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Interpersonal Citizenship

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## **The Moderating Effect of Communication Network Centrality on Motive to Perform Interpersonal Citizenship**

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The motive to perform extra-role behaviors such as organizational citizenship remains a compelling and unresolved issue. Researchers are beginning to explore alternative causes for organizational citizenship behavior (OCB) that go beyond the early conceptualizations of OCB as altruistic (Organ, 1988). Among the alter-

native causes suggested by researchers, individual motive has become a recurring theme (Bolino, 1999; Rioux and Penner, 2001; Bolino *et al.*, 2006). Bolino (1999) suggested that many behaviors characterized as OCB might not be citizenship at all, but well disguised self-promotion driven by impression management motives.

These alternative motives have only recently begun to receive attention empirically through Rioux and Penner's (2001) development of the Citizenship Motive Scale. This study furthers the examination of OCB antecedents by examining the conditions in which various motives operate and cause employees to perform citizenship behaviors.

Recent research in the area of organizational citizenship behavior has begun to focus on ICB (Settoon and Mossholder, 2002), a facet of OCB (Anderson and Williams, 1996; Rioux and Penner, 2001; Settoon and Mossholder, 2002; Bowler and Brass, 2006). Interpersonal citizenship behavior is defined as helping behaviors directed at other employees that are beyond the scope of one's job description. Meta-analytic research has confirmed that interpersonally focused OCB is a separate construct from organizationally focused OCB as well as in-role performance (Hoffman *et al.*, 2007). Because of the relational component involved in helping others and the inherent social value of helping others, researchers have focused on two forms of antecedents to ICB. One of those antecedents is the relational or network characteristic between the ICB performer and the ICB recipient (Sparrowe *et al.*, 2001; Settoon and Mossholder, 2002; Jones and Schaubroeck, 2004; Organ *et al.*, 2005; Allen, 2006; Bowler and Brass, 2006). The second focus is the study of pro-social motives, organizational concern motives and impression management motives of ICB performers (Rioux and Penner, 2001). The current study merges these two areas by examining the interactive effects of

relationship characteristic and individual motive on ICB performance. Specifically, we argue that the influence of some motives, such as pro-social motives and concern for one's organization, remain consistent regardless of characteristics of an individual's network while impression management motives are more likely to influence ICB in particular social network configurations.

### Citizenship Motives

Based on a functional approach to human behavior, Rioux and Penner (2001) developed the Citizenship Motive Scale (CMS) that assesses individual motive to perform specific types of OCB, including ICB. Their approach suggests that one must consider the motive, or purpose served, for engaging in OCB. They developed the scale to reflect three motives for OCB: pro-social, organizational concern and impression management. The *pro-social motive* is defined as showing a general concern for others and a need to build positive relationships. The *organizational concern motive* is associated with individuals who generally show pride in their organization and desire for the company to do well. Finally, the *impression management* motive concerns a desire to attain rewards at work and to avoid looking bad to others in the organization.

In their study, Rioux and Penner (2001) related these motives to ICB performance and the expected positive relationships were found between pro-social and organizational concern motives and ICB perform-

ance.<sup>1</sup> However, no direct relationship was found between impression management motives and ICB performance. This lack of relationship between impression management motives and ICB is surprising given the strong theoretical rationale for such a relationship, which suggests that helping within organizations is not exclusively driven by selfless motives, but is often driven by impression management motives (e.g., Bolino, 1999). Rioux and Penner concede to being perplexed by this finding and concluded "it is clear that additional research is needed to further explore what role, if any, impression management motives . . . have in OCB" (2001: 1313).

### Centrality

Network centrality refers to an individual's degree of access to others within the organization. Individuals with more access have more centrality. Previous studies have posited that network centrality should be related to ICB performance for a variety of reasons (i.e., Settoon and Mossholder, 2002). First, central individuals are linked to more co-workers and thus will have more opportunity to help. Second, central individuals have greater control over information, making others dependent on them (Brass and Burkhardt, 1993). Studies have shown the dependent individuals will ask for information from those upon which they are dependent (Burke *et al.*, 1976). Thus, this access to resources and requests from those dependent on them will

increase a central individual's ICB performance. Finally, centrality may be related to ICB performance in that central individuals may define their jobs more broadly. Brass (1984) found the more status an individual has, the more broadly they define their job. Furthermore, research has suggested that individuals that define their job broadly engage in helping behavior presumably because they perceive it to be part of their job (Morrison, 1994).

Two prior studies have empirically supported these theories (Sparrowe *et al.*, 2001; Settoon and Mossholder, 2002) in that a direct positive relationship between centrality and ICB performance was found. However, neither study investigated the relational component involved in the individuals' networks. The study by Settoon and Mossholder (2002) included some relational context and quality variables that could be related to motives such as empathic concern, trust, and perspective-taking; however, they did not examine the interactive effects of motives and centrality, the premise of the current study.

### Citizenship Motives, Network Centrality and ICB

Investigating citizenship motives from a social network perspective makes it possible to show that specific motives to perform ICB may be interrelated with the performer's position within organizational networks. We posit that an impression management motive interacts with one's position within organizational social networks

<sup>1</sup>Rioux and Penner (2001) measured what has been called altruism. Altruism is defined by Organ (1988) as behaviors directed at helping a specific person at work and thus is conceptually the same as ICB despite the selfless nature that the name implies. Because of the confusion inherent in this title, we refer to this variable as ICB as introduced by Settoon and Mossholder (2002).

while the organizational concern motive and the pro-social motive do not.

According to the literature on motives, pro-social and organizational concern motives are value-expressive, that is they are motivated by individual values. These are likely persistent and enduring, regardless of situation (Clary *et al.*, 1998). Therefore, an individual driven by a motive of concern for the organization would likely retain that motive regardless of his/her position in the social network of the organization. Similarly, we expect that an individual with a pro-social motive that causes the individual to like doing things for others would likely be unaffected by network position. The initial findings of Rioux and Penner (2001) support the stability of pro-social motives over one's life. Similarly, their results support the idea that in relation to one organization, organizational concern motives are relatively stable. Individuals concerned about the organization or those who are driven to do things for other people would be likely to perform ICB for reasons other than acquiring power. Instead, they are likely more concerned about engaging in ICB in order to better the organization or the quality of their relationships with others. As such, we would not expect the relationship between pro-social values or organizational concern motives and ICB to change based on centrality.

On the other hand, as mentioned above, central individuals have an increased number of ties in the social network, define their job more broadly and have more ICB-related requests made of them as compared to less central individuals. Thus, central individuals have more opportunities to perform ICB and have been shown to engage in more ICB per-

formance (Sparrowe *et al.*, 2001; Settoon and Mossholder, 2002). However, we posit that the more motivated central individuals are by the impression management motive, the lower their ICB performance. This is due to conflict in perceptions, evaluations and desires in the various individuals in their larger social network. Individuals driven by impression management motives are concerned with how they are perceived and evaluated by others. These people experience conflict when these perceptions and evaluation differ amongst individuals in their social network (Leone and Corte, 1994). We posit that this situation results in reduced ICB performance because assisting one individual in one's network may be in conflict with assisting others in that network. Individuals who are not motivated by the impression management motive are not concerned with this conflict and assist people more often.

In contrast with central individuals, peripheral individuals have fewer opportunities to perform ICB since they have fewer social ties. These individuals are more likely to experience a need to manage impressions to develop relationships. Social capital theory (Siebert *et al.*, 2001) suggests that structural characteristics of relationships, such as network centrality, may provide their members with positive outcomes. Siebert and colleagues (2001) supported a model with three levels of benefits resulting from network ties: (1) social resources of contacts in other functions and contacts at higher levels, (2) network benefits of access to information and resources and career sponsorship, and (3) career success including salary level, promotions, and career satisfaction. Similarly, other researchers

have found centrality allows individuals to acquire the benefits described above (Burt, 1992; also see Mehra *et al.*, 2001). Indeed, research has shown that those with large numbers of non-redundant ties (Burt, 1992) and those with high levels of centrality (Brass, 1984) are promoted earlier than those lacking the proper ties. Thus, despite fewer opportunities to perform ICB, individuals with low centrality will be more motivated to do so when they also experience impression management motives.

Therefore, we expect that central individuals will exhibit more ICB performance than peripheral individuals. Furthermore, it is expected that centrality moderates the relationship between impression management motive and ICB performance. The interaction is expected to result in the following pattern: at low centrality impression management motive is positively related to ICB performance, but at high levels of centrality impression management motive is negatively related to ICB performance.

***Hypothesis 1:** Employees central in the communication network will exhibit more ICB performance than peripheral employees.*

***Hypothesis 2:** Communication network centrality moderates the effect of impression management motive on ICB performance such that at low levels of centrality there will be a positive relationship between impression management and ICB performance, but at high levels of centrality there will be a negative relationship. Communication network centrality will not moderate the effects of prosocial and organizational concern motives on ICB performance.*

## METHODS

### Sample

The setting for this study was a small manufacturing firm in a mid-sized town in the midwestern United

States. The firm manufactures and sells corrugated cardboard and related products. The company employs 175 people, ranging from company president to general laborers. Usable responses were received from 141 subjects, 81 percent of the sample. This is an acceptable response rate and sample size for network research (Marsden, 1990; Scott, 2000). The sample had an average age of 39½ years, was 86% male, and on average worked 45 hours per week. Ninety-two percent of subjects indicated that they were white/non-Hispanic, and four percent indicated American Indian/Alaskan Native. Asian, Hispanic, and Black were represented each by one subject, and three individuals indicated race as "other." Six individuals indicated their education level as "some high school." Forty-three percent had a high school diploma or a G.E.D. Thirty-eight and one-half percent had some college. Six subjects had an associate degree, twelve had a bachelor degree, and one individual had a graduate degree. The measures utilized for this study were part of a larger packet of research measures.

### Measures

***ICB Performance.*** A form of peer rating measured ICB performance similar to that developed by Wagner and Rush (2000). In contrast to their study, which used three peers to rate a fellow employee's frequency of ICB, this study asked all employees to indicate the people from whom they receive ICB. In order to assess those responsible for performing ICB, as well as those receiving ICB, a network measure was developed that tapped the network of ICB flow among employees. Each employee was pre-

sented with a list of 174 fellow employees and asked to indicate the extent of help each employee gives him or her beyond that required by their jobs. The frequency scale ranged from 1 = "helps me almost none" to 5 = "helps me a lot." The method used in this study, providing a roster and asking single questions about each person on the roster, is a common technique for obtaining reliable network measures (Marsden, 1990; Labianca *et al.*, 1998). The result of this measure was a valued adjacency matrix (zero to five); each cell in the matrix indicates the extent to which one person (row) receives ICB from another person (column). It indicates who in the organization receives ICB and from whom they receive ICB (Bowler and Brass, 2006).

The columns in the matrix represent the amount of ICB performance by an individual as rated by all others in the organization. To create a matrix of ICB performance the ICB receipt matrix was transposed. The result was a matrix in which row values represent the amount of helping that an individual performs for each other person. Those who perform ICB frequently demonstrated high row averages (Bowler and Brass, 2006).

**Communication Network Centrality.** Information for the communication network was collected using a list of employees similar to that used for the ICB network. The communication item asked how often a subject communicated with others in the organization. Responses ranged from one (1) less than once per week, to five (5) more than once per day. Values of three represented a moderate level of communication between two individuals or at least once every two days. Values of three and above represented 73% of all communication, in-

dicating that subjects are likely to communicate at a level represented by the value three or not at all. Therefore, we used the value of three as a logical point for dichotomizing the data. In order to calculate centrality, the communication network was first dichotomized by recoding values of three or greater as one and all values of two or one as zero. Network centrality was then the row total for each individual or the total number of people that an individual indicated that he or she communicates with at a level of at least three (Scott, 2000).

**Interpersonal Citizenship Behavior Motive.** The ICB portion of the Citizenship Motive Scale (CMS; Rioux and Penner, 2001) assessed three motives to perform ICB: pro-social values motive, organizational concern motive, and impression management motive. Ten items from the scale were used to measure each of the three motives. A sample item for the pro-social motive scale ( $\alpha = .92$ ) is "I help other employees at (firm name) because I believe in being courteous to others." A sample item from the organizational concern motive scale ( $\alpha = .94$ ) is "I help others at (firm name) because I care what happens to the company." A sample item from the impression management motive scale ( $\alpha = .90$ ) is "I help others at (firm name) to impress my co-workers." The participants responded to each item on a five-point, Likert-type scale from strongly disagree (1) to strongly agree (5).

**Control Variables.** Several control variables were used in this study to eliminate possible confounding effects on ICB performance. Included in the study were age, hours worked per week, race, education level, and gender. All of these variables could affect either the visibility of an indi-

vidual within the organization or the likelihood that one might perform or receive ICB.

### Analytic Approach

Procedures for analyzing moderation laid out by Baron and Kenny (1986) were used. Interaction terms were created by first mean centering the main effect variables and then multiplying each of the main variables by the mean-centered moderator, communication network centrality (Cohen *et al.*, 2003). This procedure reduces the problem of multicollinearity associated with interaction terms. The hypotheses were tested using hierarchical multiple regression (Cohen *et al.*, 2003). The control variable block was entered in Model 1, the main variable block was added in Model 2, and the three interaction variables were added in Model 3. In order to demonstrate moderation, the change in R-square was analyzed in Model 3, which added the interaction variables while controlling for the main effect variables. If a significant change in R-square was found, then the significance of each interaction variable was assessed (Cohen, *et al.*, 2003; Baron and Kenny, 1986).

## RESULTS

Table 1 includes descriptive statistics for each variable or matrix, including scale means and standard deviations. Also included in Table 1 are inter-correlations. Reliability coefficients are provided on the diagonal where appropriate. The correlation between pro-social and organizational concern motives ( $r = .706$ ) merits mentioning. The correlation is stronger than other correlations in

the study. This correlation is consistent with the original development work on the CMS by Rioux and Penner (2001) in which they found a correlation of  $r = .57$ . This correlation is also in line with the idea that pro-social and organizational concern motives are stable and that impression management is situational.

### Regression Results

Table 2 presents the regression results for all control, independent, and interaction variables. Overall, the results support the hypothesized relationships. Unlike the prior study by Rioux and Penner (2001), no main effects occurred between the motive variables and ICB performance. This result was likely due to the strong relationship between communication network centrality and ICB performance ( $\beta = .36, p < .001$ ) absorbing much of the correlation between ICB performance and motives. The block of interaction variables tells a more interesting story.

The results of Model 3 in the regression table support the hypotheses. The interactions between the three motives and communication network centrality behaved as expected. The interaction between organizational concern motive and communication network centrality was not significant ( $\beta = -.09, p = .52$ ), nor was the interaction between pro-social motive and communication network centrality significant ( $\beta = -.11, p = .42$ ). The interaction between impression management motive and communication network centrality was significant ( $\beta = -.254, p < .01$ ). This interaction term suggests that the effects of the impression management motive on ICB performance is moderated by the communi-



**Table 1**  
**Descriptive Statistics, Reliability Estimates, and Correlations**

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Gender	.86	.35										
2. Hours/Week	45.32	5.55	.01	n.a.								
3. Race	n.a.	.83	.16	.01	n.a.							
4. Education	n.a.	1.00	.20*	.09	.03	n.a.						
5. Age	39.46	11.04	-.05	.11	.08	-.01	n.a.					
Impression Management Motive												
6. Pro-social Motive	2.37	1.00	.08	-.08	.06	-.16	-.14	.90				
7. Organizational Concern	3.54	.82	-.21*	.03	.12	.08	.12*	.19*	.92			
8. Motive	3.50	.93	-.12	.08	.08	.10	.27**	.26**	.71**	.94		
9. Centrality	27.08	28.64	-.12	.07	.03	-.10	.16	.23**	.24**	.30**	n.a.	
Interpersonal Citizenship Behavior												
10. Behavior	.73	.36	.06	.08	.17	.13	.40**	-.01	.17*	.19*	.42**	n.a.

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

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

cation network centrality of the ICB performer. The lack of significance of the interaction terms created by combining communication network centrality with the pro-social motive and the organizational concern motives, and the significant relationship between the interaction of communication network centrality and impression management motive, fully support the hypotheses.

The significant interaction between impression management motive and communication network centrality was plotted by multiplying the standardized regression coefficients of the main and interaction terms by one and negative one (1 and -1). This produced values of the outcome variable that were one standard deviation in either the positive or negative direction (Cohen *et al.*, 2003). Figure I displays the resulting graph that shows that at low levels of communication network centrality impression management motive has a positive relationship with ICB performance, but at high levels of communication network centrality the relationship is negative. Following Aiken and West (1991), the simple slopes of the lines were analyzed to assess their significance. The results showed that the slope of the lines representing the relationship between impression management motive and ICB at high centrality ( $\beta = -.18, p < .001$ ) and low centrality ( $\beta = .32, p < .001$ ) were both significantly different from zero. The result of interest is the differing slopes of the low and high values of the interaction variable which demonstrate that at low levels of network centrality there is a positive relationship between impression management motive and ICB performance, while at high levels of network centrality there is a negative relationship be-

tween impression management and ICB performance.

## DISCUSSION

This study expected communication network centrality to moderate the effects of impression management motive, but not organizational concern or pro-social motives, on ICB performance. The results supported the expected interaction relationships. These results: (1) extend ICB research that suggests positive motives for ICB, (2) extend impression management research on ICB that links self-interest motives with ICB performance, (3) contribute to the newly developing measurement of ICB motives, and (4) contribute to the body of knowledge relating social network ties to individual behavior by showing how a network variable can moderate individual attribute effects on behavior. Each of these contributions is discussed below.

Although pro-social and organizational concern motives did not have significant main effects in the regression analysis, they did correlate significantly with ICB performance, similar to the relationships found by Rioux and Penner (2001). The lack of significance of these two main variables in the regression equation was likely due in part to: (1) characteristics of the sample and the rigid task environment and (2) the large portion of variance accounted for by the centrality variable. More importantly the effects of pro-social and organizational concern motives did not emerge at varying levels of centrality. This finding suggests that the impacts of pro-social and organizational concern motives are not related to communication network centrality. If an individual is driven to perform ICB by

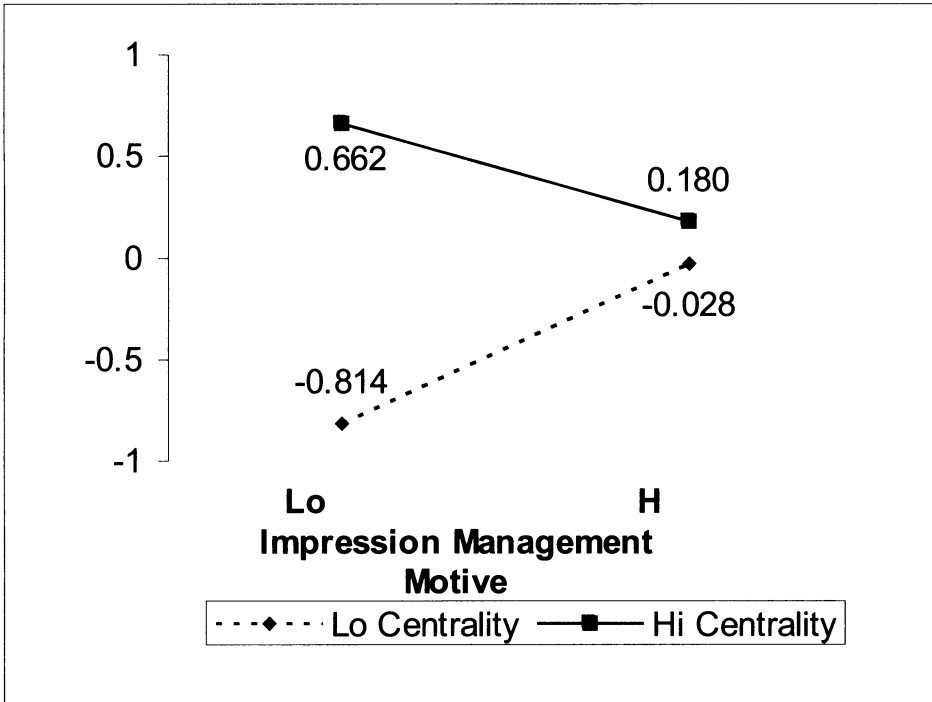
**Table 2**  
**Hierarchical Regression Results**

	Model 1		Model 2		Model 3	
	$\beta$	p	$\beta$	p	$\beta$	p
<i>Control Variables</i>						
Age	.39***	.000	.33***	.000	.36***	.000
Gender	.01	.895	.06	.490	.04	.627
Race	.08	.334	.08	.315	.03	.724
Education	.12	.165	.14	.084	.14	.069
Hours/Week	.03	.732	.01	.939	.02	.834
<i>Independents</i>						
IM Motive			-.02	.791	.07	.401
OC Motive			-.06	.610	-.11	.307
PS Motive			.05	.640	.09	.402
Centrality			.36***	.000	.52***	.000
<i>Interactions</i>						
Centrality X IM Motive					-.25**	.007
Centrality X OC Motive					-.09	.521
Centrality X PS Motive					-.11	.418
Total R <sup>2</sup>		.176***		.295**		.374**
$\Delta R^2$ Block		.176***		.119**		.079**

N = 141.  $\beta$  represents the standardized beta coefficient for each variable in each model.

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

**Figure I**  
**Interaction Effects of Impression Management Motive and**  
**Communication Network Centrality on ICB Performance**



these positive motives he or she is likely to perform ICB regardless of his or her position or power in the organization. This supports prior theory on citizenship motives and further suggests that pro-social and organizational concern motives are value-expressive and representative of enduring dispositions (Clary *et al.*, 1998; Rioux and Penner, 2001).

Like the pro-social and organizational concern motives, the impression management motive demonstrated no main effect relationship with ICB performance. However, a much different relationship occurred between the interaction variable and

ICB performance. Unlike the other two motives, the impression management motive *was* moderated by communication network centrality. Figure I demonstrates how the relationship between impression management motive and ICB performance depends on the ICB performer's level of network centrality. As predicted, the strong main effect of centrality on ICB performance caused the "Hi-Centrality" line to be above the "Lo-Centrality" line. Central individuals — who have an increased number of ties in the social network, define their job more broadly, and have more ICB-related

requests made of them — were more likely to engage in ICB. The increased number of ties related to network centrality leads to increased opportunities for interpersonal behaviors such as ICB. This coincides with Brass's (1984) finding that central individuals tend to outperform those less central in organizational networks. Regarding the interaction effect, the graph shows that at low levels of network centrality there is a strong positive relationship between impression management motive and ICB performance. At high centrality the effect of impression management is negative. Perhaps the principal contribution of this study is that without interaction analyses, impression management motive is unrelated to ICB performance, when in fact impression management motive negatively affects ICB performance in well-connected individuals.

The results of this study extend prior work on citizenship motives and suggest that the three motives are points on a continuum. The continuum is anchored at one end by value-expressive, enduring, pro-social motives. Prior work found pro-social motives to be the most enduring. As Rioux and Penner suggest, organizational concern motives are more situational. Organizational concern motives still draw upon individual values but are somewhat modifiable (Rioux and Penner, 2001). Therefore, organizational concern motives occur near the middle of the continuum but favor the end anchored by value-expressive, enduring dispositions. This is suggested by prior research and the relatively strong correlation ( $r = .71$ ) between pro-social and organizational concern motives. Finally, as our moderation results show, impression management mo-

tives are a function of the situation, and not enduring values or dispositions. Although an individual may have a tendency toward impression management behaviors, it is the situation that draws out such motives. Therefore, IM motives would occur at the situational end of the citizenship motive continuum. More research could support and extend the idea that motives fall on this continuum from value expressive to driven by the situational.

Few researchers have studied the combined effects of individual variables along with social network measures (e.g., Bowler and Brass, 2006; Mehra *et al.*, 2001; Kilduff and Krackhardt, 1994; Breiger and Ennis, 1979; Newcomb, 1961). The authors are aware of only two prior studies that employed interaction variables composed of attributes and network variables (Mehra *et al.*, 2001; Burkhardt, 1994). Those studies hypothesized network variables as moderated by individual attribute variables, and one study (Burkhardt, 1994) found a significant interaction effect. The current study supported a network variable as a moderator of the relationship between an attribute variable and ICB performance where it was expected, and correctly failed to support the network moderator in the relationship between two other individual attribute variables and ICB performance. This extends the integration of social network research with psychological perspectives by showing that the two can be integrated and used in concert to create interaction terms that explain individual behavior. Until recently, the two lines of research have been rather divergent in their approaches, one suggesting that relationships provide behavioral antecedents and the other suggesting in-

dividual attributes as the primary antecedents to individual behavior. Future research should continue to integrate the two to further examine how characteristics of individuals interact with social network variables in triggering both in-role and extra-role behavior. Also, future research should examine possible mediating relationships involving network variables and attributes. Next, we discuss these and other future research directions.

### Future Research Directions

Future research should further examine the CMS to continue to enhance its psychometric properties and applicability to various situations and types of behavior. Currently the measure can be adjusted to assess different facets of OCB. A future direction for the measure is adding the assessment of the target of the OCB. When directing ICB toward others, are individuals directing them at managers, at new employees, or at subordinates? Also, from an impression management perspective the target might not be the actual recipient of the behavior. The target of the behavior might be an audience of one or more individuals. The audience effect is vital to the development of impressions (Bowler and Brass, 2006). Other OCB elements are generally not targeted at a recipient but could be subject to targeting an audience during their performance.

Also with regard to the CMS, more work is needed to empirically distinguish between the pro-social and organizational concern motives. As previously noted a strong correlation was found between these motives; that correlation has been high in other studies using the CMS as well. In the

present study, our hypothesis for the effects of these two variables was similar (no interaction with centrality); however, future research is needed to determine whether these two motives are truly unique or a reflection of a larger motive to perform OCB.

Motives are important, but do not influence behavior in a vacuum, as evidenced by the current interaction findings. Measures should be further developed to assess the desired objective that leads to motive and behavior. Currently the CMS scale (Rioux and Penner, 2001) queries the reasons that a person engages in ICB, not what they are hoping to gain by performing the behavior. However, future scales should examine the desired outcomes of the behavior and the positive impressions that one is hoping to achieve through the behavior in light of their situations (e.g., their position within the organization).

While focusing on ICB, it is recognized that there are several facets to OCB that need to be understood from a network perspective. The connection between structures of networks and ICB is relatively clear; a more intricate question is how networks influence OCB elements that do not involve relationships. Questions should be addressed regarding how structures influence OCB elements of courtesy, conscientiousness, or sportsmanship (Podsakoff *et al.*, 2000). Further, the pattern of OCB spread through social networks needs to be examined to determine how OCB diffusion occurs in organizations. It seems likely that diffusion occurs via relational ties through social contagion. However, the possibility also exists that structural equivalence — when two or more individuals maintain similar patterns of network

connections — facilitates the performance of OCB (Burt, 1992).

### Limitations

This study is not without limitations. First, the data used were cross-sectional and therefore do not provide evidence of causality. Indeed prior research suggesting that relationships lead to behaviors such as OCB also recognized the likelihood that relationships, and thus social capital, lead to interpersonal behaviors such as OCB and ICB (Bolino *et al.*, 2002). Therefore, no causal relationship can be inferred from this study. However, this study is an initial step in developing these relationships and future work should examine the causal linkages between the variables.

There are also sample-specific characteristics that limit the generalizability of the results. The work environment for this study was primarily a factory setting along with some administrative and sales personnel. Generalizing to other populations such as service firms or organizations with less structured work environments should be done with caution. In defense of the current sample, our results are likely conservative based on the work environment. The factory environment, with clearly specified roles and well-defined work, likely limited the amount of help that employees were able to provide one another. A service firm, by contrast, is characterized by less routine work and would likely cause more employees to need help while also allowing employees more flexibility to help one another. Finally, the sample is 86% male and 92% white. Caution is urged in generalizing these results to more diverse populations.

The CMS measure uses self-report data and is therefore susceptible to social desirability bias. While at first appearing to be a weakness, it actually strengthens the results of this study. Socially desirable motives, pro-social and organizational concern did not produce significant interaction results. Conversely, the impression management motive, which social desirability could suppress, resulted in a significant interaction term. Therefore, social desirability bias was not the cause of the significant findings. In fact, the moderator was significant in spite of the possibility that social desirability bias reduced power.

### Managerial Implications

In spite of above limitations it is important for managers to understand the motives of employees engaging in ICB. Those employees who only demonstrate impression management motives are likely to use ICB, and likely OCB, to further their personal agenda along with or in spite of organizational goal fulfillment. These ulterior motives could cause the employee to perform ICB that is only superficial and not beneficial to the recipient or the organization. They are also likely to stop performing ICB when it is no longer useful for them or when the opportunity for exploiting network relationships arises.

The results support the idea that pro-social and organizational concern motives are enduring dispositions. Based on this finding, employees driven by pro-social and organizational concern motives are more likely to expend the additional effort to help fellow employees and managers regardless of their position in organizational networks. Managers should identify in the recruiting pro-

cess those with these dispositions. Likewise, during the employment relationship managers should develop and reward these individuals to encourage OCB in the workplace. These rewards could be simple informal rewards such as recognition. Development could occur through mentoring or socialization processes that suggest the organization values OCB. On the other hand, employees motivated merely by impression management may need assessment and intervention. Additionally, managers should monitor and cultivate an environment that will encourage authentic citizenship behaviors. Conversely, political environments will bring out impression management-driven ICB that is not necessarily authentic or helpful in the long term. By implementing these findings managers can improve both individual and organizational performance.

### Summary

To summarize, this study set out to show that there is a moderating effect of network position on the relationship between self-interest motive to perform ICB, but that network position does *not* moderate the relationship between selfless motives and ICB performance. Support was found for a relationship, moderated by centrality, between impression management motives and ICB. This relationship reveals that those lacking the power of centrality use impression management-based ICB to develop centrality. Conversely, organizational concern and pro-social motives were not dependent upon network centrality. This suggests that all three motives influence ICB performance, but that in the future researchers should consider more than just motive when examining these relationships.

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