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# Validating Measures of Leader Authenticity: Relationships Between Implicit/Explicit Self-Esteem, Situational Cues, and Leader Authenticity

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## Abstract

Using a student sample in a lab setting, we examined the relationships between explicit and implicit self-esteem and two measures of leader authenticity: self-reported authentic leadership as measured by the Authentic Leadership Questionnaire (ALQ) and perceived leader authenticity as reflected in leadership speeches. In addition, we explored the influence of situational cues for an internal versus external focus on measures of leadership authenticity. Explicit and implicit self-esteem related to authentic leadership in predicted directions, but not perceived leader authenticity. ALQ scores were also positively related to perceived leader authenticity and were significantly affected by the situational cues. Results provide support for the construct validity of the ALQ, while also showing that ALQ scores can be influenced by situational cues promoting an internal versus external focus.

## Keywords

authentic leadership, implicit and explicit self-esteem, construct operationalization, indirect measures, situational influences

As the study of authentic leadership has emerged and gained momentum (for a recent review, see Gardner, Cogliser, Davis, & Dickens, 2011), scholars have confronted a perplexing dilemma in determining how to operationalize the construct (Avolio & Gardner, 2005; Endrissat, Muller, & Kaudela-Baum, 2007; Pittinsky & Tyson, 2005; Shamir & Eilam, 2005; Sparrowe, 2005; Walumbwa, Avolio, Gardner, Wernsing & Peterson, 2008). Administering a self-report survey of authentic leadership, for example, may produce inflated ratings due to potential impression management and self-deception effects (Paulhus, 1984, 2002; Zerbe & Paulhus, 1987). Even asking other individuals to rate the authenticity of the leader can be problematic since leaders may be able to create the impression that they are authentic, even when they are not (Gardner, Fischer, & Hunt, 2009). Additionally, raters may simply rely on their implicit theories of the leader rather than the leader's actual behavior (for a review, see Shondrick, Dinh, & Lord, 2010).

Given the perceptual nature of authentic leadership and the inherent difficulties involved in measuring self- and other-perceptions (Atwater, Ostroff, Yammarino, & Fleenor, 1998; Atwater & Yammarino, 1997), different types of measures may be needed. We envision two potential solutions to these measurement challenges. The first solution would be to employ alternate measures of leader authenticity that do

not use explicit/conscious self- or other-reports (e.g., implicit, physiological; see Becker, Cropanzano, & Sanfey, 2011; Johnson & Saboe, 2011). The second solution would be to see if the concerns about explicit/conscious self- or other-reports of leader authenticity are valid by comparing these measures to other theoretically related measures that do not solely rely on self-report measures (e.g., construct validation, nomological net expansion; see Cronbach & Meehl, 1955). In the current study, we take the second approach. Specifically, we assess the construct validity of authentic leadership by attempting to expand the concept's nomological network (see Cronbach & Meehl, 1955).

Our validation of the authentic leadership construct through the expansion of its nomological network is threefold. First, we develop and assess a new, other report measure of perceived leader authenticity that employs trained coders'

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assessments of the degree of authenticity reflected in leadership speeches made in response to an ethical dilemma. We proceed to assess the validity of the authentic leadership construct by determining the extent to which scores on our newly created measure of perceived leader authenticity converge with the most commonly adopted self-report measure of authentic leadership, the Authentic Leadership Questionnaire (ALQ; Walumbwa et al., 2008).

Second, we explore the theoretically proposed connection between implicit/explicit self-esteem and individual (Kernis, 2003; Kernis & Goldman, 2006) and leader (Gardner, Avolio, Luthans, May, & Walumbwa, 2005) authenticity. Kernis (2003) argued that because people who possess high explicit and implicit self-esteem (i.e., "optimal self-esteem") are highly aware of and own their personal attributes, thoughts, values, feelings, motives, and beliefs, including their strengths and weaknesses, they are able to remain true to themselves and thereby achieve a high level of authenticity in their daily lives. Building on this argument, Gardner, Avolio, Luthans, et al. (2005) posited that authentic leaders would likewise possess optimal self-esteem. We test this prediction by examining the relationships between explicit/implicit self-esteem and the aforementioned self- and other-report measures of leader authenticity.

Finally, we explore the extent to which contextual factors influence leader displays and other assessments of authenticity. Specifically, we manipulated across three conditions the situational cues participants received prior to composing the leadership speeches they wrote in response to an ethical dilemma. The first condition instructed participants to adhere to an internal focus on personal values, the second focused their attention externally on managing audience impressions, and third served as a control. A comparison across these three treatments was made to assess the potential effects of situational cues for an internal versus external focus on others' ratings of leader authenticity as well as self-reports of authentic leadership. In summary, our approach builds on and extends prior validity assessments of authentic leadership (e.g., Neider & Schriesheim, 2011; Walumbwa et al., 2008) rather than simply testing if the relationships between implicit/explicit self-esteem, authentic leadership, and situational cues operate in the predicted directions.

The design of the current study is consistent with the recognition among leadership scholars that a wider range of research methods is required to deepen our understanding of leadership phenomena (Antonakis, Cianciolo, & Sternberg, 2004; Bass, 2008; Yukl, 2010). Moreover, it follows directions for future research advocated following an extensive analysis of research published in *The Leadership Quarterly* over the past decade (Gardner, Lowe, Moss, Mahoney, & Cogliser, 2010). Indeed, consistent with the recommendations advanced by these scholars, the design employs an experimental methodology that includes multiple and

alternative measures drawn from the management and social cognition literatures. Additionally, it answers the call made by Gardner et al. (2011) following a review of the authentic leadership literature to further explicate the nomological network for the construct. To do so, we examine the construct and convergent validity of alternative measures of leader authenticity, while simultaneously exploring the influence that situational cues for an internal versus external focus may exert on such measures. As such, this study contributes to the knowledge of authentic leadership processes, while simultaneously expanding the methodological tool kit available to leadership researchers and thereby addressing concerns about an overreliance on survey based methods (Gardner et al., 2010; Gardner et al., 2011).

Our article is organized into four major sections. First, we discuss the theoretical foundations and hypotheses examined in our study. This discussion includes an overview of authentic leadership theory, indirect measures, implicit self-esteem, and the proposed relationships between authentic leadership, implicit/explicit self-esteem, and situational influences. Second, we provide a detailed explanation of the methods employed. Third, we present the results obtained from the tests of our hypotheses. Finally, we discuss the leadership implications of our findings and directions for future research.

## Theoretical Foundations and Hypotheses

### *Authentic Leadership: Definition and Operationalization*

In recent years, Avolio, Gardner, Walumbwa, and associates (Avolio & Gardner, 2005; Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Gardner, Avolio, Luthans, et al., 2005; Walumbwa et al., 2008) have advanced a conceptualization of authentic leadership that draws heavily on Michael Kernis's (2003; Kernis & Goldman, 2006) multi-component model of authenticity (see also Ilies, Morgeson, & Nahrang, 2005). Kernis (2003) posited that authenticity involves the following components: (a) self-awareness, (b) unbiased processing, (c) relational orientation, and (d) authentic behavior. Building on Kernis's conception of authenticity, Walumbwa et al. (2008)

define authentic leadership as 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. (p. 94)

Furthermore, they draw on and refine Kernis and Goldman's (2006) multicomponent conception of authenticity to operationalize authentic leadership as being composed of the following four components: (a) self-awareness, (b) balanced processing, (c) relational transparency, and (d) internalized moral perspective.

*Self-awareness* refers to the ability to understand how one's view of the self over time interacts with how one makes sense of the world, including insights into one's strengths and weaknesses. *Balanced processing* involves recognition that although all humans are biased in their cognitive processing of information, the balance comes from explicit recognition that such biases are operative, while striving to minimize their effects in the pursuit of objectivity. *Relational transparency* refers to sharing one's self with others by openly disclosing one's thoughts, feelings, and relevant information about personal experiences. Kernis's (2003) behavioral component was renamed *internalized moral perspective* to reflect the importance of the leader abiding by core ethical values as an internalized form of self-regulation. At present, the primary method whereby scholars operationalize this four-component model of authentic leadership is through the ALQ developed by Walumbwa et al. (2008). There are two versions of ALQ: a self-report version and an other-report version.

Despite the advances made to date in understanding authentic leadership, challenges remain in operationalizing the construct (Gardner et al., 2011). For example, it is not clear to what extent leaders who are perceived to be authentic are truly authentic or merely skilled at self-presentation (Gardner & Cogliser, 2008) or emotional regulation (Gardner et al., 2009). Specifically, an inherent limitation of the other-rated version of the ALQ arises from the difficulty others experience in attempting to ascertain if an actor is being "true to the self," since the "inner self" of another person is not directly observable (Hoyle, Kernis, Leary, & Baldwin, 1999). Furthermore, even if raters can observe the extent to which a leader acts consistently over time, they will often rely on their implicit theories of leadership rather than the leader's actual behavior in making their assessments (Shondrick et al., 2010). On the other hand, a potential limitation of the self-report version of the ALQ is that it may be susceptible to social desirability biases (Paulhus, 1984, 2002; Zerbe & Paulhus, 1987) since authenticity is assumed to be a desirable quality. Hence, additional research beyond Walumbwa et al.'s (2008) preliminary validation effort is needed to assess the construct validity of the ALQ and extend the nomological network for the authentic leadership construct, as recommended by Gardner et al. (2011).

Toward this end, we developed a new measure of perceived leader authenticity that builds on prior work by Gardner (2003) to serve as an alternative to the other-report version of the ALQ and assess the convergent validity of the self-report version of the ALQ. In an experimental study,

Gardner (2003) assessed the effects of two manipulations—strong versus weak leader speech delivery and high versus low levels of ethical leader conduct—on participants' ratings of leader authenticity. In the current study, we apply the same rating scale to assess the perceived authenticity reflected in leadership speeches that were written by participants to address an ethical dilemma. Consistent with authentic leadership theory (Gardner, Avolio, Luthans, et al., 2005; Ilies et al., 2005; Shamir & Eilam, 2005) and research demonstrating the effects of behavioral integrity (i.e., word–deed consistency; Simons, 2002, 2008; Simons, Friedman, Liu, & McLean Parks, 2007), we predict that self-reported authentic leadership will be positively related to other-reported ratings of leader authenticity. That is, because authentic leadership theory (Gardner, Avolio, Luthans, et al., 2005) and empirical research (Leroy, Palanski, & Simons, 2012) suggest that authentic leaders exhibit behavioral integrity by engaging in behaviors that are consistent with their espoused values, we expect self-reported authentic leadership to be positively related to the degree of authenticity that others perceive to be reflected in these same leaders' speeches. Moreover, if self-reports of authentic leadership as measured by the ALQ are tapping into the underlying construct of leader authenticity, then other-reported measures of leader authenticity should follow suit, and vice versa, thereby demonstrating convergent validity. Based on this reasoning, we advance:

*Hypothesis 1:* Self-reported authentic leadership will be positively related to other-reported perceptions of leader authenticity.

### *Authenticity and Optimal Self-Esteem*

As noted above, Avolio, Gardner, Walumbwa, and associates (Avolio & Gardner, 2005; Avolio et al., 2004; Gardner, Avolio, Luthans, et al., 2005; Walumbwa et al., 2008) drew heavily on Michael Kernis's (2003) arguments regarding the relationships between self-esteem and authenticity to develop their theory of authentic leadership. According to Kernis's developmental model, once a person is able to attain authenticity through adequate levels of self-awareness, unbiased processing, relational orientation, and authentic behavior, they come to possess "optimal" (secure and high) levels of self-esteem. As such, people with optimal self-esteem accept who they are, including their strengths and weaknesses, and this is reflected in both high explicit and high implicit self-esteem. Although individuals with fragile self-esteem also respond to self-report measures of self-esteem (Rosenberg, 1979) with positive evaluations of the self, their self-esteem tends to crumble when they are confronted with challenges that elicit ego-defensive responses. Consequently, they possess high explicit and low implicit self-esteem. Hence, evidence of a positive relationship between authentic

leadership and optimal self-esteem and a negative relationship between authentic leadership and fragile self-esteem would serve to further validate the construct of authentic leadership, while expanding its nomological network (Cronbach & Meehl, 1955).

### Indirect Measures

Before moving into a more detailed discussion of implicit and explicit self-esteem and the theory behind using these constructs as proxies for optimal and fragile self-esteem, an understanding of what indirect measures are and how they are used more generally is required. Over the past 20 years, psychologists have developed several creative methods (see Bargh & Chartrand, 2000) in the quest to find alternative ways to examine socially sensitive attitudes and beliefs (e.g., prejudice and stereotypes). Most relevant to the current research is the distinction between direct and indirect measures of attitudes. A direct measure explicitly references the attitude(s) of interest, whereas an indirect measure hides any reference to the actual attitude(s) that is being assessed. To date, dozens of indirect measures have been developed and successfully used in research (for a review, see De Houwer & Moors, 2010).

Indirect measures are thought to tap into the nonconscious components of a person's mental representations. A mental representation can be defined as "the residue of a lifetime of observations, thought, and experience" (Carlston, 2010, p. 38) that reflect meaningful patterns of activation across the different representational features (Smith, 1996). Those components of a person's mental representation that may be considered nonconscious or implicit have at least one of the following characteristics: (a) the person is unaware of the mental representation and/or its influence, (b) the mental representation was not intentionally recalled, (c) the effects of the mental representation are uncontrollable, (d) the mental representation is processed using few cognitive resources. Although at least one of these components is necessary for a mental representation to be considered implicit, all mental representations fall along a nonconscious to conscious continuum (see De Houwer, Teige-Mocigemba, Spruyt, & Moors, 2009), with nonconscious representations being more association-based and conscious representations being more rule-based. Furthermore, some types of implicit representations (e.g., verbal and visual systems) can at times be explicit representations depending on the person's current focal attention. In contrast, other types of implicit representations (e.g., action and affective systems) do not translate well into an explicit form despite the person's focal attention. Explicit representations, therefore, only consist of the limited amount of concepts that a person is currently focusing on, with a constant blending of implicit and explicit representations making up the stream of consciousness (Carlston, 2010).

Indirect measures of attitudes are based on the assumption that implicit or nonconscious processes can be measured. Support for this assertion is provided by evidence that researchers have been able to establish reliable methods (for a review, see Fazio & Olson, 2003). An important distinction is that the measure itself is not implicit, but the measurement outcome is thought to be implicit or nonconscious. That is the reason why the term *indirect* measure is used here, instead of the term *implicit* measure. Depending on the indirect measure adopted, the implicitness may pertain to the stimuli that activate a representation, the representation itself, or how the representation was influenced or had an influence (De Houwer & Moors, 2007).

Researchers are increasingly realizing that no indirect measurement outcome is "process pure"; instead, such measures reside on a continuum from spontaneous to deliberative (Vargas, Sekaquaptewa, & von Hippel, 2007). In fact, the correspondence between indirect and direct (self-report) measurement scores increases as the self-report becomes more spontaneous (Gawronski & LeBel, 2008). In addition, different types of indirect and direct measures correspond to different types of implicit and explicit mental representations that are purported to be measured (e.g., Gawronski & Bodenhausen, 2005; Olson, Fazio, & Hermann, 2007; Ranganath, Smith, & Nosek, 2008), with controlled thought being a sufficient but not necessary condition for discrepancies between outcomes of indirect and direct measures to arise (Rydell & McConnell, 2010).

Although indirect methods are often used to measure implicit attitudes, researchers are increasingly finding that implicit attitudes seem to be better understood as "unintentionally activated evaluations of object-centered contexts" (Ferguson & Bargh, 2007, p. 217). Rather than implicit attitudes reflecting individuals' unmediated evaluations of their world, such attitudes instead depend on a number of different factors (e.g., memories, instructions, moods, active, and chronic goals) that are present at the time of measurement (Ajzen & Fishbein, 2000; Andersen, Moskowitz, Blair, & Nosek, 2007; Ferguson & Bargh, 2003). Hence, an indirect measure may be better conceptualized as a measure of the current relevance of the attitude object as a function of the salient and/or preexisting personal and external factors that are free from the potential obscuring effects of introspective thinking (De Houwer, 2006; Ferguson & Bargh, 2007; Nosek, 2007).

Ultimately, what makes implicit attitudes important is that they have real consequences for thought and behavior above and beyond those attributable to explicit attitudes alone (see Payne & Gawronski, 2010). When explicit and implicit attitudes are divergent, for example, information processing can increase and/or negative affect may arise (Rydell & McConnell, 2010). Our review of implicit self-esteem below provides further evidence of the consequences implicit attitudes can have for people.

### *Implicit Versus Explicit Self-Esteem*

Self-esteem can be defined as the affective part of the self-concept or attitude of the self (Schnabel & Asendorpf, 2010). It is widely known that most people like themselves (Banaji & Prentice, 1994); however, even when someone cannot consciously verbalize this bias for self, it is still there (Aidman & Carroll, 2003; Greenwald & Farnham, 2000). People like various objects more as soon as they own them (Beggan, 1992), prefer letters and numbers that are found in their own name and birthday over other letters and numbers (Kitayama & Karasawa, 1997), and even prefer similar others over nonsimilar others simply because similar others nonconsciously activate positive associations about themselves (Jones, Pelham, Carvallo, & Mirenberg, 2004).

As implied above, recent research trends reveal that implicit or nonconscious processing plays an important role in most psychological processes, including self-esteem (Greenwald & Banaji, 1995; Wegner & Bargh, 1998). The idea that there are both implicit and explicit components of self-esteem is consistent with recent conceptions of the self as having simultaneously operating subsystems (Zeigler-Hill & Jordan, 2010). Implicit self-esteem can thus be defined as an implicit evaluation of oneself (Dijksterhuis, 2004). Indirect self-esteem measures, therefore, are assumed to reflect a nonconscious effect of self-attitudes on evaluations of self-associated objects (Greenwald & Banaji, 1995).

Consistent with the preceding discussion regarding the measurement of authentic leadership, direct measurements of self-esteem—despite allowing access to personal insights, being quick and easy to administer and interpret, and having good psychometric properties—have noteworthy drawbacks. First, it is not known if people's responses honestly reflect their feelings about themselves (Paulhus, 1984, 2002; Zerba & Paulhus, 1987). Second, it is not known if people's responses reflect true introspective access to all parts of their self-worth. Explicit self-esteem, for example, has been shown to positively relate to direct measures of impression management and self-deception (Zeigler-Hill & Jordan, 2010). As a result, researchers have developed a dozen or so indirect measures of self-esteem that have been successfully used in past studies, even though they have somewhat poor psychometric properties due to many of the issues discussed above. Different contexts, for example, may activate different patterns of associative mental representations of the self, resulting in different self-evaluations (for a review, see Zeigler-Hill & Jordan, 2010).

As is the case for indirect measurement outcomes more generally, what is most significant about outcomes of indirect measures of self-esteem are the real consequences these outcomes have on thoughts and behavior above and beyond those accruing from explicit self-esteem (Bosson, Swann, & Pennebaker, 2000; Koole, Dijksterhuis, & van Knippenberg, 2001). For example, Spalding and Hardin (1999) found that

for participants in an interview paradigm, explicit, not implicit, self-esteem predicted their ratings of anxiety, and implicit and explicit self-esteem had independent influences on participants' self-handicapping. Furthermore, low implicit self-esteem, but not explicit self-esteem, was predictive of stress-induced depression and high implicit self-esteem buffered individuals with low explicit self-worth (Steinberg, Karpinski, & Alloy, 2007; Zeigler-Hill & Terry, 2007), while eliciting greater persistence in the face of failure (see Zeigler-Hill & Jordan, 2010).

The congruence (or lack thereof) between implicit and explicit self-esteem has been shown to also have important psychological effects and has brought some clarity to inconsistent findings concerning the influence of self-esteem on perceptions and behaviors (e.g., Dunning & Cohen, 1992; Taylor & Brown, 1988). Bosson, Brown, Zeigler-Hill, and Swann (2003), Kernis (2003), and Jordan, Spencer, Zanna, Hoshino-Browne, and Correll (2003) have each demonstrated, with very similar paradigms, that people with high explicit, but low implicit self-esteem (fragile self-esteem), display a greater tendency toward self-enhancement than those with high explicit and implicit self-esteem (optimal self-esteem). Other recent findings reveal that individuals with fragile self-esteem are less likely to forgive others, endorse extreme opinions when under intellectual threat, show more unrealistic optimism, and exhibit more distortions of self-threatening information (Bosson et al., 2003; Eaton, Struthers, Shomrony, & Santelli, 2007; Kernis, Lakey, & Heppner, 2008; McGregor & Jordan, 2007). The primary explanation for this pattern of findings is that people with fragile self-esteem outwardly express greater confidence and more positive self-evaluations than they inwardly experience. Hence, they respond to ego-threatening information with defensive behaviors to protect their fragile feelings of self-worth (Kernis, 2003). Importantly, as previously noted, experiencing oneself as authentic, which involves understanding, owning, and acting on the true self (Harter, 2002), is posited to provide the basis for optimal self-esteem (Kernis, 2003; Kernis & Goldman, 2006).

### *Relationship Between Authentic Leadership and Implicit/Explicit Self-Esteem*

Given that the construct of authenticity is an important antecedent to the construct of authentic leadership (Gardner, Avolio, Luthans, et al., 2005; Ilies et al., 2005), a truly authentic leader would be one who possesses optimal self-esteem as a developmental result of achieving authenticity. In terms of explicit and implicit self-esteem, it follows that authentic leaders will display a close match between their implicit and explicit self-esteem. In other words, what they say about how they feel about themselves should be closely aligned with how they actually do feel about themselves. However, just having a match between implicit and explicit

self-esteem would not provide a sufficient criterion for determining if the leader is truly authentic, given the definition of optimal self-esteem presented above and past research examining the incongruence between implicit and explicit self-esteem. Specifically, as reviewed above, individuals with high explicit, but low implicit self-esteem, display more self-enhancement behaviors, are less likely to forgive others, and exhibit more distortions of self-threatening information than those with high explicit and high implicit self-esteem. Therefore, authentic leaders are expected to possess both high implicit and high explicit self-esteem (i.e., optimal self-esteem). Moreover, we expect fragile self-esteem (high explicit self-esteem and low implicit self-esteem) to be related to relatively low ratings of authentic leadership, since a discrepancy between explicit and implicit self-esteem scores suggests that the individual lacks self-awareness and the propensity for balanced processing of self-related information. Based on the above reasoning, we advance:

*Hypothesis 2a:* There will be an interaction between explicit and implicit self-esteem such that the highest levels of self-reported authentic leadership will be associated with optimal self-esteem (high implicit and high explicit self-esteem), whereas the lowest will be associated with fragile self-esteem (low implicit and high explicit self-esteem).

*Hypothesis 2b:* There will be an interaction between explicit and implicit self-esteem such that the highest levels of other reported leader authenticity will be associated with optimal self-esteem and the lowest levels with fragile self-esteem.

### *Situational Cues for Internal Versus External Focus*

Erickson (1995a, 1995b) asserts that rather than existing as an either/or condition, the level of authenticity that individuals experience varies along a continuum from relatively low to relatively high levels, depending on internal and situational forces. Although situational influences have not been directly examined in the authentic leadership literature to date, Gardner et al. (2009) posit that contextual dimensions of the environment, including both the omnibus (e.g., organizational and national culture, occupation and industry, organizational structure, time) and discrete (i.e., situational) context (Johns, 2006), operate to influence the level of authenticity a leader achieves. In addition, they posited that a variety of discrete, contextual cues serve as display rules for emotional labor that may apply pressure to organizational members, including leaders, to compromise their authenticity.

Consistent with this argument, Diefendorff and Greguras (2009) demonstrated that organizational members, including

those occupying leadership positions, respond to emotional display rules with an assortment of expressive management strategies. Moreover, Brotheridge and Lee (2002) found that when emotional labor involves surface acting (emotional displays that are intended to deceive others about what the actor is actually feeling), feelings of inauthenticity accrue. In contrast, when emotional displays involve deep acting (actor efforts to modify inner feelings to match emotional display rules and thereby deceive themselves; Brotheridge & Lee, 2002) and genuine emotions (Glomb & Tews, 2004), higher levels of felt authenticity are experienced. Additionally, ample research demonstrates that other persons are able to detect the differential levels of sincerity reflected by surface acting, deep acting, and genuine emotions (Grandey, 2000). Similarly, the literature on self-monitoring suggests that high versus low self-monitors are less likely to experience feelings of authenticity because they are more attuned to managing audience impressions, as opposed to their internal values and feelings (Gardner & Cogliser, 2008; Snyder, 1987). Finally, research indicates that when low as opposed to high self-monitors are forced by situational pressures to engage in impression management, audiences are more likely to judge their presentations as insincere (Bolino, Kacmar, Turnley, & Gilstrap, 2008). Based on this literature, we expect situational cues that encourage an internal (focus on personal values) as opposed to external (focus on managing audience impressions) orientation will elicit higher levels of self- and other-reported leader authenticity. Accordingly, we advance:

*Hypothesis 3a:* Situational cues emphasizing an internal focus on personal values will increase self-reported authentic leadership, whereas situational cues emphasizing an external focus on managing audience impressions will decrease self-reported authentic leadership.

*Hypothesis 3b:* Situational cues emphasizing an internal focus on personal values will increase other reported leader authenticity, whereas situational cues emphasizing an external focus on managing audience impressions will decrease other reported leader authenticity.

## **Method**

### *Study Overview*

To create a relatively homogeneous sample (see Mook, 1983), the participants were all undergraduate freshman students. Consistent with the conceptualization of indirect measures reviewed above and De Houwer and Moors's (2010) recent analysis, we assessed implicit self-esteem using two previously established symbolic measures. First, at the beginning of the study, participants were asked to

sign a form in order to measure signature size. Past research has shown that the larger one's signature, relative to others' signatures, the higher one's implicit self-esteem (see Stapel & Blanton, 2004). Second, toward the end of the study, participants were instructed to evaluate the attractiveness of each letter of the alphabet. Past research has shown that people with higher levels of implicit self-esteem view the letters in their name and their initials as more attractive (see Dijksterhuis, 2004). The two methods were chosen because of their relative ease of administration and the prospects of achieving triangulation (Neuman, 2002). The process by which these two methods are thought to produce an outcome is through association-based implicit mental representations of self-associated objects (see Schnabel & Asendorpf, 2010). The implicitness of the self-esteem measure was assessed at the end of the study in the form of a funnel debriefing process whereby participants were asked about the true purposes of the study (see Procedure section below).

Participants were first instructed to imagine that they were the leader portrayed in an ethical dilemma vignette and then prepared a speech to describe how they were going to address the dilemma. Instead of using the other-report version of the ALQ, trained independent raters read and evaluated these speeches to assess the level of authenticity reflected in the narrative (see Materials and Measures section). To assess the potential influence of situational cues, we varied our instructions to respondents by providing them with cues to either focus their attention internally on personal values or externally on managing audience impressions when writing their speech. We also included a control condition that did not provide the respondents with any particular cues. After completion of the first task, the self-report version of the ALQ (Avolio, Gardner, & Walumbwa, 2007) was administered as well as a measure of explicit self-esteem (Rosenberg, 1965).<sup>1</sup>

### Participants and Design

One-hundred and thirty-one undergraduate students (82 female, mean age = 18.91) enrolled in a general psychology course participated in the study in exchange for partial course credit. Participants were randomly assigned to one of three situational cue conditions (internal focus, external focus, control) in a one-way between-subjects design. Based on the results of the funnel debriefing procedure described below, no participants showed conscious awareness of the true purposes of the study.

### Materials and Measures

**Implicit self-esteem.** Stapel and Blanton (2004) used what they called an Institute for Perception Studies (IPS) form to measure signature size (see also Zweigenhaft & Marlowe, 1973). They informed participants that the IPS sponsored

their research and they needed them to sign the form for the Institute's records (see Appendix A). We adopted the same procedure. To obtain the outcome measure of implicit self-esteem based on signature size, each signature was assessed by drawing the smallest possible rectangle around the signature, measuring the area of that rectangle, and then dividing the area by the average for all signatures measured (see Stapel & Blanton, 2004).

Additionally, a measure of implicit self-esteem patterned after that used by Dijksterhuis (2004) was employed. For the implicit self-esteem measure, participants were instructed to evaluate the attractiveness of each letter of the alphabet on a 7-point scale (1 = *not at all beautiful*, 7 = *extremely beautiful*). The letters were presented individually and in random order on the computer screen (for a recent review of this measure, see Albers, Rotteveel, & Dijksterhuis, 2009). For the measure of implicit self-esteem based on letter preferences, a baseline for the evaluation of each letter that did not include the participant's initials from his or her full name was initially computed. Next, a difference score between the baseline for each letter and each of the participant's initials was calculated to obtain a relative attractiveness score (see Dijksterhuis, 2004).

**Explicit self-esteem.** Rosenberg's Self-Esteem Scale (1965) was administered to serve as our measure of explicit self-esteem. The explicit self-esteem score was computed by summing participant responses on each question from Rosenberg's (1965) Self-Esteem Scale ( $\alpha = .84$ ). Sample items include, "On the whole, I am satisfied with myself" and "I wish I could have more respect for myself."

**Leader narrative.** Participants were presented with a leader narrative that described an ethical dilemma (adapted from Treviño & Nelson, 2007; see Appendix B). Participants were asked to assume the role of the leader in the narrative and instructed to prepare a speech that they would deliver as the leader describing their response to the situation. Participants were also told that later in the experiment they would actually deliver that speech to other participants. In reality, they were never required to give the speech that they wrote, but were instructed this way to increase their motivation and hence the quality of their written responses (see Lerner & Tetlock, 1999).

**Situational cues for internal versus external focus.** Participants were randomly assigned to one of three sets of instructions included in the leader narrative reflecting differential situational cues (internal focus on personal values, external focus on persuasively managing audience impressions, control) regarding the speech that they were to write (see Appendix B). Specifically, participants in the internal focus condition received the following instruction: "In creating the speech it is important to hold strictly to your personal values." Those in the external focus condition were instructed as follows: "In creating the speech it is important to be persuasive in order to get others to follow your course of action



**Table 1.** Descriptive Statistics and Correlations Between Additional Measures, Self-Esteem Measures, and Authentic Leadership Measures

Variable	1	2	3	4	5	6	7	8
1. Authentic Inventory								
2. BIDR (self-deception)	.48**							
3. BIDR (impression mgt)	.25**	.35**						
4. Self-monitoring	.14	-.06	.21*					
5. Implicit Self-esteem (initials)	-.06	-.07	.01	.07				
6. Implicit Self-esteem (signature)	-.07	-.01	.06	-.02	-.02			
7. Explicit Self-esteem	.46**	.51**	.26**	.06	.05	.04		
8. Authentic Leadership Questionnaire	.18*	.16	.09	-.18*	.16	.10	.10	
9. Perceived Leader Authenticity	.02	-.01	-.06	.04	.08	-.10	.01	.36**
M	156.89	85.20	159.56	25.86	.96	-.23	20.11	4.12
SD	16.12	12.42	22.95	3.04	2.03	5.40	4.36	1.80

\* $p < .05$ . \*\* $p < .01$ .

at all costs.” Finally, those in the control condition did not receive any instructions for focusing their attention in writing their speeches.

*Perceived leader authenticity as reflected in leadership speeches.* To obtain the other report measure of the perceived level of authenticity reflected in the leadership speeches, two trained independent raters who were blind to the condition assignments and the purpose of the experiment coded the authenticity of each speech on a 7-point semantic differential scale (see Gardner, 2003; Gilbert & Jones, 1986). Specifically, they rated the speeches using the following four 7-point continuums: straightforward to deceptive, authentic to phony, genuine to hypocritical, and sincere to insincere. To obtain the overall measure of authenticity in the leadership speeches, scores on the four 7-point scales were combined together. Coders’ percentage of agreement for the combined measure of authenticity in the leadership speeches was 98%. Disagreements in ratings were averaged together.

*Self-reported authentic leadership.* In developing the ALQ, Walumbwa et al. (2008) obtained support for a higher order, multidimensional model of the authentic leadership construct comprising leader self-awareness, relational transparency, internalized moral perspective, and balanced processing as subdimensions. Because our interest is in the relationship between implicit and explicit measures of self-esteem and the higher-order authentic leadership construct, rather than the subdimensions of authentic leadership, we followed Walumbwa et al.’s (2008) example and used summated scores for the overall self-report ALQ scale in our analysis. The ALQ was modified to reflect the context of the speech participants just wrote. Sample items include: “I said exactly what I meant in my speech,” “I made decisions in my speech based on my core values.” Despite the slight changes in wording we made, to be consistent with the

context of the experiment (i.e., writing a leadership speech in response to an ethical dilemma), internal reliability was still high ( $\alpha = .88$ ).

*Self-reported authenticity.* Participant responses on Goldman and Kernis’s (2004) Authenticity Inventory were summed to obtain self-reported authenticity scores ( $\alpha = .70$ ). Because the positive relationship between individual authenticity and authentic leadership has been previously established (Leroy, Anseel, Gardner, & Sels, 2012), no formal hypotheses regarding this relationship were introduced in the present study. Instead, this measure was included for replication (Hunter, 2001) purposes only.

*Self-monitoring and social desirability measures.* Participants completed Gangestad and Snyder’s (2000) Self-Monitoring Scale ( $\alpha = .72$ ) and the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 2002;  $\alpha = .76$ ; for descriptives see Table 1). Scores on these measures were computed by following the instructions given by the authors of these instruments.

## Procedure

At the outset of the study, participants were first asked to sign an IPS form. After turning in a signed form, participants completed the study in separate cubicles via a computer. The experimenter explained that the study instructions would be provided on the computer screen. The experimenter then started the computer program and left the room. Experimental administrators were blind to condition assignments. The computer program began by welcoming participants to the “Communication and Attitudes” experiment, after which participants were presented with the leader narrative along with one of three sets of instructions (internal focus, external focus, control) reflecting situational cues for the speech that they were to write.

After writing their speech, all participants completed a self-report version of the ALQ (Walumbwa et al., 2008), followed randomly by the attitude/personality measures (Authenticity Inventory: Goldman & Kernis, 2004; the 18-item Self-Monitoring Scale: Gangestad & Snyder, 2000; BIDR: Paulhus, 2002; Explicit Self-Esteem: Rosenberg, 1965; letter preference implicit self-esteem: Dijksterhuis, 2004). After the participants completed the attitude/personality measures, they were given the funnel debriefing and demographic questions and then fully debriefed about the general purpose of the study and use of deception.

## Results

Although no specific hypotheses were made concerning the relationship between the self-esteem, authenticity, self-monitoring, and social desirability measures, as Table 1 shows, correlations were generally consistent with past research on self-esteem (Zeigler-Hill & Jordan, 2010), authenticity (Leroy, Anseel, et al., 2012), and authentic leadership (Tate, 2008). Moreover, the positive correlations between the Authenticity Inventory (Goldman & Kernis, 2004) and the BIDR, and Explicit Self-Esteem with both the BIDR and the Authentic Inventory, partially support our argument concerning potential problems with self-report measures. Although the correlations between the ALQ and the BIDR self-deception and impression management scales were not significant, both were positive, suggesting some potential influence of social desirability biases on this measure.<sup>2</sup>

Hypothesis 1 predicted that self-reported leadership authenticity would be positively related to other reported perceptions of leader authenticity. As Table 1 indicates, we found a significant positive correlation between ALQ scores and other reported perceptions of authenticity reflected in the leadership speeches. To further test this relationship, a one-step linear regression was conducted for the self-reported ALQ score. The predictor variable for the regression was perceived leader authenticity. The results were consistent with the correlations and the hypothesis. The other reported perceptions of leadership authenticity accounted for 13% of the variability in the ALQ score providing a significant model,  $F(1, 129) = 19.30, p < .001$ , with the perceived leader authenticity variable showing significance ( $B = 1.96, p < .001$ ).

Hypothesis 2 addressed the interactive effects of implicit and explicit self-esteem with self-reported authentic leadership as measured by the ALQ and other reported perceptions of authenticity reflected in the leadership speeches. More specifically, Hypotheses 2a and 2b, respectively, predicted that scores on the authenticity measures would be highest for participants with optimal self-esteem (high explicit and high implicit self-esteem) and lowest for those with fragile self-esteem (low implicit and high explicit self-esteem). To test these hypotheses, hierarchical regression analyses were

conducted for each leader authenticity measure. In the first step, the main effects of implicit and explicit self-esteem were included. In the second step, the two-way interactions between implicit and explicit self-esteem were included.

For Hypothesis 2a, the optimal linear combination of the centered implicit measures of self-esteem (letter preferences and signature size) and explicit measure of self-esteem accounted for 4.2% of the total variance in ALQ scores,  $F(3, 127) = 1.84, p = .14$ . Adding in the two-way interactions between the explicit self-esteem and implicit self-esteem measures created a significant improvement in the model, accounting for an additional 6.4% of the total variance in ALQ scores:  $R^2 = .106, F(5, 125) = 3.00, p = .014$  (see Table 2).

The main effects at Step 1 for the two measures of implicit self-esteem (letter preferences and signature size) and the measure of explicit self-esteem failed to reach significance. However, at Step 2, as predicted, a significant two-way interaction between the signature size implicit self-esteem measure and the explicit self-esteem measure was found ( $B = .074, p = .02$ ; see Table 2). Examination of simple slopes revealed that for people low in explicit self-esteem, signature size implicit self-esteem did not predict scores on the ALQ ( $B = -.21, p = .39$ ); however, for those high in explicit self-esteem, signature size implicit self-esteem did predict scores on the ALQ ( $B = .75, p = .006$ ). That is, participants who were low on explicit self-esteem scored similarly on the ALQ no matter if they were high or low in signature size implicit self-esteem. In contrast, those who were high in explicit self-esteem scored significantly higher on the ALQ when they scored high versus low on signature size implicit self-esteem (see Figure 1). Thus, as predicted by Hypothesis 2a, participants who reported the highest levels of authentic leadership possessed optimal self-esteem, whereas those who reported the lowest levels of authentic leadership exhibited fragile self-esteem. For the two-way interaction between the letter rating implicit self-esteem measure and explicit self-esteem, no significant effect was obtained ( $B = .13, p = .16$ ).

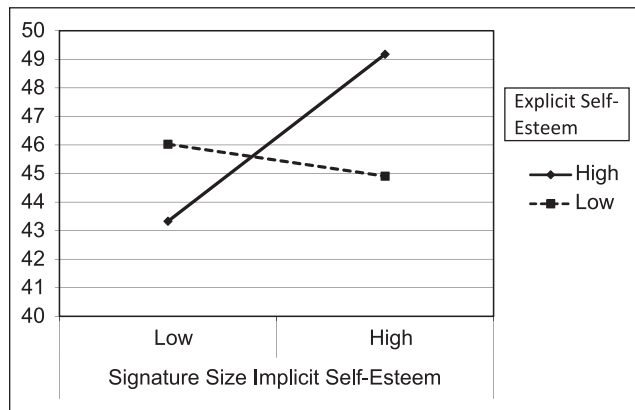
For Hypothesis 2b, in which the other report perceptions of authenticity reflected in leadership speeches served as the focal authenticity measure (see Table 2), no effects reached significance (all  $p$  values  $> .23$ ). Therefore, no support for Hypothesis 2b was obtained.

Hypothesis 3 predicted that the internal versus external focus instructions (situational manipulation) would produce higher levels of (a) self-reported authentic leadership and (b) other rated perceptions of leader authenticity. To test Hypothesis 3, two different one-way between-subjects analysis of variances (ANOVAs) were conducted using the three instruction conditions (internal focus, external focus, control) as the three levels of the independent variable. For the first ANOVA, the dependent variable was self-reported authentic leadership (ALQ scores). For the second ANOVA,

**Table 2.** Results of Hierarchical Regression Predicting Self-Reported Authentic Leadership (ALQ) and Perceived Leader Authenticity in Speeches as a Function of Implicit and Explicit Self-Esteem and the Interaction Between Implicit and Explicit Self-Esteem (Hypothesis 2)

Model	Measure	ALQ			Perceived Leader Authenticity		
		R <sup>2</sup>	F (df)	B	R <sup>2</sup>	F (df)	B
Step 1		.042	1.84 (3,127)		.017	.723 (3,127)	
	Implicit self-esteem (signature size)			.16			.035
	Implicit self-esteem (letter preferences)			.72			.069
	Explicit self-esteem			.21			.004
Step 2		.106	3.00 (5,125)**		.025	.642 (5,125)	
	Implicit self-esteem (signature size) × Explicit self-esteem			.07*			.005
	Implicit self-esteem (letter preference) × Explicit self-esteem			.13			.015

\* $p < .05$ . \*\* $p < .01$ .

**Figure 1.** Self-report Authentic Leadership Questionnaire scores as a function of signature size implicit self-esteem and explicit self-esteem

the dependent variable was perceived leader authenticity as reflected in the leadership speeches. The results revealed a significant effect for the treatment on self-reported authentic leadership,  $F(2, 128) = 3.16, p < .05$ . Post hoc analyses using the least significant difference procedure revealed that the mean ALQ scores for the external focus ( $M = 47, SD = 8.95$ ) and the internal focus ( $M = 48.69, SD = 7.80$ ) instructions were significantly higher than the mean for the control condition ( $M = 43.82, SD = 10.74$ ). No significant effects of the internal/external focus instructions were revealed for the measure of perceived leader authenticity (Table 3).

To summarize the findings relative to Hypothesis 3, contrary to expectations, no differences in the authenticity measures were obtained for the internal versus external focus instructions. The only significant differences that were observed emerged on the ALQ for the internal versus external focus instructions relative to the control group. Thus, cuing the participants with instructions to either be internally focused on personal values or externally focused on

managing audience impressions through persuasion when writing their leadership speeches heightened their self-reported levels of authentic leadership, but had no impact on the perceived level of authenticity reflected in their speeches.<sup>3</sup> We consider the implications of this finding as part of the discussion below.

## Discussion

One purpose of the current study was to assess the utility of using indirect and direct measures of self-esteem to further validate the construct of authentic leadership and thereby address some of the operational problems encountered with current measures. More specifically, we assessed the efficacy of relating direct measures of authentic leadership with indirect and direct measures of self-esteem. The results indicated that self-reported authentic leadership related to the signature size implicit self-esteem measure and explicit self-esteem measure in the predicted direction. Specifically, those who scored high on the ALQ also scored high on the measures of implicit and explicit self-esteem, whereas those who scored low on the ALQ also scored low on the measure of implicit self-esteem but high on measure of explicit self-esteem. This is a noteworthy initial step, because this is the first study within the authentic leadership literature that triangulates direct (e.g., ALQ, explicit self-esteem) and indirect (implicit self-esteem) measures together. The convergence of these measures serves to further validate the construct of authentic leadership, as measured by the ALQ, while extending its nomological network (Cronbach & Meehl, 1955; Gardner et al., 2011).

Also noteworthy is the finding that scores on the ALQ were positively related to other rated perceptions of authenticity reflected in the leadership speeches. Indeed, this finding demonstrates that self-reported ratings of authentic leadership are related to behavioral indicators of leader authenticity, thereby providing further validation of the

**Table 3.** ANOVA Summary Table: Effects of Situational Cues on Self-Reported Authentic Leadership (ALQ) and Perceived Leader Authenticity in Speeches

Dependent Variable	Source	Sum of Squares	df	F
Self-reported authentic leadership (ALQ)	Internal focus cues	580.04	2	3.16*
	Error	11742.59	128	
Perceived leader authenticity in speeches	External focus cues	11.35	2	1.78
	Error	408.19	128	

Note. Post hoc least-significant difference analyses indicated that the  $M_{\text{Low authenticity}} = M_{\text{High authenticity}} > M_{\text{Control}}$   
 \* $p < .05$ . \*\* $p < .01$ .

authentic leadership construct. Furthermore, these results support recent calls to include a wider range of methods within leadership research, including experimental designs and alternatives to survey-based measures (Gardner et al., 2010; Gardner et al., 2011). Nevertheless, a certain degree of caution is needed in interpreting the positive relationship between the two measures since the writing of the speeches was immediately followed by the ALQ. In particular, the positive relationship may simply reflect a desire for consistency between the two measures. However, given that the speech was written first and the authenticity of the speech was assessed by independent raters rather than participants, concerns about the susceptibility of participants to consistency biases are reduced.

Despite the intriguing implications of the current findings, there are still questions that need to be answered. First, it is not clear why only one of the measures of implicit self-esteem yielded support for Hypothesis 2. One potential explanation is that problems with the conceptualization and operationalization of implicit self-esteem discussed above obscured the posited relationships. Part of the confusion about what implicit self-esteem involves stems from the diverse methods used to measure it, as well as the situational and personal factors salient at the time of measurement (see Fazio & Olson, 2003). For example, Bosson et al. (2000) found that among seven commonly used implicit self-esteem measures (one of which was the letter-preference test), none correlated with each other. This was true in the current study as well. As Table 1 indicates, the two measures of implicit self-esteem were not significantly correlated, raising concerns that they may be measuring different constructs. However, just as the current results indicate that the utility of direct measures should not be ignored, despite some limitations, they suggest that the efficacy of indirect measures should not be discounted because of current limitations. To the contrary, our findings suggest that such measures have great potential for providing a more complete understanding of how people see themselves (Zeigler-Hill & Jordan, 2010), as demonstrated by the significant interaction revealed between the self-report ALQ scores and the measures of implicit and explicit self-esteem (see Figure 1).

Second, it is not clear why only the self-report ALQ showed the predicted interaction between implicit and explicit self-esteem. Despite the significant correlation between the ALQ and other rated assessments of authenticity reflected in the leadership speech, each measure may be tapping into different components of leader authenticity since the construct is assessed in very different ways in each measure. Indeed, while the ALQ focused on operationalizing the four-component conception of authentic leadership advanced by Avolio, Gardner and colleagues (Avolio & Gardner, 2005; Gardner, Avolio, & Walumbwa, 2005; Gardner, Avolio, Luthans, et al., 2005; Walumbwa et al., 2008), the measure of perceived leader authenticity as reflected in leadership speeches seeks to operationalize the extent to which others judge the leader to be authentic overall in conveying a recommended response to an ethical dilemma. In a similar vein, since one measure of leadership authenticity was a self-report measure, whereas the second was an other (rater)-report measure, the fact that variability was much lower for the other-report measure could possibly account for the differential relationships observed. Such reasoning may be further substantiated by the finding that the other reported measure of perceived leader authenticity accounted for only 13% of the variability in the ALQ score.

Third, we also attempted to ascertain the extent to which authenticity is influenced by situational cues. As discussed in the rationale for Hypothesis 3, Erickson (1995a, 1995b) posited that rather than existing as an either/or condition, the level of authenticity that individuals experience varies along a continuum from relatively low to relatively high levels, depending on situational forces. Moreover, building on the work of Johns (2006), Gardner et al. (2009) theorized that certain elements of the omnibus (e.g., national and organizational culture, industry and occupation, organizational structure, and time) and discrete (i.e., situational) context can influence a leader's level of authenticity. Accordingly, we predicted that cues for an internal focus on personal values versus an external focus on persuasive impression management included in the participant instructions for writing the leadership speeches would differentially influence leadership authenticity.

Contrary to our expectations, the internal versus external focus instructions did not have a differential impact on the level of authenticity displayed by participants as reflected in their leadership speeches and the self-report measure of leadership authenticity. However, both sets of instructions did produce elevated levels of self-reported authentic leadership relative to the control group, which received no instructions regarding an internal versus external focus. Thus, instructions to either be internally focused on personal values or externally focused on impression management in the leadership speeches both appeared to prime the respondents regarding authenticity concerns, which in turn affected self-reported authentic leadership, but not the level of perceived behavioral authenticity reflected in the speeches. Hence, some support for our argument that situational cues can affect authenticity was obtained, even though the effects for the instructions were not in the direction predicted.

These findings highlight the importance of accounting for situational cues when using survey measures of authentic leadership, and self-reports in particular. Moreover, they suggest that more behavioral measures of authentic leadership, such as those obtained from the coding of the level of authenticity reflected in the leadership speeches, may provide useful alternatives to survey measures. In addition, they suggest that despite the evidence for the construct validation of authentic leadership as measured by the ALQ noted above, it may still be more susceptible to demand characteristics than behavioral measures. Accordingly, future research should consider the utility of employing both survey, behavioral, and implicit measures of authenticity in pursuit of triangulation of measures and results (Neuman, 2002).

Despite the apparent effects of the internal versus external focus instructions relative to the control group, we were surprised that the means for these two conditions were not significantly different. Indeed, we thought that the instructions to “be persuasive” would be interpreted by respondents as a cue to shape their presentation to make it appeal to the audience, even if doing so resulted in some distortion of their true opinions. In hindsight, perhaps it is not so surprising that no differences between conditions were obtained, since actors may have viewed an authentic presentation that involves focusing on personal values as their most persuasive option. Furthermore, the instruction to “be true to their values” does not clearly align with all four components found in current theorizing on authentic leadership as discussed in the introduction. Thus, future research using stronger cues that are more consistent with current theorizing in authentic leadership may be necessary to better assess the potential effects of situational influences on actor displays of leadership authenticity.

Overall, given the connections between self-report ALQ scores, other-ratings of perceived leader authenticity, the

signature size measure of implicit self-esteem, and explicit self-esteem, our use of alternative measures of leader authenticity and implicit measures of self-esteem served to further validate and extend the nomological network (Cronbach & Meehl, 1955) of self-reported leader authenticity. Moreover, the possibility of using indirect measures for people occupying leadership roles opens up an array of possibilities for conducting research in this area. For example, it may be possible to measure leaders’ implicit and explicit self-esteem to gain insight into the interrelationships between optimal self-esteem, leader authenticity, leadership effectiveness, as well as follower performance, job satisfaction, organizational commitment, and organizational citizenship behaviors (e.g., Walumbwa et al., 2008).

Beyond authentic leadership research, the current results show promise for using indirect social cognition measures in other leadership areas. For example, indirect measures for McClelland’s achievement and power motivations (e.g., the Thematic Apperception Test or TAT) could be employed to experimentally test predicted relationships between these motivations and leadership effectiveness (e.g., Gardner & Avolio, 1998; House, 1977; House & Howell, 1992; House, Spangler, & Woycke, 1991; van Emmerik, Gardner, Wendt, & Fischer, 2010); nonconscious components of implicit leadership theories could be better understood through development of alternative indirect measures (e.g., Awamleh & Gardner, 1999; House & Aditya, 1997); follower’s deep-level diversity in organizations could be examined through indirect measures of stereotypes (e.g., Ragins & Gonzalez, 2003); and indirect measures of goals could be developed to more clearly understand followers’ current work motivations (e.g., Latham, Stajkovic, & Latham, 2010; Locke & Latham, 2004).

Since authentic leadership has been shown to be an effective leadership style for managers in particular (Gardner et al., 2011), the current results have practical implications. From a manager’s perspective, they support the assertion that developing optimal self-esteem is an important antecedent of becoming an authentic leader. Therefore, leadership development programs that are designed to heighten leader self-awareness and foster optimal self-esteem may be particularly beneficial.

## Conclusion

As interest in authentic leadership grows, further validation of the construct is needed. Results of such validation efforts, including those of the current study, may provide unique insights into actor authenticity while simultaneously triangulating results (Neuman, 2002) obtained from reliable and valid survey measures of leader authenticity. As evidence accumulates in support of the validity of the ALQ, as in the current study, researchers can use this instrument with greater confidence. At the same time, it must be recognized

that situational influences can also play a role in determining one's current level of leader authenticity as measured by the ALQ. Beyond providing insight into the validity of the ALQ, indirect measures, to the extent that they provide deeper insights into personal authenticity, may help scholars to unlock the nonconscious processes whereby authenticity becomes manifest. Given that indirect measures such as signature size are relatively nontransparent, they provide creative researchers with new and novel tools for probing leader and follower authenticity and assessing their effects on ethical conduct and organizational outcomes.

## Appendix A

### *Institute for Perception Studies (IPS)*

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Dear Participant:

The IPS is cosponsoring the funding of this research. This funding is based on the number of participants that take part in this study. In order to provide evidence of your participation in the study "Communication and Attitudes" for the IPS, we are asking that you please sign and print your name below. When signing, you are stating that you participated in the above mentioned study. Your survey responses will remain anonymous. Thank you for your help with this requirement.

Signature of Participant:

Printed Name:

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## Appendix B

### *Leader Narrative*

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You are the leader of a senior management team for a company that sells spring water. As a bottler of natural spring water, your advertising department has recently launched a campaign that emphasizes the purity of your product. The industry is highly competitive, and your organization has been badly hurt by a lengthy strike of unionized employees. The strike seriously disrupted production and distribution, and it caused your company to lose significant revenues and market share. Now that the strike is over, your company will have to struggle to recoup lost customers, and will have to pay for the increased wages and benefits called for in the new union contract. The company's financial situation is precarious to say the least.

You and the entire senior management team have high hopes for the new ad campaign that emphasizes the purity of the water, and initial consumer response has been positive. You are shocked then, when your head of operations reports to you that an angry worker has sabotaged one of

your bottling plants. The worker introduced a chemical into one of the machines, which in turn contaminated 120,000 bottles of the spring water. Fortunately, the chemical is present in extremely minute amounts—no consumer could possibly suffer harm unless he or she drank in excess of 10 gallons of the water per day over a long period of time. Since the machine has already been sterilized, any risk of long-term exposure has been virtually eliminated. But, of course, the claims made by your new ad campaign could not be more false.

### *Control*

As the leader of the senior management team, it is up to you to decide how to proceed in this situation. Create a speech that explains how you will deal with the situation presented above and why you chose that particular course of action. After you create the speech, you will actually give that speech to a group of other students who are pretending to be members of the senior management team. Remember that you will actually give the speech you will write, so ensure that you are as specific and logical as possible in what you write so that your speech will be clear.

### *Internal Focus*

As the leader of the senior management team, it is up to you to decide how to proceed in this situation. Create a speech that explains how you will deal with the situation presented above and why you chose that particular course of action. **In creating the speech it is important to hold strictly to your personal values.** After you create the speech, you will actually give that speech to a group of other students who are pretending to be members of the senior management team. Remember that you will actually give the speech you will write, so ensure that you are as specific and logical as possible in what you write so that your speech will be clear.

### *External Focus*

As the leader of the senior management team, it is up to you to decide how to proceed in this situation. Create a speech that explains how you will deal with the situation presented above and why you chose that particular course of action. **In creating the speech it is important to be persuasive in order to get others to follow your course of action at all costs.** After you create the speech, you will actually give that speech to a group of other students who are pretending to be members of the senior management team. Remember that you will actually give the speech you will write, so ensure that you are as specific and logical as possible in what you write so that your speech will be clear.

## Appendix C

### Funnel Debriefing

**Instructions:** Please answer each question as honestly as possible.

1. What do you think the purposes of the studies (the whole thing) were? What do you think we were trying to study?
2. People react to things in different ways, it would be helpful if you would comment on how you felt during the studies, why you responded the way that you did in the studies, and how the studies affected you.
3. Was the instruction given during the studies clear? Why or why not? Did you follow the instructions that were given? Briefly describe what you were instructed to do.
4. Did anything about the studies (the whole thing) seem strange to you, or was there anything you were wondering about? Why or why not?
5. Did you think that anything you did on one study was affected by or related to what you did on any other study? (If yes) How exactly did it affect you and/or how was the tasks related to each other?
6. Do you think that there may have been more to the studies than meets the eye? Why or why not? If you were told there was, what do you think that may be?

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### Notes

1. The presentation order of the various materials was altered for a subset of participants ( $N = 30$ ) to test for potential order effects; specifically, participants completed all of the survey materials explained in the measures section, except the ALQ, *before* writing their speech and being exposed to the manipulation (no significant order effects were found, so these participants' data were added to that of the other participants).
2. Including the BIDR as a first step control measure in all the regression analyses completed in the Results section does not significantly change the results found, suggesting that the ALQ is tapping more than socially desirable responses.
3. Post hoc ANOVA analyses failed to find any significant effects between conditions (internal focus, external focus, control) on all the other measures used in the experiment, suggesting that the influence was isolated to the ALQ.

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