, you have often worked on teams with Hannah. Generally, you find that Hannah performs adequately in her job role and that she is a decent coworker.

**Recently, Hannah has been less helpful around the office than usual.** Specifically, you have noticed that she has been complaining more about how much work goes into research for a marketing campaign. Additionally, **last week** Hannah left a meeting room instead of helping resolve a conflict between two coworkers regarding differences in their ideas for an advertising campaign. This **was surprising** to you because she **had been willing to help resolve conflicts before.** On top of this, since it meant Hannah would be at work late, today Hannah refused to reschedule a meeting in the conference room so that you could have the room for a client meeting in the morning.

### Condition 6: **No Change** in Protective OCBI

Hannah has been a coworker of yours at InnoTech for the last two years. In fact, you and Hannah were hired around the same time. Although the team of people assigned to any one project tends to shift, you have often worked on teams with Hannah. Generally, you find that Hannah performs adequately in her job role and that she is a decent coworker.

Hannah **is reasonably helpful around the office.** For example, you have noticed that she **only occasionally** complains about how much work goes into research for a marketing campaign. Additionally, **last week** Hannah listened to the concerns of two coworkers who had a conflict regarding their ideas for an advertising campaign. This **was normal** to you because she **had been willing to listen to coworkers' perspectives before.** On top of this, **every once in a while,** Hannah will agree to reschedule a meeting in the conference room so that you can have a client meeting in the morning, even if it means Hannah has to stay late.



## Appendix D: Manipulation of Promotive OCBO

\**Note.* Directions from Appendix C to be inserted here. The *no change* condition has been written to reflect a low - modest level of OCB performance that does not change over time.

### Condition 7: **Increase** in Promotive OCBO

Hannah has been a coworker of yours at InnoTech for the last two years. In fact, you and Hannah were hired around the same time. Although the team of people assigned to any one project tends to shift, you have often worked on teams with Hannah. Generally, you find that Hannah performs adequately in her job role and that she is a decent coworker.

**Recently**, Hannah *has been more helpful around the office than usual*. Specifically, you have noticed that she *has been more willing to provide helpful suggestions during brainstorming sessions for new advertising campaigns*. Additionally, during the innovation meeting *last week* Hannah *was proactive in developing a plan for improving InnoTech's dataset documentation process*. This *was surprising* to you because she *had never volunteered to help develop improvements to procedures before*. On top of this, *today* Hannah even *agreed to take charge on collecting the initial information for a new competitor*.

### Condition 8: **Decrease** in Promotive OCBO

Hannah has been a coworker of yours at InnoTech for the last two years. In fact, you and Hannah were hired around the same time. Although the team of people assigned to any one project tends to shift, you have often worked on teams with Hannah. Generally, you find that Hannah performs adequately in her job role and that she is a decent coworker.

**Recently**, Hannah *has been less helpful around the office than usual*. Specifically, you have noticed that she *has been less willing to provide helpful suggestions during brainstorming sessions for new advertising campaigns*. Additionally, during the innovation meeting *last week* Hannah was *not proactive in coming up with new plans for improving InnoTech's processes*. This *was surprising* to you because she *had volunteered to help develop improvements to procedures before*. On top of this, *today* Hannah even *turned down the opportunity to take charge on collecting the initial information for a new competitor*.

### Condition 9: **No Change** in Promotive OCBO

Hannah has been a coworker of yours at InnoTech for the last two years. In fact, you and Hannah were hired around the same time. Although the team of people assigned to any one project tends to shift, you have often worked on teams with Hannah. Generally, you find that Hannah performs adequately in her job role and that she is a decent coworker.

Hannah *is reasonably helpful around the office*. For example, you have noticed that she *is sometimes willing to provide helpful suggestions during brainstorming sessions for new advertising campaigns*. Additionally, during the innovation meeting *last week* Hannah was *somewhat proactive in assisting with plans for improving InnoTech's processes*. This *was normal* to you because she *had occasionally helped develop improvements to procedures before*. On top of this, *every once in a while*, Hannah will *take charge on collecting the initial information for a new competitor*.

## Appendix E: Manipulation of Protective OCBO

\**Note.* Directions from Appendix B to be inserted here. The *no change* condition has been written to reflect a low - modest level of OCB performance that does not change over time.

### Condition 10: *Increase* in Protective OCBO

Hannah has been a coworker of yours at InnoTech for the last two years. In fact, you and Hannah were hired around the same time. Although the team of people assigned to any one project tends to shift, you have often worked on teams with Hannah. Generally, you find that Hannah performs adequately in her job role and that she is a decent coworker.

*Recently*, Hannah *has been more helpful around the office than usual*. Specifically, you have noticed that she *has been more* focused on efficiency and productivity. Additionally, *last week* Hannah took extra care to make sure her most recently research dataset was organized according to InnoTech's documentation standards. This *was surprising* to you because she *had never* worked hard to follow the documentation standards before. On top of this, *today* Hannah even came back from lunch early to clean the microwave in the office kitchen since it was Hannah's turn to clean it.

### Condition 11: *Decrease* in Protective OCBO

Hannah has been a coworker of yours at InnoTech for the last two years. In fact, you and Hannah were hired around the same time. Although the team of people assigned to any one project tends to shift, you have often worked on teams with Hannah. Generally, you find that Hannah performs adequately in her job role and that she is a decent coworker.

*Recently*, Hannah *has been less helpful around the office than usual*. Specifically, you have noticed that she *has been less* focused on efficiency and productivity. Additionally, *last week* Hannah *did not take* extra care in making sure her most recently constructed research dataset was organized according to InnoTech's documentation standards. This *was surprising* to you because she *had* worked hard to follow the documentation standards before. On top of this, *today* Hannah even came back late from lunch. This meant that Hannah did not clean the microwave in the office kitchen even though it was Hannah's turn to clean it.

### Condition 12: *No Change* in Protective OCBO

Hannah has been a coworker of yours at InnoTech for the last two years. In fact, you and Hannah were hired around the same time. Although the team of people assigned to any one project tends to shift, you have often worked on teams with Hannah. Generally, you find that Hannah performs adequately in her job role and that she is a decent coworker.

Hannah *is reasonably helpful around the office*. For example, you have noticed that she *is acceptably* focused on efficiency and productivity. Additionally, Hannah *usually* makes sure her research datasets are organized according to InnoTech's documentation standards. This *was normal* to you because she *had* worked hard to follow the documentation standards before. On top of this, Hannah *typically* comes back from lunch on time. Hannah also *usually* cleans the microwave in the office kitchen when Hannah is assigned a turn to clean it.

## Appendix F: Perceptions of Employee Competence Scale

Keeping what you know about Hannah in mind, please indicate your agreement (1 = strongly disagree; 5 = strongly agree) with the following statements:

1. Hannah is capable of performing her job tasks.
2. Hannah knows how to perform her job.
3. Hannah does not possess the talent required to do her job well (R).\*
4. Hannah is fully capable of completing her job duties.
5. If I had a question about my job, Hannah could answer my question.
6. Hannah could teach new employees a lot about how to do their job.
7. Hannah is not able to handle job tasks on her own (R).\*
8. Hannah demonstrates that she has the skills needed to get the job done.
9. Hannah has to be closely monitored to make sure she performs her job correctly. (R)\*
10. I would consider Hannah to be well informed about her job.
11. Hannah could handle just about any work task handed to her.
12. Hannah is not prepared for her current job role (R)\*

*Note.* Items marked with an \* demonstrated low reliability with the rest of the items in the scale and were removed in the final version.

### **Appendix G: Willingness to Collaborate Scale**

Keeping what you know about Hannah in mind, please indicate your agreement (1 = strongly disagree; 5 = strongly agree) with the following statements:

1. I would be willing to work with Hannah on a team project.
2. I look forward to working with Hannah in the future.
3. I would volunteer to work on a project team if I knew Hannah was on the team.
4. I think Hannah and I could work together in the future.
5. If I could pick my next project team, Hannah would be at the top of my list.
6. I could see myself maintaining a working relationship with Hannah long-term.
7. I would like to build an alliance with Hannah.
8. If Hannah asked me to work with her on a new project, I would.
9. I think working together with Hannah would be mutually beneficial.
10. I would be willing to cooperate with Hannah to develop a plan of action.
11. I would be happy to have my name associated with Hannah's name on a team report.
12. I would seek out Hannah if I needed a second opinion on my work.

## Appendix H: Willingness to Provide Peer Recommendation Scale

Every so often the leaders of InnoTech select an employee to receive a special award or extra opportunity. On the next few pages, a few situations involving these rewards that might pop-up during the year are described. Please indicate how you would respond to each of these situations.

1. You know that Hannah is looking to move into a senior position at InnoTech. One such position happens to be open at InnoTech right now and part of the application for a more requires a peer recommendation letter. You come in one morning to find an email with a link to a recommendation from asking you to provide a recommendation for Hannah.

Hello,

You are receiving this email because you are the coworker of Hannah Dawson. Hannah is currently in the process of applying for a senior researcher position. If you choose to provide a recommendation, filling out the form should take about 20 minutes and will require you to give a few detailed descriptions of what it is like to work alongside Hannah. Providing a recommendation is completely voluntary. If you are willing to provide this recommendation, please use the link below to access the form.

[www.InnoTechHRTportal\HDawson](http://www.InnoTechHRTportal\HDawson)

Best,  
The InnoTech Human Resource Team

- a. Would you be willing to fill out this recommendation form for Hannah? Yes No
- b. How positive or negative would your recommendation be?

Highly Negative	Somewhat Negative	Neutral	Somewhat Positive	Highly Positive
1	2	3	4	5

2. Every year at the annual holiday party one employee receives the “employee appreciation award” to recognize their contribution to the company that year. This award comes with a small holiday bonus and two extra paid vacation days for the following year. To be considered for the award, an employee has to put in an application that demonstrates their contribution. Part of this application includes endorsements from others in the organization.

a. Would you be willing to provide an endorsement for Hannah? Yes No

b. How positive or negative would your endorsement letter be?

Highly Negative	Somewhat Negative	Neutral	Somewhat Positive	Highly Positive
1	2	3	4	5

3. Every quarter, an employee is selected as the “all-star” for that quarter. The “all-star” gets a small plaque and a party thrown in their honor. In order to be selected as the quarterly employee “all-star”, an employee has to be nominated by three coworkers.

a. Would you be willing to nominate Hannah? Yes No

b. How positive or negative would your nomination letter be?

Highly Negative	Somewhat Negative	Neutral	Somewhat Positive	Highly Positive
1	2	3	4	5

4. One afternoon you arrive back from lunch to find the following email from your boss, Avery, in your inbox

Afternoon,

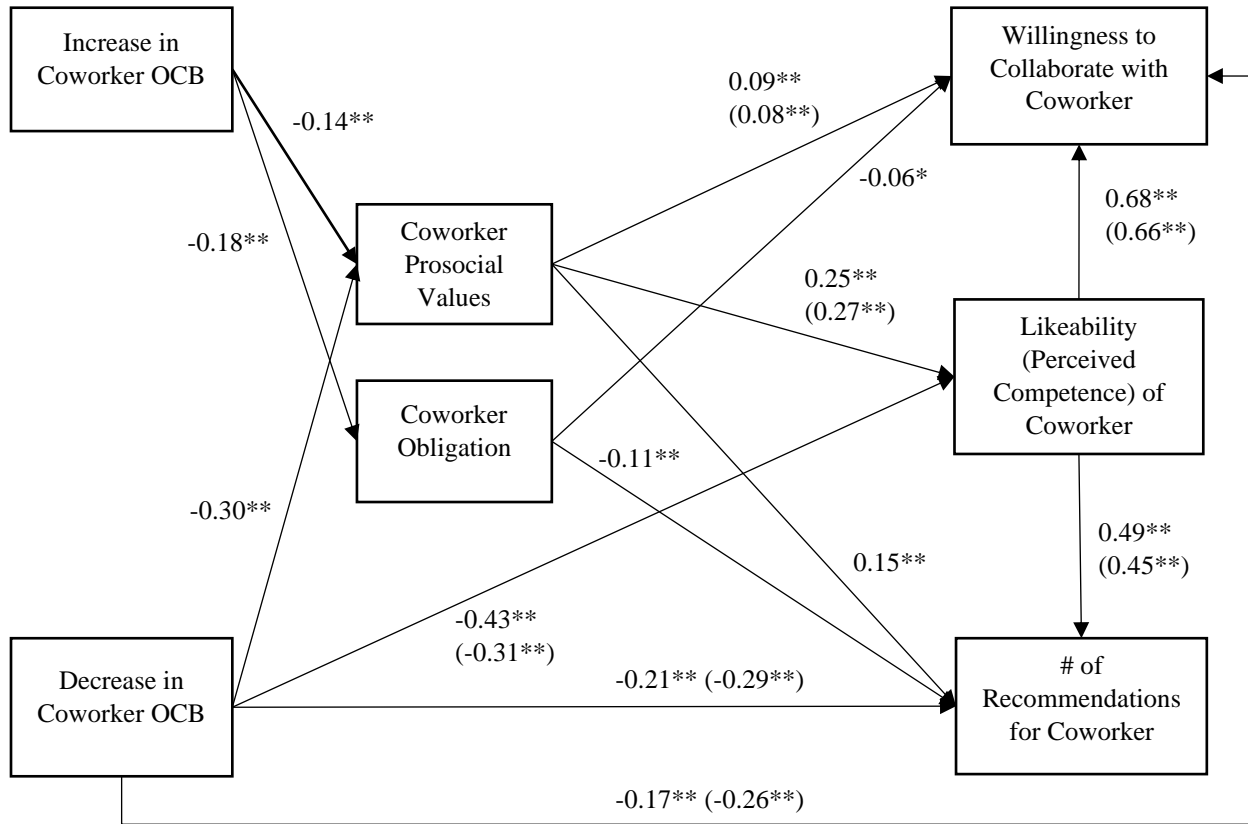
I am looking for someone to send to the national conference for the Association of American Educators (AAE). This year they are doing a few special presentations about proposals for new educational technologies which I think will be especially interesting. As always, the conference is in Daytona, Florida and it is always a fun time. You went to the conference last year, so I can't send you again. However, given your experience with the conference, I was hoping you might be able to recommend someone from the department to go? I know there are usually a number of people who are interested in going. I would like to pick someone who deserves it. Any insights you have would be greatly appreciated.

Thanks,  
Avery

- a. Would you be willing to recommend to your boss that Hannah should attend the conference?  
Yes No
- b. How positive or negative would your email recommendation for Hannah be?

Highly Negative	Somewhat Negative	Neutral	Somewhat Positive	Highly Positive
1	2	3	4	5

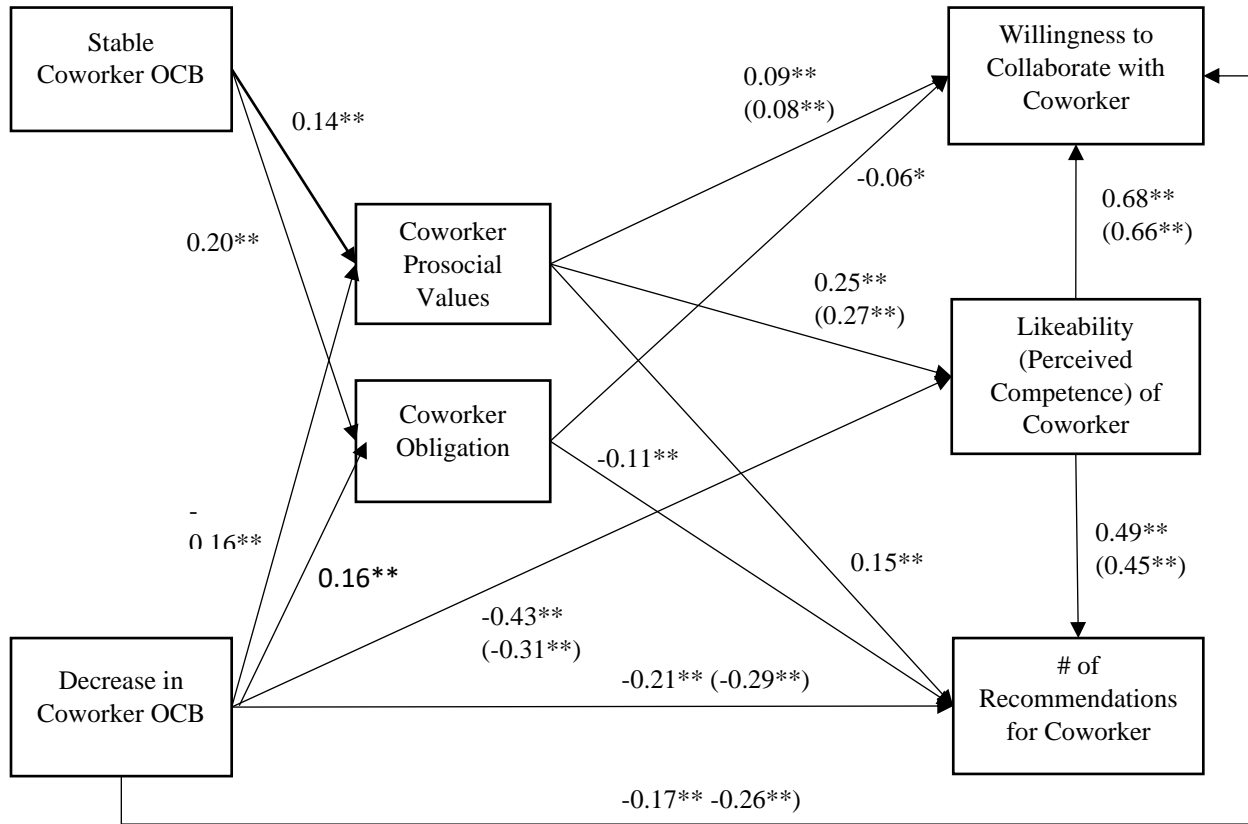
Figure 1. *Model 1 and Model 2: Differentiating the mediational impact of perceived coworker motivation on the relationship between increases in coworker OCB vs. decreases in coworker OCB and relevant outcomes*



Note.  $N = 408$ .  $** =$  significant at .01.  $* =$  significant at .05. The relationships between variables remained the same for likability and perceived competence. Models 1 and 2 contain all the same variables, except Model 1 includes likability of the coworker, while Model 2 includes perceived competence of the coworker instead. Beta weights for perceived competence are presented in parentheses (), likeability beta weights are not. Beta weights that remained unchanged between the two models are represented by one number. Only significant paths are represented here. All non-significant paths were removed from the model.

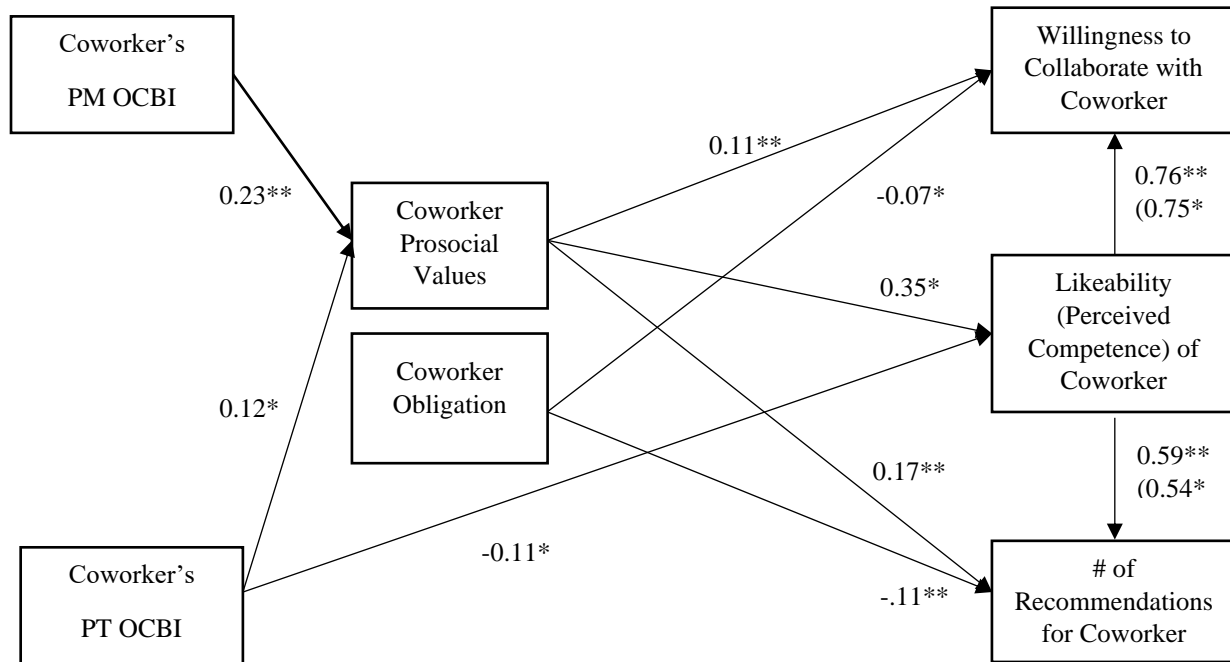


Figure 2. Model 3 and Model 4: Differentiating the mediational impact of perceived coworker motivation on the relationship between stable coworker OCB vs. decreases in coworker OCB and relevant outcomes



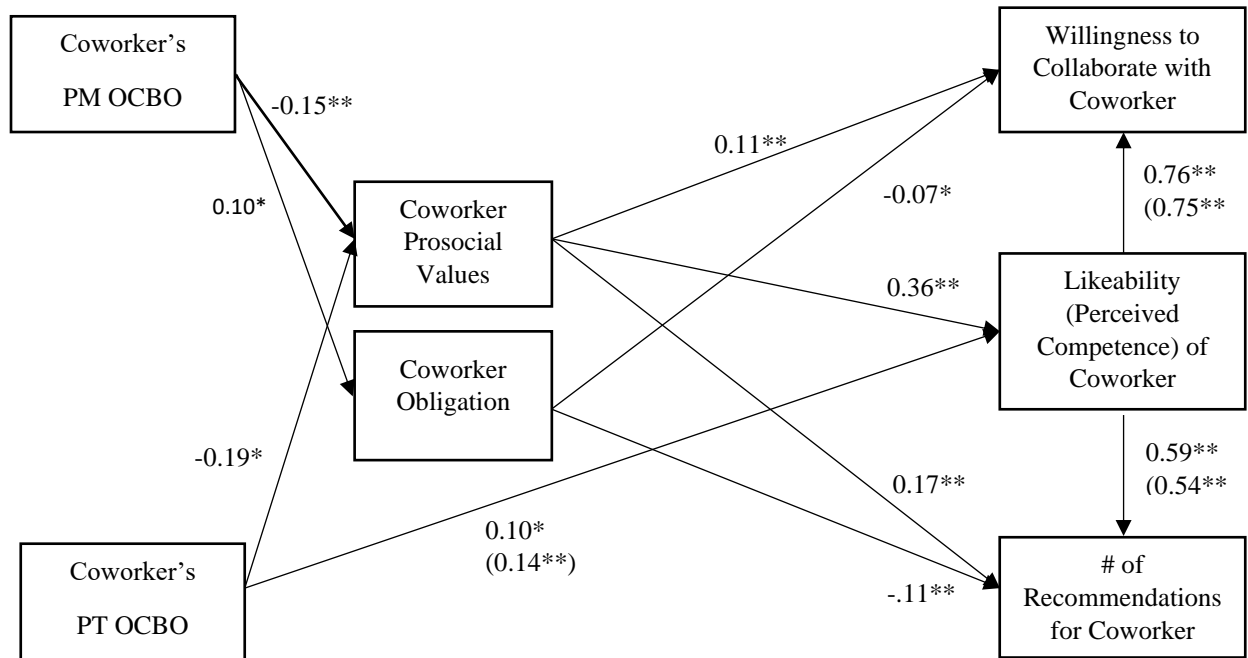
Note.  $N = 408$ . \*\* = significant at .01. \* = significant at .05. The relationships between variables remained the same for likability and perceived competence. Models 3 and 4 contain all the same variables, except Model 3 includes likability of the coworker, while Model 4 includes perceived competence of the coworker instead. Beta weights for perceived competence are presented in parentheses (), likeability beta weights are not. Beta weights that remained unchanged between the two models are represented by one number. Only significant paths are represented here. All non-significant paths were removed from the model.

Figure 3. Model 5 and Model 6: Differentiating the mediational impact of perceived coworker motivation on the relationship between coworker's promotive OCBI vs. protective OCBI and relevant outcomes



Note.  $N = 408$ . \*\* = significant at .01. \* = significant at .05. PM = Promotive. PT = Protective. The relationships between variables remained the same for likability and perceived competence. Models 5 and 6 contain all the same variables, except Model 5 includes likability of the coworker, while Model 6 includes perceived competence of the coworker instead. Beta weights for perceived competence are presented in parentheses (), likeability beta weights are not. Beta weights that remained unchanged between the two models are represented by one number. Only significant paths are represented here. All non-significant paths were removed from the model.

Figure 4. Model 7 and Model 8: Differentiating the mediational impact of perceived coworker motivation on the relationship between coworker's promotive OCBO vs. protective OCBO and relevant outcomes



Note.  $N = 408$ .  $** =$  significant at .01.  $* =$  significant at .05. PM = Promotive. PT = Protective. The relationships between variables remained the same for likability and perceived competence. Models 7 and 8 contain all the same variables, except Model 7 includes likability of the coworker, while Model 8 includes perceived competence of the coworker instead. Beta weights for perceived competence are presented in parentheses (), likeability beta weights are not. Beta weights that remained unchanged between the two models are represented by one number. Only significant paths are represented here. All non-significant paths were removed from the model.

Table 1. *Descriptive statistics and intercorrelations among dependent and covariate variables*

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Willingness to collaborate with coworker	3.59	0.84	(.96) <sup>a</sup>								
2. Number of recommendations provided to coworker	2.67	1.33	.75**	-							
3. Positivity of recommendation for coworker <sup>†</sup>	4.30	0.61	.62**	.58**	(.85) <sup>a</sup>						
4. Perceived competence of coworker	3.78	0.69	.79**	.61**	.51**	(.91) <sup>a</sup>					
5. Likability of coworker	15.20	3.21	.80**	.65**	.54**	.67**	(.90) <sup>a</sup>				
6. Coworker's prosocial values	1.78	1.14	.38**	.38**	.30**	.34**	.35**	(.86) <sup>b</sup>			
7. Coworker's obligation	1.23	0.65	-.14**	-.18**	-.14**	-.08	-.08	-.15**	(.90) <sup>b</sup>		
8. Participant's agreeableness	3.96	0.58	.07	.07	.08	.07	.09	.09	-.02	(.77) <sup>a</sup>	
9. Participant's conscientiousness	3.78	0.58	.08	.07	.14**	.11*	.08	.10*	-.00	.42**	(.76) <sup>a</sup>
10. Participant's positive affectivity	37.64	6.43	.07	.08	.05	.07	.07	.07	-.12*	.30**	.45**
11. Participant's benevolence	30.36	7.96	.10*	.13**	.07	.05	.10*	.11*	-.04	.36**	.21**
12. Participant's perception of the importance of OCB	4.09	0.68	.14**	.10*	.17**	.12*	.12*	.09	.04	.25**	.34**
13. Participant's exchange ideology	19.67	3.55	-.08	-.06	-.05	-.09	-.03	-.10*	-.02	-.17**	-.13**
14. Participant's promotive OCB	5.16	1.02	.13**	.11*	.12*	.13*	.10	.13**	-.04	.14**	.25**
15. Participant's promotive OCB	5.45	0.86	.24**	.21**	.27**	.21**	.19**	.18**	.03	.30**	.22**
16. Participant's protective OCB	5.67	0.89	.16**	.10	.21**	.20**	.11*	.11*	.10*	.25**	.30**
17. Participant's protective OCB	5.17	1.14	.22**	.15**	.13**	.19**	.20**	.16**	-.03	.25**	.21**

*Note.* *N* = 408. <sup>†</sup>Only participants that agreed to recommend their coworker for an organizational reward were asked how positive their recommendation would be. Therefore, the *n* size for positivity of recommendation is reduced (*n* = 375). \* = Significant at .05 \*\* = Significant at .01. Reliabilities are listed on the diagonal. <sup>a</sup>Cronbach Alpha reliability; <sup>b</sup>rwg\*. Dashes indicate variables that did not have a reliability to be reported.

Table 2 continued. *Descriptive statistics and intercorrelations among dependent and covariate variables*

	10	11	12	13	14	15	16	17
1. Willingness to collaborate with coworker								
2. Number of recommendations provided to coworker								
3. Positivity of recommendation for coworker <sup>†</sup>								
4. Perceived competence of coworker								
5. Likability of coworker								
6. Coworker's prosocial values								
7. Coworker's obligation								
8. Participant's agreeableness								
9. Participant's conscientiousness								
10. Participant's positive affectivity	(.87) <sup>a</sup>							
11. Participant's benevolence	.20**	(.84) <sup>a</sup>						
12. Participant's perception of the importance of OCB	.38**	.44**	(.82) <sup>a</sup>					
13. Participant's exchange ideology	-.02	-.42**	-.29**	(.74) <sup>a</sup>				
14. Participant's promotive OCB	.42**	.26**	.37**	-.10*	(.87) <sup>a</sup>			
15. Participant's promotive OCB	.31**	.42**	.57**	-.31**	.50**	(.86) <sup>a</sup>		
16. Participant's protective OCB	.12*	.23**	.34**	-.14**	.33**	.51**	(.73) <sup>a</sup>	
17. Participant's protective OCB	.33**	.32**	.37**	-.14**	.61**	.58**	.33**	(.77) <sup>a</sup>

*Note.* N = 408. <sup>†</sup>Only participants that agreed to recommend their coworker for an organizational reward were asked how positive their recommendation would be. Therefore, the *n* size for positivity of recommendation is reduced (*n* = 375). \* = Significant at .05 \*\* = Significant at .01. Reliabilities are listed on the diagonal. <sup>a</sup>Cronbach Alpha reliability; <sup>b</sup>rwg<sup>b</sup>. Dashes indicate variables that did not have a reliability to be reported.

Table 3. ANCOVA results of independent variables and covariates on participant's perceptions of their coworker

	Coworker Likability			Perceived Competence		
	<i>F</i>	<i>p</i>	$\eta_p^2$	<i>F</i>	<i>p</i>	$\eta_p^2$
Corrected Model	14.39	.001**	.30	9.25	.001**	.22
Intercept	411.24	.001**	.51	224.22	.001**	.362
Participant's Protective OCBI	14.60	.001**	.04	-	-	-
Participant's Protective OCBO	-	-	-	14.44	.001**	.04
Fluctuation in Coworker OCB	65.48	.001**	.25	32.42	.001**	.14
Type of Coworker OCB	3.13	.03*	.02	5.69	.001**	.04
Fluctuation in Coworker OCB*Type of Coworker OCB	10.58	.20	.02	1.29	.26	.02

Note.  $N = 408$ . \*\*Significant at .01. \*Significant at .05. Dashes indicate instances where the specific variable was not used as a covariate. Coworker Likability R-squared = .30 (adjusted R-Squared = .28). Perceived competence R-squared = .22 (adjusted R-squared = .20). For perceived competence, the Levene's test was significant at .00, suggesting violation of the homogeneity assumption. The Brown-Forsythe ANOVA tests suggest that the effects of fluctuation in OCB and type of OCB on perceived competence remained when homogeneity is not assumed ( $p = .00$  for both)

Table 4. ANCOVA results of independent variables and covariates on participant's projected actions towards their coworkers

	Number of Recommendations Provided			Positivity of Recommendations			Willingness to Collaborate with Coworker		
	<i>F</i>	<i>p</i>	$\eta_p^2$	<i>F</i>	<i>p</i>	$\eta_p^2$	<i>F</i>	<i>p</i>	$\eta_p^2$
Corrected Model	13.91	.00**	.30	11.75	.00**	.30	16.68	.00**	.35
Intercept	12.04	.00**	.03	162.34	.00**	.31	127.65	.00**	.24
Participant's Promotive OCBI	15.29	.00**	.04	24.87	.00**	.06	6.65	.01**	.02
Participant's Protective OCBI	-	-	-	-	-	-	4.29	.04*	.01
Participant's Conscientiousness	-	-	-	0.03	.02**	.02	-	-	-
Fluctuation in Coworker OCB	37.38	.00**	.17	42.20	.00**	.19	78.63	.00**	.29
Type of Coworker OCB	1.60	.18	.01	2.75	.04*	.02	4.00	.01**	.03
Fluctuation in Coworker OCB*Type of Coworker OCB	1.86	.09	.03	2.74	.01**	.04	0.99	.43	.02

Note. *N* = 408. \*\*Significant at .01. \*Significant at .05. Dashes indicate instances where the specific variable was not used as a covariate. Number of recommendations provided R-squared = .24 (adjusted R-Squared = .21). Average positivity of recommendations R-squared = .30 (adjusted R-squared = .27). Willingness to collaborate with coworker R-squared = .35 (adjusted R-squared = .33). The Levene's test was significant for number of recommendations provided (*p* = .00) and willingness to collaborate with coworker (*p* = .05), suggesting violation of the homogeneity assumption. The Brown-Forsythe ANOVA tests were used to confirm that the effects of fluctuation in OCB and type of OCB remained when homogeneity is not assumed (*p* = .00 for both). The interaction effect for number of recommendations provided was non-significant in the MACOVA and is therefore non-interpretable here.

Table 4. *Model fit statistics and variance explained for all path models*

	CFI	TLI	SRMR	RMSEA	CI		<i>p</i>
					Lower	Upper	
Model 1*	0.99	0.97	0.03	0.07	0.03	0.11	0.21
Model 2*	0.98	0.93	0.04	0.09	0.06	0.13	0.02
Model 3*	0.99	0.96	0.04	0.07	0.04	0.12	0.14
Model 4*	0.99	0.96	0.04	0.07	0.03	0.11	0.20
Model 5†	1.00	0.99	0.04	0.04	0.00	0.08	0.68
Model 6†	1.00	0.99	0.04	0.03	0.00	0.08	0.70
Model 7†	1.00	0.99	0.04	0.03	0.00	0.07	0.81
Model 8†	1.00	0.99	0.04	0.03	0.00	0.07	0.80

*Note.* Models 1 - 8 represent distinct models, not comparative model fits. R<sup>2</sup> values for the dependent variables included in the model are provided. \* = model examines the mediating impact of attributed motivation on the relationship between fluctuation on OCB and the dependent variables. † = model examines the mediating impact of attributed motivation on the relationship between type of OCB and the dependent variables.



Table 4 continued. *Model fit statistics and variance explained for all path models*

	Chi-Square			R <sup>2</sup>			
	X <sup>2</sup>	df	p	Likability of Coworker	Perceived Competence of Coworker	Willingness to Collaborate with Coworker	Number of Recommendations for Coworker
Model 1*	16.62	6	0.01	0.30	-	0.67	0.49
Model 2*	27.15	6	0.001	-	0.21	0.69	0.48
Model 3*	16.07	5	0.01	0.30	-	0.67	0.49
Model 4*	14.29	5	0.01	-	0.21	0.69	0.48
Model 5†	10.49	7	0.16	0.13	-	0.65	0.45
Model 6†	10.19	7	0.18	-	0.13	0.63	0.41
Model 7†	10.04	8	0.26	0.13	-	0.65	0.45
Model 8†	10.11	8	0.26	-	0.14	0.63	0.41

*Note.* Models 1 - 8 represent distinct models, not comparative model fits. R<sup>2</sup> values for the dependent variables included in the model are provided. \* = model examines the mediating impact of attributed motivation on the relationship between fluctuation on OCB and the dependent variables. † = model examines the mediating impact of attributed motivation on the relationship between type of OCB and the dependent variables.