The Moderating Effect of Impression Management on the Organizational Citizenship Behavior - Voluntary Turnover Relationship

K. Michele Kacmar, University of Alabama
Daniel G. Bachrach, University of Alabama
Kenneth J. Harris, Indiana University Southeast
Jason D. Shaw, University of Minnesota
David Noble, Texas Tech University

Executive Summary

In a lagged field study involving 135 state employees and their immediate supervisors, we examined the relationship between employee organizational citizenship behavior (OCB) and voluntary turnover and the moderating role of employees' tendencies toward the use of impression management by association on this relationship. We found citizenship behavior was negatively related to voluntary turnover at one year and that this relationship was stronger for those who engaged in impression management by association. Implications of these results for theory and practice are explored.

Voluntary turnover reflects an employee’s decision to separate from organizational activities (Lee & Mitchell, 1994). Perhaps fueled by the obvious practical significance of the topic to organizations, voluntary employee turnover has received a great deal of theoretical and empirical attention over the last several decades (Lee & Mitchell, 1994; Maertz & Campion, 2004; Maertz & Griffeth, 2004). Much of this research has focused on affective variables such as employee job satisfaction and organizational commitment (Price & Mueller, 1986) and cognitive processes such as behavioral cost-benefit analysis (Rusbult & Farrell, 1983) as a means of understanding when and why employees voluntarily turn over. Recently, researchers have begun to explore discretionary behaviors, such as organizational citizenship behavior (OCB), associated with this phenomenon (Chen, Hui, & Sego, 1998; Chen, Lam, Naumann, & Schaubroeck, 2005; Mossholder, Settoon, & Henagan, 2005; Paré & Tremblay, 2007; Podsakoff, Whiting, Podsakoff, & Blume, 2009; Sun, Aryee, & Law, 2007).

Organ (1988) defined OCB 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” (p. 4). Traditionally, OCB scholars (Organ, 1988; Organ, Podsakoff, & MacKenzie, 2006; Podsakoff, MacKenzie, Paine, & Bachrach, 2000) have relied on social exchange theory (SET) (Blau, 1964) to explain why individuals engage in OCB. In essence, SET suggests that a debt is created when employees receive positive treatment from the organization (Gouldner, 1960). One form of payback employees can offer is to engage in OCBs (Organ et al., 2006). However, because conceptually OCBs are discretionary (Bolino,
Turnley, Gilstrap, & Suazo, 2010), when employees become disillusioned with the organization they may elect to eliminate or at least reduce their level of OCBs, suggesting that OCBs are negatively related to voluntary turnover (Chen et al., 1998; Mossholder et al., 2005; Podsakoff et al., 2009).

The discretionary nature of OCBs allows individuals the flexibility of turning these behaviors on and off without fear of formal sanction. However, in order to know what the appropriate flow of OCBs should be, individuals must be cognizant of their use of these behaviors (Dudley & Cortina, 2008). We submit that individuals who recognize the importance of their behavior and use it to achieve an end goal describes employees who use impression management tactics (Bolino, 1999). Of particular interest in the current study is the use of impression management by association, or IMAS. IMAS refers to employees’ attempts to influence the images others have of them by broadcasting their connections to important or successful others and downplaying their connections to less important or less successful others (Cialdini, 1989).

We focus on associative impression management in this study because of conceptual similarities between the mechanisms contributing to the organizational benefits of IMAS, and those emerging through the development of social exchange relationships. As social exchange theory suggests, employees who are treated fairly by their organization are likely to enjoy their association with the organization and its representatives, and thus will tend to wish to stay, and continue to prosper. Among the ways that employees may accrue benefits through this continued association is through IMAS, which is the strategic use of behaviors intended to strengthen/weaken ties to desirable/undesirable others to create a desirable image. The purpose of the image is to earn credits in the eyes of others, as are social exchange contributions, which ultimately lead to desirable outcomes for employees who spend time and effort generating the image (Higgins, Judge, & Ferris, 2003). Thus, like employees who provide social exchange contributions to informally tie themselves to organizational representatives with the goal of generating valued outcomes, employees who use IMAS techniques do so in the attempt to tie themselves to successful others to generate future returns.

The purpose of the current paper is to explore a potential boundary condition for the expected negative relationship between OCB and voluntary turnover: IMAS. We argue below that the discretionary nature of OCBs is better recognized and employed by those who are practiced in the use of behavior to achieve image goals. The practice of using behaviors to create an image suggests that the negative relationship observed in previous research will be most prevalent among those who engage in impression management, and much weaker for those who do not. We test our predictions in a lagged field study with data collected from 135 state government employees and their supervisors. We use a conservative approach to test the study model, with turnover data collected from archived corporate records, OCB data collected from supervisors, and data on impression management tendencies collected from employees. Our study makes several contributions to the literature. First, although a great deal of research has focused on the antecedents of citizenship behaviors, relatively little has been written regarding its outcomes (Podsakoff et al., 2000; Podsakoff, Whiting, Podsakoff, & Blume, 2009). Thus, we seek to add to the limited research positioning OCB as a predictor of key organizational outcomes, by focusing on the utility of OCB as an antecedent of voluntary
turnover. Such an approach has both theoretical and practical relevance. Theoretically, it allows for a conceptual expansion of the way in which OCBs have been viewed. Rather than being seen as the end of the social exchange process, we argued that OCBs also may be viewed as a predictor of variables relevant to organizational performance (Kacmar, Andrews, Van Rooy, Steilberg, & Cerrone, 2006). Practically, managers are cognizant of OCBs as they are observable behaviors. As such managers may be able to use the evidence of these behaviors as a signal of impending turnover. As a second contribution, we expand the limited research that has explored the link between OCB and turnover by introducing the boundary condition of impression management. This represents a contribution because the introduction of impression management as a potential moderator highlights the need to focus on not just behavior, but how the behavior is used by employees (Barrick, Shaffer, & DeGrassi, 2009; Bolino, 1999). Finally, in the citizenship area, there is an ongoing debate regarding whether ‘citizenship behavior’ simply may be a form of impression management (Bolino, 1999; Bolino, Varela, Bande, & Turnley, 2006). In the current study we explore both citizenship behaviors and impression management which allows us to demonstrate empirically that they are unique constructs.

Model Development and Hypotheses

A social exchange perspective

Social exchange theory serves as the principle theoretical underpinning of OCB (Farh, Podsakoff, & Organ, 1990; Organ & Konovsky, 1989; Williams & Anderson, 1991). SET (Blau, 1964; Cropanzano & Mitchell, 2005; Homans, 1958) suggests the social exchange between two parties entails obligations, and that when one person does something for another there is an expectation of valued future return (Gouldner, 1960). Applied to organizational settings, supervisors (Liden, Sparrowe, & Wayne, 1997; Wayne, Shore, & Liden, 1997), coworkers (Deckop, Cirka, & Anderson, 2003; Flynn, 2003), and even the organization can offer benefits to employees that create feelings of indebtedness.

Social exchanges are supported by what Blau (1964) and others refer to as “macromotives,” such as loyalty and commitment. As long as employees’ macromotives are positive, they are likely to consider engaging in OCBs to repay the debt they feel to the organization. However, when macromotives become negative, individuals’ desire to pay back the organization decreases, effectively shutting off the flow of discretionary contributions such as OCBs (Chen et al., 1998; Mossholder et al., 2005; Podsakoff et al., 2009). Consistent with the implications of social exchange theory and empirical evidence in the area, we suggest the following:

*Hypothesis 1: OCB is negatively related to voluntary turnover.*

Impression management as a boundary condition

In addition to the conventional social exchange arguments of repaying the organization and its representatives, researchers have argued that workers also may engage in OCBs for instrumental reasons (Bolino, 1999; Bowler & Brass, 2006; Grant & Mayer, 2009; Hui, Lam, &
Law, 2000; Mossholder et al., 2005; Yun, Takeuchi, & Lui, 2007). This notion was tested and supported by Hui et al. (2000) who reported that individuals viewing OCB as instrumental to earning a promotion, increased these behaviors prior to the promotion decision. However, once they earned the promotion, these same employees decreased their display of citizenship. Hui and his colleagues also found no difference in OCB enacted before or after the promotions were announced by workers not viewing OCB as instrumental to securing a promotion.

In the current research, we build on this line of reasoning and available evidence. We argue below that employees’ recognition of the efficacy of turning on and off OCBs directly supports the negative relationship between OCB and voluntary turnover articulated by past researchers. However, we suspect that this relationship is less likely to hold for workers who do not actively engage in impression management.

There are a variety of impression management tactics individuals can use to create a desired image. Of interest in the current study is IMAS, or indirect self-presentation, which occurs when workers take steps to demonstrate connections between themselves and successful others within the organization, and distance themselves from unsuccessful or disgraced others in the eyes of observers (Cialdini & De Nicholas, 1989; Cialdini & Richardson, 1980). Theoretical support underlying IMAS can be found in Heider’s (1958) balance theory. Heider argued that in order to maintain cognitive balance, people tend to perceive things that are associated with one another as alike. The association or connection between the two elements of comparison does not have to be strong to create the perception that the elements are alike. Indeed, the association may be non-causal and very basic. Heider referred to this type of connection as a unit-connection. When observers recognize a unit-connection between two parties, the attributes of one become the attributes of the other. Research suggests that something as simple as learning that two people share a birthday can create a connection between the two in the minds of observers (Cialdini & De Nicholas, 1989; Finch & Cialdini, 1989).

Cialdini (1989) identified four specific IMAS tactics: boasting, burying, blaring, and blurring. To use boasting, individuals publically trumpet their positive connection with a favorable other. For instance, an individual may boast about attending an Ivy League school or having gone to high school with someone famous. In organizations, individuals can use boasting to connect themselves with high performers with the hope of appearing competent in the eyes of others. People use burying to lessen or bury their connections with unfavorable others. Failing to mention the ‘black sheep in the family’ is an example of burying. At work, employees can take action to distance themselves from poor performing coworkers. For example, avoiding going to lunch with a previously close colleague accused of malfeasance is an example of burying. Blaring is another approach that can be used to separate oneself from an unfavorable other. Rather than hiding the connection through burying, those who use blaring publically minimize a connection to an unfavorable other. A coworker announcing at a meeting that he or she is in no way associated with a team member who recently failed to deliver on a project is engaging in blaring. Finally, blurring occurs by not letting others know that the link with a positive other is tenuous. At work this can occur through strategic omissions such as accepting compliments about work that was actually performed by someone else.
As described above, employees who engage in impression management by association seek to achieve a positive organizational image through their strategic use of associative behaviors. Individuals who engage in OCBs do so to repay the organization for fair treatment, with an expectation of future organizational advantages. However, the benefits individuals can reasonably expect as a consequence of their use of either IMAS or OCB are likely only to emerge if they remain in the organization.

The use of impression management techniques is strategic, by definition. The use of these techniques carries with it an expectation by the user that, at some point following the use of the technique, a personal-image goal will be achieved, which will lead to valuable future returns. When those using IMAS techniques perceive that they have succeeded in achieving their image goals, they maintain their current level of behavior. In contrast, if they perceive that their image goals are not being met, they alter their use of these techniques in an attempt to refine the perceptions of others in order to realign them with their image goals. This process balances around an equilibrium point, in a way that is similar to how a thermostat maintains the temperature in a home. In order to keep a home’s temperature constant, the thermostat turns up or down to maintain a specified temperature. Users of IMAS also attempt to maintain a state of image-goal equilibrium by increasing or decreasing their use of these behaviors. Those who recognize their use of behavior as strategic also may recognize, consistent with the tenants of social exchange theory, that OCBs, like IMAS, accrue benefits over time. In order to derive benefits from their strategic use of behavior, employees must remain with the organization where they have made social exchange and image-related investments. Because these investments only pay-off over time, employees must remain to reap the benefits. Thus, those staying voluntarily may demonstrate OCB, and even more so, if they are practiced in the strategic use of their behavior.

Social exchange theory suggests that to reap the benefits of their actions, employees who engage in OCBs are more likely to remain in the organization than those who do not. However, the recognition that behavior may be used to achieve enhanced organizational benefits is likely to distribute more densely among employees who have had practice and experience using their behavior in this way. Thus, we suspect the negative relationship between OCBs and voluntary turnover is significantly stronger among employees who engage in IMAS. Formally stated, Hypothesis 2: Tendencies toward impression management by association moderate the relationship between OCB and voluntary turnover, such that: among high impression managers, the relationship between OCB and turnover is strong and negative, while among low impression managers, this relationship is significantly weaker.

Method

Data Collection and Participants

Using a lagged research design, we collected data from the employees of a semi-autonomous branch of the state government dealing with state environmental issues. Employees included scientists and doctors (both MDs and PhDs), BS holders in fisheries, animal sciences,
and soil and water conservation, as well as support staff, some of whom held college degrees. Jobs included measuring and monitoring air, soil, and wildlife, creating emergency plans for environmental disasters, and undertaking public awareness campaigns.

Data collection for subordinates was conducted electronically. Following an invitation from the agency director, subordinates (N = 212) received personalized emails containing a link to the questionnaire they were asked to complete within 3 weeks. These questionnaires included the name of their immediate supervisor for matching purposes, and asked the subordinates about their use of IM by association, demographics, job satisfaction, and turnover intentions. Supervisors (N = 54) were asked to complete a questionnaire that included an OCB measure for each of their direct reports. A year later the agency director supplied us with the current employment status of the subordinates who completed the original questionnaire. Eliminating questionnaires with missing data or those that could not be matched produced a sample of 135 employees (64%) rated by 42 (78%) supervisors. Forty-six percent of the subordinates were women, the average age was 44.76 years (sd = 11.05), and the average job tenure was 6.75 years (sd = 4.27). Supervisors were 27% female, their average age was 47.06 years (sd =6.70), and their average organizational tenure was 11.81 years (sd = 4.57).

Measures

Impression management by association. We used Andrews and Kacmar’s (2001) twelve-item scale to measure the extent to which subordinates engaged in IMAS tactics. The scale was designed to capture four dimensions of impression management by association proffered by Cialdini (1989): blaring, blurring, boasting, and burying. Blaring refers to actions taken to publically minimize associations with a negative person (e.g., “I make sure my supervisor knows I am not like poor performers in the office”). Blurring occurs when individuals make a point of not distinguishing themselves from successful others (e.g., “When others ask me about my relationship with a successful person in the organization, I don’t let on that we barely know each other”). Boasting occurs when an individual boasts about his or her positive connections to favorable others (e.g., “I let others know about my friendships with superiors in my organization”). Finally, burying is downplaying a connection with an unfavorable other (e.g., “When a peer develops a negative reputation, I try to disassociate from him or her”). Each dimension is measured with 3 items. Subordinates used a 5-point scale from 1 (never behave this way) to 5 (often behave this way), to indicate the frequency with which they demonstrated behaviors described by the scale items. The Cronbach alphas for the four dimensions are .82 for blaring, .76 for blurring, .80 for boasting, and .78 for burying.

Organizational citizenship behavior. Consistent with emerging meta-analytic evidence indicating that organizational citizenship behavior is most effectively captured using general measures of this behavior (Hoffman, Blair, Meriac, & Woehr, 2007; LePine, Erez, & Johnson, 2002), we measured OCB in this study using Liden, Wayne, Jaworski, and Bennett’s (2004) 3-item general OCB scale. The use of a general, overall measure of citizenship for predicting voluntary turnover also is consistent with previous research in the area that has used general rather than dimension-specific measures (Chen et al., 1998). Supervisors used a 5-point scale, ranging from 1 (not at all characteristic) to 5 (very characteristic) to indicate the extent to which
subordinates demonstrated behaviors described in the scale items (e.g., this individual volunteers to do things not formally required by the job). Items were averaged to form a single score for OCB ($\alpha = .86$).

**Turnover.** One year after the initial data collection, the Agency Director supplied us with turnover data for the previous year. Following Griffeth, Hom, and Gaertner’s (2000) recommendation to select a turnover timeframe appropriate for the context, we elected to collect turnover data after 1 year because our data were collected from an organization in which turnover rates are historically low, approximately 10% per year. Our contact at the agency advised us that capturing a full year of turnover would produce a stable and informative turnover measure. The organization used the following turnover labels: fired (N = 1), retired (N = 4), medical (N = 3), education (N = 1), and move to corporate world (N = 14). Only those individuals categorized by the organization into the final two categories (a total of 15) were included in our measure of voluntary turnover (Maertz & Campion, 1998). Those who left the agency voluntarily were coded as 1 while those who remained received 0’s. There were no major reorganizations, downsizing efforts, or reductions in force in the year following our data collection. The governor did not change during the year and there were no gubernatorial elections. The state has a standing early retirement offer, but it was in place prior to our data collection efforts.

**Control variables.** On the basis of a review of the literature, we identified seven variables expected to covary with our independent and dependent variables that we concluded should be controlled in our data analyses. These variables, subordinate gender (0 = male, 1 = female), age (coded as a continuous variable), race (0 = other, 1 = white), turnover intentions, job satisfaction, job tenure, and hours worked per week, were all supplied by the subordinates. We controlled age, gender, race, and job tenure because these variables may affect the breadth of employees’ role perceptions and strengthen feelings of obligation to demonstrate OCB within the context of a social exchange (Chattopadhyay, 1999; Kidder, 2002; Morrison, 1994; Taylor, Audia, & Gupta, 1996). We controlled hours per week worked as work hours may impact both job satisfaction and voluntary turnover (Pierce & Newstrom, 1980), and employees’ decisions about how much time to devote to the demonstration of citizenship behavior (Bergeron, 2007). Turnover theory suggests and research consistently shows that intent to turnover is a strong attitudinal predictor of voluntary turnover (Hom & Griffeth, 1995). Therefore, we include this variable in our analyses to eliminate a plausible alternative explanation for our results. Turnover intentions were measured using Seashore, Lawler, Mirvis, and Cammann’s (1982) 3-item scale. An example item is “It is likely that I will actively look for a new job in the next year.” Items were averaged to form a single score for turnover intentions ($\alpha = .90$). Finally, job satisfaction is an attitudinal variable directly related to the strength of employees’ social exchanges within their organization, and may influence the demonstration of citizenship behavior (Organ et al., 2006; Organ & Ryan, 1995). Further, job satisfaction, as turnover theory predicts, has repeatedly been shown to predict voluntary turnover (Hom & Griffeth, 1995). Job satisfaction was measured using Cammann, Fichman, Jenkins, and Klesh’s (1979) 3-item scale (e.g., “In general, I like working at my job”). Item scores were averaged to form a single satisfaction score ($\alpha = .92$). A 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used to measure participants’ agreement with both the intent to turnover and job satisfaction items.
Analytical Procedures

The data analysis was conducted in two major phases. First, we investigated the factor structure, reliability, and discriminant validity of all constructs. Second, we conducted HLM analyses for dichotomous outcomes to test the study’s two hypotheses.

Results

Confirmatory Factor Analysis and Assessment of Discriminant Validity

The first step in our analyses was to evaluate the factor structure and discriminant validity of the scales (i.e., IMAS dimensions, turnover intentions, job satisfaction, and OCB) using confirmatory factor analysis (CFA). We used CFA because all of the measures were established in the literature. To estimate our 7-factor measurement model, we used LISREL 8.80 with a covariance matrix as input and a maximum likelihood estimation. The model allowed each item to load on its expected factor, and the factors were allowed to correlate. Results indicate that the overall model-to-data fit was good ($\chi^2(df) = 257 (168)$, $p < .01; \text{CFI} = .95; \text{NNFI} = .93; \text{and RMSEA} = .065$). In addition, all of the factor loadings were statistically significant ($p < .01$).

We also estimated several alternative models for comparison purposes. The results for these models are shown in Table 1 and described below. The first alternative model was a 6-factor model in which the job satisfaction and intent to turnover scales were collapsed. This model did not fit the data as well as the 7-factor model, and the chi-square difference test between these two models was significant, suggesting that satisfaction and turnover intent are distinct in this study. Next, we collapsed the 4 IMAS dimensions into one creating a 4-factor model. Once again, this model did not fit as well as the original measurement model and the chi-square difference test between it and the 7-factor model was significant, suggesting that the four dimensions of IMAS captured in this study are both conceptually and empirically distinct from one another. We also created a 2-factor model by collapsing the IMAS dimensions into one factor and the remaining scales (job satisfaction, intent to turnover, and OCB) into a second factor. The fit statistics posted for this model were weaker than those for the 7-factor model and the chi-square difference test between this model and the baseline measurement model was significant, suggesting that OCB is distinct from turnover intentions and job satisfaction. Finally, we compared a 1-factor model to the 7-factor model. Results indicated, once again, that the 7-factor model was superior.
Table 1

Confirmatory Factor Analysis and Alternative Models Results

<table>
<thead>
<tr>
<th>Model</th>
<th>( \chi^2 )</th>
<th>df</th>
<th>( \chi^2 ) diff</th>
<th>df diff</th>
<th>CFI</th>
<th>NNFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-factor baseline model</td>
<td>257</td>
<td>168</td>
<td></td>
<td></td>
<td>.95</td>
<td>.93</td>
<td>.065</td>
</tr>
<tr>
<td>6-factor (Blur, Blare, Boast, Bury, Satisfaction/ Intent, OCB)</td>
<td>435</td>
<td>174</td>
<td>178***</td>
<td>6</td>
<td>.82</td>
<td>.78</td>
<td>.108</td>
</tr>
<tr>
<td>4-factor (IMAS, Satisfaction, Intent, OCB)</td>
<td>612</td>
<td>183</td>
<td>355***</td>
<td>19</td>
<td>.79</td>
<td>.76</td>
<td>.135</td>
</tr>
<tr>
<td>2-factor (IMAS, Satisfaction/Intent/OCB)</td>
<td>950</td>
<td>188</td>
<td>693***</td>
<td>20</td>
<td>.57</td>
<td>.52</td>
<td>.178</td>
</tr>
<tr>
<td>1-factor</td>
<td>1613</td>
<td>189</td>
<td>1356***</td>
<td>21</td>
<td>.39</td>
<td>.32</td>
<td>.243</td>
</tr>
</tbody>
</table>

\( N = 135. \) *** \( p < .001. \)

Note: IMAS=Impression management by association (4 dimensions combined), OCB = Organizational citizenship behavior, Intent = Turnover intentions, Satisfaction = Job satisfaction.

Table 2 reports the means, standard deviations, square root of the average shared variance explained, and construct correlations for all study variables. The square root of the average amount of variance of each latent factor accounted for in its indicators (Fornell & Larcker, 1981) is shown on the diagonal in Table 2. To demonstrate discriminant validity, this value must exceed the corresponding latent variable correlations in the same row and column. If this condition is met, then we have evidence that the variance shared between any two constructs is less than the average variance explained by the items that compose the scale. As shown in Table 2, this condition is met for all of the scales used in our study. Consistent with the third study goal we identified for this research, the support we find for the seven-factor model, coupled with evidence of the discriminant validity of the study constructs indicates that citizenship behaviors and impression management are conceptually as well as empirically distinct from one another in this study. In sum, we submit that our results provide evidence of the sound psychometric properties and discriminant validity of the scales used in this study.

Table 2

Correlations and Descriptive Statistics for all Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>.46</td>
<td>.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Age</td>
<td>44.76</td>
<td>11.05</td>
<td>.18*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Race</td>
<td>.81</td>
<td>.20</td>
<td>.29**</td>
<td>.24*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Turnover Intentions</td>
<td>2.25</td>
<td>1.19</td>
<td>.05</td>
<td>-.27**</td>
<td>.17*</td>
<td>(.88)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Job Satisfaction</td>
<td>4.07</td>
<td>.80</td>
<td>-.07</td>
<td>.08</td>
<td>-.04</td>
<td>-.54**</td>
<td>(.90)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Job Tenure</td>
<td>6.75</td>
<td>4.27</td>
<td>.19*</td>
<td>.30**</td>
<td>-.01</td>
<td>-.26**</td>
<td>.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Hours Worked / Week</td>
<td>39.29</td>
<td>7.35</td>
<td>.34**</td>
<td>.17*</td>
<td>.14</td>
<td>.00</td>
<td>.01</td>
<td>.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. OCB</td>
<td>4.21</td>
<td>.63</td>
<td>.16</td>
<td>.19*</td>
<td>.20*</td>
<td>-.03</td>
<td>.09</td>
<td>.07</td>
<td>.17</td>
<td>(.82)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Blaring</td>
<td>2.67</td>
<td>.93</td>
<td>-.12</td>
<td>-.14</td>
<td>-.09</td>
<td>-.03</td>
<td>.05</td>
<td>-.01</td>
<td>-.17</td>
<td>-.19*</td>
<td>(.78)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Boasting</td>
<td>1.98</td>
<td>.81</td>
<td>.08</td>
<td>.14</td>
<td>-.06</td>
<td>.07</td>
<td>.11</td>
<td>-.12</td>
<td>-.03</td>
<td>.36**</td>
<td>(.78)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Blurring</td>
<td>1.58</td>
<td>.67</td>
<td>.07</td>
<td>.07</td>
<td>.03</td>
<td>-.02</td>
<td>-.01</td>
<td>.05</td>
<td>-.02</td>
<td>-.15</td>
<td>.30**</td>
<td>.44**</td>
<td>(.78)</td>
<td></td>
</tr>
<tr>
<td>12 Burying</td>
<td>2.17</td>
<td>.77</td>
<td>-.08</td>
<td>-.20*</td>
<td>-.11</td>
<td>.09</td>
<td>.04</td>
<td>-.05</td>
<td>-.26**</td>
<td>-.14</td>
<td>.51**</td>
<td>.49**</td>
<td>.31**</td>
<td>(.76)</td>
</tr>
<tr>
<td>13. Actual Turnover</td>
<td>.10</td>
<td>.29</td>
<td>-.02</td>
<td>-.11</td>
<td>-.01</td>
<td>.31**</td>
<td>-.32**</td>
<td>-.14</td>
<td>-.06</td>
<td>-.25**</td>
<td>-.02</td>
<td>-.10</td>
<td>-.01</td>
<td>-.02</td>
</tr>
</tbody>
</table>

Notes: N = 135. *p<.05, **p<.01. The entry on the diagonal is the variance explained by the items (Fornell & Larcker, 1981). When this value is higher than any zero-order correlations in the row or column in which it appears, discriminant validity is established. OCB = Organizational Citizenship Behavior.

**Hypothesis Testing**

Because subordinate participants were nested within supervisors—the analysis sample included 135 subordinates nested within 42 supervisors—we used HLM to account for the non-independence of the OCB ratings and the potential for differential quit rates across supervisors. A null model test (no predictors) with OCB as the outcome variable revealed that about 41 percent (p<.01) of the
variance in OCB ratings resides across supervisors while 59 percent resides within supervisors, confirming our decision to account for clustering.

Because the turnover variable was dichotomous we used HLM’s 2-Level Bernoulli analysis (Raudenbush et al., 2004), the HLM corollary of binary logistic regression, to test the hypotheses. A test of a null model with no predictors revealed that turnover probability did not differ significantly across supervisors \((p > .50)\), but because of the strong between-supervisor effects for OCB, we accounted for the clustered data with HLM as a conservative test. The estimated Bernoulli equation at Level 1 using the interaction of OCB and Blaring as an example was:

\[
\eta_{ij} \text{(Actual Turnover)} = \beta_0j + \beta_{1j}(\text{Gender}) + \beta_{2j}(\text{Age}) + \beta_{3j}(\text{Race}) + \beta_{4j}(\text{Turnover Intentions}) + \beta_{5j}(\text{Job Satisfaction}) + \beta_{6j}(\text{Job Tenure}) + \beta_{7j}(\text{Hours Worked Per Week}) + \beta_{8j}(\text{OCB}) + \beta_{9j}(\text{Blaring}) + \beta_{10j}(\text{Blurring}) + \beta_{11j}(\text{Boasting}) + \beta_{12j}(\text{Burying}) + \beta_{13j}(\text{OCB} \times \text{Blaring})
\]

\((Equation \ 1)\) where \(\eta\) is the observed value of outcome (Actual Turnover) for observation \(i\) nested within supervisor \(j\), \(\beta_{0j}\) is the population-average intercept or the expected log-odds of turnover for a subordinate with values of zero on all other predictors, \(\beta_{1j-13j}\) are the conditional expected log-odds estimates on actual turnover of the 13 individual-level covariates within supervisor \(j\).

The Bernoulli model within HLM offers “unit-specific” and “population-average” options. Although results are typically similar across the two approaches, unit-specific results are more appropriate when the research question centers on differences in typical outcome rates—here, turnover probabilities—for the nesting variable (supervisors). Because the likelihood of actual turnover did not differ significantly across supervisors and our research questions do not center on supervisor-level predictors, we follow Raudenbush et al.’s (2004) suggestion and report results from the population average model. This model generates conditional log-odds of actual turnover (\(\beta\’s\)) and the corresponding odds ratio estimates associated with a unit increase in the predictors, holding constant the other predictors and averaging over the distribution of supervisor-level effects.

Results pertaining to the study hypotheses can be seen in Table 3. We entered control variables in Model 1, added OCB and the four main effects of impression management by association in Model 2, and added the four interactions in Model 3-6. We chose to enter only a single interaction per model to preserve Level 1 degrees of freedom and to reduce multicollinearity in the equations.
### Table 3

*Hierarchical Linear Modeling Results – Bernoulli Model Log-Odds (β) Estimations*

<table>
<thead>
<tr>
<th>Actual Turnover</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>Exp β</td>
<td>β</td>
<td>Exp β</td>
<td>β</td>
<td>Exp β</td>
</tr>
<tr>
<td>Gender</td>
<td>0.00</td>
<td>1.00</td>
<td>0.30</td>
<td>1.35</td>
<td>0.04</td>
<td>1.04</td>
</tr>
<tr>
<td>Age</td>
<td>0.00</td>
<td>1.00</td>
<td>0.01</td>
<td>1.01</td>
<td>0.03</td>
<td>1.03</td>
</tr>
<tr>
<td>Race</td>
<td>-0.95</td>
<td>0.38</td>
<td>-1.39</td>
<td>0.24</td>
<td>-2.17</td>
<td>0.11</td>
</tr>
<tr>
<td>Turnover intentions</td>
<td>0.62 ** 1.85</td>
<td>0.89 ** 2.44</td>
<td>0.94 ** 2.57</td>
<td>0.80 ** 2.22</td>
<td>0.88 ** 2.43</td>
<td>0.84 ** 2.31</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>-0.97 ** 0.38 ** 0.90 ** 0.40 -1.54 ** 0.21 -1.21 ** 0.29 -0.85 0.43 -1.43 0.24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job tenure</td>
<td>-0.03</td>
<td>0.97</td>
<td>-0.01</td>
<td>0.99</td>
<td>-0.02</td>
<td>0.98</td>
</tr>
<tr>
<td>Hours worked / week</td>
<td>-0.01</td>
<td>0.99</td>
<td>-0.05</td>
<td>0.95</td>
<td>0.04</td>
<td>1.04</td>
</tr>
<tr>
<td>OCB</td>
<td>-1.52 ** 0.21 -1.20 ** 0.30 -1.44 ** 0.24 -1.77 ** 0.17 -0.64 0.53</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blaring</td>
<td>-0.37</td>
<td>0.69</td>
<td>-1.17</td>
<td>0.31</td>
<td>-0.49</td>
<td>0.61</td>
</tr>
<tr>
<td>Boasting</td>
<td>-0.11</td>
<td>0.89</td>
<td>-0.04</td>
<td>0.96</td>
<td>-0.56</td>
<td>0.57</td>
</tr>
<tr>
<td>Blurring</td>
<td>0.47</td>
<td>1.60</td>
<td>0.69</td>
<td>2.01</td>
<td>0.21</td>
<td>1.24</td>
</tr>
<tr>
<td>Burying</td>
<td>-0.58</td>
<td>0.56</td>
<td>-0.42</td>
<td>0.65</td>
<td>-0.91</td>
<td>0.40</td>
</tr>
</tbody>
</table>

*Interactions of OCB with . . .*

| Blaring         | -1.67 ** 0.19 |
| Boasting        | -2.43 ** 0.09 |
| Blurring        | -2.25 ** 0.11 |
| Burying         | -1.81 ** 0.16 |

*Notes:* N=135. * p<.05, ** p<.01. OCB = Organizational Citizenship Behavior.

Hypothesis 1 proposed that employees who exhibit low levels of OCB are more likely to voluntarily turn over than those who exhibit high levels of OCB. After accounting for the influence of our controls, OCB is entered in Model 2 of the multivariate HLM analyses. As Table 3 shows, the log-odds estimate for OCB is significant and negative, as predicted (β = -1.52, p<.01). The exponentiated log odds or the odds ratio is also reported for each coefficient in Table 3; this ratio provides an indication of relationship strength. For the
main effect of OCB, the $\exp(\beta)$ was .21—holding the other variables in the equation constant a one-unit increase in OCB reduces the odds of voluntary turnover by .21. Thus, Hypothesis 1 was supported.

In Hypothesis 2, we predicted that tendencies toward impression management by association would moderate the relationship between OCB and voluntary turnover, such that among high impression managers, the negative relationship between OCB and turnover would be strengthened. Results pertaining to the two-way interactions predicted in Hypothesis 2 are found in Models 3-6 in Table 3. As can be seen there, all of the interaction terms of the IMAS dimensions with OCB were significant—blaring (Model 3 $\beta = -1.67, p<.05$, $\exp(\beta) = .19$), boasting (Model 4 $\beta = -2.43, p<.01$, $\exp(\beta) = .09$), blurring (Model 5 $\beta = -2.25, p<.05$, $\exp(\beta) = .11$), burying (Model 6 $\beta = -1.81, p<.01$, $\exp(\beta) = .16$).

To explore the nature of the interactions, we first calculated simple slopes for OCB across low (-1 SD) and high (+1 SD) levels of the IMAS dimensions. In each interaction case, these results showed that the simple slopes between OCB and actual turnover were significant when IMAS dimensions were high ($p$’s<.01, in each case), but were not significant when IMAS dimensions were low ($p$’s=.67 and -.96). Next, we followed Raudenbush et al. (2004) and calculated the estimated turnover probabilities for three levels of OCB (-1 SD, mean, and +1 SD) across low (-1 SD) and high (+1 SD) levels of the IMAS moderators (see Table 4). As shown in Table 4, when IMAS dimensions were low, turnover probabilities remain at relatively stable levels across OCB levels, but estimated probability changes were more pronounced when the IMAS dimensions were high. Using boasting as an example, turnover probabilities when boasting was low were .01 when OCBs were also low, .03 when OCBs were at mean levels, and .05 when OCBs were high. In contrast, estimated turnover probabilities when boasting was high were .44 when OCBs were low, .04 when OCBs were at mean levels, and .00 when OCBs were high. Similar marked drops in turnover probability across OCB levels were found when the other IMAS dimensions were high.

Table 4
Organizational Citizenship Behavior –Turnover Relationship at Different Levels of Blaring, Boasting, Blurring, and Burying

<table>
<thead>
<tr>
<th>OCB Level</th>
<th>Blaring Log Odds</th>
<th>Turnover Probability</th>
<th>Boasting Log Odds</th>
<th>Turnover Probability</th>
<th>Blurring Log Odds</th>
<th>Turnover Probability</th>
<th>Burying Log Odds</th>
<th>Turnover Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low IMAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-1 SD</td>
<td>-3.96</td>
<td>.04</td>
<td>-4.95</td>
<td>.01</td>
<td>-4.48</td>
<td>.02</td>
<td>-5.06</td>
<td>.01</td>
</tr>
<tr>
<td>Mean</td>
<td>-3.66</td>
<td>.05</td>
<td>-4.33</td>
<td>.03</td>
<td>-4.12</td>
<td>.03</td>
<td>-4.32</td>
<td>.03</td>
</tr>
<tr>
<td>+1 SD</td>
<td>-3.37</td>
<td>.07</td>
<td>-3.72</td>
<td>.05</td>
<td>-3.89</td>
<td>.04</td>
<td>-3.61</td>
<td>.05</td>
</tr>
<tr>
<td>High IMAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blaring Log Odds</td>
<td>Turnover Probability</td>
<td>Boasting Log Odds</td>
<td>Turnover Probability</td>
<td>Blurring Log Odds</td>
<td>Turnover Probability</td>
<td>Burying Log Odds</td>
<td>Turnover Probability</td>
<td></td>
</tr>
</tbody>
</table>
### Notes: Turnover probabilities = \( \exp(\text{log odds})/(1+\exp(\text{log odds})) \).

Although the Bernoulli model is non-linear, Jaccard (2001) suggested plotting the predicted log odds across levels of the moderator in order to depict the interaction form. We plotted the relationship between OCB and the predicted log odds of turnover at values of plus and minus 1 standard deviation from the mean on the four IMAS dimensions (see Figure 1). As the figure shows, there was a marked negative relationship between OCB and predicted log odds for turnover in each case when IMAS levels were high, but the relationship is weaker when IMAS dimensions were low. When these results are viewed in toto—statistically significant interactions as well as sharp declines in turnover probabilities and negative slopes for predicted log odds of turnover when IMAS levels were high—they are consistent with the theoretical underpinning of our hypothesis. Thus, Hypothesis 2 was supported.

#### Figure 1

Predicted log odds of turnover for high and low levels of IMAS
Discussion

Results from the current study suggest that the negative relationship between OCB and voluntary turnover reported in prior research was only evident among workers who used association techniques to influence others’ impressions. In contrast, among low impression managers, citizenship behaviors were not predictive of voluntary turnover. This suggests that the negative relationships between these variables reported in earlier studies should be considered in light of the boundary condition we identify in the current study – a focus on influencing others’ impressions. Thus, those who engage in impression management or OCBs are more likely to remain in the organization to reap the benefits of their actions.

Contributions to Theory

Conceptually, the nomological network supporting the citizenship construct has developed from Blau’s (1964) concept of social exchange (Organ, 1988; Organ et al., 2006). Employees who are well treated by the organization they work for feel driven to give something back, and use citizenship behaviors as a means to accomplish this. A fundamental assumption of this conceptual foundation is that employees understand that they have a relative degree of discretion with respect to their demonstration of OCBs – that these behaviors are ‘extra’ in some way, and so can be given, or withheld, without fear of formal sanction. The instrumental use of OCBs as a means to compensate the organization to satisfy feelings of obligation rests on this awareness.

Because OCBs are discretionary, employees should feel more comfortable reducing these behaviors as a manifestation of withdrawal than required role behaviors such as task performance that are not discretionary (Chen et al., 1998; Hui et al, 2000). Consistent with these views of the discretionary nature of citizenship behavior, we argue in the current study that employees who are focused on the use of their behaviors to influence others’ impressions are likely to view OCBs as discretionary. These individuals recognize that they can turn off these behaviors when they no longer wish to repay the organization. However, among employees who are less focused on using their behaviors to influence others’ impressions, a very different pattern emerges, one that is not predictive of voluntary turnover, or consistent with the position that these behaviors are seen as discretionary. Among low impression managers, the demonstration of OCBs is constant creating a pattern of results that is inconsistent with the view that these behaviors are seen as discretionary.

Finally, although a great deal has been written about the question of whether citizenship behaviors are distinct from impression management behaviors (Bolino, 1999; Organ et al., 2006), very little research has reported evidence speaking to this issue directly. In the current study we provide direct evidence that indicates that the general form of citizenship behavior we measure (Hoffman et al., 2007; LePine et al., 2002) is statistically distinguishable from impression management by association techniques.
Contributions to Practice

From the standpoint of practice, given the observed empirical association between OCB and voluntary turnover, it may be possible for managers to keep track of employee behaviors directly, and on this basis develop predictions regarding the likelihood of voluntary turnover. Factoring in the current results suggests that the predictive ability of OCBs is much greater when the employees engage in impression management. Although in the citizenship domain, research suggests supervisors may be disinclined to value positively OCB attributed to instrumental motives (Eastman, 1994), the current results suggest that this information may have utility vis-a-vis issues of unit staffing.

Managers can use this information to their benefit. As a manager, an essential function is to determine in which employees they will invest the firm’s limited resources. Bonuses, training, promotions, and pay raises are all areas that this research could inform. For instance, managers who witness a reduction in OCBs from an employee that is known to use IMAS techniques should think twice about sending him or her to an expensive training class. The informed manager will recognize the relatively high potential for voluntary turnover with such an employee, and focus precious training opportunities on employees more likely to stay with the firm.

Another area of practice where this can be used to increase firm performance is in the assignment of important long term roles. Certain tasks that are essential to the firm or the department should be assigned to employees that have potential to grow within the organization and exhibit behaviors consistent with a loyalty to the firm. This research highlights a potential area that can impact managerial decision making vis-à-vis which employees are assigned to key roles.

Also, if the manager determines that losing such an employee would have severe negative consequences for the firm, the manager can take actions to try to prevent such voluntary turnover upon recognizing the signal behaviors. For instance, the manager can be proactive and explicit with the employee. After witnessing a reduction in OCBs by a high IMAS individual, the manager can intervene with offers of greater benefits in exchange for the employee abandoning their intention for voluntary turnover.

These implications are founded under the same social exchange theory logic that the research employs. If a manager is in a position to recognize behavioral signals that the employee is moving towards a voluntary turnover, the manager is in a position to either hasten that turnover through the removal of benefits related to the social exchange or attempt to stop the turnover through greater benefits.

Strengths and Limitations

There are a number of attributes of the current research that heighten our confidence in the results we report, and the contribution we make to the literature in the area. First, the data for the three critical components of the current study – impression management by association
behaviors, OCB, and turnover – were all collected from different sources. Specifically, measures of impression management by association behaviors were based on employees’ self-reports, OCB measures were obtained from employees’ immediate supervisors, and turnover data were collected from archived organizational records one year after the completion of the survey. Given our design, the results we report do not suffer from common method problems single-source research typically faces (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Second, although a great deal has been written about the antecedents of citizenship behaviors, relatively little attention has been paid to its consequences (Podsakoff et al., 2000; Podsakoff et al., 2009). Thus, the results we report add to the limited research positioning OCB as an antecedent rather than as an outcome by focusing on the utility of OCB as a predictor of voluntary turnover. Third, we expand on the limited research examining relationships between OCB and voluntary turnover by exploring the boundary condition of impression management. This contribution highlights the need to focus on not just workers’ behavior, but how the behavior may be used by employees to more fully understand relationships reported in prior research. In addition, although there is an ongoing debate regarding whether OCB may simply be a form of impression management (Bolino, 1999; Bolino et al., 2006), in the current study we are able to demonstrate empirically that they are distinct constructs. Finally, we employed a form of impression management that has not been studied frequently allowing us to advance the impression management literature as well. These results, however, are not without limitations. First, the turnover data were collected after a full year, making the potential gap between the demonstration of OCB and the actual event of turning over fairly large. Our decision to wait a year was predicated on the advice of the director of the agency in which we collected the data. The director encouraged us to wait a year to get the most accurate measure of turnover. However, our one year lapse is not unlike that used by other scholars who studied OCB and turnover (Chen et al., 1998). Second, the turnover rate in our study was 11 percent, which some may view as low. However, had we included every person who turned over rather than just those who voluntarily left the organization our turnover percentage would have been identical to Chau, Darhling, Levy, and Diefendorff (2009).

Empirical evidence suggests voluntary turnover rates are significantly lower among employees in the public vs. private sectors (Utgoff, 1983). Thus, it is unclear whether the results from the current study are generalizable to the private sector. Future research examining these relationships in the private sector is needed to address this issue.

Third, following established protocol in the area (Chen et al., 1998) we measured what might be viewed as a global, or general, form of OCB. However, researchers in the OCB domain have identified almost thirty different sub-dimensions of these behaviors (Podsakoff et al., 2000). It is possible that the moderating role of impression management by association may depend on the character of the OCB in question. For example, while some OCBs such as helping behavior (Podsakoff, Ahearne, & MacKenzie, 1997) have what has been identified as an “affiliative” character (Van Dyne, Cummings, & McLean Parks, 1995), others, such as civic virtue (Podsakoff et al., 1997), have what might be characterized as a “challenging” character. Future research in this area incorporating a broader range of citizenship behaviors is needed to understand more fully their relationship with voluntary turnover.

Finally, due to the power limitations as a result of our sample size, we were unable to test all of the interactions hypothesized simultaneously. Rather, we entered the four forms of IMAS
used as our moderators as a block in the step following the entry of our control variables. We then entered one interaction at a time. While this allowed us to reduce multicollinearity issues and preserve our degrees of freedom, this approach is a weaker test of our predictions than entering all of the interactions in one step.

Conclusions

The results from this research suggest that the motives driving employee’s citizenship behaviors (Rioux & Penner, 2001; Bolino, 1999) may play a significant role in predicting associations between this behavior and voluntary turnover. We argue that the moderating role played by impression management motives in this relationship is suggestive of the way in which employees define their role responsibilities (Dierdorff, Rubin, & Bachrach, 2011; Tepper, Lockhart, & Hoobler, 2001). The potential instrumentalities associated with OCB may be more obvious to employees cognizant of both their potential to shape others’ impression as well as their discretionary character.

References


About the Authors

K. Michele (Micki) Kacmar (mkacmar@cba.ua.edu) is a professor and the Durr-Fillauer Chair of Business Ethics in the Department of Management at the University of Alabama. She received her Ph.D. from Texas A&M University. Her general research interests fall in the areas of impression management, organizational politics, ethics, and work family conflict.

Daniel G. Bachrach (dbachrac@cba.ua.edu) is an Associate Professor in the Department of Management at the University of Alabama. He received his Ph.D. from Indiana University. His general research interests fall in the areas of organizational citizenship behavior, work interdependence, and networking.

Kenneth J. Harris (harriskj@ius.edu) is an associate professor of management at Indiana University Southeast. He received his PhD in management from Florida State University. His primary research interests are in the areas of leadership, politics, and influence behaviors.

Jason D. Shaw (shawx218@umn.edu) is a professor and the Curtis L. Carlson School-wide Professor in the Carlson School of Management at the University of Minnesota. He received his Ph.D. from the University of Arkansas. His current research interests include employment systems, turnover, financial incentives, and work team effectiveness.

David Noble (david.noble@ttu.edu) graduated from the University of Alabama with his Ph.D. in Management in 2011. Currently, he is a visiting Assistant Professor at the Rawls College of Business at Texas Tech University. His research interests include entrepreneurial networking, trust, and volunteerism.