

Examining the Link Between Ethical Leadership and Employee Misconduct: The Mediating Role of Ethical Climate

David M. Mayer
Maribeth Kuenzi
Rebecca L. Greenbaum

ABSTRACT. Drawing on theory and research on ethical leadership and ethical climate, we examine ethical climate as a mediator of the relationship between ethical leadership and employee misconduct. Using a sample of 1,525 employees and their supervisors in 300 units in different organizations, we find support for our hypothesized model. We discuss theoretical and practical implications of these findings.

KEY WORDS: ethical leadership, ethical climate, anti-social behavior

Introduction

There are alarming statistics regarding the amount of unethical behavior¹ that occurs within organizations. In a recent survey of American companies, 56% of employees reported observing at least one act of misconduct at work. These unethical behaviors included lying to internal or external constituents (25%), engaging in abusive behavior (21%), misreporting hours worked (17%), abusing the internet (16%), violating safety standards (15%), discriminating (13%), stealing (11%), and sexually harassing a colleague (10%) (ERC, 2007). Undoubtedly, a higher percentage of misconduct is likely to have occurred given that these behaviors may go unnoticed, or may not be reported because of a fear of retaliation or a desire to protect the perpetrators. These survey results, in conjunction with well-known corporate scandals (e.g., Enron, Tyco, WorldCom), have heightened awareness of the prevalence of wrongdoing in organizations.

In an effort to reduce the amount of unethical behavior in organizations, scholars are increasingly interested in the role of leadership (Brown and

Treviño, 2006; Davis and Rothstein, 2006; Grojean et al., 2004; Simons et al., 2007; Walumbwa et al., 2008). Research on ethical leadership, in particular, has been valuable in understanding the role of leadership in relation to unethical behavior in organizations. *Ethical leadership* is defined as, “the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making” (Brown et al., 2005, p. 120). Although this conceptualization of ethical leadership is new, a considerable amount of research on this topic is emerging (Brown et al., 2005; Piccolo et al., 2010; Walumbwa et al., in press; Walumbwa and Schaubroeck, 2009). For example, recent research has shown a negative relationship between ethical leadership and employee deviant behavior (Mayer et al. 2009a, in press).

Although initial research on ethical leadership is promising, there is a dearth of research examining the underlying mechanism to explain the relationship between ethical leadership and employee unethical behavior (Brown and Treviño, 2006). Such research is important theoretically because it provides insight into what ethical leaders actually do to influence employee behavior. Practically this has implications for designing organizations to reduce the level of unethical behavior. In the present research, we examine a work unit’s ethical climate as a mediator of the relationship between ethical leadership and employee misconduct. Ethical climate refers to the holistic impression that individuals have regarding ethical policies, practices, and procedures within a unit or organization (Mayer et al., 2010; Victor and Cullen, 1988).

This research has a number of intended contributions. First, although there is increasing interest in

ethical leadership, the majority of research has focused on prosocial outcomes (Brown et al., 2005; Piccolo et al., 2010; Walumbwa and Schaubroeck, 2009), whereas we expand on recent work (Mayer et al., 2009a, in press) by examining employee misconduct as an outcome. Second, there is little empirical support for the underlying mechanism linking ethical leadership to employee behavior (see Walumbwa et al., in press for an exception). To address this gap in the literature we examine ethical climate as a mediator. Third, although *theoretical* work has highlighted the link between ethical leadership and ethical climate (Dickson et al., 2001), we seek to *empirically* examine this theorized relationship. In addition to these theoretical and empirical contributions, methodological strengths of this research include examining a large number of units across a variety of organizations and industries, collecting data from both employees and unit supervisors to reduce same-source bias concerns, and aggregating employee data to the unit level. In what follows, we provide a theoretical rationale for linking ethical leadership to employee misconduct through ethical climate.

Ethical leadership and ethical climate

Brown et al.'s (2005) conceptualization of ethical leadership has two main aspects: (1) the *moral person* component (e.g., integrity, concern for others, justice, trustworthiness), and the (2) *moral manager* component (e.g., communicating, rewarding, punishing, emphasizing ethical standards, role modeling ethical behavior). Thus, ethical leaders embody many positive personal characteristics and also seek to influence their employees by actively managing ethical conduct. To date, there has been a dearth of research examining the mechanism(s) through which ethical leadership is associated with employee behavior.

Theoretical work has sought to explain how leaders are critical in developing an ethical climate (Dickson et al., 2001). Leaders set the ethical tone for an organization by enacting practices, policies, and procedures that help facilitate the display of ethical behavior and reduce the likelihood of misconduct. In the broader climate literature, research indicates that leaders serve as interpretive filters of organizational policies and processes for group members (Kozlowski and Doherty, 1989). Based on

the policies and practices leaders emphasize and how they present them to employees, leaders impact employees' perceptions of climate. Ethical leaders, in particular, are expected to enforce practices, policies, and procedures that serve to uphold ethical conduct. Ethical leaders make decisions with ethics in mind, consider "what is the right thing to do" in terms of ethics, regularly communicate with subordinates regarding ethics, and reward and punish employees in accordance with ethical principles. In this way, ethical leaders make it clear to employees that upholding ethics is an important organizational outcome.

We draw on social learning theory (SLT; Bandura, 1977, 1986) to explain the effects of ethical leadership on ethical climate. SLT posits that individuals learn appropriate ways to act through a role-modeling process by observing the behaviors of others (Bandura, 1977, 1986). SLT further suggests that individuals are likely to pay attention to and emulate behaviors from credible and attractive role models. Leaders in organizations are often considered legitimate models for normative behavior. In addition to direct observation, employees are influenced by their supervisor because he/she has the power to dole out both punishments and rewards for ethical and unethical behavior. SLT also allows for individuals to learn vicariously through the experiences of those around them. Individuals learn what is expected of them in terms of appropriate behavior not only through their own experience, but also by observing others and what happens to them (Bandura, 1977, 1986).

In sum, ethical leaders signal to employees that doing the right thing is expected, encouraged, and valued. In turn, employees are more likely to perceive an ethical organizational environment. Ethical leaders, as role models of ethical behavior, demonstrate to followers how to be skillful in recognizing ethical issues and equipped in handling ethical issues. Additionally, ethical leaders teach subordinates how to maintain high ethical standards without feeling pressure to forego ethical conduct for the sake of achieving business objectives. In essence, by role modeling appropriate behavior, ethical leaders help create a climate in which doing the right thing is valued. Indeed, Stringer (2002) states that "most studies have shown that the single most important determinant of an organization's climate is the day-to-day behavior of the leaders of the organization" (p. 12).

There is some empirical research that suggests the ethical work environment is influenced by organizational leaders. For instance, Schminke et al. (2005) examined the relationship between leader moral development and the organization's ethical climate. Their results show that a leader's moral development is associated with the ethical climate in organizations. Further, the consistency between the leader's moral development and actions also is related to ethical climate. Engelbrecht et al. (2005) found that transformational leadership has a positive relationship with ethical climates in organizations. Finally, Neubert et al. (2009) found that ethical leadership was positively related to individuals' perceptions of ethical climate. These studies lend support to the idea that ethical leaders should have a positive effect on ethical climate.

Hypothesis 1: Ethical leadership will be positively related to ethical climate.

Ethical climate and employee misconduct

Next, we suggest that ethical climate will be related to employee misconduct within work units by drawing on social information processing theory (SIPT; Salancik and Pfeffer, 1978). SIPT suggests that individuals look to their environment for cues to characterize their work environment and to understand appropriate ways to behave. Ethical climates can serve as one cue to help individuals know what types of (un)ethical behaviors are (un)acceptable in the work unit. The social environment, or ethical climate in this case, provides information to individuals as to the appropriateness of behavior they see in the work environment. The ethical climate also provides cues to individuals as to how others in the work environment deem what is acceptable behavior. These perceived actions and attitudes of others inform individuals' thinking about what behaviors are important, appropriate, and likely to be rewarded and what behaviors are not. Thus, the ethical climate provides understanding and meaning as to what the unit values and the types of behaviors that are acceptable, which helps individuals determine the appropriate ways to behave. In other words, work climates provide individuals with

the group norms regarding appropriate behavior in the unit. Therefore, if ethical climate is higher in emphasizing ethical actions, employees will be less likely to exhibit unethical behaviors.

Extant research has examined the consequences of ethical work climate on specific ethical outcomes, such as unethical and deviant behaviors. These studies include both field and lab studies and overall show strong support that ethical work climates are linked to unethical behaviors in organizations. Recently Martin and Cullen (2006) conducted a meta-analysis on ethical climates and their results suggest that positive ethical climates are negatively related to dysfunctional organizational behavior. For instance, Bartels et al. (1998) found that ethical climate was negatively related to ethical violations. Wimbush et al. (1997) found that caring climates and law and code climates were negatively related to stealing and lying behaviors. Further, instrumental climates were positively related to being an accomplice. In addition, Vardi (2001) found that ethical climates were negatively related to misbehavior in a non-western sample. Thus, the more positively viewed the organization is, the less reported misbehavior. Peterson (2002) found that organizational deviance was lower in ethical caring climates. Finally, Schwepker et al. (1997) found that when organizations had a higher ethical climate, there was less conflict between employees and managers. Overall, there is strong support that ethical climates have an effect on misbehavior in organizations.

However, one limitation of these previous studies is that they are all at the psychological climate level or an *individual's* perceptions of the ethical climate rather than an *aggregate* or unit perception of the ethical climate. Yet, ethical climate is typically conceptualized at the unit level in extant research. Our study *conceptualizes* and *tests* ethical climate at the unit level. According to a review on organizational climates (Kuenzi and Schminke, 2009), "facet specific climates...have demonstrated strong relationships with parallel facet-specific outcomes ..." (p. 693). Thus, drawing on social information processing theory, previous work on organizational climate, and the work on psychological ethical climate, we expect unit-level ethical climate to be negatively related to employee misconduct.

Hypothesis 2: Ethical climate will be negatively related to employee misconduct.

Further, we expect ethical climate to serve as a mediator between ethical leadership and employee misconduct. Implicit in the early conceptualization of organizational climate is the mediating role of climates. Litwin and Stringer's (1968) seminal work proposes that organizational features such as leadership generate organizational climates that arouse different motivations within individuals that in turn are major drivers of outcomes for the organization as well as attitudes and behaviors of employees. They go on to state that "the realities of the organization are understood only as they are perceived by members of the organization, allowing climate to be viewed as a filter through which objective phenomena must pass" (p. 43). Climates help explain the processes individuals use to make sense of their work environments. Individuals do not respond directly to their work environments, rather they engage in sense-making processes where they first perceive and then interpret their work environment (Campbell et al. 1970). Schneider (1983) also suggests that climate perceptions mediate the relationship between the organizational context and individuals' behavior. Indeed, organizational climates have been found to play an important mediating role between organizational variables and relevant outcomes (e.g., Hofmann and Stetzer 1998; Schminke et al., 2005; Zohar and Luria, 2005). In the case of ethical climate, we expect that ethical climate is one of the processes through which ethical leadership is related to employee misconduct.

Hypothesis 3: Ethical climate will mediate the relationship between ethical leadership and employee misconduct.

Methods

Participants and procedure

We recruited participants from units in a variety of organizations in the southeastern United States. Industry types included technology, government, insurance, financial, legal, retail, manufacturing, and medical organizations. Business administration students at a large southeastern university contacted each organization. Students hand delivered one survey packet to participating units within the organizations.

The packets included five employee surveys and one supervisor survey. Each packet included clear instructions regarding who should fill out the surveys and included self-addressed stamped envelopes for the participants to send their completed surveys back to the researchers. Further, the instructions indicated that the five employees agreeing to participate in the study must be the subordinates of the supervisor who also agreed to participate in the study. The respondents were informed that their responses would be kept confidential.

The surveys began with an introductory letter from the researchers. Subordinate participants responded to a series of questions regarding their unit supervisors' ethical leadership and the unit's ethical climate. Supervisor participants responded to questions regarding the employee misconduct in the unit. The questionnaires administered to both the subordinates and the supervisors concluded with demographic questions (e.g., age, organizational tenure, ethnicity).

We received data from a total of 310 departments that returned three or more employee surveys. Previous research suggests three responses is a sufficient number to aggregate to the unit level (Colquitt et al., 2002; Mayer et al. 2009a; Richardson and Vandenberg, 2005; Schneider et al., 1998; Tracey and Tews, 2005). We also collected data from 327 unit supervisors; however, not all supervisor surveys had corresponding employee surveys with at least three responses, nor did all employee surveys have corresponding supervisor data. Thus, after matching the supervisor surveys with employee surveys (with at least three employee surveys), we had a final sample size of 300 units to test our hypotheses.

Regarding demographics, 42% of the employee respondents were male, and the average age of the participants was 30.3 years ($SD = 8.6$). The employee participants had an average organizational tenure of 4.2 years ($SD = 3.8$), and an average unit tenure of 3.4 years ($SD = 2.8$). Sixty-nine percent of the employee respondents were employed full-time. In terms of ethnicity, 11.1% were African American, 4.3% Asian American, 61.2% Caucasian, 17.2% Hispanic, 1.5% Native American, 1.0% Biracial, and 3.2% marked "other."

Fifty-seven percent of the supervisor respondents were male with an average age of 39 years ($SD = 11.4$). The manager respondents had an average

organizational tenure of 9.2 years ($SD = 8.1$), and an average unit tenure of 7.6 years ($SD = 7.6$). Ninety-seven percent of the manager respondents were employed full-time. In terms of ethnicity, 7.7% were African American, 4.9% Asian American, 72.2% Caucasian, 11.7% Hispanic, 0.6% Native American, and 1.5% marked “other.”

Measures

All ratings were made on a five-point scale (1 = *strongly disagree*; 5 = *strongly agree*) unless otherwise noted.

Ethical leadership

Employee respondents completed the 10-item ethical leadership scale developed by Brown et al. (2005). Sample items include “My supervisor disciplines employees who violate ethical standards,” and “My supervisor discusses business ethics or values with employees” ($\alpha = 0.97$).

Ethical climate

Employee respondents completed the six-item global ethical climate scale developed by Mayer et al. (2010). Sample items include “Department employees have a lot of skills in recognizing ethical issues,” and “Department employees continually strive to maintain high ethical standards” ($\alpha = 0.89$).

Employee misconduct

Supervisor respondents rated employee misconduct in the unit using the seven-item antisocial behavior measure created by Robinson and O’Leary-Kelly (1998). Sample items include “Department employees damage property that belongs to the organization” and “Department employees deliberately bend or breaks rules.” ($\alpha = 0.89$).

Data aggregation

We measured all variables and tested the hypotheses at the unit level of analysis. We measured the dependent

variable, employee misconduct, using ratings provided by supervisors from each work unit. We measured ethical leadership and ethical climate using ratings provided by employees from each work unit, that were then averaged together to generate unit-level scores. We assessed the degree of agreement for ethical leadership and ethical climate by calculating the r_{wg} statistic (George and James, 1993) as well as the ICC(1) and ICC(2). These statistics indicate the extent of agreement within units, the degree of interrater reliability, and the stability of unit-level means, respectively. The mean r_{wg} statistic for ethical leadership was 0.94 and ethical climate was 0.87, suggesting there is strong agreement within units for all variables.

In addition, we computed intraclass correlations (ICCs) to determine the reliability of ethical leadership and ethical climate (Bliese, 2000). The ICC(1) for ethical leadership was 0.34 and 0.28 for ethical climate. The ICC(2) for ethical leadership was 0.70 and 0.64 for ethical climate. One of the ICC(2) values is a slightly lower than the 0.70 criteria recommended by researchers (Bliese et al., 2002). However, ICC(2) is a function of size (Bliese, 1998), and the average unit size in this study was smaller than the studies used in recommending cutoff criteria. Therefore, as all of the ICC values were statistically significant and the r_{wg} values were high indicating that there was high within-group agreement, there is support for aggregation.

Results

Descriptive statistics

The means, standard deviations, and intercorrelations among the key variables are presented in Table I.

Hypotheses tests

Measurement model

We used structural equation modeling with LISREL 8.8 (Jöreskog and Sörbom, 2006) to test our hypotheses. Prior to testing the hypothesized structural model, we tested to see if the measurement model had good fit (Anderson and Gerbing, 1988). We tested a measurement model that had three latent

TABLE I
Descriptive statistics, reliabilities, and correlations among variables

Variables	M	SD	1	2	3	4	5
1. Ethical leadership	3.80	0.55	(0.97)				
2. Ethical climate	3.85	0.45	0.58	(0.89)			
3. Employee misconduct	1.99	0.80	-0.27	-0.29	(0.89)		

Note: $N = 300$. All correlations are significant at $p < 0.001$ (2-tailed). Coefficient α reliabilities are reported along the diagonal.

factors (i.e., ethical leadership, ethical climate, employee misconduct) and 23 indicators (10 items for ethical leadership, six items for ethical climate, and seven items for employee misconduct). The measurement model had an acceptable fit ($\chi^2 = 741.05$, $df = 227$, $p \leq 0.001$; RMSEA = 0.09; CFI = 0.97; SRMR = 0.06) (Arbuckle, 1997; Bollen, 1989; Browne and Cudeck, 1993), and all of the indicators had statistically significant ($p \leq 0.01$) loadings on their intended constructs.

Hypothesized model

Having confirmed that the measurement model had adequate fit, we tested our proposed structural model. Results of the structural analysis of the proposed model provides an acceptable fit to the data ($\chi^2 = 740.70$, $df = 228$, $p \leq 0.001$; RMSEA = 0.09; CFI = 0.97, SRMR = 0.06) (Arbuckle, 1997; Bollen, 1989; Browne and Cudeck, 1993; Hox, 2002). We compared this fully mediated model with a partially mediated model. For the partially mediated model, we specified a direct path between ethical leadership and employee misconduct. The partially mediated model also provides an acceptable fit to the data ($\chi^2 = 741.05$, $df = 227$, $p \leq 0.001$; RMSEA = 0.09; CFI = 0.97; SRMR = 0.06); however, this model does not provide an improvement in fit over the fully mediated model (chi-square difference test: $\Delta\chi^2 = 0.35$, $df = 1$, ns). It should also be noted that there was not a significant direct effect of ethical leadership on employee misconduct when testing the partially mediated model ($b = -0.12$, $t = -1.61$, ns). Thus, in accordance with rules concerning parsimony (James et al., 2006), the fully mediated model is the better fitting model for examining these particular data (Figure 1).

In support of Hypothesis 1, the path coefficient between ethical leadership and ethical climate



Figure 1. Fully mediated structural equation model results. Note: Standardized path coefficients provided. All path coefficients significant at $p \leq 0.001$.

($b = 0.59$, $p \leq 0.001$) was positive and significant. Hypothesis 2 predicted that ethical climate is negatively related to employee misconduct. We also found support for this hypothesis ($b = -0.35$, $p \leq 0.001$). Hypothesis 3 predicted that ethical climate mediates the relationship between ethical leadership and employee misconduct. To test for mediation, we followed recommendations provided by James et al. (2006). First, a statistically significant relationship must exist between the predictor and the mediator. Second, a statistically significant relationship must exist between the mediator and the outcome. Finally, a goodness-of-fit test is conducted to determine whether the only path from the predictor to the outcome is through the mediator.

To test the goodness-of-fit of ethical leadership as the mediator between ethical leadership and ethical climate, we followed recommendations outlined by MacKinnon et al. (2002) and calculated the product of coefficients (of the independent variable and mediator) by using LISREL's (Jöreskog and Sörbom, 2006) effect decomposition statistics. A statistically significant indirect effect implies that the relationship between the antecedent and the outcome variable occurs through the mediator. The indirect effect was significant for the relationship between ethical leadership and employee misconduct ($b = -0.20$, $p \leq 0.001$). Thus, these results provide support for ethical climate as a mediator of the relationship between ethical leadership and employee misconduct.

Discussion

Given the prevalence of unethical behavior in organizations (ERC, 2007), we sought to examine the relationship between ethical leadership and employee misconduct. Consistent with our hypotheses, ethical leadership was positively related to ethical climate, ethical climate was negatively related to employee misconduct, and ethical climate mediated the relationship between ethical leadership and employee misconduct. In what follows we highlight some theoretical and practical implications of this research.

Theoretical implications

This study has a number of theoretical implications. First, we find support for a mediator of ethical leadership effects on employee behavior. Although considerable empirical research has examined the relationship between ethical leadership and employee behavior, we currently do not have a solid understanding of the process underlying the relationship between ethical leadership and employee unethical behavior. In this study we find that ethical climate mediates the relationship between ethical leadership and employee misconduct. Thus, we find that when leaders are *moral people* (e.g., integrity, concern for others, just, trustworthy) and *moral managers* (e.g., communicating, rewarding, punishing, emphasizing ethical standards, role modeling ethical behavior) they are better equipped to create an environment in which doing the right thing is valued (Brown et al., 2005). This ethical environment includes employees' awareness of ethical issues, desire to maintain high ethical standards, and not having pressure to compromise ethical standards to improve the organization's bottom-line. When employees operate in an ethical climate, they are then less likely to engage in misconduct.

This study also contributes to the climate literature in general and more specifically to the ethical climate literature. First, in a review on organizational work climates, Kuenzi and Schminke (2009) bemoan the fact that the relationships between climates and outcomes have not always been theoretically justified. Mayer et al. (2009b) had similar concerns calling for researchers to provide more

theoretical reasons for linking ethical climate to outcomes. By drawing on social information processing theory we provide a theoretical rationale as to why ethical climates will be related to employee misconduct and mediate the relationship between ethical leadership and employee misconduct. Second, we address another issue in the ethical climate literature in that previous measures of ethical climate have not referenced contextual factors such as practices or activities related to ethics (Dickson et al., 2001; Kuenzi and Schminke, 2009). Rather, items are more about the conditions that set the stage for doing things ethically. Our items are directly related to the organizational practices, policies, and procedures. Finally, few studies have looked at the influence of ethical climate on group-level outcomes, focusing mainly on individual-level outcomes.

Practical implications

Given the benefits of ethical leadership in reducing employee misconduct, organizations should seek to select and/or train ethical leaders. For example, organizations can use selection tools that tap integrity, moral standards, and concern for others. These tools may include integrity tests, structured interviews, and/or assessment center exercises that focus on relevant ethical dilemmas. Organizations can also invest in ethics training for leaders. Topics could include things like communicating the importance of ethics, rewarding and supporting employees who behave ethically, and serving as ethical role models. Thus, by focusing on selection and training the organization can help bring in and continue to develop ethical leaders that are both moral people and moral managers.

Another practical implication is the value in creating an ethical climate. Indeed, our study showed that ethical climate is a proximal antecedent to employee misconduct. An ethical climate serves a sensemaking function for employees so they know how to respond to ethical issues. It is critical for human resource (HR) practices, policies, and procedures to emphasize the value of being an ethical employee. These HR practices should be highly visible so that employees learn not only from their own experiences but vicariously through others' rewards and punishments. These tactics are useful for

improving awareness of ethical issues as well as employees' ethical behavior.

Strengths, limitations, and future directions

This research has a number of strengths. First, this research replicates work by Mayer et al. (2009a, in press) linking ethical leadership to employee misconduct. Second, we find support for a mediator of the relationship between ethical leadership and employee misconduct. Third, we empirically examine the connection between ethical leadership and ethical climate. Finally, we test our theoretical model using a large sample of work units, collect data from both employees and unit supervisors, and aggregate employee data to the unit level.

Despite these strengths, there are several limitations of this study. One limitation is that all data are cross-sectional. Thus, we are unable to make causal conclusions. Future work would benefit from the use of longitudinal or experimental designs to draw stronger inferences regarding causality. A second limitation is that our dependent variable is perceptual (rated by the unit supervisor). It would be useful in future research to have an objective measure of employee misconduct such as unit theft as indicated by company records. A third limitation is that we only examined one mechanism – ethical climate. However, Brown and Treviño (2006) suggest that both social learning (Bandura, 1977, 1986) and social exchange (Blau, 1964) mechanisms could help explain the effects of ethical leadership. It would be useful to examine ethical climate, social learning, and social exchange mechanisms in conjunction in subsequent research endeavors. Finally, we suggest that ethical leadership drives perceptions of the global ethical climate. However, undoubtedly other factors aid in the development of a global ethical climate such as ethics-related organizational practices as well as through reinforcement and support exhibited by peers. Future work should address factors other than leadership that help a global ethical climate to develop.

Conclusions

The prevalence of unethical behavior in organizations is staggering (ERC, 2007). For ethical and

financial reasons, it is critical for organizations to be structured to reduce employee misconduct. The results from this research suggest the critical role managers play in creating an ethical climate and ultimately reducing the level of misconduct among their employees.

Note

¹ In this manuscript we use the terms unethical behavior, wrongdoing, and misconduct interchangeably.

References

- Anderson, J. and D. Gerbing: 1988, 'Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach', *Psychological Bulletin* **103**, 411–423.
- Arbuckle, J. L.: 1997, *Amos Users' Guide* (Small Waters Corporation, Chicago).
- Bandura, A.: 1977, 'Self-Efficacy: Toward a Unifying Theory of Behavioral Change', *Psychological Review* **84**, 191–215.
- Bandura, A.: 1986, *Social Foundations of Thought & Action* (Prentice-Hall, Englewood Cliffs).
- Bartels, L., E. Harrick, E. Marel and D. Strickland: 1998, 'The Relationship Between Ethical Climate and Ethical Problems Within Human Resource Management', *Journal of Business Ethics* **17**, 799–804.
- Blau, P.: 1964, *Exchange and Power in Social Life* (John Wiley, New York).
- Bliese, P.: 1998, 'Group Size, ICC Values, and Group-Level Correlations: A Simulation', *Organizational Research Methods* **1**, 355–373.
- Bliese, P.: 2000, 'Within-Group Agreement, Non-Independence, and Reliability: Implications for Data Aggregation and Analysis', in K. J. Klein and S. W. J. Kozlowski (eds.), *Multilevel Theory, Research and Methods in Organizations* (Jossey-Bass, San Francisco), pp. 512–556.
- Bliese, P., R. R. Halverson and C. A. Schriesheim: 2002, 'Benchmarking Multilevel Methods in Leadership: The Articles, the Model, and the Data Set', *Leadership Quarterly* **13**, 3–15.
- Bollen, K. A.: 1989, *Structural Equations with Latent Variables* (Wiley, New York).
- Brown, M. E. and L. K. Treviño: 2006, 'Ethical Leadership: A Review and Future Directions', *The Leadership Quarterly* **17**, 595–616.

- Brown, M. E., L. K. Treviño and D. A. Harrison: 2005, 'Ethical Leadership: A Social Learning Perspective for Construct Development and Testing', *Organizational Behavior and Human Decision Processes* **97**, 117–134.
- Browne, M. W. and R. Cudeck: 1993, 'Alternative Ways of Assessing Model Fit', in K. A. Bollen and L. J. Scott (eds.), *Testing Structural Equation Models* (Sage Publications, Newbury Park).
- Campbell, J., M. Dunnette, E. Lawler and K. Weick: 1970, *Managerial Behavior, Performance, and Effectiveness* (McGraw-Hill, New York).
- Colquitt, J. A., R. A. Noe and C. L. Jackson: 2002, 'Justice in Teams: Antecedents and Consequences of Procedural Justice Climate', *Personnel Psychology* **55**, 83–109.
- Davis, A. and H. Rothstein: 2006, 'The Effects of the Perceived Behavioral Integrity of Managers on Employee Attitudes: A Meta-Analysis', *Journal of Business Ethics* **67**, 407–419.
- Dickson, M., M. W. Smith, M. C. Grojean and M. W. Ehrhart: 2001, 'An Organizational Climate Regarding Ethics: The Outcome of Leader Values and the Practices that Reflect Them', *Leadership Quarterly* **12**, 197–214.
- Engelbrecht, A. S., A. S. van Aswegen and C. C. Theron: 2005, 'The Effect of Ethical Values on Transformational leadership and Ethical Climate in Organizations', *South African Journal of Business Management* **36**, 19–26.
- Ethics Resource Center: 2007, *National Business Ethics Survey 2007: An Inside View of Private Sector Ethics* (Ethics Resource Center, Washington, DC).
- George, J. M. and L. R. James: 1993, 'Personality, Affect, and Behavior in Groups Revisited: Comment on Aggregation, Level of Analysis, and a Recent Application of Within and Between Analysis', *Journal of Applied Psychology* **78**, 798–804.
- Grojean, M., C. Resick, M. Dickson and D. B. Smith: 2004, 'Leaders, Values, and Organizational Climate: Examining Leadership Strategies for Establishing an Organizational Climate Regarding Ethics', *Journal of Business Ethics* **55**, 223–241.
- Hofmann, D. A. and A. Stetzer: 1998, 'The Role of Safety Climate and Communication in Accident Interpretation: Implications for Learning From Negative Events', *Academy of Management Journal* **41**, 644–658.
- Hox, J.: 2002, *Multilevel Analyses: Techniques and Applications* (Lawrence Erlbaum Associates, Mahwah, NJ).
- James, L. R., S. A. Mulaik and J. M. Brett: 2006, 'A Tale of Two Methods', *Organizational Research Methods* **9**, 233–244.
- Jöreskog, K. G. and D. Sörbom: 2006, *LISREL for Windows* (Scientific Software International, Inc., Lincolnwood, IL).
- Kozlowski, S. W. and M. L. Doherty: 1989, 'Integration of Climate and Leadership: Examination of a Neglected Issue', *Journal of Applied Psychology* **74**, 546–553.
- Kuenzi, M. and M. Schminke: 2009, 'Assembling Fragments into a Lens: A Review, Critique, and Proposed Research Agenda for the Organizational Climate Literature', *Journal of Management* **35**, 634–717.
- Litwin, G. and R. Stringer: 1968, *Motivation and Organizational Climate* (Harvard University, Oxford, England).
- MacKinnon, D. P., C. M. Lockwood, J. M. Hoffman, S. G. West and V. Sheets: 2002, 'A Comparison of Methods to Test Mediation and Other Intervening Variable Effects', *Psychological Methods* **7**, 83–104.
- Martin, K. and J. Cullen: 2006, 'Continuities and Extensions of Ethical Climate Theory: A Meta-Analytic Review', *Journal of Business Ethics* **69**, 175–194.
- Mayer, D. M., M. Kuenzi and R. Greenbaum: 2010, 'Laying an Ethical Foundation: Ethical Practices, Ethical Climate, and Unethical Behavior', Paper Presented at the Annual Meeting of the Academy of Management, Montreal, Canada.
- Mayer, D. M., M. Kuenzi and R. Greenbaum: 2009a, 'Making Ethical Climate a Mainstream Topic: A Review, Critique, and Prescription for the Empirical Research on Ethical Climate', in D. De Cremer (ed.), *Psychological Perspectives on Ethical Behavior and Decision Making* (Information Age Publishing, Charlotte, NC), pp. 181–213.
- Mayer, D. M., M. Kuenzi, R. Greenbaum, M. Bardes and R. Salvador: 2009b, 'How Low Does Ethical Leadership Flow? Test of a Trickle-Down Model', *Organizational Behavior and Human Decision Processes* **108**, 1–13.
- Mayer, D. M., K. Aquino, R. L. Greenbaum and M. Kuenzi: in press, 'Who Displays Ethical Leadership and Why Does It Matter: An Examination of Antecedents and Consequences of Ethical Leadership', *Academy of Management Journal*.
- Neubert, M. J., D. S. Carlson, K. M. Kacmar, J. A. Roberts and L. B. Chonko: 2009, 'The Virtuous Influence of Ethical Leadership Behavior: Evidence from the Field', *Journal of Business Ethics* **90**, 157–170.
- Peterson, D.: 2002, 'The Relationship Between Unethical Behavior and the Dimensions of the Ethical Climate Questionnaire', *Journal of Business Ethics* **41**, 313–326.
- Piccolo, R. F., R. Greenbaum, D. N. den Hartog and R. Folger: 2010, 'The Relationship Between Ethical Leadership and Core Job Characteristics', *Journal of Organizational Behavior* **31**, 259–278.
- Richardson, H. A. and R. J. Vandenberg: 2005, 'Integrating Managerial Perceptions and Transformational

- Leadership into a Work–Unit Level Model of Employee Involvement’, *Journal of Organizational Behavior* **26**, 561–589.
- Robinson, S. L. and A. M. O’Leary-Kelly: 1998, ‘Monkey See, Monkey Do: The Influence of Work Groups on the Antisocial Behavior of Employees’, *Academy of Management Journal* **41**, 658–672.
- Salancik, G. R. and J. Pfeffer: 1978, ‘A Social Information Processing Approach to Job Attitudes and Task Design’, *Administrative Science Quarterly* **23**, 224–253.
- Schminke, M., M. Ambrose and D. Neubaum: 2005, ‘The Effect of Leader Moral Development on Ethical Climate and Employee Attitudes’, *Organizational Behavior and Human Decision Processes* **97**, 135–151.
- Schneider, B.: 1983, ‘Interactional Psychology and Organizational Behavior’, in L. L. Cummings and B. M. Staw (eds.), *Research in Organizational Behavior*, Vol. 5 (JAI Press, Greenwich, CT), pp. 1–31.
- Schneider, B., S. White and M. Paul: 1998, ‘Linking Service Climate and Customer Perceptions of Service Quality: Test of a Causal Model’, *Journal of Applied Psychology* **83**, 150–163.
- Schwepker, C. Jr., O. Ferrell and T. Ingram: 1997, ‘The Influence of Ethical Climate and Ethical Conflict on Role Stress in the Sales Force’, *Journal of the Academy of Marketing Science* **25**, 99–108.
- Simons, T., R. Friedman and L. A. Liu: 2007, ‘Racial Differences in Sensitivity to Behavioral Integrity: Attitudinal Consequences, In-Group Effects, and “Trickle Down” Among Black and Non-Black Employees’, *Journal of Applied Psychology* **92**, 650–665.
- Stringer, R.: 2002, *Leadership and Organizational Climate* (Pearson Education, Inc., Upper Saddle River, NJ).
- Tracey, J. B. and M. Tews: 2005, ‘Construct Validity of a General Training Climate Scale’, *Organizational Research Methods* **8**, 353–374.
- Vardi, Y.: 2001, ‘The Effects of Organizational and Ethical Climates on Misconduct at Work’, *Journal of Business Ethics* **29**, 325–337.
- Victor, B. and J. B. Cullen: 1988, ‘The Organizational Bases of Ethical Work Climates’, *Administrative Science Quarterly* **33**, 101–125.
- Walumbwa, F. O., B. J. Avolio, W. L. Gardner, T. S. Wernsing and S. J. Peterson: 2008, ‘Authentic Leadership: Development and Validation of a Theory-Based Measure’, *Journal of Management* **34**, 89–126.
- Walumbwa, F. O. and J. Schaubroeck: 2009, ‘Leader Personality and Employee Voice Behavior: Mediating Roles of Ethical Leadership and Work Group Psychological Safety’, *Journal of Applied Psychology* **94**, 1275–1286.
- Walumbwa, F. O., D. M. Mayer, P. Wang, H. Wang, K. Workman and A. L. Christensen: in press, ‘Linking Ethical Leadership to Employee Performance: The Roles of Leader-Member Exchange, Self-Efficacy, and Organizational Identification’, *Organizational Behavior and Human Decision Processes*.
- Wimbush, J., J. Shepard and S. Markham: 1997, ‘An Empirical Examination of the Relationship between Ethical Climate and Ethical Behavior from Multiple Levels of Analysis’, *Journal of Business Ethics* **16**, 1705–1716.
- Zohar, D. and G. Luria: 2005, ‘A Multilevel Model of Safety Climate: Cross Level Relationships between Organization and Group-Level Climates’, *Journal of Applied Psychology* **90**, 616–628.

David M. Mayer

Department of Management and Organizations,

Ross School of Business,

University of Michigan,

701 Tappan St., Ann Arbor, MI 48109, U.S.A.

E-mail: dmmayer@umich.edu

Maribeth Kuenzi

Southern Methodist University,

University Park, TX, U.S.A.

Rebecca L. Greenbaum

Oklahoma State University,

Stillwater, OK, U.S.A.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.