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Transformational Leadership and Whistle-Blowing Attitudes: Is This Relationship Mediated by Organizational Commitment and Public Service Motivation?

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Abstract

Although transformational leadership and whistle-blowing have been extensively examined, only one article was found to explore the relationship between these factors. This is despite research suggesting a connection between leadership practices and whistle-blowing attitudes. This article built on and extended leadership and whistle-blowing theories by investigating the relationship between transformational leadership and whistle-blowing attitudes, as well as how this association might be mediated by public service motivation (PSM) and organizational commitment. Furthermore, the examination was conducted on local, state, and federal government employees in the United States. The findings indicated that transformational leadership had a direct, positive impact on whistle-blowing attitudes, as well as an indirect one through organizational commitment. In addition, PSM had an indirect effect on whistle-blowing attitudes through organizational commitment. On the other hand, PSM was not found to mediate the relationship between transformational leadership and attitudes concerning blowing the whistle.

Keywords

transformational leadership, whistle-blowing attitudes, public service commitment

Whistle-blowing refers to "the disclosure by organization members (former or current) of illegal, immoral, or illegitimate practices under the control of their employers, to person or organizations that may be able to effect action" (Near & Miceli, 1985, p. 4). Implied in this definition is that whistle-blowing encompasses the offender, the whistle-blower, the receiver of the complaint, and the agency (Near & Miceli, 2008). In addition, whistle-blowing can be categorized as external or internal, depending on where the complaint is reported. For instance, external whistle-blowers disclose wrongdoing to individuals outside the agency (e.g., law enforcement or media), whereas internal whistle-blowers report wrongdoing to individuals inside the agency (e.g., supervisor or designated officials).

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While whistle-blowing can be either external or internal, the present article focuses on internal whistle-blowing. It also concentrates on two potential parties in the whistle-blowing process: the employees and their supervisor as the complaint recipient. In fact, supervisors are generally the first to receive such complaints (Rehg, 2011), making these individuals critical to the whistle-blowing process.

Though research has empirically examined the interaction between whistle-blowers and their supervisors during this process, they have largely ignored specific leadership and management practices and how they might affect whistle-blowing attitudes (WA). For instance, researchers have clearly indicated the important role leaders and managers play in the whistle-blowing process (Bhal & Dadhich, 2011; Gundlach, Douglas, & Martinko, 2003; Henik, 2008; Jos, Tompkins, & Hays, 1989; Nader, Petkas, & Blackwell, 1972; Peeples, Stokes, & Wingfield, 2009), especially in terms of setting the tone for a friendly or hostile environment. Yet, only two studies were found that empirically examined the connection between specific management practices and whistle-blowing (Bhal & Dadhich, 2011; Caillier, 2013), only one of which was found to examine the relationship between transformational leadership (TL) and blowing the whistle. Furthermore, investigating transformational leadership's role in influencing whistle-blowing is of more importance than investigating other leadership styles, for "[t]ransformational leadership behavior represents the most active/effective form of leadership" (Rubin, Munz, & Bommer, 2005, p. 845). Consequently, it is the most studied leadership practice in organizations (Bass & Riggio, 2006). This study therefore examines whether transformational leadership practices affect whistle-blowing attitudes, where such attitudes refer to the extent to which employees feel they can blow the whistle without facing reprisal.

In addition to examining transformational leadership and whistle-blowing, the present study extends the literature by examining the mediating effects of organizational commitment (OC) and public service motivation (PSM); no study was found to examine those mediating effects. Transformational leadership is argued here to influence whistle-blowing directly as well as indirectly through commitment and PSM. While the relationship between transformational leadership and PSM (as well as some of the other direct relationships) is also interesting, this article only focuses on the direct relationship between transformational leadership and whistle-blowing attitudes and how PSM and organizational commitment may mediate it. Thus, an extensive examination into relationships that fall outside of those is not within the scope of this article. Moreover, this study is conducted in the public sector, where whistle-blowing is more prevalent (Miceli, Regh, Near, & Ryan, 1999) and where numerous "laws promote whistle-blowing behavior by encouraging ethical action and protecting employees from retaliation" (Dryburgh, 2009, p. 157).

The present article is structured in the following manner. First, literature on transformational leadership, PSM, and organizational commitment is reviewed. Second, a theoretical model is developed and hypotheses are proposed based on relevant literature. Third, the methodology section describes the survey administration and items used to measure the study variables. Fourth is the Results section, which indicates the findings from the model. Last, the discussion and conclusion explain the findings, reveal the limitations of the study, and offer suggestions for future research.

Review of Literature

Transformational Leadership

The notion of transformational leadership was first introduced by Burns (1978) in a seminal book chronicling the lives of world leaders. This concept was subsequently operationalized by Bass (1985) a few years later. To characterize transformational leaders, they are those who strive for

new ways of doing things, those who develop new opportunities when faced with challenges, those who do not support the status quo, those who transform their environment instead of reacting to it, and those who inspire followers to perform better than what was originally expected (Dvir, Eden, Avolio, & Shamir, 2002; Lowe, Kroeck, & Sivasubramaniam, 1996).

In organizations, transformational leaders motivate employees through several practices. First, they provide inspirational motivation by articulating a clear, stimulating vision. Second, they stimulate employees intellectually by encouraging followers to challenge the status quo. Under this practice, they also create new learning opportunities and encourage innovation. Third, they provide each employee with individualized consideration, which involves support, mentoring, and coaching. Fourth, transformational leaders earn the trust and respect of subordinates by acting as a role model. This is called idealized influence.

Transformational leaders can also be contrasted from transactional leaders. For instance, transactional leaders motivate employees by exchanging rewards for some desired output or outcome, while transformational leaders motivate by inspiring employees to forgo their own self-interest for the sake of organizational goals and interest (Hughes, Avey, & Nixon, 2010). Moreover, "[t]ransformational leadership involves fundamentally changing the values, goals, and aspirations of followers, so that they perform their work because it is consistent with their values, as opposed to the expectation that they will be rewarded for their efforts" (MacKenzie, Podsakoff, & Rich, 2001, p. 116). Hence transactional leadership satisfies lower level needs, while transformational leadership appeals to higher level needs like self-actualization (Srithongrung, 2011). The net result is that leaders have a much greater impact on work-related behaviors and attitudes, such as organizational commitment, job satisfaction, and performance, when their practices appear transformational as opposed to transactional (e.g., Bass & Riggio, 2006).

Public Service Motivation

PSM refers to intrinsic motives that induce individuals to serve their community, as well as the greater society (Liu & Tang, 2011). According to Perry and Wise (1990), the PSM construct is multidimensional and comprised of several motives—that is, affective, norm-based, and rational (Perry & Wise, 1990). Affective motives refer to those that involve a strong identification to public service. Norm-based motives refer to actions conforming to public service norms, such as a desire to serve the common good, and rational motives refer to actions involving maximization of utility (Perry, 1996; Perry & Wise, 1990). Therefore, individuals with high PSM possess both altruistic and prosocial behaviors. Furthermore, these "motives are at the root of the behaviors and actions taken to achieve outcomes that serve the public interest" (S. Kim, 2012, p. 830), and, as a result, PSM theory suggests that it can enhance work-related attitudes and behaviors, such as job satisfaction and commitment, in public service organizations (Bright, 2008; Liu, Tang, & Zhu, 2008; Pandey, Wright, & Moynihan, 2008; Taylor, 2008; Wright & Pandey, 2008).

Organizational Commitment

There are three types of commitment in organizations:

> Employees with a strong *affective commitment* remain with the organization because they want to, those with a strong *continuance commitment* remain because they need to, and those with a strong *normative commitment* remain because they feel they ought to do so. (Meyer, Allen, & Smith, 1993, p. 539; italics added)

Another way of defining affective commitment is that it is an "emotional attachment to the organization characterized by acceptance of the organization's culture and primary values and by

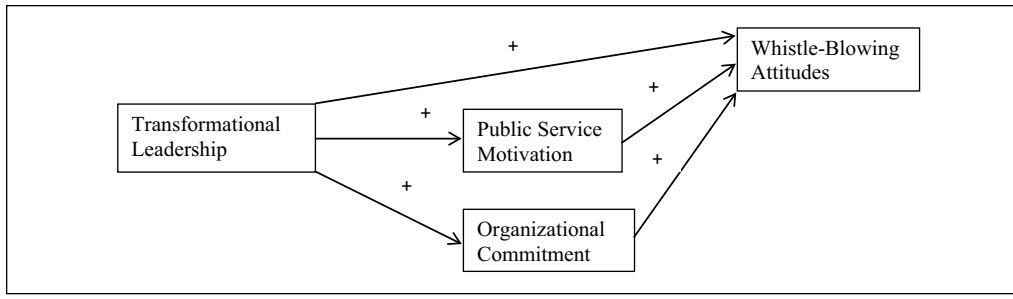

Figure 1. Theoretical research model.

willingness to remain with the organization" (Park & Rainey, 2007, p. 199). Although there are three types of commitment, affective commitment is the focus of this article, for several reasons. First, it was selected so as to remain consistent with prior studies that examined transformational leadership (see Walumbwa, Wang, Lawler, & Shi, 2004). That is, affective commitment is typically used in transformational leadership theories. Next, affective commitment is more critical in public agencies and therefore has been used as a proxy for organizational commitment in government organizations (H. Kim, 2012; S. Kim, 2005, 2012). Finally, and most importantly, blowing the whistle is a type of prosocial behavior (Dozier & Miceli, 1985), and a meta-analytic analysis demonstrated that affective commitment had the strongest impact on work-related behaviors, including prosocial behaviors (i.e., organizational citizenship behaviors), compared with the other forms of commitment (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Given that whistle-blowing is characterized generally as a prosocial behavior and more specifically as an organizational citizenship behavior (Dozier & Miceli, 1985; Trevino & Weaver, 2001), affective commitment is a suitable measure for organizational commitment in whistle-blowing models.

Theoretical Research Model and Hypotheses

Against that backdrop, the discussion now turns to transformational leadership's expected impact on whistle-blowing attitudes, as well as its indirect one through PSM and organizational commitment. While the data do not allow the direction of the relationships to be empirically evaluated, the causal inferences in Figure 1 are consistent with research mentioned below.

Transformational Leadership and Whistle-Blowing

Research suggests that leadership practices are a critical antecedent to whistle-blowing behaviors and attitudes (Bhal & Dadhich, 2011; Gundlach et al., 2003; Henik, 2008; Jos et al., 1989; Nader et al., 1972; Peeples et al., 2009). Even so, research has generally failed to empirically examine the connection between whistle-blowing and specific leadership styles. The exceptions are Bhal and Dadhich (2011) who found a positive relationship between ethical leadership—a specific type of leadership involving normatively ethical behavior—and whistle-blowing attitudes. It is important to note that ethical leadership is similar to transformational leadership in many respects but the latter is a much broader concept. And, more specific to the research focus, Caillier (2013) found a positive relationship between transformational leadership and whistle-blowing attitudes. In terms of the latter, transformational leadership has an effect on whistle-blowing attitudes, for several reasons. First, transformational leaders encourage subordinates to be open with them and to discuss organizational issues that they may not agree with (Bass & Riggio, 2006). Second, such leaders encourage employees to act ethically (Ng & Sears, 2012). Since whistle-blowing is

often viewed as a moral obligation (Murray, 2010), employees may therefore feel that transformational leaders will welcome such a disclosure. Third, transformational leaders tend to support their employees, and supported employees tend to not fear retaliation from blowing the whistle, because they have developed a bond and trusting relationship with their supervisor (Caillier, 2012-2013). Last, transformational leadership may have an impact on whistle-blowing attitudes because they enhance the organizational commitment and prosocial motives of employees (Bass & Riggio, 2006) and such attitudes are linked to whistle-blowing (Dozier & Miceli, 1985; Near & Miceli, 2008).

Hypothesis 1: Transformational leadership will have a direct, positive effect on whistle-blowing attitudes.

PSM as a Mediator

In addition to having a direct impact on whistle-blowing attitudes, transformational leadership's impact on whistle-blowing may be partially channeled through PSM. PSM might mediate in this manner because transformational leaders are likely to reinforce the prosocial motives found in PSM, and such prosocial motives are an important reason why transformational leadership and whistle-blowing attitudes are associated (Caillier, 2012-2013).

For instance, Paarlberg and Lavigna (2010) recently posited that because they articulate a compelling mission and encourage employees to transcend their own self-interest to pursue it, transformational leaders can enhance PSM. Transformational leadership can also encourage PSM because they emphasize collective public service norms (Wright, Moynihan, & Pandey, 2012). Hence, transformational leadership can tap into the prosocial motives of employees. This position has recently received empirical support. Wright et al. (2012) found that transformational leadership had a direct, positive impact on the PSM of public employees.

Moreover, Brewer and Selden (1998) and Near and Miceli (2008) suggested that PSM is an important predictor of whistle-blowing behaviors. Their reasoning was that the motivation to blow the whistle derives from a general intrinsic concern to protect the public interest—a prosocial motive contained in PSM. This is also consistent with research speculating that prosocial motives are important antecedents to elevating attitudes with respect to blowing the whistle (Dozier & Miceli, 1985; Greene & Latting, 2004; Miceli & Near, 1985; Trevino & Weaver, 2001) and, more recently, with Caillier (2013) who found that employees were more likely to report that they felt comfortable blowing the whistle when their supervisor was transformational.

Taken together, this suggests that transformational leadership may increase intrinsic public service prosocial values, causing employees to feel that they can blow the whistle without being retaliated against, because such prosocial values are espoused by transformational leaders. Despite this plausibility, no article was found to empirically examine this mediating effect. To test it, the following hypothesis is proposed:

Hypothesis 2: PSM will partially mediate the positive relationship between transformational leadership and whistle-blowing attitudes.

Commitment as a Mediator

Similar to PSM, the impact of transformational leadership on whistle-blowing attitudes may be partially channeled through commitment. For instance, transformational leaders inspire employees to rise above their own self-interests for the sake of the agency (Bass, 1985). The outcome is that employees become more involved in their jobs, causing their commitment levels to

increase (Walumbwa et al., 2004; Wright & Pandey, 2009). Such leaders also enhance employees' self-esteem and self-actualization, higher order needs, which are likely to increase the commitment level of employees as well (Srithongrung, 2011). Moreover, transformational leaders enhance commitment because they delegate duties and tasks in an effort to empower employees (Park & Rainey, 2008), and empowerment is an important antecedent of commitment (e.g., Ismail, Mohamed, Sulaiman, Mohamad, & Yusuf, 2011). That transformational leadership and commitment are related is evident in empirical studies. For instance, Barling, Weber, and Kelloway (1996) in a longitudinal study found that transformational leadership had a positive effect on organizational commitment. And recently, Srithongrung (2011) found commitment to be higher when leaders practiced transformational leadership.

In addition, whistle-blowers are often viewed as disgruntled workers who are trying to get back at the organization (Near & Miceli, 1985). However, research indicates that whistle-blowers are educated, high-performing employees who are committed to the organization (Caillier, 2012-2013). Such employees even feel that it is their duty to disclose unlawful acts (Brewer & Selden, 1998; Jos et al., 1989), for the reason that they are protecting the organization from an embarrassing and damaging situation (Near & Miceli, 1985). In other words, whistle-blowers frequently believe that they are demonstrating their commitment toward the organization by disclosing wrongdoing. As a consequence, highly committed employees tend to have less anxiety about reporting misconduct than employees with low levels of commitment. In fact, Caillier (2012-2013) found that organizational commitment was the most important predictor regarding whether employees would fear whistle-blowing in federal agencies.

This stream of research suggests that commitment may be an important reason why transformational leadership has a positive effect on the whistle-blowing attitudes of employees. More specifically, transformational leadership may increase employee levels of commitment in the organization and, in turn, employees may feel that they can report wrongdoing without facing reprisals, because reporting wrongdoing demonstrates their commitment to the organization. Research suggests that this causal reasoning is accurate. For instance, Caillier (2012-2013) suggested that organizational commitment is an antecedent to whistle-blowing. Srithongrung (2011) and S. Kim (2012) suggested that transformational leaders can harness the positive effects of organizational commitment to enhance organizational citizenship behaviors; as mentioned, whistle-blowing is an organizational citizenship behavior (Trevino & Weaver, 2001). However, although transformational leadership has been linked separately to both commitment and whistle-blowing attitudes, no study was found to examine that proposition. The following hypothesis is proposed:

Hypothesis 3: Commitment will partially mediate the positive relationship between transformational leadership and whistle-blowing attitudes.

Method

The author contracted with SurveyMonkey to conduct a web-based survey. Numerous studies have also used a similar design, including recent studies examining leadership behaviors in organizations, which appeared in *Academy of Management Journal, Human Relations*, and *Journal of Leadership and Organizational Studies* (Piccolo & Colquitt, 2006; Resick, Hargis, Shao, & Dust, 2013; Zhu, Riggio, Avolio, & Sosik, 2011). The survey administration consisted of randomly distributing an email to 3,500 workers listed in SurveyMonkey's database. Since government employees were of particular interest in this study, the email was only sent to individuals employed by local, state, and federal agencies in the United States. This email, which contained instructions and a URL link to the online survey, was sent on November 8, 2012, and individuals were given 6 days (i.e., until November 14, 2012) to complete it. To

maximize participation rates, SurveyMonkey entered respondent names in a drawing and donated $0.50 to their designated charity. All totaled, 1,106 individuals participated in the web-based survey. However, some respondents did not complete the survey and some indicated that they recently retired from government. These respondents were subsequently removed from the sample for obvious reasons.[1] That left 913 usable surveys for a response rate of 26.09%. Furthermore, this response rate is well within the range of previous web-based surveys (Hoonakker & Carayon, 2009; Shih & Fan, 2008). For instance, Shih and Fan (2008) conducted a meta-analysis on response rates and found them to range from 7% to 88%, with larger samples sizes, such as this one, yielding response rates generally lower than what was found in this study.

However, a drawback of web-based surveys is that their response rates tend to be lower than conventional methods. This is mainly due to undeliverable emails, problems with protecting the anonymity of respondents, and surveys mistaken for spam (Hoonakker & Carayon, 2009). The main implication of this lower response is that these surveys may not be representative. To explore the extent to which this may have occurred, sample characteristics are provided. In the sample, 60.0% of respondents were male, 19.1% were non-Caucasian, the mean age was 49.2 years, the mean tenure at their present agency was 13.9 years, 64.9% of respondents had a bachelor's degree or higher, and 43.8% of respondents were managers. Unfortunately, these characteristics cannot be compared with aggregate characteristics for local, state, and federal government agencies because none exist. But the most recent characteristics of federal government workers indicated that 55.8% of them were men and 28.3% were minorities (U.S. Office of Personnel Management, 2006). In contrast, 64.6% of federal employees in this sample were men and 19.3% were minorities. This comparison demonstrates that men were overrepresented in the sample, while minorities were underrepresented. It is therefore likely that the difference is the result of sample bias, since SurveyMonkey's database of individuals is representative of the U.S. population. This means that the results of the study should be viewed with caution. Nevertheless, research does indicate that the drawbacks of sample bias are overstated (e.g., Abraham, Maitland, & Bianchi, 2006). Next is a discussion of the survey items.

Study Measures

Four main study variables were included in the analysis, and each comprised Likert-type scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Since the study measures contained differing numbers of survey items, the measures were averaged to create consistency across scales. See the appendix for more information about the items that made up each study variable.

Whistle-blowing attitudes were measured using a two-item scale developed by Bhal and Dadhich (2011). The items represent the extent to which employees felt they could report wrongdoing to their supervisor without facing retaliation. It is also consistent with Near and Miceli's (1985) definition of whistle-blowing in that it covers ethical issues and wrongdoing. There are two caveats to the measure, however. First, they do not assess the severity of whistle-blowing. For instance, employees would presumably feel more confident reporting wrongdoing when the act is not perceived as a serious offense. Second, these attitudes are obviously not the same as actually blowing the whistle. Nevertheless, whistle-blowing attitudes are an important antecedent to blowing the whistle (Gundlach et al., 2003; Henik, 2008; Jos et al., 1989; Nader et al., 1972; Peeples et al., 2009). Despite these caveats, the items are a reasonable measure of whistle-blowing attitudes in public agencies. Cronbach's alpha was .79.

Transformational leadership was measured using a multi-item scale developed by Carless, Wearing, and Mann (2000). This scale was used instead of the Multifactor Leadership Questionnaire (MLQ; Avolio, Bass, & Jung, 1995), a common scale for transformational

Table 1. Means, Reliabilities, and Bivariate Correlations.

Study variables	*M*	*SD*	1	2	3	4
Whistle-blowing attitudes	4.89	1.66	(.79)			
Transformational leadership	4.80	1.60	.673**	(.96)		
PSM	5.77	0.92	.117**	.110**	(.84)	
Organizational commitment	5.06	1.44	.428**	.466**	.354**	(.90)

Note. PSM = public service motivation. Cronbach's alphas are in parentheses. Study variable ranges are from 1 to 7.
**Correlation is significant at the .01 level.

leadership, because it contained 17 fewer items, making it easier for respondents to complete the survey. It also contained each of the dimensions found in the MLQ (i.e., individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence) and was found to be a global measure of transformational leadership (Carless et al., 2000).[2] Furthermore, factor analysis was conducted on the items and one factor was extracted, explaining 82.1% of the variation. This suggests that, similar to the MLQ, transformational leadership is best depicted as one variable (Avolio, Bass, & Jung, 1999; Wright & Pandey, 2010). Cronbach's alpha was .96.

PSM was measured using a modified version of Perry's (1996) original scale. Researchers generally use this shorter scale because it contains the normative and affective motives most consistent with public service values (Alonso & Lewis, 2001; Brewer & Selden, 2000; S. Kim, 2005; Wright et al., 2012; Wright & Pandey, 2008). Since this scale is much shorter than the original, it has the same advantage as the modified version of transformational leadership. Cronbach's alpha was .84.

Organizational commitment was measured using three items from Meyer et al.'s (1993) affective commitment scale. As mentioned, affective commitment (a psychological attachment to, identification with, and participation in the organization) is used as a proxy for organizational commitment in this article. Cronbach's alpha was .90.

In addition to the study variables, several control variables were included in the model. This was done to see whether the relationships would hold when these variables were included. Others have also controlled for personal characteristics in similar models (Bright, 2008; S. Kim, 2012; Wright & Pandey, 2010). These variables are gender (1 = *male*; 0 = *female*), minority status (1 = *minority*; 0 = *nonminority*), and managerial status (1 = *manager or supervisor*; 0 = *nonsupervisor*). The results of the analysis follow.

Results

Table 1 demonstrates that none of the study variables were correlated above .7. Although not provided in the table, variance inflation factor coefficients indicated that none of the combinations of variables were above 2 (i.e., they ranged from 1.1 to 1.9), suggesting that multicollinearity was not serious in the model. For instance, multicollinearity is assumed to be problematic when these coefficients are above 10 (Kline, 2011). Next, skewness ranged from 0.55 to 1.0 and kurtosis from 0.01 to 1.76, which is well below the cutoff levels of 2 and 7, respectively. This suggests that normality assumptions were upheld (Curran, West, & Finch, 1996). Last, Harman's single factor test was conducted to determine whether common method bias was serious (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The test revealed that no single factor explained more than 50% of the variance. This suggests that the model was not unduly influenced by common method bias.

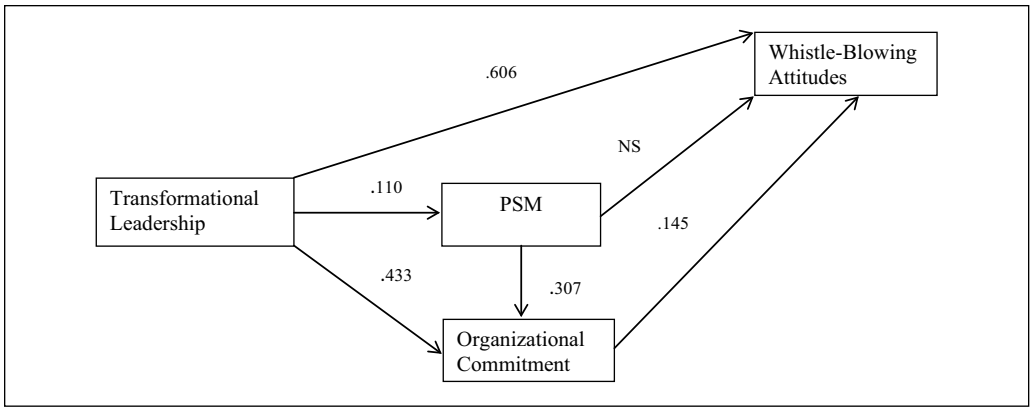

Figure 2. Revised theoretical research model with path from PSM to affective commitment.
Note. NS = not significant. All coefficients shown are standardized estimates and are statistically significant.

Structural equation modeling (SEM) was used to test the hypotheses. This estimator is designed to examine the effects of multiple mediating relationships in a single model (Baron & Kenny, 1986), such as the one portrayed in Figure 1. In accordance with Kline (2011), there are several steps in structural equation modeling. The first is to examine correlation and collinearity statistics. That was mentioned above, and no problems were detected. The second stage is to perform a confirmatory factor analysis on the study variables. This analysis indicated that the indices were ideal, that is, $\chi^2(113) = 453.38$, comparative fit index (CFI) = .972, goodness of fit index (GFI) = .944, normed fit index (NFI) = .963, root mean square error of approximation (RMSEA) = .057, standardized root mean square residual (SRMR) = .040, and Tucker–Lewis Index (TLI) = .966. Moreover, each variable had acceptable loadings (.64-.96) and converged on its latent factor ($p < .05$). This suggests that convergent and discriminate validity was upheld.

Next, structural equation modeling was performed. As with such models, an additional modification was needed for the model to adequately fit the data (see Figure 2). That is, the path between PSM and commitment, which was previously unspecified, was specified so that PSM was assumed to have an effect on commitment. This is consistent with PSM research that argues that PSM increases organizational commitment (Castaing, 2006; Crewson, 1997; S. Kim, 2011, Kim, 2012; Taylor, 2008). The result was that the indices were suitable, that is, $\chi^2(10) = 53.28$, $p \leq .05$; CFI = .957, GFI = .984, NFI = .949, RMSEA = .069, SRMR = .056, and TLI = .910. For instance, the recommendation is that CFI, GFI, NFI, and TLI be above .9 and RMSEA and SRMR be at or below .06 and .08, respectively (Hu & Bentler, 1999). It is also recommended that the chi square be insignificant. But the fact that it is in this model is not a serious problem, since chi squares are frequently statistically significant when sample sizes are as large as this one (Cohen, Cohen, West, & Aiken, 2003).

The results of the model are portrayed in Figure 2 and Table 2; Table 2 provides a much fuller explanation. The interpretation of the estimates is fairly straightforward. They indicate that when the predictor increases by 1, the outcome variable goes up or down by the value next to the predictor.

Overall, 47.8% of the variance in whistle-blowing attitudes was explained by the predictors. As displayed, transformational leadership had a direct, positive effect on whistle-blowing attitudes (TL $\rightarrow$ WA; $p < .001$, standardized estimate = .606). This coefficient was the largest compared with the other variables, indicating that transformational leadership had the strongest impact on whistle-blowing attitudes. That finding supports Hypothesis 1.

Table 2. Estimates for the Research Model.

Model paths	Estimate	*SE*	Standardized estimate	Significance
TL → WA	.631	.028	.606	***
TL → PSM	.063	.019	.110	***
PSM → WA	.005	.047	.003	.919
TL → OC	.389	.025	.433	***
OC →WA	.168	.033	.145	***
PSM → OC	.482	.043	.307	***
Male → WA	.099	.083	.029	.232
Manager → WA	−.003	.082	−.001	.971
Minority → WA	−.328	.101	−.007	.001

Note. TL = transformational leadership; WA = whistle-blowing attitudes; PSM = public service motivation; OC = organizational commitment. The results are for the model depicted in Figure 2. The predictors explain 47.8% of the variation in whistle-blowing attitudes.
***Statistically significant at less than .001.

The paths for the mediation hypotheses can also be seen in Table 2. They are the combined paths of TL → PSM, and PSM → WA (Hypothesis 2), as well as TL → OC and OC → WA (Hypothesis 3). A bootstrapping technique was also performed at the same time the full model in Figure 2 was estimated using SEM. This was done to further detect the mediating effects of both mediations simultaneously or as shown in the figure. The results from this test are mentioned in conjunction with those shown Table 2. Bootstrapping is a technique that randomly samples "from a theoretical probability density function" (Kline, 2011, p. 42). It is recommended for mediation in structural equation models, and it has the advantage of needing fewer steps to test mediation than causal techniques (Zhao, Lynch, & Chen, 2010). Furthermore, mediation is evidenced by statistically significant indirect effects in bootstrapping tests.

The bootstrapping technique revealed that organizational commitment intervened between transformational leadership and whistle-blowing attitudes ($p < .05$). The difference between full and partial mediation is that both the direct and indirect effects are statistically significant in partial mediation while only the indirect effects are significant in full mediation. As demonstrated in Table 2, the mediation was partial because both direct and indirect effects were statistically significant ($p < .001$). This supports Hypothesis 3. Furthermore, the mediated effect of transformational leadership on whistle-blowing attitudes was .063.[3] Therefore, the direct effect of transformational leadership (.606) was obviously stronger than its indirect effect (.063).

On the other hand, the bootstrapping test indicated that PSM did not have an effect on whistle-blowing attitudes ($p > .05$). This can be evidenced by the nonsignificant finding in path PSM → WA in Table 2; both paths (TL → PSM, and PSM → WA) need to be statistically significant for mediation to occur. This means that PSM could not be a mediator. Support was therefore not found for Hypothesis 2.[4]

As mentioned, path PSM → OC was added in Figure 2. An interesting finding from the bootstrapping test was that organizational commitment mediated the relationship between PSM and whistle-blowing attitudes (paths PSM → OC, and OC →WA). The mediated effect was .045 ($p < .05$). Moreover, organizational commitment fully mediated the relationship between PSM and whistle-blowing attitudes. Specifically, the entire effect of PSM on whistle-blowing attitudes was transmitted through organizational commitment.[5]

Discussion and Implications

Discussion

What do these findings mean? First, it appears that employees felt more comfortable blowing the whistle when their leaders practiced transformational leadership. In fact, this association was the strongest in the model. A possible reason why employees are more at ease blowing the whistle when their managers are transformational is because such leaders encourage openness and dissent (Bass & Riggio, 2006), behaviors that are consistent with whistle-blowing (Near & Miceli, 2008). A second reason is that transformational leaders support subordinates, and supported workers tend to not feel that disclosing wrongdoing will be met with retaliation (Caillier, 2012-2013). A third reason is transformational leaders develop a close bond with their employees because of individualized consideration. Employees who have a bond with their supervisors would likely feel more comfortable reporting wrongdoing to them than employees who did not have this connection. Still, another reason is that these leaders enhance organizational commitment and prosocial motives, factors that positively affect whistle-blowing attitudes.

Second, organizational commitment partially mediated the relationship between transformational leadership and whistle-blowing attitudes. This is one of two major findings in the article that extends the literature, and it demonstrates an additional way in which transformational leaders affect such attitudes. This suggests that transformational leaders have an effect on whistle-blowing attitudes, in part, because they raise the commitment levels of followers. It can be inferred that increasing commitment may cause employees to feel that they can report wrongdoing without facing reprisals, because committed employees often feel that disclosing wrongdoing demonstrates their commitment in that they are protecting the agency from harm (Caillier, 2012-2013; Near & Miceli, 1985).

Finally, PSM was found to have a positive impact on whistle-blowing attitudes through organizational commitment. Furthermore, organizational commitment fully mediated this relationship. A possible explanation is that high-PSM individuals are committed to the organization, leading them to want to protect the organization from a potentially damaging situation. Organizations may therefore see enhanced levels of commitment and ultimately less fear with respect to whistle-blowing as employees become more PSM oriented.

That organizational commitment mediated the relationship between PSM and whistle-blowing attitudes was the second major finding, and it extends the previous research. For instance, research has found that PSM had a direct, positive effect on organizational commitment (Crewson, 1997; S. Kim, 2011; Taylor, 2008). This finding therefore extends this stream of research by demonstrating that PSM's effect on organizational commitment is subsequently transmitted to whistle-blowing attitudes. Furthermore, PSM is sometimes viewed as automatically increasing the work-related factors of employees, which has resulted in mixed findings (e.g., Alonso & Lewis, 2001; Caillier, 2011; Crewson, 1997; Frank & Lewis, 2004; S. Kim, 2011; Naff & Crum, 1999; Taylor, 2008). Wright and Pandey (2008) suggested that these mixed findings may have occurred because the relationship between PSM and employee-level factors is much too complex to be examined directly and that mediating factors need to be taken into consideration. This position has received empirical support, especially in person–organization fit (congruence between the individual and the organization) research, which has demonstrated that this factor mediated the relationship between PSM and several work attitudes and behaviors (e.g., commitment, job satisfaction, turnover intentions, and performance; Bright, 2007, 2008; S. Kim, 2012; Wright & Pandey, 2008). By finding that affective commitment intervenes between PSM and whistle-blowing attitudes, this study lends support to the latter position, in general, that PSM influences work attitudes and behaviors through intervening factors.

Since organizational commitment intervened in both transformational leadership and PSM, this demonstrates the utility of commitment in explaining whistle-blowing attitudes. Despite that, transformational leadership had the largest single impact on whistle-blowing attitudes, causing it to stand out as the most important predictor in the model. This demonstrates just how vital leadership is in general and transformational leadership is in particular to employee attitudes about reporting wrongdoing.

Implications for Policy and Practice

In an effort to encourage employees to disclose wrongdoing, local, federal, and state governments have passed numerous laws protecting whistle-blowers (Dryburgh, 2009). At the federal level, in particular, the net result has been an increase in whistle-blowing, a decrease in wrongdoing, and an increase in retaliation against whistle-blowers (Near & Miceli, 2008). Though this legislation has had some notable successes, the findings here suggest that laws are insufficient by themselves to prevent retaliation. The implication is that agency leaders may be able to further lessen retaliation if they communicate a clear and positive vision, support and encourage staff, foster trust and cooperation, encourage thinking about problems in new ways, and instill pride and respect in others. They can also lessen retaliation by incorporating such leadership training into human resource seminars that are designed to inform supervisors and managers about how to appropriately handle whistle-blowers and whistle-blowing. This is because such leadership training programs have been found to be effective in enhancing the transformational behaviors of managers and leaders (Barling et al., 1996), especially if they are conducted periodically and involve multiple methods, such as in-class sessions and team coaching (Abrell, Rowold, & Moenninghoff, 2011).

The fact that PSM had an indirect effect on whistle-blowing attitudes through affective commitment demonstrates the importance of having individuals with PSM in public agencies. This finding adds to the long list of ways PSM can benefit organizations. Similar to transformational leadership, PSM can be enhanced in public agencies. To increase PSM, agencies can give employees more autonomy, as empowerment can increase PSM motives (Park & Rainey, 2008).

Taken together, another implication is that agencies may see an increase in the disclosing of wrongdoing as managers become more transformational and as PSM increases. This is because employees are more likely to disclose wrongdoing when they do not believe that they will face reprisals (Gundlach et al., 2003; Henik, 2008; Jos et al., 1989; Nader et al., 1972; Peeples et al., 2009).

Limitations and Future Research

Limitations

A caveat is that these findings should be interpreted in light of several limitations. First, the study design was cross-sectional, meaning causality could only be inferred. Though causality was reasoned based on logical interpretations of theories, the only way to know definitively which variable affects which is to conduct an experimental design. Research can therefore improve on this one by examining these factors over an extended period of time. Next, the sample characteristics of this survey do not perfectly match those of government employees nationwide. Even though this was the case, critical information about whistle-blowing attitudes, predictors, and mediators was uncovered. This limitation may also be tempered somewhat by the fact that this study examined local, state, and federal employees. In other words, representativeness of personal characteristics was a weakness, while the inclusion of different levels of government employees was a plus. Generalizing to other populations should nevertheless be done with caution, and the findings should also be viewed as preliminary. As mentioned, a short version of PSM was used,

which did not reflect all of the dimensions in this construct. This means that the results may have been different if the full scale was used; thus, this also affected generalizability of the findings. However, the measure used in this study does encompass the normative and affective motives of the PSM scale that are most consistent with public service values (Alonso & Lewis, 2001; Brewer & Selden, 2000; S. Kim, 2005; Wright et al., 2012; Wright & Pandey, 2008). Another limitation was that the data were perceptual and not objective. For instance, each employee rated his or her supervisor's transformational practices instead of conducting an independent evaluation. A related limitation was that the data were derived from the same source. However, Harman's single factor test suggested that common source bias did not unduly affect the estimates. Research also suggests that the drawbacks of common method bias are exaggerated (Spector, 2006). Finally, factors that may have had an impact on whistle-blowing attitudes, such as culture, processes, and incentives, were not controlled in the model. For instance, some organizations may have a culture that is hostile or open to whistle-blowing attitudes. Such cultures would obviously affect whether employees feel comfortable blowing the whistle.

Future Research

Since this study is the first to examine these mediations, researchers should endeavor to replicate these findings in government agencies. A potentially interesting study would be to conduct a comparative examination on all sectors. This may provide an answer to the following question: Why is whistle-blowing more common in public agencies? In addition, researchers should explore the mediating effects of commitment more fully, as it may mediate the relationship between other factors and whistle-blowing attitudes. For instance, this article only examined transformational leadership, PSM, and organizational commitment. Others could take a more comprehensive approach and include work-related factors, such as job involvement, job satisfaction, work motivation, and leader-membership exchange, among others. They should also control for the severity of the wrongdoing, which may have a negative impact on whistle-blowing attitudes. That can be done by providing employees with several short vignettes that vary the seriousness of wrongdoing, from, say, violating internal agency policies to committing serious crimes. Last, researchers can extend this study by exploring the degree to which transformational leadership impacts actual whistle-blowing. Examining whether transformational leaders will retaliate against workers after they have disclosed wrongdoing would be valuable.

Conclusion

Although transformational leadership and whistle-blowing have been extensively examined, only one article was found to explore the relationship between these factors (Caillier, 2013). This is despite research suggesting a relationship between leadership practices and whistle-blowing attitudes (Bhal & Dadhich, 2011; Gundlach et al., 2003; Henik, 2008; Jos et al., 1989; Nader et al., 1972; Peeples et al., 2009). This article built on and extended leadership and whistle-blowing theories by investigating the relationship between transformational leadership and whistle-blowing attitudes, as well as how this association might be mediated by PSM and affective commitment. Furthermore, this examination was conducted on local, state, and federal government employees in the United States. The findings indicated that transformational leadership had a direct, positive impact on whistle-blowing attitudes. In addition, affective commitment was found to mediate the relationship between transformational leadership and whistle-blowing attitudes, as well as between PSM and whistle-blowing attitudes. On the other hand, PSM was not found to mediate the relationship between transformational leadership and attitudes concerning blowing the whistle.

Appendix

Whistle-Blowing Attitudes

- I feel that I can discuss ethical issues and problems with my supervisor without fear of having the comments held against me.
- I would be comfortable delivering bad news of an unethical wrongdoing to the supervisor.

Global Transformational Leadership

- My supervisor communicates a clear and positive vision of the future.
- My supervisor treats staff as individuals, supports and encourages their development.
- My supervisor gives encouragement and recognition to staff.
- My supervisor fosters trust, involvement and cooperation among team members.
- My supervisor encourages thinking about problems in new ways and questions assumptions.
- My supervisor is clear about his or her values and practices what he or she preaches.
- My supervisor instills pride and respect in others and inspires me by being highly competent.

Public Service Motivation

- Meaningful public service is important to me.
- I am often reminded by daily events how dependent we are on one another.
- Making a difference in society means more to me than personal achievements.
- I am prepared to make sacrifices for the good of society.
- I am not afraid to go to bat for the rights of others even if it means I will be ridiculed.

Affective Commitment

- I feel a strong sense of belonging to my organization.
- My organization has a great deal of personal meaning for me.
- I feel like part of the family in my organization.

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Notes

1. Respondents who did not complete the survey were removed using listwise deletion. Little and Rubin (2002) suggest that listwise deletion generates accurate estimates in structural equation models, making it an appropriate procedure. Moreover, since some fit statistics (e.g., GFI) cannot be calculated when estimation procedures are used for missing cases, listwise has the added benefit of allowing important fit statistics to be displayed.
2. The items in the GTL can be compared with the dimensions and items in Srithongrung's (2011, p. 388) study.

3. Indirect effects are calculated by multiplying the standardized coefficients for the two paths—that is, the path from the predictor to the mediator and the path from the mediator to the predictor (Kline, 2011).
4. To further verify the intervening effects in the SEM model, four mediation steps in accordance with research were followed (e.g., Baron & Kenny, 1986; Kohler & Matheiu, 1993). First, TL had an effect on WA (β= .673, p = .000). Second, TL had an effect on OC (β = .466, p = .000). Third, OC had an effect on WA (β = .430, p = .000). Fourth, TL's effect on WA was still significant but its standardized effect was reduced to .606 (p = .000), while controlling for OC. Hence, the difference between TL's direct effect on WA with and without OC in the model was perceptible. This confirms the finding that OC partially mediated the relationship between TL and WA. The same process was done to verify whether PSM was a mediator. As mentioned, TL's effect on WA was .673. Next, TL had an effect on PSM (β = .110, p = .000). Then, PSM was found to have an effect on WA (β = .111, p = .000). However, TL's standardized effect on WA was imperceptible, after controlling for PSM (i.e., from .673 to .668, p = .000). This also confirms the findings that PSM did not mediate the relationship between TL and WA.
5. To further verify this mediation effect, the steps mentioned in Note 4 were used as well. First, PSM was found to have an effect on WA (β = .111, p = .000). Second, PSM had an effect on OC (β = .354, p = .000). Third, OC had an effect on WA (β = .430). Last, PSM's effect on WA was reduced substantially, when OC was controlled (β = −.036, p > .05). Indeed, the relationship was not significant. This confirms that OC completely mediated the relationship between PSM and WA.

References

Abraham, K. G., Maitland, A., & Bianchi, S. M. (2006). Nonresponse in the American time use survey: Who is missing from the data and how much does it matter? *Public Opinion Quarterly*, *70*, 676-703.

Abrell, C., Rowold, W., & Moenninghoff, M. (2011). Evaluation of a long-term transformational leadership development program. *Zeitschrift für Personalforschung*, *25*, 205-224.

Alonso, P., & Lewis, G. B. (2001). Public service motivation and job performance: Evidence from the federal sector. *American Review of Public Administration*, *31*, 363-380.

Avolio, B. J., Bass, B. M., & Jung, D. I. (1995). *MLQ: Multifactor Leadership Questionnaire* (Technical Report). Palo Alto, CA: Mind Garden.

Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational and Organizational Psychology*, *72*, 441-562.

Barling, J., Weber, T., & Kelloway, E. K. (1996). Effects of transformational leadership training on attitudinal and financial outcomes: A field experiment. *Journal of Applied Psychology*, *81*, 827-832.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.

Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York, NY: Free Press.

Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership*. Mahwah, NJ: Erlbaum.

Bhal, K. T., & Dadhich, A. (2011). Impact of ethical leadership and leader-member exchange on whistle blowing: The moderating impact of the moral intensity of the issue. *Journal of Business Ethics*, *103*, 485-496.

Brewer, G. A., & Selden, S. C. (1998). Whistle blowers in the federal service: New evidence of the public service ethic. *Journal of Public Administration Research and Theory*, *8*, 413-439.

Brewer, G. A., & Selden, S. C. (2000). Why elephants gallop: Assessing and predicting organizational performance in federal agencies. *Journal of Public Administration Research and Theory*, *10*, 685-711.

Bright, L. (2007). Does person-organization fit mediate the relationship between public service motivation and the job performance of public employees? *Review of Public Personnel Administration*, *27*, 361-379.

Bright, L. (2008). Does public service motivation really make a difference on the job satisfaction and turnover intentions of public employees? *American Review of Public Administration*, *38*, 149-166.

Burns, J. M. (1978). *Leadership*. New York, NY: Harper & Row.

Caillier, J. G. (2011). I want to quit: A closer look at factors that contribute to the turnover intentions of state government employees. *State and Local Government Review*, *43*, 110-122.

Caillier, J. G. (2012-2013). Agency retaliation against whistle-blowers: Factors affecting employee perceptions. *Public Integrity*, *15*, 29-49.

Caillier, J. G. (2013). Do employees feel comfortable blowing the whistle when their supervisors practice transformational leadership? *International Journal of Public Administration*, *36*, 1020-1028.

Carless, S. A., Wearing, A. J., & Mann, L. (2000). A shorter measure of transformational leadership. *Journal of Business and Psychology*, *14*, 389-405.

Castaing, S. (2006). The effects of psychological contract fulfillment and public service motivation on organizational commitment in the French civil service. *Public Policy and Administration*, *21*(1), 84-98.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.

Crewson, P. E. (1997). Public service motivation: Building empirical evidence of incidence and effect. *Journal of Public Administration Research and Theory*, *7*, 499-518.

Curran, P. J., West, S. G., & Finch, J. F. (1996). The robustness of test statistics to nonnormality and specification error in confirmatory factor analysis. *Psychology Methods*, *1*, 16-29.

Dozier, J. B., & Miceli, M. P. (1985). Potential predictors of whistle-blowing: A prosocial behavior perspective. *Academy of Management Review*, *10*, 823-836.

Dryburgh, M. M. (2009). Personal and policy implications of whistle-blowing: The case of Corcoran State Prison. *Public Integrity*, *11*, 155-170.

Dvir, T., Eden, D., Avolio, B., & Shamir, B. (2002). Impact of transformational leadership on follower development and performance: A field experiment. *Academy of Management Journal*, *45*, 735-744.

Frank, S. A., & Lewis, G. B. (2004). Government employees: Working hard or hardly working? *American Review of Public Administration*, *34*, 36-51.

Greene, A. D., & Latting, J. K. (2004). Whistle-blowing as a form of advocacy: Guidelines for practitioner and organization. *Social Work*, *49*, 219-230.

Gundlach, M. I., Douglas, S. C., & Martinko, M. J. (2003). The decision to blow the whistle: A social information processing framework. *Academy of Management Review*, *28*, 107-123.

Henik, E. (2008). Mad as hell or scared stiff? The effects of value conflict and emotions on potential whistle-blowers. *Journal of Business Ethics*, *80*, 111-119.

Hoonakker, P., & Carayon, P. (2009). Questionnaire survey nonresponse: A comparison of postal mail and internet surveys. *International Journal of Human-Computer Interaction*, *25*, 348-373.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1-55.

Hughes, L. W., Avey, J. B., & Nixon, D. R. (2010). Relationships between leadership and followers' quitting intentions and job search behaviors. *Journal of Leadership & Organizational Studies*, *17*, 351-362.

Ismail, A., Mohamed, H. A., Sulaiman, A. Z., Mohamad, M. H., & Yusuf, M. H. (2011). An empirical study of the relationship between transformational leadership, empowerment, and organizational commitment. *Business and Economics Research Journal*, *2*(1), 89-107.

Jos, P. H., Tompkins, M. E., & Hays, S. W. (1989). In praise of difficult people: A portrait of the committed whistleblower. *Public Administration Review*, *49*, 552-561.

Kim, H. (2012). Transformational leadership and organizational citizenship behavior in the public sector in South Korea: The mediating role of affective commitment. *Local Government Studies*, *38*, 867-892.

Kim, S. (2005). Individual-level factors and organizational performance in government organizations. *Journal of Public Administration Research and Theory*, *15*, 245-262.

Kim, S. (2011). Testing a revised measurement of public service motivation: Reflective versus formative specification. *Journal of Public Administration Research and Theory*, *21*, 521-546.

Kim, S. (2012). Does person-organization fit matter in the public sector? Testing the mediating effect of person-organization fit in the relationship between public service motivation and work attitudes. *Public Administration Review*, *72*, 830-840.

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York, NY: Guilford Press.

Kohler, S. S., & Matheiu, J. E. (1993). Individual characteristics, work perceptions, and affective reactions to influences on differentiated absence criteria. *Journal of Organizational Behavior*, *14*, 515-530.

Little, R. J., & Rubin, D. B. (2002). *Statistical analysis with missing data* (2nd ed.). New York, NY: Wiley.

Liu, B., Tang, N., & Zhu, X. (2008). Public service motivation and job satisfaction in China: An investigation of generalizability and instrumentality. *International Journal of Manpower*, *29*, 684-699.

Liu, B., & Tang, T. L. (2011). Does the love of money moderate the relationship between public service motivation and job satisfaction? The case of Chinese professionals in the public sector. *Public Administration Review*, *71*, 718-727.

Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the MLQ literature. *Leadership Quarterly*, *7*, 385-415.

MacKenzie, S. B., Podsakoff, P. M., & Rich, G. A. (2001). Transformational and transactional leadership and salesperson performance. *Journal of the Academy of Marketing Science*, *29*, 115-134.

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, *74*, 152-156.

Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, *61*, 20-52.

Miceli, M. P., & Near, J. P. (1985). Characteristics of organizational climate and perceived wrongdoing associated with whistle-blowing decisions. *Personnel Psychology*, *38*, 525-544.

Miceli, M. P., Regh, M., Near, J. P., & Ryan, K. C. (1999). Can laws protect whistle-blowers? *Work and Occupations*, *26*, 129-151.

Murray, J. S. (2010). Moral courage in healthcare: Acting ethically even in the presence of risk. *Online Journal of Issues in Nursing*, *15*(3), Article 2.

Nader, R., Petkas, P. J., & Blackwell, K. (1972). *Whistle-blowing: The report on the conference on professional responsibility*. New York, NY: Grossman.

Naff, K. C., & Crum, J. (1999). Working for America: Does PSM make a difference. *Review of Public Personnel Administration*, *19*(4), 5-16.

Near, J. P., & Miceli, M. P. (1985). Organizational dissidence: The case of whistle-blowing. *Journal of Business Ethics*, *4*, 1-16.

Near, J. P., & Miceli, M. P. (2008). Wrongdoing, whistle-blowing, and retaliation in the U.S. government: What have researchers learned from the Merit Systems Protection Board (MSPB) survey results? *Review of Public Personnel Administration*, *28*, 263-281.

Ng, E., & Sears, G. (2012). CEO leadership styles and the implementation of organizational diversity practices: Moderating effects of social values and age. *Journal of Business Ethics*, *105*, 41-52.

Paarlberg, L. E., & Lavigna, B. (2010). Transformational leadership and public service motivation: Driving individual and organizational performance. *Public Administration Review*, *70*, 710-718.

Pandey, S. K., Wright, B. E., & Moynihan, D. P. (2008). Public service motivation and interpersonal citizenship behavior in public organizations: Testing a preliminary model. *International Public Management Journal*, *11*, 89-108.

Park, S. M., & Rainey, H. G. (2007). Antecedents, mediators, and consequences of affective, normative, and continuance commitment: Empirical tests of commitment effects in federal agencies. *Review of Public Personnel Administration*, *27*, 197-226.

Park, S. M., & Rainey, H. G. (2008). Leadership and public service motivation in U.S. federal agencies. *International Public Management Journal*, *11*, 109-142.

Peeples, D. K., Stokes, P., & Wingfield, S. S. (2009). When the whistle is blown: Legal defenses and practical guidelines for managing reports of organizational misconduct. *Business & Society*, *48*, 467-488.

Perry, J. L. (1996). Measuring public service motivation: An assessment of construct reliability and validity. *Journal of Public Administration Research and Theory*, *6*, 5-22.

Perry, J. L., & Wise, L. R. (1990). The motivational bases of public service. *Public Administration Review*, *50*, 367-373.

Piccolo, R. F., & Colquitt, J. A. (2006). Transformational leadership and job behaviors: The mediating role of core job characteristics. *Academy of Management Journal*, *49*, 327-340.

Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*, 879-903.

Rehg, M. T. (2011). Retaliation against whistle-blowers: An integration and typology. *Journal of the Academy of Business and Economics*, *11*(3), 47-56.

Resick, C., C.J., Hargis, M. B., Shao, P., & Dust, S. B. (2013). Ethical leadership, moral equity judgments, and discretionary workplace behavior. *Human Relations*, *66*, 951-972.

Rubin, R. S., Munz, D. C., & Bommer, W. H. (2005). Leading from within: The effects of emotion recognition and personality on transformational leadership behavior. *Academy of Management Journal*, *48*, 845-858.

Shih, T., & Fan, X. (2008). Comparing response rates from Web and mail surveys: A meta-analysis. *Field Methods*, *20*, 249-271.

Spector, P. E. (2006). Method variance in organizational research: Truth or urban legend? *Organizational Research Methods*, *9*, 221-232.

Srithongrung, A. (2011). The causal relationships among transformational leadership, organizational commitment, and employee effectiveness. *International Journal of Public Administration*, *34*, 376-388.

Taylor, J. (2008). Organizational influence, public service motivation, and work outcomes: An Australian study. *International Public Management Journal*, *11*, 67-88.

Trevino, L. K., & Weaver, G. R. (2001). Organizational justice and ethics program "follow through": Influences of employees' harmful and helpful behavior. *Business Ethics Quarterly*, *11*, 651-671.

U.S. Office of Personnel Management. (2006). *2006 Demographic profile of the federal workforce*. Retrieved from http://www.opm.gov/policy-data-oversight/data-analysis-documentation/federal-employment-reports/demographics/data-analysis-documentation/

Walumbwa, F. O., Wang, P., Lawler, J. J., & Shi, K. (2004). The role of collective efficacy in the relations between transformational leadership and work outcomes. *Journal of Occupational and Organizational Psychology*, *77*, 515-530.

Wright, B. E., Moynihan, D. P., & Pandey, S. K. (2012). Pulling the levers: Transformational leadership, public service motivation, and mission valence. *Public Administration Review*, *72*, 206-215.

Wright, B. E., & Pandey, S. K. (2008). Public service motivation and the assumption of person-organization fit: Testing the mediating effect of value congruence. *Administration & Society*, *40*, 502-521.

Wright, B. E., & Pandey, S. K. (2009). Transformational leadership in the public sector: Does structure matter. *Journal of Public Administration Research and Theory*, *20*, 75-89.

Wright, B. E., & Pandey, S. K. (2010). Public organizations and mission valence: When does mission matter? *Administration & Society*, *43*, 22-44.

Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, *37*, 197-206.

Zhu, W., Riggio, R. E., Avolio, B. J., & Sosik, J. J. (2011). The effect of leadership on follower moral identity: Does transformational/transactional style make a difference? *Journal of Leadership & Organizational Studies*, *18*, 150-163.

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