Authentic leadership and feedback-seeking behaviour: An examination of the cultural context of mediating processes in China

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Abstract

Despite an increasing number of studies that show a positive relationship between the supportiveness of the feedback source and feedback seeking, little is known about the role that supervisors play in promoting employee feedback-seeking behaviour when they serve as feedback sources. The present article developed a model to fill this void and tested it with data from a sample of 237 supervisor–subordinate dyads. We hypothesized and found that authentic leadership was positively related to feedback-seeking behaviour mediated by both perceived instrumental value and image cost of feedback seeking. The results also demonstrated that employees' individual cultural value of power distance moderated the relationships between authentic leadership and the perceived instrumental value and image cost of feedback seeking.

Keywords: authentic leadership, feedback-seeking behaviour, perceived instrumental value of feedback seeking, perceived image cost of feedback seeking, power distance

INTRODUCTION

Since the construct of feedback-seeking behaviour was proposed by Ashford and Cummings (1983), considerable research effort has been invested in this topic. Defined as the effort to ask others for information concerning work behaviour and work performance (Ashford, 1986; Ashford, Blatt, & VandeWalle, 2003; Chen, Lam, & Zhong, 2007), employee feedback-seeking inquiry has been identified as an important resource for employees to gain self-views and to clarify roles (e.g., Ashford et al., 2003), and has been empirically demonstrated to be linked to a variety of positive work outcomes, such as performance enhancement and goal attainment (Ammons, 1956; Chen et al., 2007; Ilgen, Fisher, & Taylor, 1979). In light of this, scholars and practitioners alike have sought to identify ways to promote employee feedback seeking. The resulting efforts by such investigators have suggested that feedback seeking is influenced by feedback seekers' personal characteristics, such as personality, goal orientation, and feedback orientation (e.g., Janssen & Prins, 2007; Linderbaum & Levy, 2010; VandeWalle & Cummings, 1997; Wanberg &

Kammeyer-Mueller, 2000), feedback source characteristics such as the source's explicit support for feedback seeking or the source's general characteristics such as supervisors' leadership behaviors when they serve as feedback sources (e.g., Steelman, Levy, & Snell, 2004; VandeWalle & Cummings, 1997; Williams, Miller, Steelman, & Levy, 1999), and the feedback-seeking context including job-related factors and norms in the workplace (e.g., Ashford & Northcraft, 1992; Callister, Kramer, & Turban, 1999; Fedor, Rensvold, & Adams, 1992).

Given the important role that supervisors play in the work life of employees, previous research has presented some intriguing evidence that the supervisor is one of the most valuable feedback sources (e.g., Chen et al., 2007; VandeWalle, Ganesan, Challagalla, & Brown, 2000), hence our study focuses on the feedback-seeking inquiry of employees from their supervisors. Research has suggested that when serving as a feedback source, the leadership style of the supervisor plays a role in promoting employees' feedback seeking. For instance, VandeWalle et al. (2000) found that the initiating structures and considerations of supervisors are positively related to employees' feedback seeking. More recently, researchers have begun investigating authentic leadership and its influence

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as a root construct underlying all positive forms of leadership (Avolio & Gardner, 2005). Related arguments suggest that authentic leadership makes a critical contribution to employee feedback seeking but empirical evidence has been lacking (Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Shamir & Eilam, 2005). Accordingly, the first contribution of the present study is to examine the relationship between authentic leadership and employee feedback-seeking behaviour.

In addition to investigating the positive relationship between authentic leadership and employee feedback seeking, I also probe the underlying mechanisms through which authentic leadership is positively related with employees' feedback seeking. Scholars have identified a series of motives that could encourage or discourage individuals to seek feedback (e.g., Ashford et al., 2003), while instrumental motives (motives to obtain useful information) and image protection motives (motives to protect one's image in front of others) are two of the most studied types (e.g., Ashford, 1986; Hays & Williams, 2011; VandeWalle et al., 2000). Seeker characteristics, source characteristics or feedback-seeking context characteristics promote or diminish feedback seeking by satisfying the instrumental motive and/or meeting the image protection motive. Following this line of reasoning, the second contribution of our study is to examine the underlying mechanism through which authentic leadership positively relates to employee feedback-seeking behavior from supervisors. Specifically, we argue that authentic leadership positively relates to the perceived instrumental value of feedback seeking (it satisfies the instrumental motive) while negatively relating to the perceived image cost (it meets the image protection motive), which in turn promotes feedback seeking from supervisors.

Since cultural values provide cues for individuals to make sense of the external environment, individual differences in cultural values may substantially influence interpretations of leadership behaviours in work settings (e.g., Farh, Hackett, & Liang, 2007; Kirkman, Chen, Farh, Chen, & Lowe, 2009). In addition, the feedback-seeking literature suggests that the feedback-seeking influence process is contingent upon an individual's cultural values (e.g., Bailey, Chen, & Dou, 1997; Robinson & Weldon, 1993; Sully de Luque & Sommer, 2000). However, the moderating role of the individual cultural value on the effectiveness of authentic leadership has not been studied. Therefore, in the present study we make a third contribution by examining the moderating role of an employee's cultural value of power distance on the relationships between authentic leadership and the mediators. Power distance has been demonstrated to moderate Chinese employees' experience of work (e.g., managerial practices/ organizational support) and their behavioral and attitudinal reactions (e.g., Farh et al., 2007; Kirkman et al., 2009). Consequently, it should have implications for our sample of Chinese employees' reactions to their supervisors' authentic leadership. The theoretical framework that guides the present study appears in Figure 1.

THEORY AND HYPOTHESES
Authentic leadership and feedback seeking

Authentic leadership is defined as 'a pattern of leader behaviour that draws upon and promotes both positive psychological capabilities and a positive ethical climate, to foster great self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of supervisors working with subordinates, fostering positive development' (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008, p. 92). Previous studies have demonstrated that authentic leadership is a higher order, multidimensional construct composed of four dimensions: self-awareness, relational transparency, balanced processing and internalized moral perspective (Avolio & Gardner 2005; Clapp-Smith, Vogelgesang, & Avey, 2009; Jensen & Luthans, 2006; Walumbwa et al., 2008).

The first dimension, *self-awareness*, reflects both the product and process. It involves having an understanding of one's needs, values, emotions, capabilities, goals and his/her impact on others, as well as the process whereby one comes to continuously reflect on the multifaceted self, which often occurs through exposure to others or is triggered by life events (e.g., Gardner et al., 2005; Ilies, Morgeson, & Nahrgang, 2005; Shamir & Eilam,
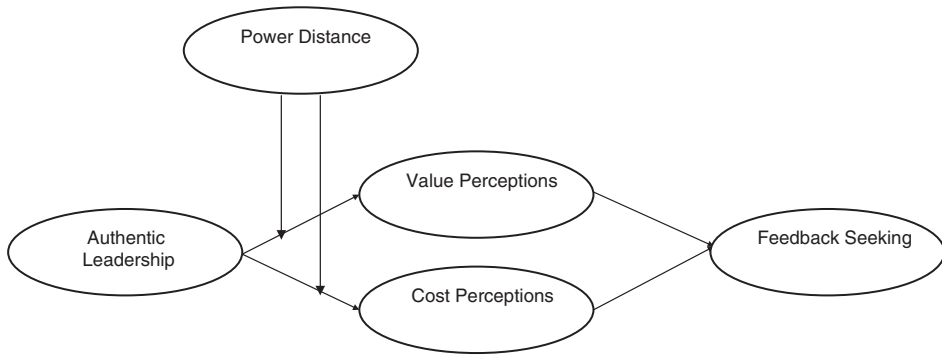
FIGURE 1: HYPOTHESIZED RESEARCH MODEL

2005). The other three dimensions are considered to be self-regulation components (Walumbwa et al., 2008). *Relational transparency* includes the supervisor's presentation of his or her authentic self-aspects, both good and bad (as opposed to the false or distorted self) to employees. The self-disclosure process involves supervisors openly sharing information and knowledge, as well as a mutual communication of the true thoughts and feelings that often enhance the development of mutual intimacy and trust (Eagly, 2005; Gardner et al., 2005; Kernis, 2003; Walumbwa et al., 2008). *Balanced processing* includes the processing of self-relevant information from diverse sources, such as personal thoughts, feelings and evaluative messages from others, before coming to a decision and/or committing to an act without ignoring, denying, distorting, or exaggerating this information (Cooper, Scandura, & Schriesheim, 2005; Gardner et al., 2005; Walumbwa et al., 2008). The final dimension, *internalized moral perspective*, represents the notion of acting upon the true self, and refers to when supervisors behave in accordance with their deeply held needs, values, and beliefs toward internalized or integrated goals, rather than in accordance with external pressures (Avolio & Gardner, 2005; Deci & Ryan, 2000; Gardner et al., 2005; Walumbwa et al., 2008).

The proposed view of authentic leadership by scholars suggests that supervisors who exercise authentic leadership are deeply aware of and trust their values/moral perspectives and beliefs, as well as the context in which they operate. They build trust and intimacy and win respect

from employees by transparently interacting with them, valuing diverse viewpoints, and acting in accordance with those deeply held personal values and convictions in order to lead in a manner that employees recognize as authentic, effective and of high moral character (e.g., Avolio & Gardner, 2005; Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Avolio & Luthans, 2006; Luthans & Avolio, 2003, 2009; May, Chan, Hodges, & Avolio, 2003; Walumbwa et al., 2008). Through this set of behaviours, supervisors convey the message of integrity, transparency, openness, fairness, trust and respect for others, all of which could encourage their employees to proactively seek feedback. Accordingly,

Hypothesis 1: Authentic leadership is positively related to employee feedback seeking.

Authentic leadership, perceived instrumental value and image cost, and feedback-seeking behaviour
Previous feedback-seeking literature has suggested that perceived instrumental value (the beliefs about the instrumental value of feedback itself) and perceived image cost (the belief that asking for feedback may damage the image) are key predictors of feedback-seeking behaviour (see the review by Ashford et al., 2003), and they are often considered to be the mechanisms through which feedback seeker characteristics, feedback source characteristics and feedback contextual factors contribute to feedback seeking (e.g., VandeWalle et al., 2000; VandeWalle & Cummings, 1997).

Therefore, antecedents that enhance the perceived value of feedback seeking (i.e., satisfy the instrumental motive) and/or reduce its perceived cost (i.e., meet the motive to protect one's image) will promote feedback-seeking behaviour. Following this line of reasoning, we suggest that authentic leadership is positively related with the perceived instrumental value and negatively related with the image cost of feedback seeking, which in turn promotes feedback-seeking behaviour (Avolio, Walumbwa, & Weber, 2009).

More specifically, when supervisors fundamentally address the importance of knowing the true self in the context of the surroundings (Avolio & Gardner, 2005; Sparrowe, 2005; Walumbwa et al., 2008), employees are encouraged to clarify their own self-awareness and are more likely to find feedback seeking valuable for their own self-awareness, meaning that employees will be more motivated to seek it. By practicing feedback seeking themselves and using such valuable information to clarify and reflect on self-aspects, supervisors ensure that the acknowledgement of one's own weaknesses is an important aspect of obtaining self-awareness and personal growth (Gardner et al., 2005; Ilies et al., 2005; Michie & Gooty, 2005), and that proactively seeking feedback in whatever form only signals a desire to know the self. Thus, their employees are less likely to be concerned about losing their image in front of others and should be more willing to seek feedback.

Likewise when supervisors disclose their self-aspects to employees, they build authentic relationships characterized by intimacy and trust (Avolio et al., 2004; Eagly, 2005). In this regard, they render feedback seeking more valuable and less costly by proactively serving as trustworthy and creditable feedback sources who are willing to share information, thoughts and feelings without distortion or judgment, as well as building an open and safe feedback channel that ensures the smooth delivery of such information. Thus, knowing the supervisors to be a credible source and the authentic relations to be a trusty and safe medium, employees will be more willing to seek feedback from them (Ashford & Tsui, 1991; Vancouver & Morrison, 1995).

Additionally, when supervisors emphasize the value of multiple perspectives in decision making and daily work practices (Avolio & Gardner, 2005), employees are more likely to form a favourable attitude toward feedback because it is embedded with important information that helps to map the work environment and clarify various aspect of their job practices, and in turn show a stronger desire to seek it. Furthermore, when supervisors emphasize the diverse nature of others' points of view, as well as treating views that challenge his or her deeply held positions as opportunities rather than as threats, their employees are encouraged and well prepared to seek feedback with less perceived image involvement and with a greater willingness (Ladkin & Taylor, 2010).

Finally, when supervisors serve as self-regulatory role models who act upon their authentic convictions, their employees are likely to proactively seek out, reflect on, and selectively internalize self-relevant information (Avolio & Gardner, 2005). In addition, through experiencing their supervisors' authentic self-regulation, employees are more likely to realize that exerting an effort to know oneself is not an end but a continuous process (Walumbwa et al., 2008). As a result they would be more likely to value the rich information that feedback could offer and proactively seek it in their own self-regulatory process. Likewise, because authentic leadership emphasizes that people are best described as more or less knowing themselves and the ropes of their work, feedback itself does not signal performance status and is not exclusively for those who lack knowledge or perform poorly (Avolio & Gardner, 2005; Walumbwa et al., 2008). Employees should therefore perceive less image costs and be more willing to seek feedback. This leads us to the following hypotheses:

Hypothesis 2: Authentic leadership is positively related to perceived instrumental value of feedback seeking.

Hypothesis 3: Authentic leadership is negatively related to perceived image cost of feedback seeking.

Hypothesis 4: The employees' perceived instrumental value and perceived image cost

of feedback seeking mediate the positive relationship between authentic leadership and feedback-seeking behaviour.

The moderating role of power distance

Consistent with prior research (Kirkman et al., 2009), the present study defines *power distance* at an individual level as 'the extent to which an individual accepts the unequal distribution of power in institutions and organizations' (Clugston, Howell, & Dorfman, 2000, p. 9). In the workplace context, it is typical for employees who have a high level of power distance to accept status differences and deem their authentic leaders to be an accountable and credible feedback source, thus making it more likely that the feedback provided by such leaders will be perceived as being of significant value (Hofstede, 2001). However, because such employees take their high-status supervisors more seriously, they are more likely to view their feedback as being critical in nature rather than developmental (Hofstede, 2001). As a result, the perceived image cost reduction generated by authentic leadership may be buffered, meaning that the negative effect that authentic leadership exerts on the perceived image cost of feedback seeking is likely to be weaker for the high power distance employees. Accordingly, we hypothesized:

> Hypothesis 5: Power distance moderates the positive relationship between authentic leadership and perceived value in such a way that the relationship will be stronger for people higher, rather than lower, in power distance.

> Hypothesis 6: Power distance moderates the negative relationship between authentic leadership and perceived image cost in such a way that the relationship will be weaker for people higher, rather than lower, in power distance.

METHOD
Research setting, sample, and procedures
Participants in the current study were full-time employees of an electricity supplier located in a major city in southern China. We designed two separate questionnaires for supervisors and subordinates, thereby collecting data from two sources

to minimize potential common method biases. The supervisor questionnaires were distributed to 74 work unit supervisors, who each rated the feedback-seeking behaviour of four subordinates. The four immediate subordinates were randomly selected via the human resource department. The 296 subordinates filled out a separate questionnaire that included items measuring their immediate supervisors' authentic leadership, their perceived instrumental value and image cost of feedback seeking, demographics and work status. Each questionnaire was assigned an identification number so the responses of the subordinates could be matched with the evaluations of the immediate supervisors. Surveys were completed on a voluntary basis. Each packet contained an information sheet explaining the objective of the survey along with a consent form, survey questionnaire and a return envelop with seal tape to protect the respondents' confidentiality. Participants were instructed to complete the survey, put it in a sealed envelope and individually return it within 2 weeks to a box in the human resource department designated for that purpose. Sixty two (62) supervisors and 254 subordinate questionnaires were returned with a response rate of 83.8% and 85.8% respectively. A total of 237 pairs remained after eliminating the uncompleted and unmatched questionnaires, resulting in an overall response rate of 80.0%.

The demographic data of the remaining subordinate sample was as follows. The average age of all the participants was 35.15 (SD = 8.50). The average age of all the participants was 35.18 (SD = 8.50) and 57.8% were male (SD = 0.49). The average organizational tenure was 13.29 years (SD = 8.74), job tenure was 9.49 years (SD = 7.85) and the average years of education was 12.33 (SD = 3.86). The participants came from different levels of the company and held a variety of job titles, though the majority of them (94.9%) were non-supervisory employees, while the rest consisted of first line supervisors (4.2%), and middle managers (0.8%; SD = 0.27). Most of them were in the technical (35.0%), sales/marketing (21.9%), customer service (18.6%), and research and development (11.8%) departments, but other supporting departments such as human

resource/administration (10.1%), accounting/finance (9.7%), and computer systems (3.8%) were also represented (SD = 1.97). Of the supervisors, 76.4% were male, the average reported age was 39.51 years (SD = 8.90), the average reported organizational tenure was 15.34 years (SD = 3.86), and the average reported education was 15.69 years (SD = 3.14). In terms of management grade, 78.3% were lower-level managers, 14.5% were middle-level managers, and 7.2% were senior/top-level managers (SD = 1.13).

Measures

The translation, back-translation method (Brislin, 1990) was applied to verify the survey instructions and questionnaires in Chinese. According to Behling and Law (2000), this technique is necessary since creating a translation from one language to another that maintains the conceptual equivalence is very difficult due to cultural differences. Since several researchers have raised the concerns of the potential constrains of this method (e.g., Wang, 1993; Xie, Schaubroeck, & Lam, 2008), one of the authors discussed each questionnaire item with the focus group members to ensure clarity. A few minor changes have been made based on the comments received. The majority of the measures displayed satisfactory reliability (Cronbach's alpha > 0.80) while two measures, i.e., feedback seeking and perceived image cost of feedback seeking, displayed acceptable reliability (Cronbach's alpha > 0.70; Allen & Yen, 2002; George & Mallery, 2003).

Authentic leadership

We used the 16-item authentic leadership questionnaire (ALQ; Avolio, Gardner, & Walumbwa, 2007) to measure authentic leadership, which includes self-awareness (e.g., 'Accurately describes how others view his or her capabilities'), relational transparency (e.g., 'Says exactly what he or she means'), balanced processing (e.g., 'Solicits views that challenge his or her deeply held positions'), and internalized moral perspective (e.g., 'Makes decisions based on his or her core values'). Using the 'immediate supervisor' as the referent, subordinates were asked to rate the extent to which they agreed with statements

on a five-point scale ranging from 1 (not at all) to 5 (frequently, if not always). The results of confirmatory factor analysis (CFA) confirmed the existence of a second-order authentic leadership model in which the four first-order factors contributed to an overall authentic leadership index (χ^2 = 191.29; df = 50; RMSEA = 0.08; CFI = 0.94; TLI = 0.92). The Cronbach's alpha for each of the four dimensions were as follows: self-awareness (0.89), relational transparency (0.89), balanced processing (0.84), and internalized moral perspective (0.86). And the Cronbach's alpha coefficient for the authentic leadership scale was 0.96.

Feedback seeking

The immediate supervisors' perceptions of their subordinates' feedback seeking inquiry frequency was measured with a five-item scale validated by VandeWalle et al. (2000). Each supervisor was asked to provide his or her own ratings of how frequently each of the five aspects of feedback (i.e., the inadequacies of overall job performance, technical aspects of the job, values and attitudes of the firm, role expectations, and social behaviours) were asked by the rated subordinate. Scale anchors ranged from 1 (never) to 7 (always). The alpha reliability for the scale was 0.77.

Perceived instrumental value of feedback seeking

We measured the perceived feedback seeking value using Ashford's (1986) six-item scale. Subordinates rated the extent to which they agree with the statements on a seven-point response format (1, 'strongly disagree'; 7, 'strongly agree'). An example item is 'I find feedback on my performance useful'. The scales' reliability was 0.84.

Perceived image cost of feedback seeking

Employees' feedback seeking cost perceptions were measured with a four-item scale developed by Ashford (1986). Response options ranged from 1, 'strongly disagree' to 7, 'strongly agree'. A sample item is, 'I think my immediate supervisor would think worse of me if I asked him/her for feedback'. The alpha reliability for the scale was 0.70.

Power distance

We used the six-item scale developed by Dorfman and Howell (1988). Responses to the items used a five-point scale that ranged from 1 (strongly disagree) to 5 (strongly agree). Sample items include 'Managers should make most decisions without consulting subordinates', and 'It is frequently necessary for a manager to use authority and power when dealing with subordinates'. The alpha reliability for this scale was 0.91.

Control variables

We included six control variables for testing the hypotheses. We controlled job tenure because previous research has demonstrated that this could account for variance in feedback seeking (e.g., Ashford 1986; Ashford & Black, 1996; Ashford & Cummings, 1985). In keeping with other authentic leadership research (e.g., Walumbwa et al., 2008), we also controlled the participants' age, gender, education, position, and company tenure in the current company. Age, education, job and company tenure were measured by the number of years. Gender was coded 0 for 'female' and 1 for 'male'. The nominal variable of the employee position was coded 1 for 'non-supervisory employees', 2 for 'first-level supervisor/manager', and 3 for 'middle-level manager'.

DATA ANALYSIS

First, although the variables included in the current study are theoretically distinctive, we conducted a CFA using AMOS 17.0 to empirically demonstrate the distinctiveness of authentic leadership, perceived instrumental value, perceived image cost, feedback seeking and power distance. This completed, we used the structural equation modelling (SEM) to test our mediating hypotheses. We assessed the following conditions for mediation: (a) The independent variable must be related to the mediator; (b) the mediator must be related to the dependent variable; and (c) the independent variable must have no effect on the dependent variable when the mediator is held constant (full mediation) or the effect should become significantly smaller (partial mediation; Kenny, Kashy, & Bolger, 1998). We compared the nested partially mediated model with the hypothesized fully mediated model to examine the third condition

of mediation. In addition, we also compared two non-nested alternative models with our hypothesized model. We used Akaike's (1987) information criterion (AIC) to evaluate the relative fit of our best-fitting model and the non-nested alternative models. The model with the smaller AIC value is considered the better fitting model. The Sobel test was further conducted to confirm the full mediating effect (Shrout & Bolger, 2002).

Third, we ran hierarchical regression analyses to test our moderating effect hypothesis. To minimize any potential problems of multicollinearity, we cantered the variables used in the interaction term (Aiken & West, 1991).

Finally, as each supervisor rated the feedback seeking score for more than one subordinate in our study, we computed the intraclass correlation coefficient (ICC) to assess whether nonindependence of supervisor ratings of subordinate's feedback seeking was a concern in our study. Nonindependence has little impact on statistical results when the ICC and the number of subordinates assigned to a rater are relatively small (Bliese, 2000; Kenny et al., 1998). In the current study, the average number of subordinates per superior in our sample was 3.2 and the ICC was 0.02. Hence, the issue of nonindependence was not consequential in our study.

RESULTS

Confirmatory factor analysis

Table 1 demonstrates the results of the CFA that examined the distinctiveness of all the studied variables. We adopted the well-accepted procedure used by previous researchers to reduce the number of items for each construct by creating three indicators to represent each of them (Aryee, Chen, Sun, & Debrah, 2007; Bagozzi & Heatherton, 1994; Hui, Lee, & Rousseau, 2004; Wang, Law, Hackett, Wang, & Chen, 2005). Based on the factor analysis results, the items with the highest and lowest loadings were averaged first, followed by the two items with the next highest and lowest loadings until all the items for each construct had been combined to three indicators. For authentic leadership, we used the four dimensions as its indicators by averaging items for each dimension. As shown in Table 1, the hypothesized five-factor model fits the data well (χ^2 = 137.38; *df* = 94; RMSEA = 0.04; CFI = 0.98;

TABLE 1: RESULTS OF CONFIRMATORY FACTOR ANALYSIS FOR THE STUDIED VARIABLES

Model	Factors	χ^2	df	Normed χ^2	TLI	CFI	RMSEA
Null model		1301.89	104	12.52	0.29	0.46	0.22
Baseline model	Five factors	137.38	94	1.46	0.97	0.98	0.04
Model 1	Four factors: perceived value and cost combined	335.00	98	3.42	0.85	0.89	0.10
Model 2	Four factors: perceived value and feedback seeking combined	344.82	98	3.52	0.84	0.88	0.10
Model 3	Four factors: perceived cost and feedback seeking combined	336.38	98	3.43	0.85	0.89	0.10
Model 4	Three factors: perceived value and cost and feedback seeking combined	533.16	101	5.28	0.81	0.74	0.13

1) N = 237 with listwise deletion; 2) TLI is the Tucker–Lewis index; CFI, the comparative fit index; and RMSEA, the root-mean-square error of approximation.

TLI = 0.97) and provided a significantly better fit than any alternative model, thus providing empirical evidence of the distinctiveness of the constructs studied. We therefore proceeded to test the hypotheses.

Descriptive statistics

Table 2 contains means, standard deviations, reliabilities and zero-order correlations among all the variables. As is evident from Table 2, authentic leadership was significantly and positively correlated with feedback seeking ($r = 0.19$, $p < 0.01$), providing evidence to support Hypothesis 1. Among the four dimensions, internalized moral perspective emerged as the strongest predictor of employees' feedback-seeking behavior. This might be because this dimension directly addresses the behavior part of the self-regulation process – morally acting upon one's true self (Walumbwa et al., 2008) – and is thus more influential in the frequency of employees' feedback-seeking.

Mediating effect tests

Results of the SEM analysis are presented in Table 3 and Figure 2. Supporting condition 1, the baseline hypothesized model results showed that authentic leadership predicts the hypothesized mediators (perceived value and perceived cost) in the hypothesized direction – hypotheses 2 and 3

TABLE 2: MEANS, SD, RELIABILITIES, AND CORRELATIONS AMONG STUDY VARIABLES

	Mean	SD	1	2	3	4	5
1. Authentic leadership	3.80	0.85	(0.96)				
2. Perceived value	3.83	0.71	0.38**	(0.84)			
3. Perceived cost	2.37	0.36	−0.33**	0.23**	(0.70)		
4. Feedback seeking	3.26	0.82	0.19**	0.19**	−0.18**	(0.77)	
5. Power distance	3.90	0.80	0.23**	0.62**	0.05	0.18**	(0.91)

1) N = 237 with listwise deletion; 2) **$p < 0.01$.

were therefore supported. The second condition was also satisfied because the results showed that perceived value was positively related to feedback seeking while perceived cost was negatively related to it. Hypothesis 4 predicted that the positive relationship between authentic leadership and feedback was mediated by perceived value and cost. The overall model fit for our fully mediating model was satisfactory ($\chi^2 = 118.48$; $df = 61$; RMSEA = 0.06; CFI = 0.97; TLI = 0.95). Against our baseline model, we tested a partial mediation model (Model 2), in which a direct path from authentic leadership to feedback seeking was added. As shown in Table 4, the addition of this path did not improve model fit and the chi-square difference between our fully mediated model (Model 1) and Model 2 was not significant ($\Delta\chi^2 = 0.03$; $\Delta df = 1$; $p > 0.05$). Under the principle of model parsimony, the fully mediated model (Model 1) fitted our data better and the third condition for full mediation was therefore

TABLE 3: COMPARISON OF STRUCTURAL EQUATION MODELS

Model and Structure	χ^2	df	$\Delta\chi^2$	TLI	CFI	RMSEA	AIC
Nested models:							
1. AL → PC + PV → FBS	118.48	61	–	0.95	0.97	0.06	204.48
2. AL → PC + PV → FBS; AL → FBS	118.45	60	0.03	0.94	0.96	0.06	204.76
Non-nested alternative models:							
3. FBS → AL → PC + PV	131.00	61		0.94	0.96	0.07	215.00
4. PC + PV → FBS → AL	152.96	61		0.91	0.94	0.08	238.96

1) N = 237 with listwise deletion. 2) TLI is the Tucker–Lewis index; CFI, the comparative fit index; and RMSEA, the root-mean-square error of approximation. 3) AL, authentic leadership; PC, perceived cost of feedback seeking; PV, perceived value of feedback seeking; FBS, feedback seeking.
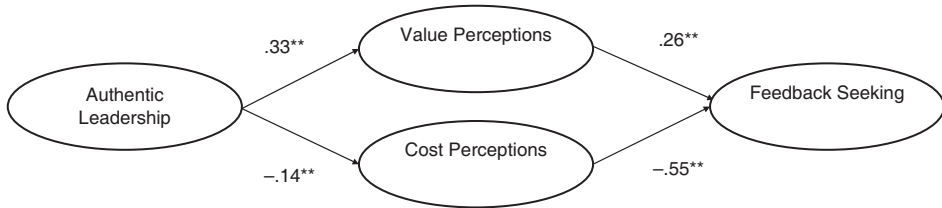

FIGURE 2: RESULTS OF STRUCTURAL EQUATION MODELLING ON THE MEDIATING EFFECTS OF PERCEIVED VALUE AND COST.
1) N = 237 with listwise deletion. Standardized regression coefficients are shown; 2) **p <0.01

satisfied. We conclude that the perceived value and perceived cost fully mediates the relationship between authentic leadership and feedback seeking, which supported Hypothesis 4. Additionally, the AIC values showed that our hypothesized fully mediated model had a smaller value than the non-nested alternative models, reinforcing our decision to accept the hypothesized model as the best-fitting model (Akaike, 1987). Figure 2 presents the SEM estimates for the hypothesized paths.

Furthermore, the results of the Sobel test also supported the mediating effect of perceived value and cost in our model. Specifically, the indirect effects of authentic leadership on feedback seeking through the mediators were all significant at a level of 0.01 (two-tailed; Shrout & Bolger, 2002).

Moderating effect tests
We conducted a moderated regression analysis to test Hypotheses 5 and 6, which claimed that authentic leadership would have a greater impact on perceived value and a lower impact on perceived cost for employees with a higher rather than lower level of power distance. As illustrated

in Table 4, control variables (i.e., age, gender, education level, position, job tenure, and company tenure) were entered at step 1, while authentic leadership and power distance were entered at steps 2. At step 3, we entered the interaction of authentic leadership and power distance. The results showed that the changes in the multiple squared correlation coefficient (ΔR^2) associated with authentic leadership×power distance interaction term was statistically significant for perceived value (β = 0.15, ΔR^2 = 0.02, $p < 0.01$) and perceived cost (β = 0.18, ΔR^2 = 0.03, $p < 0.01$).

To interpret the specific pattern of the moderating effect in H5 and H6, the regression equations were calculated for the relationship between authentic leadership and perceived instrumental value and image cost at high and low levels of power distance respectively. Following Cohen and Cohen (1983), we defined the high and low values as plus and minus one standard deviation from the mean. As shown in Figure 3, the pattern of this interaction was exactly as predicted: the linear relationships between authentic leadership and perceived value were stronger for the high power distance group.

TABLE 4: RESULTS OF HIERARCHICAL REGRESSION ANALYSIS FOR MODERATION BY POWER DISTANCE

Variables	Perceived value	Perceived cost
Step 1: Controls		
Age	0.09	−0.06
Gender	0.07	−0.02
Education level	−0.03	0.02
Company tenure	−0.26*	−0.05
Job tenure	−0.00	0.15
Department	0.05	−0.17*
Position	0.13	−0.00
ΔR^2	0.05	0.03
ΔF	1.53	1.17
Step 2: Main effects		
Authentic leadership	0.23**	−0.36**
Power distance	0.55**	0.16*
ΔR^2	0.40**	0.12**
ΔF	19.75**	4.49**
Step 3: Moderating effect		
Authentic leadership × power distance	0.15**	0.18**
ΔR^2	0.02**	0.03**
ΔF	19.12**	5.00**

1) $N = 237$ with listwise deletion. Standardized regression coefficients are shown; 2) $*p < 0.05$; $**p < 0.01$.

Thus, the findings supported Hypothesis 5. As shown in Figure 4, the pattern was, as predicted, that the linear relationship between authentic leadership and perceived cost were weaker for the high power distance group, therefore supporting Hypothesis 6.

DISCUSSION

In the present study, we developed and tested a model linking authentic leadership with employees' feedback-seeking behaviour by investigating the underlying mechanisms as well as the boundary condition. The results revealed that: (a) authentic leadership was positively associated with feedback seeking; (b) the positive relationship was mediated by employees' perceptions of both the instrumental value and image cost of feedback seeking; (c) the relationship between authentic leadership and perceived value was contingent on employees' cultural value of power distance in such a way that the relationships was stronger for people higher, rather than lower, in power distance; and (d) the

relationship between authentic leadership and perceived cost was contingent on employees' cultural value of power distance in such a way that the relationship was weaker for people higher, rather than lower, in power distance.

Theoretical implications

The present research has a number of theoretical implications regarding feedback seeking and authentic leadership. To begin with, our findings have important theoretical contributions for the rising research in identifying leadership's role in promoting employee feedback seeking. Although authentic leadership has been conceptually linked to feedback seeking (Gardner et al., 2005; Ilies et al., 2005; Shamir & Eilam, 2005), the empirical evidence has been lacking. Addressing this gap, the present study empirically tested authentic leadership as a predictor of feedback seeking. In addition, the mechanism through which authentic leadership promotes employee feedback seeking has barely been theorized or empirically investigated. Addressing this issue, we theorized and found that authentic leadership could promote employee feedback-seeking behaviour, mediated by the perceived instrumental value and image cost of feedback seeking. By doing so, the present study not only empirically tests the authentic leadership-feedback seeking relationship, but also identifies its underlying psychological processes of perceived value and costs. Additionally, our findings support the previous studies (e.g., VandeWalle et al., 2000) by providing further evidence of the important role that perceived instrumental value and image cost play in channelling feedback source influences into feedback-seeking behavior (e.g., Ashford et al., 2003). Future research might investigate the role of other supervisor leadership styles (such as transformational leadership, e.g., Wang et al., 2005) or the quality of the relationship between supervisor and feedback seeker such
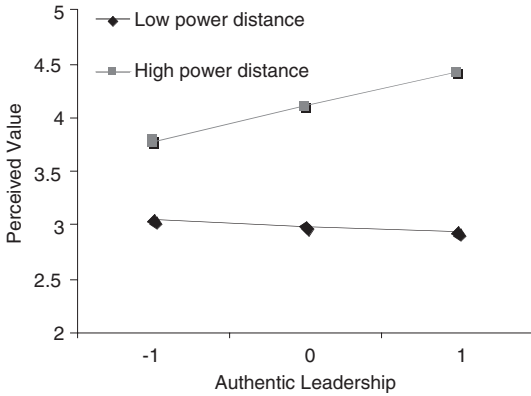
FIGURE 3: AUTHENTIC LEADERSHIP AND PERCEIVED VALUE BY POWER DISTANCE
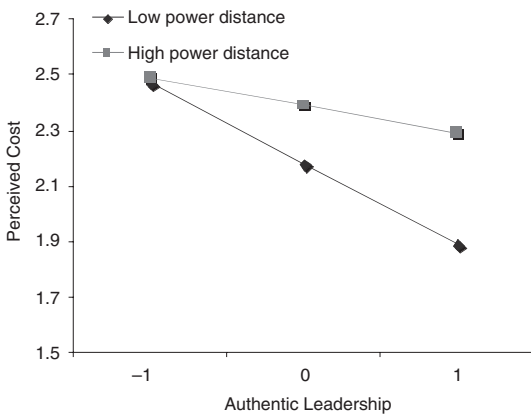
FIGURE 4: AUTHENTIC LEADERSHIP AND PERCEIVED COST BY POWER DISTANCE

as leader–member exchange (LMX, e.g., Liden & Maslyn, 1998) and leader–leader exchange (LLX, e.g., Sluss, Klimchak, & Holmes, 2008).

Feedback seeking researchers have concluded that seekers' personal characteristics may play a role in the relationship between feedback source characteristics and feedback-seeking behaviour (Ashford, 1986; Butler, 1993; Northcraft & Ashford, 1990; VandeWalle & Cummings, 1997; VandeWalle et al., 2000; Wada, 1990). The research of VandeWalle et al. (2000) in particular points out the importance of studying feedback sources' influence on feedback seeking in concert with feedback seekers' personal characteristics. We extend this perspective by highlighting the role that employees' power distance plays in moderating the

relationship between supervisors' authentic leadership and employee feedback seeking from supervisors. In the light of the findings in the present study, we therefore encourage future researchers to further identify feedback seeker's personal characteristics such as self-awareness (e.g., Csikszentmihalyi & Figurski, 1982) or additional individual cultural values such as individualism, long-term orientation and assertiveness (Hofstede, 2001; House, Hanges, Javidan, Dorfman, & Gupta, 2004) as enhancers, neutralizers, or substitutes for the feedback source's characteristics–feedback seeking relationship.

Practical contributions
Practically, our model suggests that authentic leadership can enhance employees' feedback-seeking behaviour. Other than some factors that go beyond the organisation's control, such as learning orientation and personality, authentic leadership can be developed through training programs (e.g., Avolio & Gardner, 2005; Shamir & Eilam, 2005; Walumbwa et al., 2008). Organisations could therefore provide opportunities for supervisors to develop their authentic leadership in order to motivate employees to seek feedback. The mediating influences of employee perceived instrumental value and image cost of feedback seeking suggest that when supervisors exercise authentic leadership, they should pay attention to the attitudes of employees towards feedback seeking in order to promote feedback-seeking behaviour. Accordingly, strategies that enhance employees' perceived value and decrease perceived cost should be incorporated into authentic leadership training programs. In terms of the moderating role of power distance, our study suggests that employees do not uniformly interpret the signals of their supervisors' authentic leadership, meaning that supervisors need to pay special attention to the individual differences of their employees when promoting feedback-seeking behaviour.

Limitations
Although the results are encouraging, several limitations warrant discussion to properly interpret the results of this research. One limitation is that although we built the hypotheses with the relevant theory and previous research evidence, the cross-sectional design implies that it is difficult to make

a definitive conclusion regarding causality. Our findings were, however, consistent with the feedback seeking literature and authentic leadership theory that underpinned our study. In addition, the SEM results illustrated that our model received better support than the any other alternative models (Table 3). Additional quasi-experimental or longitudinal research would be useful to further ascertain the causal basis of the relationships examined in this study. A second limitation of this research concerns the generalisability of our results. The data used in the present study was only collected from one workplace within the electricity supply industry, thus the extent to which the results are applicable to other organizations or industries can only be speculated. The general applicability of the present findings should therefore be examined in other types of organizations and/or industries in future research.

Conclusion

Given the critical role of feedback seeking in the workplace, supervisors often face the challenge of promoting such behaviour. Our study addresses this challenge by suggesting that authentic leadership can effectively promote employees' feedback seeking from supervisors through enhancing the perceived instrumental value while decreasing the perceived image cost of such behaviour. Our results also caution that individual cultural values such as power distance should be considered in authentic leadership practice.

Acknowledgements

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.

Akaike, H. (1987). Factor analysis and AIC. *Psychometrika, 52*, 317–332.

Allen, M. J., & Yen, W. M. (2002). *Introduction to measurement theory*. Long Grove, IL: Waveland Press.

Ammons, R. B. (1956). Effects of knowledge of performance: A survey and tentative theoretical formulation. *The Journal of General Psychology, 54*, 279–299.

Aryee, S., Chen, Z. X., Sun, L., & Debrah, Y. (2007). Antecedents and outcomes of abusive supervision in Chinese setting. *Journal of Applied Psychology, 92*, 191–201.

Ashford, S. J. (1986). Feedback-seeking in individual adaptation: A resource perspective. *Academy of Management Journal, 29*, 465–487.

Ashford, S. J., & Black, J. S. (1996). Proactivity during organizational entry: The role of desire for control. *Journal of Applied Psychology, 81*, 199–214.

Ashford, S. J., Blatt, R., & VandeWalle, D. (2003). Reflections on the looking glass: A review of research on feedback-seeking behavior in organizations. *Journal of Management, 29*, 773–799.

Ashford, S. J., & Cummings, L. L. (1983). Feedback as an individual resource: Personal strategies of creating information. *Organizational Behavior and Human Performance, 32*, 370–398.

Ashford, S. J., & Cummings, L. L. (1985). Proactive feedback seeking: The instrumental use of the information environment. *Journal of Occupational Psychology, 58*, 67–79.

Ashford, S. J., & Northcraft, G. B. (1992). Conveying more (or less) than we realize: The role of impression-management in feedback seeking. *Organizational Behavior and Human Decision Processes, 53*, 310–334.

Ashford, S. J., & Tsui, A. S. (1991). Self-regulation for managerial effectiveness: The role of active feedback seeking. *Academy of Management Journal, 34*, 251–280.

Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly, 16*, 315–338.

Avolio, B. J., Gardner, W. L., & Walumbwa, F. O. (2007). *Authentic leadership questionnaire*. Menlo Park, CA: Mind Garden.

Avolio, B. J., Gardner, W. L., Walumbwa, F. O., Luthans, F., & May, D. (2004). Unlocking the mask: A look at the process by which authentic leaders' impact follower attitudes and behaviors. *Leadership Quarterly, 15*, 801–823.

Avolio, B. J., & Luthans, F. (2006). *The high impact leader: Authentic, resilient leadership that gets results and sustains growth*. New York, NY: McGraw-Hill.

Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology, 60*, 421–449.

Bagozzi, R., & Heatherton, T. (1994). A general approach to representing multifaceted personality constructs: Application to self-esteem. *Structural Equation Modeling, 1*, 35–67.

Bailey, J. B., Chen, C. C., & Dou, S. G. (1997). Conceptions of self and performance-related feedback in the U.S., Japan, and China. *Journal of International Business Studies, 28*, 605–625.

Behling, O., & Law, K. S. (2000). *Translating question-naires and other research instruments: Problems and solutions.* Thousand Oaks, CA: Sage.

Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein, & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and meth-ods in organizations* (pp. 349–381). San Francisco, CA: Jossey-Bass.

Brislin, R. W. (1990). *Applied cross-cultural psychology.* Newbury Park, CA: Sage.

Butler, R. (1993). Effects of task- and ego-achievement goals on information seeking during task engagement. *Journal of Personality and Social Psychology, 65*, 18–31.

Callister, R. R., Kramer, M. W., & Turban, D. B. (1999). Feedback seeking following career transitions. *Academy of Management Journal, 42*, 429–438.

Chen, Z. G., Lam, W., & Zhong, J. A. (2007). Leader–member exchange and member performance: A new look at individual-level negative feedback-seeking behavior and team-level empowerment climate. *Journal of Applied Psychology, 92*, 202–212.

Clapp-Smith, R., Vogelgesang, G. R., & Avey, J. B. (2009). Authentic leadership and positive psycho-logical capital: The mediating role of trust at the group level of analysis. *Journal of Leadership & Organizational Studies, 15*, 227–240.

Clugston, M., Howell, J. P., & Dorfman, P. W. (2000). Does cultural socialization predict multiple bases and foci of commitment? *Journal of Management, 26*, 5–30.

Cohen, J., & Cohen, P. (1983). *Applied multiple regres-sion/correlation analyses for the behavioral sciences.* Hillsdale, NJ: Erlbaum.

Cooper, C., Scandura, T. A., & Schriesheim, C. A. (2005). Looking forward but learning from our past: Potential challenges to developing authentic leader-ship theory and authentic leaders. *The Leadership Quarterly, 16*, 474–493.

Csikszentmihalyi, M., & Figurski, T. J. (1982). Self-awareness and aversive experience in everyday life. *Journal of Personality, 50*, 15–19.

Dorfman, P. W., & Howell, J. P. (1988). Dimensions of national culture and effective leadership in patterns. *Advances in International Comparative Management, 3*, 127–150.

Deci, E., & Ryan, R. M. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*, 227–268.

Eagly, A. H. (2005). Achieving relational authenticity in leadership: Does gender matter? *The Leadership Quarterly, 16*, 459–474.

Farh, J. L., Hackett, R. D., & Liang, J. (2007). Individual-level cultural values as moderators of perceived organizational support – employee out-come relationships in China: Comparing the effects of power distance and traditionality. *Academy of Management Journal, 50*, 715–729.

Fedor, D. B., Rensvold, R. B., & Adams, S. M. (1992). An investigation of factors expected to affect feed-back seeking: A longitudinal field study. *Personnel Psychology, 45*, 799–803.

Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. O. (2005). 'Can you see the real me?' A self-based model of authentic leader and follower development. *The Leadership Quarterly, 16*, 434–472.

George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update* (4th ed.). Boston, MA: Allyn & Bacon.

Hays, J. C., & Williams, J. R. (2011). Testing multiple motives in feedback seeking: The interaction of instrumentality and self protection motives. *Journal of Vocational Behavior, 79*(2), 496–504.

Hofstede, G. (2001). *Culture's Consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Thousand Oaks, CA: Sage.

House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, leadership, and orga-nizations.* Thousand Oaks, CA: Sage.

Hui, C., Lee, C., & Rousseau, D. M. (2004). Employment relationships in China: Do workers relate to the organization or the people? *Organization Science, 15*, 232–240.

Ilgen, D. R., Fisher, C. D., & Taylor, S. M. (1979). Consequences of individual feedback on behavior in organizations. *Journal of Applied Psychology, 64*, 359–371.

Ilies, R. T., Morgeson, F. P., & Nahrgang, J. D. (2005). Authentic leadership and eudaemonic well-being: Understanding leader–follower outcomes. *The Leadership Quarterly, 16*, 373–394.

Janssen, O., & Prins, J. (2007). Goal orientations and the seeking of different types of feedback informa-tion. *Journal of Occupational and Organizational Psychology, 80*, 235–249.

Jensen, S. M., & Luthans, F. (2006). Relationship between entrepreneurs' psychological capital and their authentic leadership. *Journal of Managerial Issues, 18*, 254–273.

Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology*. New York, NY: McGraw-Hill.

Kernis, M. H. (2003). Toward a conceptualization of optimal self-esteem. *Psychological Inquiry, 14*, 1–26.

Kirkman, B. L., Chen, G., Farh, J. L., & Lowe, K. B. (2009). Individual power distance orientation and follower reactions to transformational leaders: A cross-level, cross-cultural examination. *Academy of Management Journal, 52*, 744–764.

Ladkin, D., & Taylor, S. S. (2010). Enacting the 'true self': Towards a theory of embodied authentic leadership. *The Leadership Quarterly, 21*, 64–74.

Liden, R. C., & Maslyn, J. M. (1998). Multi-dimensionality of leader-member exchange: An empirical assessment through scale development. *Journal of Management, 24*, 43–72.

Linderbaum, B. A., & Levy, P. E. (2010). The development and validation of the feedback orientation scale (FOS). *Journal of Management, 36*, 1372–1405.

Luthans, F., & Avolio, B. J. (2003). Authentic leadership development. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship* (pp. 241–258). San Francisco, CA: Berrett-Koehler.

Luthans, F., & Avolio, B. J. (2009). The 'point' of positive organizational behavior. *Journal of Organizational Behavior, 30*, 291–307.

May, D. R., Chan, A., Hodges, T., & Avolio, B. J. (2003). Developing the moral component of authentic leadership. *Organizational Dynamics, 32*, 247–260.

Michie, S., & Gooty, J. (2005). Values, emotions, and authenticity: Will the real leader please stand up?' *The Leadership Quarterly, 16*, 441–457.

Northcraft, G. B., & Ashford, S. J. (1990). The preservation of self in everyday life: The effects of performance expectations and feedback context on feedback inquiry. *Organizational Behavior and Human Decision Processes, 47*, 42–64.

Robinson, S., & Weldon, E. (1993). Feedback seeking in groups: A theoretical perspective. *British Journal of Social Psychology, 32*, 71–86.

Shamir, B., & Eilam, G. (2005). 'What's your story?' A life-stories approach to authentic leadership development. *The Leadership Quarterly, 16*, 395–417.

Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and non-experimental studies: New procedures and recommendations. *Psychological Methods, 7*, 422–445.

Sluss, D. M., Klimchak. B., & Holmes, J. J. (2008). Perceived organizational support as a mediator between relational exchange and organizational identification. *Journal of Vocational Behavior, 73*, 457–464.

Sparrowe, R. (2005). Authentic leadership and the narrative self. *The Leadership Quarterly, 16*, 419–439.

Steelman, L., Levy, P., & Snell, A. (2004). The feedback environment scale: Construct definition, measurement, and validation. *Educational and Psychological Measurement, 64*, 165–184.

Sully de Luque, M. F., & Sommer, S. M. (2000). The impact of culture on feedback-seeking behavior: An integrated model and propositions. *The Academy of Management Review, 25*, 829–849.

Vancouver, J. B., & Morrison, E. W. (1995). Feedback inquiry: The effect of source attributes and individual differences. *Organizational Behavior and Human Decision Processes, 62*, 276–285.

VandeWalle, D., & Cummings, L. L. (1997). A test of the influence of goal orientation on the feedback-seeking process. *Journal of Applied Psychology, 82*, 390–400.

VandeWalle, D., Ganesan, S., Challagalla, G. N., & Brown, S. P. (2000). An integrated model of feedback-seeking behavior: Disposition, context and cognition. *Journal of Applied Psychology, 85*, 996–1003.

Wada, M. (1990). Gathering information about one's own abilities. *Japanese Psychological Research, 32*, 36–47.

Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management, 34*, 89–126.

Wanberg, C. R., & Kammeyer-Mueller, J. D. (2000). Predictors and outcomes of proactivity in the socialization process. *Journal of Applied Psychology, 85*, 373–385.

Wang, H., Law, K. S., Hackett, R. D., Wang, D. X., & Chen, Z. X. (2005). Leader–member exchange as a mediator of the relationship between transformational leadership and followers' performance and organizational citizenship behavior. *Academy of Management Journal, 48*, 420–432.

Wang, Z. M. (1993). Psychology in China: A review dedicated to Li Chen. *Annual Review of Psychology, 44*, 87–116.

Williams, J. R., Miller, C. E., Steelman, L. A., & Levy, P. E. (1999). Increasing feedback seeking in public con- texts: It takes two (or more) to tango. *Journal of Applied Psychology, 84*, 969–976.

Xie, J. L., Schaubroeck, J., & Lam, S. S. K. (2008). Theories of job stress and the role of traditional values: A longitudinal study in China. *Journal of Applied Psychology, 93*, 831–848.