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Psychological processes linking authentic leadership to follower behaviors

Fred O. Walumbwa^{a,*}, Peng Wang^b, Hui Wang^c, John Schaubroeck^d, Bruce J. Avolio^e^a Arizona State University, Tempe, AZ, United States^b Miami University, Oxford, OH, United States^c Peking University, Beijing, China^d Michigan State University, East Lansing, MI, United States^e University of Washington, Seattle, WA, United States

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ABSTRACT

We examined the direct and indirect effect of authentic leadership behavior on the organizational citizenship behavior and work engagement of followers. With 387 employees and their 129 immediate supervisors, hierarchical linear modeling (HLM) results revealed that authentic leadership behavior was positively related to supervisor-rated organizational citizenship behavior and work engagement, controlling for ideal power distance, company type, and followers' demographics such as age and sex. These relationships were mediated by the followers' level of identification with the supervisor and their feelings of empowerment. We discuss the implications of these findings for theory, research and practice.

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The construct of authentic leadership has recently emerged in both the research and practice literature as an area of interest that complements work on ethical and transformational leadership (Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Gardner, Avolio, Luthans, May, & Walumbwa, 2005; George, 2003; Harter, 2002; Ilies, Morgeson, & Nahrgang, 2005). Authentic leadership refers to “a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development” (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008, p. 94). In other words, authentic leadership represents the extent to which a leader is aware of and exhibits pattern of openness and clarity in his/her behavior toward others by sharing the information needed to make decisions, accepting others' inputs, and disclosing his/her personal values, motives, and sentiments in a manner that enables followers to more accurately assess the competence and morality of the leader's actions.

The theoretical work on authentic leadership has described such leaders as having followers who increasingly identify with, as well as who feel more psychologically empowered to take on greater ownership for their work (George, 2003; Ilies et al., 2005). Recent literature has also suggested that authentic leadership may positively affect employee attitudes and behaviors, such as work engagement, organizational citizenship behavior (OCB), and performance (Avolio et al., 2004; Gardner et al., 2005; George, 2003; Ilies et al., 2005). For example, Ilies et al. (2005) argued that authentic leaders are likely to have a positive influence on followers' behaviors because such leaders provide support for followers' self-determination. Other authors (e.g., George, 2003) have argued that the way authentic leaders motivate followers is by modeling a deep sense of purpose to ethically deliver innovative products, superior services, and unsurpassed product quality over an extended period.

In the present study, we set out to examine how authentic leadership behavior relates to employees' citizenship behaviors (OCB)—positive and discretionary behaviors of employees that facilitate effective organizational functioning (Ilies, Nahrgang, & Morgeson, 2007; Organ, Podsakoff, & MacKenzie, 2006) and work engagement—the state of mind characterized by vigorous attention and dedication to work and a high level of enthusiasm while at work (Schaufeli & Bakker, 2004). We focus here on

* Corresponding author. Department of Management, W.P. Carey School of Business, Arizona State University, Tempe, AZ 85287-4006, United States.
E-mail address: Fred.Walumbwa@asu.edu (F.O. Walumbwa).

examining the links between authentic leadership and OCB because prior theoretical work suggests that authentic leaders, through their ethical role modeling, transparency, and balanced decision-making, create the conditions that promote positive extra-role behaviors from followers (Avolio & Luthans, 2006; Van Dyne & LePine, 1998). We examined employee work engagement because prior research suggests it is related to a variety of important organizational outcomes, including employee productivity and retention, customer satisfaction, turnover, and overall profitability (Harter, Schmidt & Hayes, 2002). Moreover, work engagement has emerged as an important construct for organizations that are seeking to leverage their human capital to optimize organizational performance (Masson, Royal, Agnew, & Fine, 2008).

We tested the influence of authentic leadership on employee citizenship behaviors and work engagement through two intermediate mechanisms. These mechanisms include follower identification with the supervisor and follower empowerment, which we describe in more detail below. By focusing on empowerment and identification as intervening mechanisms linking authentic leadership to employee outcomes, we hope to contribute to this emerging literature by more fully explaining how authentic leaders enhance employee motivation and performance. Fig. 1 summarizes the theoretical model that guided this study.

1. Theory and hypotheses

1.1. Authentic leadership

According to the published academic work on authentic leadership (e.g., Gardner et al., 2005; Ilies et al., 2005; Walumbwa, Avolio, Gardner et al., 2008), authentic leaders display four types of behaviors. These include balanced processing, internalized moral perspective, relational transparency, and self-awareness. *Balanced processing* involves objectively analyzing all relevant information before making a decision. Leaders who are perceived to exhibit balanced processing solicit views from others that challenge their existing positions. *Internalized moral perspective* refers to leader behaviors that are guided by internal moral standards and values, rather than being based on external pressure such as peers, organizational, and societal pressures (Gardner et al., 2005). *Relational transparency* involves making personal disclosures, such as openly sharing information and expressing true thoughts and feelings. Finally, *self-awareness* refers to the extent leaders understand their own strengths, weaknesses, and motives, as well as recognizing how others view their leadership. Thus, self-awareness includes both internal and external referents. Internal referent refers to leaders' self-knowledge of their mental states, including their beliefs, desires and feelings, whereas external referent refers to leaders' "reflected self-image" (how others perceive the leader). Leaders with high self-awareness behavior are seen to use both self-knowledge and reflected self-image to enhance their effectiveness as a leader.

1.2. Authentic leadership as a higher order construct

The four authentic leadership dimensions described above have each received considerable research attention in the psychological literature. Yet, despite the research prominence and suggestive similarities among them, these four dimensions have typically been studied as separate constructs with relatively little discussion of their being part of a common core construct. However, there have been suggestions that these individual constructs form a core common factor of authentic leadership. For example, in a series of studies, Kernis and Goldman (2005) found that when four components comprising authenticity were combined (awareness, unbiased processing, authentic behavior, and relational orientation) the resulting composite variable was positively related to measures of psychological well-being, life satisfaction, and high self-esteem, and negatively related to contingent self-esteem measures. Subscale analyses revealed that awareness was related to three of the four measures of psychological well-being, unbiased processing was marginally related to life satisfaction, authentic behavior was related to only two psychological well-being measures, and relational orientation (their term for "relational transparency") was related to life

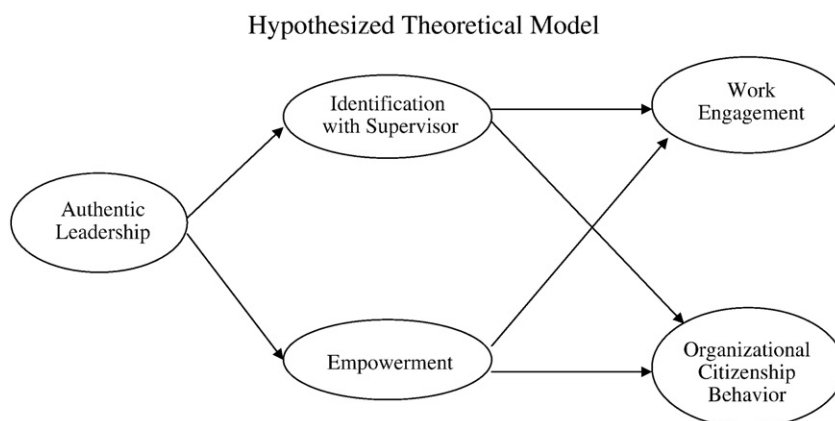


Fig. 1. Note. The analyses also controlled for company type, followers' ratings of ideal power distance, age, and sex.

satisfaction only. These findings suggest that it may be appropriate to consider the four components as indicators of a higher order latent construct (Kernis, 2003; Kernis & Goldman, 2005).

The most recently published empirical examination of authentic leadership analyzed five separate samples obtained from China, Kenya, and the U.S. In this study, Walumbwa, Avolio, Gardner et al. (2008) reported evidence for a core authentic leadership factor that was extracted from the relationships among the four dimensions. This higher order factor of authentic leadership was significantly and positively related to self reported OCB, organizational commitment, satisfaction with supervision, job satisfaction, and supervisor-rated job performance. Their results also showed the average mean correlation among the four factors across their five samples ranged from .61 to .69, suggesting a common core factor that they labeled authentic leadership.

Walumbwa, Avolio, Gardner et al. (2008) and further reported that the individual core factors failed to add any meaningful incremental validity beyond the common core higher factor, suggesting that there is little meaningful unique variance attributable to each individual factor. Finally, the common core authentic leadership factor was also related to important work attitudes and behaviors, and these effects were found even when standard measures of ethical and transformational leadership were included in the analysis. Beyond the preliminary empirical associations reported thus far in the literature, there are significant conceptual similarities among the four factors. Conceptually, all four authentic leadership dimensions have been described as self-regulatory processes that are governed partly through people's internal standards and their evaluations of their own behavior (Gardner et al., 2005). In other words, each of the four dimensions represents an aspect of leader authenticity, especially with respect to how leaders monitor and self regulate their behavior.

It is important to clarify that we are not suggesting that the four factors are redundant in any way—just the opposite. Indeed, each of the components is unique and important in its own right in terms of reflecting what constitutes authentic leadership. However, given the evidence presented above, we expect considerable overlap among the four constructs, and that the latent higher order construct of authentic leadership will help explain this conceptual and empirical overlap. Thus, rather than being a multi-dimensional aggregate construct, where a composite factor is comprised of dimensions that may or may not be related, authentic leadership is a latent construct where the four dimensions are simply different ways of representing the concept.

In sum, consistent with Kernis and Goldman's (Kernis, 2003; Kernis & Goldman, 2005) conceptualization of authenticity and recent empirical evidence provided by Walumbwa, Avolio, Gardner et al. (2008), we treat authentic leadership as a higher order construct represented by four dimensions. Indeed, researchers (e.g., Dawis, 1992; Judge & Locke, 1997) have suggested that when there is a conceptual or an empirical basis for the existence of a higher order construct, these should be given focused attention.

1.3. Authentic leadership and organizational citizenship behavior

Over the last two decades, there has been considerable research focus on examining the causes and consequences of employee citizenship behaviors. This body of research has identified several determinants of organizational citizenship behavior (OCB), such as individual differences, organizational and task characteristics, and, most pertinent to this study, leader behaviors (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). Organ et al. (2006) reviewed empirical research on OCB and found that almost all studies that examined the relationship between leadership behaviors and OCB produced significant results. The logic behind this relationship stems from the fact that followers are likely to enact what a leader emphasizes by his or her behavior (Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005). We know from the models of authentic leadership discussed above that authentic leader behavior supports a fair and open work environment, and this is conducive to employees being more willing to engage in behaviors that help the organization even when it is not their specified role to engage in those behaviors (Avolio & Gardner, 2005; Brown, Treviño, & Harrison, 2005).

Specifically, leaders who are perceived to be more authentic play a central role in facilitating employee helping behavior by making employees more aware of the importance of helping one another and demonstrating the value and safety of openly sharing information. Some empirical evidence supports this link. For example, research by Brown et al. (2005) and Mayer, Kuenzi, Greenbaum, Bardes, and Salvador (2009) demonstrated a significant relationship between ethical leadership, a major component of authentic leadership, and citizenship behaviors. Other research has also shown that employees who experience more honest and trusting relationships with their supervisors display higher levels of OCB (Mayer & Gavin, 2005; Organ et al., 2006). Thus, we expect authentic leaders to promote more pro-social organizational behaviors among their followers, thus forming the basis for the following hypothesis:

Hypothesis 1. Authentic leadership is positively related to organizational citizenship behavior.

1.4. Authentic leadership and work engagement

There is some debate over what actually constitutes workplace engagement. According to Macy, and Schneider (2008) engagement can be treated as a trait (e.g., proactive personality), a state (e.g., attachment, involvement, commitment, mood, etc.), a performance construct or behavior (e.g., role expansion, OCB), or a combination of all the above. However, other researchers (e.g., Dalal, Brummel, Wee, & Thomas, 2008; Saks, 2008) disagree that conceptualizing engagement as discretionary effort or a form of in-role or extra-role behavior, state, or trait might be misleading and problematic. Noting that there is no one standard definition or conceptualization of engagement, at least for now, we define engagement as the extent to which an employee is cognitively, emotionally, physically and psychologically connected during the performance of his or her work roles (Harter & Schmidt, 2008; Harter et al., 2002; Schaufeli & Bakker, 2004).

Leadership has been suggested as one of the single biggest factors contributing to employee work engagement (Harter et al., 2002). Authentic leaders behave in accordance with their values and strive to achieve openness and truthfulness in their relationships with followers (Gardner et al., 2005; Kernis, 2003). Such leaders have been described as leading by example and demonstrating transparent decision making (Avolio & Gardner, 2005). Brown et al. (2005, p. 597) argued that ethical leaders, which are defined in a manner that is very similar to authentic leaders, “are likely sources of guidance because their attractiveness and credibility as role models draw attention to their modeled behavior.” Leading by example demonstrates a leader’s commitment to his or her work and provides guidance to followers about how to remain emotionally and physically connected and cognitively vigilant during work performance, and this is expected to raise levels of work engagement through observational learning (Bandura, 1977).

Kernis (2003) and Kernis, and Goldman (2005) found higher levels of self-reported authenticity to be related to higher student engagement in goal pursuits and determination. Kahn (1990) designed two qualitative, theory-generating studies, one of summer camp counselors and the other members of an architecture firm, to explore the conditions at work in which people are more likely to show higher levels of engagement. Kahn reported that in each context the leader influenced the degree to which individuals were engaged in their work. Specifically, he found that engagement increased in an environment where psychological safety was promoted—an environment where individuals felt accepted, supported, and enabled to participate without negative consequences. These characteristics overlap with our descriptions above of authentic leadership behaviors and with those that appear in the theoretical models in this literature (Avolio & Gardner, 2005; Gardner et al., 2005; George, 2003; Ilies et al., 2005; Luthans & Avolio, 2003; Sparrowe, 2005). Therefore, we propose the following hypothesis:

Hypothesis 2. Authentic leadership is positively related to work engagement.

1.5. Authentic leadership, identification with supervisor, and outcomes

Research on identification with other individuals and groups has increased dramatically over the past decade (van Knippenberg, van Knippenberg, De Cremer, & Hogg, 2004). The concept of identification has been discussed in the literature based on two different meanings, one describing a state and the other a process (Kreiner, Hollensbe, & Sheep, 2006). Identification is that part of an individual’s identity that derives directly from his or her association with an entity, such as a group or organization. One’s self-concept is affected by recognizing that one shares similar values and beliefs with the entity; alternatively, one can change and develop the self-concept so that one’s values and beliefs become more similar to the entity (Pratt, 1998). As a process, identification refers to aligning one’s identity with some entity, such as one’s work group (Kreiner et al., 2006).

Although identification has been frequently conceptualized in the literature as referring to the definition of self vis-a-vis some group, occupation, profession, or organization (Ashforth & Mael, 1989), recently Sluss and Ashforth (2007) broadened the conceptualization of identification to encompass interpersonal relationships and their influence on identity and identification in the workplace. Specifically, the interpersonal level of identification focuses on one’s role-related relationships, such as between supervisors and their direct reports. To this end, they posited two related aspects of an interpersonal level of identification: relational identity and identification. They defined relational identity as the “nature of one’s role–relationship, such as manager–subordinate,” and relational identification as the “extent to which one defines oneself in terms of a given role–relationship” (Sluss & Ashforth, 2007, p. 11).

We focused on these related aspects of identification for two reasons. First, because authentic leaders show respect for each follower, are described as more positive, and are more willing to create openness and accountability in their relationships (Gardner et al., 2005; Ilies et al., 2005; Luthans & Avolio, 2003), we predicted that such leader behaviors will be associated with a higher level of relational identification as opposed to the classical identification where the focus is on suppression of one’s own individuality in favor of the other person (Kelman, 1958). Second, it has been suggested that some of the consequences of relational identification are higher motivation, self-regulation, and self-evaluation. For example, Sluss and Ashforth (2007) argued that by identifying with a role–relationship, one is likely to internalize the performance standards and norms that define the relationship and then evaluate oneself accordingly. Thus, relational identification offers a way to understand how individuals define themselves within organizations with respect to the type of leaders they are more (less) willing to follow.

To our knowledge, there is no previous research examining the relationship between authentic leadership and relational identification. However, there is research on the relationship between a variety of leadership behaviors and identification, as well the potential mediating effect of follower identification with the leader impacting outcomes of leadership (Kark, Shamir, & Chen, 2003; van Knippenberg et al., 2004). In the present study we suggest that relational identification mediates the relationship between authentic leadership and follower citizenship behaviors and work engagement.

Ilies et al. (2005) asserted that more authentic leaders’ judicious relational orientation should encourage followers to personally identify with both the leader and their organization. This is because such leaders place a premium on interdependent relationships with direct reports. For example, according to Sluss and Ashforth (2007) typology of relational identification, because authentic leaders are transparent, know and express where they stand on important issues, values, and beliefs, and they convey these through actions and deeds, their followers would be more likely to identify with his or her values and beliefs and internalize them as their own (Avolio & Gardner, 2005; Ilies et al., 2005). Similarly, by setting a personal example of high moral standards and balance in making critical decisions, authentic leaders are expected to evoke a deeper sense of identification among followers that tends to make them aspire to be like the leader in behaving openly and ethically, while in the process elevating followers’ own self-awareness.

Drawing upon the research reviewed above, we also expect higher identification with one’s supervisor will relate positively to the level of follower motivation to engage in activities that pursue the supervisor’s work agenda, most notably in terms of going beyond the call of duty by engaging in citizenship behavior. Followers who identify more strongly with their leaders will also tend

to be more dedicated to and involved with their work because they associate what they do on the job with a prototype with which they identify personally. Indeed, some researchers have argued that identification with the supervisor partially explains why leader behavior patterns that promote cooperation, like transformational and charismatic leadership and leader self-sacrifice, are found to be positively related to OCB (DeCremer & van Knippenberg, 2005).

1.6. Authentic leadership, empowerment, and outcomes

Empowerment has been posited as another mechanism through which authentic leadership influences followers (George, 2003; Ilies et al., 2005). Empowerment is conceptualized as a psychological state that encompasses four cognitions: *competence*, an individual's belief in his or her capability that he or she can be effective; *impact*, the degree to which an individual can influence strategic, administrative, or operating outcomes at work; *meaningfulness*, the value of a work goal or purpose, judged in relation to an individual's ideals or standards; and *self-determination*, an individual's sense of having choice in initiating and regulating actions. These cognitions act in concert to foster a proactive, self-confident orientation towards one's work (Spreitzer, 1995). Leaders matter because they create organizational cultures and practices that determine whether employees are more or less involved in the decision making processes. Authentic leaders are described as understanding followers' needs for meaning in their work and the confidence that comes with being trusted to act with initiative and autonomy (Ilies et al., 2005). When leaders transparently share information and utilize followers' inputs in making decisions, followers are more likely to experience meaningfulness, impact, and self-determination in their work because they are taking more responsibility (Conger & Kanungo, 1988; Thomas & Velthouse, 1990).

Spreitzer (1996) found that followers of managers who promoted a more inclusive unit climate and who readily shared information, both of which are behavioral characteristics of authentic leaders, reported higher levels of psychological empowerment. Through their more internalized moral perspectives and balanced processing, more authentic leaders are expected to provide higher levels of constructive feedback to their followers—a key component of empowerment. Previous research has also shown that higher levels of self-reported authenticity were significantly related to higher levels of student self-determination (Kernis & Goldman, 2005). In view of the available research and above logic, we expect a positive relationship between authentic leadership and empowerment.

There is also considerable empirical evidence showing empowerment is positively related to outcomes such as followers' commitment, involvement, work productivity, and performance at the individual and group/team levels (e.g., Chen, Kirkman, Kanfer, Allen, & Rosen, 2007; Seibert, Silver, & Randolph, 2004; Spreitzer, Kizilos, & Nason, 1997). Feelings of empowerment have been positively related to citizenship behavior where individuals perceive more of a "line of sight" between their actions and broader unit outcomes, as well as feeling more responsibility for helping in ways that are not specified in their job descriptions (Alge, Ballinger, Tangirala, & Oakley, 2006). Wat & Shaffer (2005) argued that a higher quality social exchange relationship experienced by more empowered individuals helped explain the relationship they observed between empowerment and OCB.

Specific to employee work engagement, we make two assumptions. First, because empowered individuals believe they have greater autonomy and impact on work processes and performance (Spreitzer, 1996), they are likely to be more intrinsically motivated and in turn engaged in their respective work roles. These linkages are further supported by Bandura (1977) social cognitive theory in that individuals, who see a connection between their work behavior and feelings of personal mastery, are also expected to experience positive self-reactive effects that promote higher levels of work engagement.

It follows from the above discussion that authentic leadership should positively relate to relational identification and that relational identification with the supervisor should help explain the relationship observed between authentic leadership, OCB and employee work engagement. We also expect that empowerment will mediate the relationship between authentic leadership and OCB and between authentic leadership and work engagement. Specifically, we argue that the effect of authentic leadership on OCB and work engagement, respectively, is fully accounted for when both identification with one's supervisor and empowerment are taken into account. That is, each will contribute uniquely to the prediction of OCB and work engagement, respectively. We offer the following hypotheses:

Hypothesis 3. Authentic leadership is positively related to identification with supervisor.

Hypothesis 4. Authentic leadership is positively related to follower empowerment.

Hypothesis 5. The positive relationship between authentic leadership and organizational citizenship behavior is fully mediated by identification with supervisor and empowerment.

Hypothesis 6. The positive relationship between authentic leadership and followers' work engagement is fully mediated by identification with supervisor and empowerment.

2. Methods

2.1. Sample and procedure

We collected data from employees in two telecom firms that were each located in a separate major city in China. One was located in northern China and the other in southern China. One company was a state-owned firm, and the other was jointly owned by the government and a foreign private company.

Prior research (e.g., House, Wright, & Aditya, 1997) suggests that cultural values embraced in the broad social environment of a country may profoundly affect the attitudes and behaviors of employees. Because authentic leadership is a relatively new construct, we wanted to examine how perceptions of employees' authentic leadership behaviors of their direct reports would affect their attitudes and behaviors in a Chinese context. This is especially important given that China is experiencing many social and economic challenges and changes (Tsui & Lau, 2002). Many of these challenges have altered not only government and economic policies, but also the psychological thinking and make-up of the Chinese workforce (Luthans, Avolio, Walumbwa, & Li, 2005). For example, there is empirical evidence suggesting that Chinese people, particularly the younger generation, are increasingly becoming more individualistic (Ralston, Egri, Stewart, Terpstra, & Kaicheng, 1999). Thus, we believe this provides a dynamic cultural context for the study of authentic leadership given that some of the issues that have been raised about the transparency, balanced processing, ethical standards, and even self awareness of leaders have become increasingly salient in China.

Separate questionnaires were developed and administered to 129 supervisors and 387 immediate direct reports. The survey for the reports was administered in three waves, with a lag of 2 weeks, in an effort to mitigate the problem of common source/method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Each direct report completed a survey that contained the authentic leadership and power distance scales at Wave 1, a second survey that measured identification with their supervisor and empowerment at Wave 2, and a final survey that measured employee engagement at Wave 3 (each wave was separated by approximately 3 weeks). Each supervisor evaluated three direct reports' organizational citizenship behavior in about a week after Wave 3 survey. We administered the entire data collection process on site with the help of HR managers at each respective organization. Completed surveys were returned to the researchers in preaddressed sealed envelopes.

In this sample of 387 direct reports/followers, 34.2% were male, the average age was 24.3 years (*s. d.* = 3.6), the mean organizational tenure was 3.4 years (*s. d.* = 2.3), 58.1% had a vocational school diploma, and 25.9% had at least a college diploma. Among 129 supervisors, approximately 44% were male, and the mean organizational tenure was 4.9 years (*s. d.* = 2.2). From an educational standpoint, 53.4% had graduated from vocational school, and 37.9% had at least a college diploma.

In total, 439 direct reports participated in the study. However, 52 direct reports could not be matched with a participating supervisor and were therefore excluded from the final analyses, resulting in a final sample of 387 direct reports. This translated into an effective response rate of 88%. We compared the demographic characteristics of the respondents included in the study and those that could not be included due to missing information. There were no significant differences in terms of age, education, and gender between those in the final sample and participants who could not be matched with a supervisor. As for the supervisors, eight of them were excluded because they failed to provide information that would have allowed us to match them with direct reports (94% response rate).

2.2. Measures

2.2.1. Authentic leadership behavior

Authentic leadership ($\alpha = 0.91$) was measured using the 16-item Authentic Leadership Questionnaire (ALQ) recently validated by Walumbwa, Avolio, Gardner et al. (2008).¹ Walumbwa et al. showed that the scale has both convergent and discriminant validity with respect to other leadership constructs such as transformational and ethical leadership. Walumbwa, Avolio, Gardner et al. (2008) confirmed four theoretically related substantive factors including balanced processing (3 items), internalized moral perspective (4 items), relational transparency (5 items), and self-awareness (4 items) that formed a core higher order authentic leadership construct. This scale was anchored with a response format ranging from 1 (Not at all) to 5 (Frequently, if not always), with a composite internal consistency (coefficient alpha) of .91. Sample items include the following: "Solicits views that challenge his or her deeply held positions" (balanced processing), "Makes decisions based on his/her core beliefs" (internalized moral perspective), "Is willing to admit mistakes when they are made" (relational transparency), and "Is eager to receive feedback to improve interactions with others" (self-awareness).

Because the ALQ measure is relatively new, we conducted a confirmatory factor analysis (CFA) to examine the expected higher order authentic leadership structure. To do this, we compared two competing models, using group-level data because we conceptualized authentic leadership as a group-level construct in our analysis. We used items as indicators of the latent variables to ensure that we obtained unbiased parameter estimates. In the first model, the observed variables were specified to load on latent variables, as in the original 4-factor higher order model of authentic leadership comprising balanced processing, internalized moral perspective, relational transparency and self-awareness, and each of the four factors loaded onto the same higher order latent variable. This model produced a better fit to our data ($\chi^2 = 201.76$; *df* = 98; TLI = 0.96; CFI = 0.97; RMSEA = 0.05) than the first order factor model, where the observed variables were specified to load on four correlated latent variables ($\chi^2 = 259.67$; *df* = 97; TLI = 0.94; CFI = 0.95; RMSEA = 0.07). Consistent with Walumbwa, Avolio, Gardner et al. (2008), we also found that the individual factors failed to add any meaningful incremental validity beyond the common core higher factor, further suggesting that the variance attributable to the four factors is more important than each individual factor. Finally, results also showed that the four dimensions were positively correlated in our data, with an average correlation coefficient (*r*) of .61,

¹ The Authentic Leadership Questionnaire (ALQ) is copyright 2007 by Bruce Avolio, William Gardner, and Fred Walumbwa. The instrument is available for research purposes at <http://www.mindgarden.com/products/alg.htm>.

further suggesting a core common factor. On the basis of these results, we collapsed the measure into a single composite index of authentic leadership.

2.2.2. Identification with supervisor

Identification with one's supervisor ($\alpha=0.87$) was measured using 10 items developed by Kark et al. (2003). These items measured the extent to which individual followers identified with their immediate supervisor. A sample item is, "I view the success of my supervisor as my own success." Responses were made on a 5-point scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

2.2.3. Empowerment

To measure empowerment, we used a 12-item scale developed by Spreitzer (1995) and translated into Chinese by Aryee, and Chen (2006). The scale has four dimensions including competence (3 items), impact (3 items), meaningfulness (3 items), and self-determination (3 items). Given that we focused on overall empowerment, and consistent with previous research (e.g., Chen & Klimoski, 2003; Chen et al., 2007; Kirkman & Rosen, 1999; Spreitzer, 1995), these four empowerment dimensions were collapsed into a composite empowerment scale. The single significant overall empowerment factor explained 76% of the total variance in the items, and demonstrated acceptable internal consistency (coefficient $\alpha = .84$). A sample item is, "I have significant autonomy in determining how I do my job," with a response scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

2.2.4. Work engagement

Work engagement was measured using the 12-item Gallup Workplace Audit (GWA; The Gallup Organization, 1992–1999).² This scale has been found to be reliable and valid measure of work engagement (Avery, McKay, & Wilson, 2007; Harter et al., 2002; Zhu et al., 2009). This scale was used to assess employee perceptions of engagement in their workplace. A more detailed description of this instrument and its measurement properties is presented elsewhere in the literature (see Harter et al., 2002). In the present study, responses were made on a 5-point Likert scale (1 = *strongly disagree* and 5 = *strongly agree*). Because the Gallup Q¹² items have not been previously used in the Chinese context, we conducted a principal factor analysis of the 12 items and results showed that a single factor with an eigenvalue greater than 1.00. This factor explained 71% of the total variance in the items, and demonstrated acceptable internal consistency (coefficient $\alpha = .86$). A sample item is, "My associates or fellow employees are committed to doing quality work".

2.2.5. Organizational citizenship behavior

We used a Chinese version of the 24-item OCB scale originally developed by Podsakoff, MacKenzie, Moorman, and Fetter (1990). Evidence for this scale's reliability in the Chinese context has been provided in prior research (e.g., Lam, Hui, & Law, 1999; Wang, Law, Hackett, Wang, & Chen, 2005). This scale measures the five OCB dimensions: conscientiousness, sportsmanship, civic virtue, courtesy, and altruism. In this study, we focused on overall OCB as captured by these five dimensions ($\alpha=0.90$). This overall OCB factor explained 69% of the total variance in the items. A sample item is, "This employee willingly helps others who have work related problems." Items were scored on a continuum ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

The scales that had not already been translated from English into Chinese by previous researchers were translated for this study following Brislin (1980) recommendations. Specifically, a bilingual speaker performed the initial translation, after which the questionnaire was given to another bilingual speaker who was asked to back-translate the same items into English without having access to the original survey. The second translator was also asked to comment on any item that was seen as ambiguous. Finally, we gave the same survey to two additional native Chinese speakers, who examined the questionnaires to ensure that items were interpretable in Chinese. This process did not give rise to any noteworthy changes to any of the items.

2.2.6. Control variables

Measures of control variables included follower's age and sex, which were obtained from employees. We also controlled for company type because organizational culture and strategy can influence levels of empowerment (Spreitzer, 1996), and thereby influence the effectiveness of authentic leadership. Finally, we controlled for follower-rated power distance. It has been suggested that power distance is particularly important for leaders (Dorfman, 2004) because it describes not only how authority is perceived, but also how decision-making authority functions and affects ones' thinking about organizations (Hofstede & Hofstede, 2005). Power distance ($\alpha=0.73$) was measured using the scale developed by Brockner, Ackerman, Greenberg, Gelfand et al. (2001). A sample item is: "A manager should ask for subordinates' ideas when making decisions (reverse coded)." The response scale ranged from 1 (Strongly disagree) to 5 (Strongly agree).

² The Gallup Q¹² Workplace Audit is proprietary and copyrighted by the Gallup Organization (Copyright 1993–1998, the Gallup Organization, Washington, DC) and was used with permission from Gallup Organization. This scale items cannot be reprinted or reproduced in any manner without the written consent of the Gallup Organization.

2.3. Level of analysis

Except for authentic leadership, all other variables were analyzed at the individual-level of analysis. Hogg et al. (2005) argued that leadership is a social psychological phenomenon that is firmly grounded in social relations and the psychology of its membership. In this study, the relevant membership is the leader's work unit. Therefore, although individual followers may perceive authentic leadership behaviors differently and react to them differently, we believe authentic leadership behaviors can be assumed to be homogenous with respect to an entire group of followers' collective mental model about a specific leader (Kozlowski & Klein, 2000). This perspective is consistent with authentic leadership theory because the latter highlights the importance of leaders being able to openly share information and build trusting relationships with all followers in their work group, department, or the overall organization (Avolio et al., 2004; Gardner et al., 2005; Ilies et al., 2005). As suggested by Sirotnik (1980), we computed the internal consistency reliability estimate for authentic leadership at the group level. This estimate was 0.88.

2.4. Analytic strategy

The data in the present study were hierarchical in nature, because employees are nested within supervisors and we examined group level construct influences on individual outcomes. We therefore adopted hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002) as our analytic tool to test the hypotheses. HLM explicitly accounts for the nesting of the data by simultaneously estimating the impact of factors at different levels on individual-level outcomes, while maintaining appropriate higher level of analysis for the predictors. It provides more consistent estimates of standard errors when an analysis mixes levels. In all the analyses, we used grand-mean centering both to facilitate the interpretation of the HLM results and to reduce the potential problems associated with multi-collinearity (Hofmann & Gavin, 1998).

3. Results

3.1. Confirmatory factor analysis and aggregation statistics

All of the measures used in the current study were self-report survey measures including assessments of our controls, independent, mediating and dependent variables. Consequently, we conducted a series of dimension-level confirmatory factor analyses to examine whether the main variables under investigation captured distinct constructs versus common source effects. The constructs included power distance, authentic leadership, identification with supervisor, empowerment, OCB, and work engagement. To do this, we used items rather than item parcels as indicators for each latent variable once again to ensure we obtained unbiased parameter estimates, with these tests conducted at the individual level of analysis.³

The CFA results showed that a six-factor model, including power distance, authentic leadership, identification with supervisor, empowerment, OCB, and work engagement fit the data well ($\chi^2 = 4606.67$; $df = 2666$; $TLI = 0.95$; $CFI = 0.97$; $RMSEA = 0.04$). Relative to the six-factor model, where the items of authentic leadership and power distance were set to load on a single construct, the model fit for the data was significantly worse ($\chi^2 = 6051.29$, $df = 2671$, $\Delta\chi^2[5] = 1445.62$, $p < 0.01$, $TLI = 0.70$, $CFI = 0.71$, $RMSEA = 0.09$). Similarly, a hypothesized model in which the items of empowerment and identification with supervisor loaded on a single construct fit the data significantly worse ($\chi^2 = 5050.52$, $df = 2671$, $\Delta\chi^2[5] = 543.80$, $p < 0.01$, $TLI = 0.80$, $CFI = 0.81$, $RMSEA = 0.07$), as did a third alternative model, in which items of the two outcome variables—engagement and OCB were loaded on a single factor ($\chi^2 = 5098.13$, $df = 2671$, $\Delta\chi^2[5] = 491.46$, $p < 0.01$, $TLI = 0.79$, $CFI = 0.81$, $RMSEA = 0.07$). Taken together, these results provide additional support for the discriminant validity of authentic leadership, power distance, empowerment, identification, work engagement, and OCB measures.

In addition, following Podsakoff et al. (2003), we used the latent variant approach of controlling for the effects of a single unmeasured latent method factor to examine the extent to which our results were due to common source/methods variance. To do this, we ran two structural models (both at the individual and group levels). The first model included all the variables in the study. The second model was identical to the first model except for the addition of a latent method variance factor that had all observed items, from all other factors, as indicators. Comparing the fit indices and parameter estimates of the model with and without the latent methods variance factor revealed no substantive differences in terms of fit indices and structural parameter estimates. These results, together with the CFA results reported above, suggest that common source/methods bias would likely not account for the pattern of results reported in the present study (Podsakoff et al., 2003).

Finally, because our hypotheses are concerned with authentic leadership behavior in general, and not its specific manifestations at the work unit level of analysis, we checked the viability of aggregating direct reports' ratings into a single leader authentic leadership scale by examining both between-group differences and within-group agreement using two intra-class correlations (ICCs) (e.g., Bliese, 2000; James, 1982) and r_{wg} (e.g., James, Demaree, & Wolf, 1984). The ICC(1) and ICC(2) values were 0.25 and 0.63, respectively. The r_{wg} was 0.77, ranging from 0.61 to 0.89. Although the ICC(1) and r_{wg} values are consistent with past research involving aggregation (Bliese, 2000; James, 1982), the ICC(2) value was on the low side. As noted by Bliese

³ We conducted a similar set of analyses using group-level data and obtained a similar pattern of results for model tests.

(1998), ICC(2) values are a function of group size. In the present study, there were only three (3) direct reports rating each leader. Such small group sizes tend toward less reliable mean scores (i.e., lower ICC(2) value). Therefore, we proceeded with aggregating authentic leadership, acknowledging that the relationship between aggregated authentic leadership and other variables might be underestimated. Indeed, some researchers (e.g., Chen & Bliese, 2002; Kozlowski & Hatrup, 1992) have suggested that low ICC(2) should not prevent aggregation if aggregation is justified by theory and supported by high r_{wg} and significant between-groups variance as is the case in the present study.

3.2. Hypothesis testing

Table 1 provides the descriptive statistics, internal consistency reliabilities and zero-order intercorrelations of all study variables.

Before testing our hypotheses, we estimated two null models using HLM in which no predictors were specified for either the Level 1 or the Level 2 function. This was done to test the significance level of the between-group variance in both OCB and work engagement scores. Results revealed that 39% of the total variance in OCB was within individuals and that between-individual differences in average scores was significant and meaningful ($p < 0.01$). For followers' work engagement, within-individual differences accounted for 27% of the overall variance, with the between-individual differences in average scores also significant and meaningful ($p < 0.01$).

3.2.1. Tests of hypotheses 1–4: direct effects

Table 2 presents the HLM results testing the direct effects of authentic leadership with OCB, work engagement, identification with supervisor, and empowerment. Hypotheses 1 and 2 predicted that authentic leadership would be positively related to rated OCB and followers' self-rated work engagement. The HLM results revealed that authentic leadership significantly predicted rated OCB ($\beta = 0.20, p < 0.01$; Model 1) and work engagement ($\beta = 0.26, p < 0.01$; Model 2), controlling for power distance, company type, and followers' age and sex. Hypotheses 1 and 2 are therefore supported by our data. Hypotheses 3 and 4 predicted that authentic leadership would be positively related to identification with supervisor and empowerment. Authentic leadership significantly predicted followers' level of identification with supervisor ($\beta = 0.40, p < 0.01$; Model 3) and empowerment ($\beta = 0.25, p < 0.01$; Model 4), once again controlling for power distance, company type, and followers' age and sex. Hypotheses 3 and 4 are therefore supported by our data.

3.2.2. Test of Hypotheses 5 and 6: the mediating role of identification with supervisor and empowerment

Hypothesis 5 proposed that identification with supervisor and empowerment would mediate the relationship between authentic leadership and rated OCB. We also predicted in Hypothesis 6 that identification with supervisor and empowerment would mediate the relationship between authentic leadership and work engagement. These results are also presented in Table 2. We followed the four-step procedures for mediation described by Kenny, Kashy, and Bolger (1998). According to Kenny et al. (1998), evidence for mediation exists for a mediating variable M when both the $X \rightarrow M$ effect and $M \rightarrow Y$ effect are significant simultaneously. Thus, testing the indirect effect of authentic leadership on OCB and work engagement, respectively, requires a significant relationship between authentic leadership and both identification with supervisor and empowerment and a significant relationship between both identification with supervisor and empowerment and OCB as well as work engagement. As in Hypotheses 1–4, we further controlled for power distance, company type, and followers' age and sex.

In Step 1, authentic leadership needs to be related to rated OCB as well as work engagement. This requirement was supported by our results for Hypotheses 1 and 2 above. Step 2 requires that authentic leadership be related to the mediators (i.e., identification with supervisor and empowerment). This requirement was also supported by the results of Hypotheses 3 and 4 above. In testing Step 3 and Step 4, we included authentic leadership, identification with supervisor, and empowerment in the same regression model, once again controlling for power distance, company type, and followers' age and sex. The HLM results revealed that both identification with supervisor and empowerment were significantly related to rated OCB (identification: $\beta = 0.19, p < 0.01$; empowerment: $\beta = 0.16, p < 0.01$; Model 5) as well as followers' work engagement (identification: $\beta = 0.24,$

Table 1
Correlations among the study variables.

Variable	M	s.d.	1	2	3	4	5	6	7	8	9
1. Company type	1.49	0.50	–								
2. Sex (0 = F; 1 = M)	0.38	0.49	0.25**	–							
3. Age	24.23	3.36	0.24**	0.06	–						
4. Power distance	3.89	0.56	0.01	0.07	–0.07	0.73					
5. Authentic leadership	3.38	0.66	–0.04	–0.01	0.05	–0.21**	0.91				
6. Identification	3.41	0.59	0.07	0.02	0.08	–0.18**	0.41**	0.87			
7. Empowerment	3.52	0.47	0.08	0.03	0.06	–0.19**	0.25**	0.53**	0.84		
8. Work engagement	3.69	0.43	0.09	–0.02	–0.01	–0.22**	0.28**	0.44**	0.47**	0.86	
9. OCB	3.77	0.50	0.03	–0.10	0.14*	0.02	0.15**	0.16**	0.18**	0.05	0.90

Note. $n = 387$. Reliability alpha (α) coefficients are reported in diagonal. OCB = organizational citizenship behavior; F = female; M = male.

** $p < 0.01$ (2-tailed).

Table 2
Hierarchical linear modeling results.

Level and variable	OCB	WE	IS	PE	OCB	WE
	(M1)	(M2)	(M3)	(M4)	(M5)	(M6)
Intercept	3.03**	2.94**	2.38**	2.67**		
Company type	0.03	0.12*	0.06	0.08		
Followers' age	0.15**	−0.04	0.04	0.03		
Followers' sex	−0.07	−0.05	−0.01	−0.01		
Power distance	−0.05	0.16**	0.10*	0.12*		
Authentic leadership	0.20**	0.26**	0.40**	0.25**		
Intercept					3.24**	2.94**
Organization type					0.01	0.06
Followers' age					0.14**	−0.06
Followers' sex					−0.07	−0.04
Power distance					−0.07	0.10*
Authentic leadership					0.06	0.08
Identification with supervisor					0.19**	0.24**
Empowerment					0.16**	0.39**
n (Level 1)	387	387	387	387	387	387
n (Level 2)	129	129	129	129	129	129

Note. OCB-O = organizational citizenship behavior; WE = work engagement; IS = identification with supervisor; PE = empowerment; M = model.

$p < 0.05$.

$p < 0.01$ (two-tailed tests).

$p < 0.01$; empowerment: $\beta = 0.39$, $p < 0.01$; Model 6). However, the effect of authentic leadership on rated OCB ($\beta = 0.06$, *ns*; Model 5) and followers' work engagement ($\beta = 0.08$, *ns*; Model 6) were both no longer significant. These results support Hypotheses 5 and 6 because followers' identification with their respective leader and feelings of empowerment fully mediated the relationship between authentic leadership and rated OCB (Hypothesis 5) as well as followers' work engagement (Hypothesis 6).

4. Discussion

This study was motivated by a desire to understand the relationship between authentic leadership and key follower outcomes proposed in earlier theoretical models including employee OCB and work engagement. We focused on followers' identification with the supervisor and their feelings of empowerment to explain these linkages. These two constructs have been proposed as mediators in previous conceptual models of authentic leadership. Our results showed that authentic leadership was significantly related to rated OCB and employee work engagement. Further, we found these relationships were explained by the degree to which employees identified with their supervisors and the extent to which employees' felt psychologically empowered. Below we discuss the theoretical and practical implications of our findings and the limitations of our research.

4.1. Theoretical implications and extensions

Although some researchers (e.g., Avolio & Luthans, 2006) have suggested that a significant share of employee work engagement could be directly attributable to the nature of authentic leadership exhibited by one's leader, this link has not been empirically tested previously. Our results support the propositions concerning a positive link between authentic leadership and follower work engagement as well as follower OCB. Thus, the supervisors' authenticity does seem to play a significant role, in terms of the relationships we reported above with both employee work engagement and supervisor rated OCB. A second contribution of this study lies in drawing together the identification and empowerment literatures to jointly help explain how leaders' perceived authenticity influences their followers' behavior. Our findings support previous suggestions (Ilies et al., 2005) that empowerment is an important motivational mechanism through which authentic leaders' may impact follower work-related outcomes. Although identification has been suggested as a key process variable because of its motivational and behavioral consequences (Pratt, 1998), it remains sparsely researched in the literature, and there is even less research about interpersonal levels of identity and identification (Sluss & Ashforth, 2007). Our findings, along with those of previous research on other leadership constructs such as transformational leadership (Kark et al., 2003), suggest that one's interpersonal identification with his or her supervisor may be a critical intervening variable linking leader and follower outcomes.

Overall, the pattern of results reported here suggests that the more leaders are seen as authentic, the more employees identify with them, feel psychologically empowered, are more engaged in their roles and demonstrate more citizenship-rated behaviors. Taken together, our findings point to the need for future research to explore the integration of identification, empowerment, and different leadership perspectives and how they relate to important employee outcomes.

4.2. Practical implications

This study has important practical implications for leaders and their organizations. The results show that it is beneficial for managers to emphasize transparency, balanced processing, self awareness and high ethical standards to enhance employee

engagement and citizenship behaviors. We believe this is particularly important given the increasing importance placed on enhancing employee engagement in organizations today and how it is being viewed as being a competitive advantage in global markets (Harter et al., 2002). Interventions aimed at enhancing the authentic leadership of supervisors would seem beneficial to the extent they improve followers' positive work behaviors. In addition, the evidence we provided that interpersonal identification with one's supervisor and empowerment are intervening variables suggests a framework through which managers can seek to use authentic leadership to enhance their followers' level of OCB and work engagement.

We make several suggestions for future intervention work. First, a good place to start is with conversations about expectations for every employee in a given role. We suggest that managers get each individual employee to view his or her role from a broader perspective instead of from a job description point of view. Managers also should encourage their direct reports to see how their work contributes to the overall organizational goals. To do this, managers can help employees clarify how they can achieve outcomes, by helping individual employees to change their roles to better fit their strengths. This can help followers increase their own transparency. This requires a greater level of self-awareness regarding one's strengths and weaknesses on the part of both the manager and employee and a willingness to be flexible and find solutions, as well as a greater sense of transparency and openness in their relationship to achieve these outcomes. A truly effective authentic leader is one who encourages his or her followers to not only be more engaged with their work but also themselves be more open, ethical, and self-aware.

Managers also may need to demonstrate a sense of genuine caring about employees and what is important to them in terms of ethical and moral standards in their working relationships. We also suggest that when a manager takes the time to have a dialogue about an employee's strengths and how these can make a difference at work, this is likely to build connections that lead to higher levels of interpersonal identification with and feelings of psychological empowerment from one's leader, resulting in positive follower work outcomes. Moreover, when employees have a greater say in how their work is done and when they have the information needed to perform their roles, this should enhance their "line of sight" towards broader organizational goal accomplishments. This line of sight should motivate employees to assume more responsibility and to take greater psychological ownership of work unit outcomes, especially where they see the manager as being transparent, ethical, balanced and fair in his or her decision-making.

In sum, the evidence provided in this study indicates that there is some potential direct and indirect payoff to leaders who exhibit authentic leadership behavior. Additionally, we see authentic leadership as complementing other positive styles of leadership by creating a more transparent relationship between leaders and followers, where followers have a clear idea of their leader's moral and ethical standards, where they can trust the leader to make the fairest and most balanced decisions, and where they can expect the leader will be aware of how he or she impacts others around them.

4.3. Limitations and future research

Among the various limitations of this study, we employed what was primarily a cross-sectional research design. Even though the ratings of authentic leadership were separated from ratings of identification and empowerment by 2 weeks, we would not consider this study a longitudinal design. Thus, our interpretations of causality are based only on the evidence of co-variation and one's confidence in the proposed theoretical connections. Future research should now examine how leaders across the spectrum of authentic leadership develop relationships with followers over time that could then be examined in terms of its impact on the intervening mechanisms investigated here and the outcomes of OCB and work engagement.

Second, although we believe common method variance had little influence on the findings in this study, the fact that all measures by questionnaire administration suggest the possibility that method bias influenced the findings in some way. We attempted to address this potential concern in three important ways. First, we averaged the direct reports' ratings of authentic leadership behaviors to the leader level. Bono and Judge (2003) has argued that aggregating individual ratings of leadership is beneficial because individual differences in follower reactions or biases to their leaders are treated as error, thus potentially addressing the issues of inflation due to common methods. Second, we conducted a series of confirmatory factor analyses to examine the construct validity of our measures. The CFA results supported their discriminant validity. Indeed, alternative models tests for common method effects produced results that were inferior to our hypothesized model. Finally, we used multi-source data (supervisors and their direct reports) and a time lag design for data collection. These design features add some degree of confidence in our findings. Nevertheless, future research could certainly improve on this study by collecting data from other sources besides the supervisors and their respective employees. This might include collecting data on perceived engagement and OCB from peers. Such future research also might include a mixed methods approach where qualitative and quantitative data are collected to confirm the authentic leadership style of the leader, as well as the intervening variables and employee outcomes.

Third, future research should also add to this study by collecting measures of other related leadership constructs to assess if authentic leadership uniquely contributes to positive follower outcomes above and beyond other positive forms of leadership such as leader-member exchange, transformational, ethical and empowering leadership. Another important next step for future research is to determine the extent to which these findings extend to other societal cultures besides China, although of course we can't even be sure that the findings extend to all organizations, occupations, and other subcultures (e.g., geographic) within China. It is possible that the overall level of effects of authentic leadership might be stronger in cultures where individuals follow allocation norms that are based more on equity than on egalitarianism, such as the United States and Western Europe. For example, people who come from low power distance cultures tend to place greater weight on the relational aspects of their treatment by authorities, such as the neutrality, trustworthiness, and respect for their rights. As a result, Chinese workers could be

seen to establish a stronger personal connection and bond with authentic leaders more rapidly than employees in lower power distance cultures.

As noted by Schaubroeck, Lam, and Cha (2007), their study and the literature in general suggests a general tendency for employee-focused practices such as leadership and employee influence programs to have a greater positive influence in samples of workers from China and other Southeast Asian cultures. Conversely, employees in high power distance cultures are more likely to maintain a formal relationship with the leader that could limit their meaningful interactions with authentic leaders. As a result, authentic leadership may have less influence on employee identification and other outcomes. As with all research, we cannot know exactly what influence, if any, societal culture differences may have on findings, so constructive replication is valuable.

Finally, while our prediction of the effect of authentic leadership on work behaviors was generally supported, it is important to emphasize that our hypotheses centered on authentic leadership behavior in general, and not its specific dimensions. That being the case, it is important to recognize that future research focusing on authentic leadership should continue to explore each of the four components as well as the combination, especially when conducting intervention research, e.g., self awareness is not the same transparency (the same is true with empowerment and OCB). Thus, our findings are limited to the global construct of authentic leadership, empowerment and OCB, and not their specific dimensions—areas that obviously deserve more future research attention.

In closing, authentic leadership theory holds great promise; by becoming more in touch with oneself, one's followers and one's environment, an individual can not only be more successful as a leader in terms of impacting performance, but also more successful as a role model for others, who may also aspire to be in a leadership role. Despite the potential limitations we noted above, this study adds to a growing body of literature on authentic leadership by not only testing the key relationships that have been claimed, but also testing certain putative psychological factors that may explain these relationships. In addition, our study highlights the importance of interpersonal identification with the supervisor and empowerment as potential intervening variables in understanding how authentic leaders influence their followers. We encourage researchers to further investigate the nomological validity of behavioral authenticity in leadership, especially by comparing it to other positive forms of leadership such as empowering leadership, ethical leadership, leader–member exchange, and transformational leadership. Similarly, given the assumed importance and prominence of authentic leadership behavior in organizations, future research is needed that identifies potential antecedents (e.g., personal characteristics such as personality traits) of authentic leadership to aid in developing strategies to select and develop authentic leaders.

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