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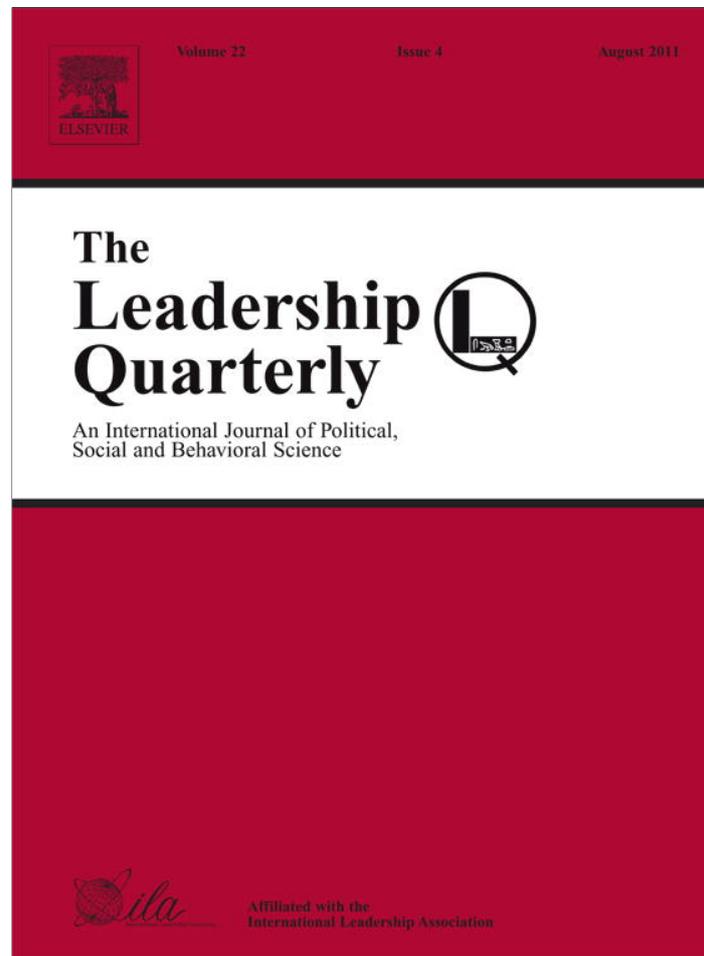Follow this and additional works at: http://scholarworks.rit.edu/article

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Impact of behavioral integrity on follower job performance: A three-study examination

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ABSTRACT

Although a leader's integrity seems to be essential for effective leadership, no empirical studies have examined the relationship between leader behavioral integrity (the consistency between words and actions) and follower job performance. Further, no empirical studies have examined how follower behavioral integrity might also impact job performance. Using data from three studies, we addressed these issues by testing the effects of leader and follower behavioral integrity on follower job performance. Study 1 was an online experiment in which behavioral integrity was manipulated in written scenarios; Study 2 was a field study; and Study 3 was a longitudinal lab study with temporary work teams. Findings from the studies indicated that leader behavioral integrity was not directly related to follower job performance, but was related indirectly via trust in the leader and follower satisfaction with the leader. Results also indicated that follower behavioral integrity had a significant impact on job performance, both directly and indirectly via leader trust in the follower and satisfaction with the follower. Finally, results indicated that perceptions of behavioral integrity were based primarily on individual differences and not higher level-of-analysis effects.

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1. Introduction

The notion that integrity is essential for effective leadership is widely held in leadership research (cf., Bass & Steidlmeier, 1999; Craig & Gustafson, 1998; Howell & Avolio, 1995; Kirkpatrick & Locke, 1991; Parry & Proctor-Thomson, 2002; Simons, 1999). The now-infamous corporate accounting and ethical scandals of the early part of the decade coupled with the sub-prime mortgage crisis have served to highlight the importance of understanding integrity in leaders. Surprisingly, though, in spite of its theoretical and practical importance and the increase in "positive" forms of organizational research (Wright & Quick, 2009), leader integrity has received scant attention in the management and industrial/organizational psychology literatures (see Palanski & Yammarino, 2007; Palanski & Yammarino, 2009). To be sure, several established theories of leadership refer to a conceptual link between integrity and leadership. For example, authentic transformational leadership (Bass & Steidlmeier, 1999), ethical leadership (Brown, Trevino, & Harrison, 2005), spiritual leadership (Fry, 2003) and authentic leadership (Avolio & Gardner, 2005; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008) all include integrity as an element of their respective theories, but these theories do not explicate how integrity functions with respect to important consequences of leadership such as trust, satisfaction, and job performance. Thus, an examination of the discrete characteristic of leader integrity may enhance our understanding of these more comprehensive leadership theories.

In response to this relative lack of explication and empirical studies, Palanski and Yammarino (2007) have called for the need to define integrity more clearly, have done so, and have proposed a multi-level theory of integrity and leadership (Palanski & Yammarino, 2009). In a review of over 30 articles, Palanski and Yammarino (2007) showed that integrity has been used in

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management and applied psychology literatures to mean such things as wholeness, authenticity, consistency in adversity, consistency between words and actions, and moral/ethical behavior. As a way to resolve this confusion and disagreement, they proposed that integrity should be considered as a virtue within the framework of moral philosophy. Based on such an approach, they argued for a narrower definition of integrity which is more amenable to theory-building and testing. Specifically, they suggested that integrity should be defined as "the consistency of an acting entity's words and actions" (Palanski & Yammarino, 2007, p. 17). Palanski and Yammarino's (2007) definition is conceptually very similar to Simons (2002, p. 19) definition of behavioral integrity, the "perceived pattern of alignment between an actor's words and deeds." Although behavioral integrity is still a relatively new construct, recent research (Dineen, Lewicki, & Tomlinson, 2006; Simons, Friedman, Liu, & McLean-Parks, 2007) has established it as an important area in ethical leadership research. For this reason, we use the behavioral integrity construct and supporting research as the basis for our theoretical discussion and hypotheses.

Considering behavioral integrity within a framework of moral philosophy allows for better theoretical specification of its role with respect to other constructs by helping to identify possible boundary conditions for the effectiveness of behavioral integrity. Specifically, based on earlier research by Audi and Murphy (2006), Palanski and Yammarino (2007) posited that integrity-as-consistency (i.e., behavioral integrity) should be classified as an adjunctive virtue. Adjunctive virtues (such as integrity, courage, and steadfastness) are neither morally good nor morally bad in and of themselves, but are still necessary for right conduct. In comparison, substantive virtues (such as honesty and compassion) are themselves morally good. According to Audi and Murphy (2006), both adjunctive and substantive virtues are necessary for good character and ethical conduct, but neither type alone is sufficient. Further, although behavioral integrity is a discrete virtue, it, like all individual virtues, cannot foster the good by itself. Thus, as it does for any and all discrete virtues, the presence or absence of *overall moral character* acts as something of a boundary condition for behavioral integrity such that possible positive effects of behavioral integrity (such as developing trust, satisfaction, and performance) will be mitigated or eliminated when the substance of the words and actions of an actor are morally deficient (Palanski & Yammarino, 2007). In other words, according to this conceptualization, the answer to the hackneyed-but-still-useful question of, "Did Hitler have behavioral integrity?" is yes; however, at least over the long term, Hitler was not able to garner widespread trust through his display of behavioral integrity because he violated a boundary condition for the effectiveness of behavioral integrity (namely, his overall moral character was deficient). Thus, behavioral integrity is a necessary, but not sufficient, part of overall ethical conduct and leadership.

The purpose of this paper is to add to the broader ethical leadership literature through extending and testing a portion of Palanski and Yammarino's (2009) model by examining the relationship between both leader and follower behavioral integrity and follower job performance. To our knowledge, no empirical studies have yet examined these important relationships. While other studies have examined the relationship between leader integrity (broadly-defined) and follower job performance, the results have been mixed. For example, in their meta-analysis on the effects of trust, Colquitt, Scott, and LePine (2007) found evidence of a *negative* direct relationship between leader integrity (defined as the extent to which a trustee is believed to adhere to sound moral and ethical principles which are agreeable to the trustor) and follower job performance. Given the popularity of the assertion that leader integrity is "good," we are surprised by these types of results. Palanski and Yammarino (2007) suggested that one reason for these types of results may be that integrity is either defined too broadly or not defined at all. Thus, we begin our investigation by focusing on the more narrowly-defined concept of behavioral integrity in the context of a theoretical framework as suggested by Palanski and Yammarino (2009).

Although Palanski and Yammarino's (2009) model does not directly discuss how leader behavioral integrity may enhance follower performance, their model does discuss how a leader's behavioral integrity may impact proximal causes of follower job performance (specifically trust, satisfaction, and follower integrity). As such, we extended Palanski and Yammarino's (2009) model by combining it with existing research about job performance (e.g., Brower, Lester, Korsgaard, & Dineen, 2009; Colquitt et al., 2007) in an investigation of how leader behavioral integrity functions with respect to follower job performance. In addition, given the important role of followers in most leadership theories (e.g., transformational, leader–member exchange, and ethical leadership), we also examined the role that a follower's own behavioral integrity might play with respect to job performance. In essence, we seek to answer three fundamental questions: First, what role, if any, does leader behavioral integrity play with respect to follower job performance? Second, what role, if any, does follower behavioral integrity play with respect to follower job performance? Third, what are the relative effects of leader and follower behavioral integrity, respectively, on follower job performance?

We begin by reviewing the literature on behavioral integrity. In the review, we highlight parts of Palanski and Yammarino's (2009) model and extend their propositions based on other relevant research in order to form testable hypotheses. Next, we test these hypotheses with data from three studies which build upon one another. Study 1 is an experiment in which leader behavioral integrity was manipulated in written scenarios in order to establish that leader behavioral integrity has a direct positive effect on (i.e., causes) follower trust in the leader and follower satisfaction with the leader. Study 2 was a field study in a healthcare organization which examines the effects of leader behavioral integrity on follower job performance, both directly and indirectly via trust and satisfaction. Study 3 was a more rigorously-designed longitudinal lab study with temporary work teams in which we attempted to replicate the results from Study 2 as well as investigate other means by which leader behavioral integrity might have an impact on follower job performance. Specifically, we also examined the important role of follower behavioral integrity in Study 3. Each study clearly has its limitations (discussed below), but we chose a three-study design so that the weaknesses in one study (e.g., single-source data in Study 2) are balanced by strengths in another study (e.g., multi-source data in Study 3). Our goal is to draw some initial conclusions about the associations among leader and follower behavioral integrity and follower job performance based on the results from all three studies. Therefore, we conclude with a summary of the findings from all three studies, a discussion of implications and limitations of our work, and future research directions.

2. Conceptual model

2.1. Behavioral integrity

The consideration of leader and follower *behavioral integrity* vis-à-vis the general construct of integrity as a potential antecedent to job performance is important for at least two reasons. First, the *meaning* of the general construct of integrity in the management literature is convoluted and broad, whereas the meaning of behavioral integrity is focused and narrow. Some research in management and industrial/organizational psychology has focused on the general construct of integrity as a personality trait that leads to varying degrees of ethical/unethical behavior (e.g., Marcus, Lee, & Ashton, 2007; Sackett & Wanek, 1996). As mentioned above, though, Palanski and Yammarino (2007) show that integrity is used in at least five different ways in organizational literature: as wholeness, as consistency under adversity, as consistency between words and actions, as being true to oneself, and as a general sense of being moral or ethical. For example, Trevino, Hartman, and Brown (2000) implied that integrity is a sense of wholeness, while Den Hartog and Koopman (2002) discussed integrity with respect to honesty and trustworthiness; and Mayer, Davis, and Schoorman (1995) defined integrity as adherence to sound moral and ethical principles. The effect of this type of confusion is illustrated by considering how Dirks and Ferrin (2002) discussed the role of integrity as an antecedent to trust in their meta-analysis. Drawing from Mayer et al.'s (1995) tripartite (ability, benevolence, and integrity) framework for the antecedents to leader trustworthiness, Dirks and Ferrin (2002) discussed integrity in conjunction with fairness, honesty, and the belief that a leader will take advantage of a follower. However, integrity itself—in *any* form—was never specifically tested in their meta-analytic model; instead, their model focused on more narrowly-defined constructs such as justice (interactional, procedural, and distributive) and participative decision making. In contrast, the emerging research on behavioral integrity (Dineen et al., 2006; Simons et al., 2007) focuses on a more narrow, agreed-upon definition of perceived consistency between words and actions (also see Simons, [2002] for further discussion of the distinctiveness of behavioral integrity).

Second, *empirical evidence* from research involving integrity is also mixed. For example, in their meta-analysis, Colquitt et al. (2007) also used Mayer et al.'s (1995) tripartite framework for trustworthiness, and they did include integrity as an antecedent to trust. Curiously, though, they found a *negative* relationship between integrity and task performance (b = −.14, p<.05) even though there was a positive zero-order correlation between the two variables (r = .16). Colquitt et al. (2007) attributed this outcome to the high multicollinearity between benevolence (the trustee doing good toward the trustor) and integrity (the trustee adhering to acceptable moral principles) in some studies.

Thus, given the confusion in meaning about integrity as illustrated implicitly by Dirks and Ferrin (2002) and explicitly by Palanski and Yammarino (2007), and the mixed empirical results as illustrated by Colquitt et al. (2007), one may legitimately ask whether we know much at all about the effects of leader and/or follower integrity on job performance. In an effort to mitigate confusion and provide greater specificity, we sought a more parsimonious explanation of a possible integrity-performance link and focused on behavioral integrity in our model.

A number of studies have related a manager's behavioral integrity, which includes both word/action alignment and promise-keeping (Simons, 2002), to other outcomes and have helped to establish behavioral integrity as an important focal construct for research. For example, Simons and McLean-Parks (2000) found that an individual manager's behavioral integrity was positively related to hotel profitability, while Palanski and Carroll (2006) found that behavioral integrity was related to leader emergence in initially leaderless work groups. Dineen et al. (2006) found that high behavioral integrity of managers was positively related to employee organizational citizenship behaviors and low behavioral integrity of managers was positively related to employee deviant behaviors. Simons et al. (2007) found that perceptions of behavioral integrity may vary according to demographic group and that behavioral integrity may "trickle down" levels of management. Simons et al. (2007) also presented construct validation evidence that behavioral integrity is related to follower trust in the leader.

Finally, we also note that Simons (2002) proposed that behavioral integrity is based on follower perceptions; in other words, an individual-level construct. Yammarino, Dionne, Chun, and Dansereau (2005) have discussed the importance of specifying and testing the levels of analysis at which phenomena is thought to occur because, as Atwater and Yammarino (1992) demonstrate, specification of the proper level of analysis can have serious effects on empirical testing and inference-drawing. Previous research by Yammarino and colleagues (e.g., Yammarino & Dubinsky, 1994; Yammarino, Spangler, & Dubinsky, 1998) as well as a comprehensive levels-of-analysis review of the literature (Yammarino et al., 2005) has shown that leadership primarily occurs at the individual level of analysis.

2.2. Relationships among leader behavioral integrity and follower trust in and satisfaction with the leader

Although the relationship between leadership and trust is well-established (e.g., Conger, Kunungo, & Menon, 2000), the definition and conceptualization of trust has been the source of considerable debate in prior research. Following the approach of Dirks and Ferrin (2002) in their meta-analysis, we adopted Rousseau, Sitkin, Burt, and Camerer's (1998) definition of trust as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another" (p. 395). As Palanski and Yammarino (2009) noted, follower trust in leadership and leaders is an important topic in organizational research. For example, Dirks and Ferrin (2002) showed that when followers trust their leaders, they tend to perform better, display more organizational citizenship behaviors (OCBs) and greater organizational commitment, experience greater job satisfaction, and have less intent to leave the organization. In another meta-analysis, Colquitt et al. (2007) showed that trust in the leader is positively related to follower risk taking, task performance, citizenship behavior, and negatively related to counterproductive behavior.

Emerging research on behavioral integrity has posited strong theoretical links to trust. For example, Simons (2002) explicated the theoretical links between behavioral integrity and trust, with the key point being that a leader's high behavioral integrity may provide followers with a sense of certainty regarding the actions that the leader will take. With this sense of certainty, a follower is more likely to trust the leader. Simons et al. (2007) have also provided some initial empirical evidence that supports the idea that behavioral integrity may lead to trust. Based on Simons' reasoning and initial evidence, Palanski and Yammarino (2009) proposed that leader behavioral integrity has a positive impact on follower trust in the leader. In addition, Colquitt et al. (2007), drawing upon social exchange theory (Blau, 1964), noted that trust also plays an important role in leader–follower relationships for two additional reasons. First, in the absence of a comprehensive formal contract, leader–follower relationships have a built-in element of vulnerability which makes trust necessary for such relationships to function. Second, as a facet of trustworthiness (Mayer et al., 1995), integrity is a type of currency which engenders the motivation to reciprocate within a social exchange.

The relationship between leadership and follower satisfaction with the leader are well-established in the literature (see Judge & Piccolo, 2004). Dirks and Ferrin (2002, p. 615) noted that trust in the leader and satisfaction in the leader "are conceptually similar because they both reflect an attitude or assessment that individuals hold about the same referent: the leader." Although to our knowledge there is no empirical research which links leader behavioral integrity to follower satisfaction with the leader, Palanski and Yammarino (2009) proposed that leader behavioral integrity is positively related to follower satisfaction for the same basic reason as trust: high behavioral integrity gives the follower a sense of certainty about what will or may happen. They noted that the follower may not like what the leader does and may not be satisfied, but in the case where there is no certainty (because of low behavioral integrity), it is not likely that the follower will be satisfied with the leader under any circumstances. Relatedly, Colquitt et al. (2007) noted that social exchange relationships may also be characterized by the presence of other attitudinal constructs, such as affective commitment (Meyer & Allen, 1997). Insofar as affective commitment is characterized by an emotional attachment to a group, satisfaction with a leader may likewise be based on an emotional attachment to the leader. Thus, we would expect that leader behavioral integrity would also engender follower satisfaction with the leader. Taken together, we hypothesize:

Hypothesis 1a. Leader behavioral integrity will have a direct positive relationship with follower trust in the leader.

Hypothesis 1b. Leader behavioral integrity will have a direct positive relationship with follower satisfaction with the leader.

2.3. Effects of leader behavioral integrity on follower behavioral integrity

Although most research on integrity in general and behavioral integrity in particular has focused upon the leader, follower behavioral integrity is also an important consideration, in particular for follower job performance (see explanation below). Leaders may encourage the development of follower behavioral integrity in at least three ways.

First, virtually all major charismatic and transformational leadership theories (e.g., Bass, 1985; House, 1977; Weber, 1947) discuss role modeling as a key characteristic of charismatic leaders. In other words, leaders influence the values and actions of followers by setting a personal example of conduct. Bandura (1986) referred to this process as modeling, whereby people learn by observing the behavior of others and its consequences. Role modeling, however, is not necessarily limited to charismatic or transformational leaders. For example, Brown et al. (2005) proposed that one of the main characteristics of ethical leaders is developing ethical followers by intentionally acting as a role model as well as using reward systems as incentive for ethical behavior. Based on this research, it is likely that leaders who display high behavioral integrity are likely to develop followers who also display high behavioral integrity (i.e., a cascading effect with respect to behavioral integrity).

Second, as Schneider and colleagues'(Schneider, 1987; Schneider, Goldstein, & Smith, 1995) Attraction–Selection–Attrition (ASA) framework suggests, insofar as leaders have influence in the hiring and firing processes, over time they may actively attract and select followers who have a propensity for behavioral integrity. Similarly, those followers who do not share such a propensity will leave (either voluntarily or involuntarily) over time.

Third, a leader may influence a follower's behavioral integrity indirectly by setting group norms for behavioral integrity. Research has shown that groups may have powerful influences on the feelings, beliefs, and behaviors of its members (see Hackman, 1992). Norms regarding group member's individual behavior may be overt (e.g., explicit rules that govern the actions of group members) or more subtle (e.g., through a process in which a particular group member appraises his or her behavior vis-à-vis other group members' behavior). Grojean, Resick, Dickson, and Smith (2004) pointed out that leaders help to establish norms for conduct by setting clear expectations for behavior and providing a system of rewards and punishments. As leaders engage in these pro-behavioral integrity activities, the behavioral integrity of the team as a whole should be enhanced. As followers continue to act with high behavioral integrity when representing the team, so too might they also display higher behavioral integrity when acting as individuals. For these reasons, we propose:

Hypothesis 2. Leader behavioral integrity will have a direct positive relationship with follower behavioral integrity.

2.4. Antecedents to follower job performance

As mentioned above, Palanski and Yammarino's (2009) model describes how leader behavioral integrity may affect trust in the leader, satisfaction with the leader, and follower behavioral integrity. We now extend their propositions and explore how these constructs, along with leader behavior integrity itself, may in turn impact follower job performance.

2.4.1. Leader behavioral integrity

Colquitt et al.'s (2007) trust meta-analysis hypothesized, and subsequently demonstrated, that both trust and affective commitment *partially* mediate the relationship between integrity (defined as adherence to moral and ethical principles) and follower job performance. In demonstrating the partial mediation, Colquitt and colleagues found a significant but *negative* (r = −.14) direct relationship between leader integrity and follower job performance. We find this negative result curious, given the popular assertion that integrity is "good" for leadership (Avolio & Gardner, 2005; Bass & Steidlmeier, 1999; Brown et al., 2005). Further, even Colquitt et al. (2007) stated that leader integrity (defined as moral/ethical behavior) should engender a high-quality social exchange relationship whereby follower task performance is enhanced, and suggested that the negative relationship was the result of high multicollinearity between integrity and benevolence. Thus, if there is a relationship between leader behavioral integrity and follower job performance, we would expect that relationship to be positive. As such, we predict:

Hypothesis 3. Leader behavioral integrity will be positively related to follower job performance.

2.4.2. Follower trust in and satisfaction with leader

Dirks and Ferrin (2002) also found a correlation between trust in leader and follower job performance (r = .14) and further suggested that follower satisfaction with the leader functions in much the same way as trust (i.e., having a positive relationship with job performance). As mentioned above, Colquitt et al. (2007) found that both trust in leader (r = .36) and affective commitment (r = .09) are positively correlated with follower task performance. Both of these meta-analyses seem to indicate that trust is important for job performance because the trust allows followers to take necessary risks to produce higher performance. Further, when trust is not present, followers may divert energy and resources to "covering their own backs". Insofar as follower satisfaction with the leader functions similarly to affective commitment (see above), by way of replication we propose:

Hypothesis 4a. Follower trust in the leader will be positively related to follower job performance.

Hypothesis 4b. Follower satisfaction with the leader will be positively related to follower job performance.

2.4.3. Follower behavioral integrity and leader trust in and satisfaction with the follower

Most of the research about integrity (broadly-defined) and/or behavioral integrity has focused on the relationship between leader integrity and follower performance. To our knowledge, no empirical research has yet addressed the relationship between follower integrity (broadly-defined) and/or behavioral integrity and follower job performance. We suspect that there may be a direct relationship between follower behavioral integrity and follower job performance for a few reasons. First, from an economic exchange perspective, high behavioral integrity (high consistency of stated and enacted values and promise-keeping) may represent something of a prima facie case for high job performance as a person espouses the value of high performance and subsequently delivers high performance. Similarly, simply by virtue of being a member of a team, a follower implicitly or explicitly promises to meet a specified level of performance, and displaying behavioral integrity represents the delivery of such promises. Second, as alluded to by Colquitt et al. (2007), behavioral integrity may facilitate social exchange relationships by which the follower obtains tangible and intangible resources that enable job performance.

In a similar vein, follower behavioral integrity may also engender leader trust in the follower. As the follower displays behavioral integrity, the leader gains more confidence that the follower is reliable and is able to place greater trust in the follower. Brower et al. (2009) demonstrated that manager trust in subordinates leads to higher subordinate task performance. They suggested that managers are more empowering toward subordinates whom they trust, and should delegate more important tasks to these followers. Both of these actions can result in increased task performance. Similarly, Dirks and Skarlicki (2008) showed that coworkers' perceptions of an individual's integrity and capability had a positive impact on his or her performance.

We also believe that Brower et al.'s (2009) reasoning about why higher trust results in higher performance may similarly apply to satisfaction with the follower. As a leader becomes more and more satisfied with a follower's performance, the leader is more likely to provide the follower with greater empowerment and greater resources. With respect to the effects of follower behavioral integrity on follower job performance, we suggest:

Hypothesis 5. Follower behavioral integrity will be positively related to follower job performance.

Hypothesis 6a. Follower behavioral integrity will be positively related to leader trust in the follower.

Hypothesis 6b. Leader trust in the follower will be positively related to follower job performance.

Hypothesis 7a. Follower behavioral integrity will be positively related to leader satisfaction with the follower.

Hypothesis 7b. Leader satisfaction with the follower will be positively related to follower job performance.

To summarize the hypotheses, Fig. 1 shows all proposed paths in the model for empirical testing.

We tested the hypotheses using data from three related empirical studies: an online scenario experiment (Study 1), a field study (Study 2), and a lab study with temporary student work teams (Study 3). We chose a three-study approach in an attempt to balance the relative strengths and weaknesses of each study design. Although the relationships between trust and job performance and satisfaction and job performance, respectively, are well established (Dirks & Ferrin, 2002), the role of behavioral integrity as an antecedent to both trust and satisfaction, respectively, is untested. Thus, we conducted Study 1 as an experimental
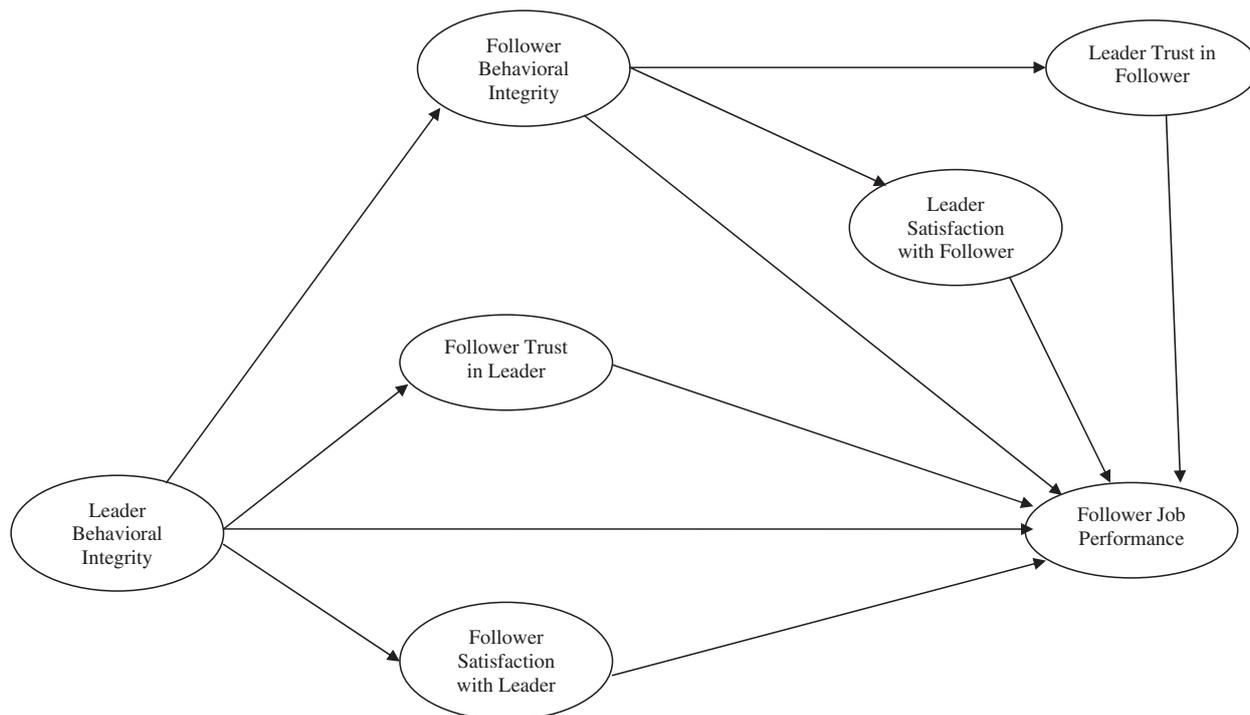
Fig. 1. Theoretical model.

design (using adults with work experience), which allows us to draw some initial inferences about causality (i.e., whether behavioral integrity causes trust and satisfaction). Study 1 is limited in two important ways. First, it does not include job performance; second, it asks participants to imagine themselves working for a particular (high- or low-behavioral integrity) leader. The experience of actually working for a particular leader, though, is obviously much more contextually rich and much more consequential than imaging oneself in a particular situation. To help compensate for the weaknesses of Study 1, we designed Study 2 as a field study whose primary strengths were having real followers rate real leaders in a real work setting and including measures of job performance. Study 2 was designed to support inferences about generalizability of the results, but was limited by collecting data from a single source (followers) in a cross-sectional design. To help compensate for the weaknesses of Study 2, we designed Study 3 as a lab study that allowed for more rigorous testing by including multi-source and longitudinal data and complete self-other ratings for all leaders and followers. We also had the opportunity to test the effects of follower integrity in Study 3. We attempted to compensate for a weakness in Study 3 (i.e., the use of student work teams) by using adults with work experience in Study 1 and an actual work environment in Study 2. For simplicity, we present the methods and results for each study independently, followed by a general discussion that integrates all three studies.

3. Study 1

3.1. Participants and procedures

The effects of leader behavioral integrity on follower trust in the leader have only been examined in a single cross-sectional study (Simons et al., 2007). Further, the effects of leader behavioral integrity on follower satisfaction with the leader have not been studied in prior research. In order to provide evidence that leader behavioral integrity causes follower trust in the leader and follower satisfaction with the leader we created scenarios which manipulated the actions of a nondescript fictional leader (cf., Avolio, Mahtre, Norman, & Lester, 2009a, 2009b). Participants were randomly assigned to one of two scenarios: either a high (n = 54) or a low (n = 41) behavioral integrity condition, respectively (both scenarios are included in the Appendix). In each condition, participants were asked to read a scenario about a typical week in the life of a manager of a sales team and imagine that they themselves worked for this person in order to answer a series of questions that measured trust in the leader and satisfaction with the leader. Participants were also asked to rate the leader's behavioral integrity as a manipulation check. Preliminary scripts were evaluated for face validity by trained experts (specifically, by four doctoral students who were familiar with behavioral integrity and received specific instructions as to the nature and purpose of the scenarios) and refined after an online pilot study (N = 65). Data in the form of surveys were collected online through survey software. Participants were adults with full-time work experience who are members of Syracuse University's Study Response Project (http://studyresponse.syr.edu). Approximately 600 participants were randomly invited to participate in the study via email. The total number of actual participants was 95 for a response rate of 15.8%, which is typical for the Study Response Project and other online research. Of the participants, 63% were women and 81% were U.S. residents. Approximately 91% of participants were Caucasian and 3% were African-American or

Hispanic, respectively. Twenty-nine different occupation types (e.g., banking, engineering, and retail) were represented in the sample, with education/training having the highest representation at 6%. The mean age of participants was 35. Potential non-response bias was assessed by conducting a multivariate analysis of variance (MANOVA) test on demographic variables such as gender, U.S. residency, and age group. No significant differences were found between respondents and non-respondents, which indicates minimal if any non-response bias in the sample based on these factors.

3.2. Measures

3.2.1. Behavioral integrity

As a manipulation check, we measured participants' perceptions of the leader's behavioral integrity in the written scenarios with an 8-item scale developed by Simons et al. (2007) which was modified slightly to reflect the name of the leader in the scenario. Sample questions include, "If (manager) promises something, it will happen" and "There is a match between (manager's) words and actions." All items are measured on a five-point scale ranging from 1 ("strongly disagree") to 5 ("strongly agree").

3.2.2. Trust

Mayer et al. (1995) have noted that various definitions of trust tend to confuse elements of trust and elements of its antecedents and consequences, and suggested using a narrower conceptualization of trust based on the willingness to be vulnerable to another. Mayer and Gavin (2005) have developed a four-item trust scale that was modified for use in this study. All items were measured on a five-point scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Trust questions were modified slightly to reflect a shift from the follower to the manager. For example, "If someone questioned my motives, my manager would give me the benefit of the doubt", was changed to, "If someone questioned my manager's motives, I would give him/her the benefit of the doubt."

3.2.3. Satisfaction

Follower satisfaction with the leader was measured with two items based on the Multifactor Leadership Questionnaire (MLQ-5X, Bass & Avolio, 1997) which were modified slightly to reflect the scenarios. For example, "In all, how satisfied are you with your supervisor?" was changed to "In all, how satisfied would you be with your manager? These questions were answered using a five-point Likert scale ranging from 1 ("very dissatisfied") to 5 ("very satisfied").

4. Results

We first conducted a univariate analysis of variance (ANOVA) to demonstrate that the validity of the behavioral integrity manipulation. Results from the ANOVA show that the manipulation was valid ($F(1) = 200.1$, $p < .001$, $\eta^2 = .62$), thus demonstrating a difference between the high behavioral integrity condition ($m = 4.25$, S.D. $= .78$) and low integrity condition ($m = 1.76$, S.D. $= .73$). Second, because our design contained two dependent variables, we conducted a multivariate analysis of variance (MANOVA) to demonstrate a difference between follower trust in and satisfaction with the leader in high and low behavioral integrity conditions. Results for follower trust in the leader indicated a significant difference ($F(1) = 156.51$, $p < .01$, partial $\eta^2 = .63$) between the high ($m = 3.80$, S.D. $= .77$) and low behavioral integrity condition ($m = 1.98$, S.D. $= .60$), thus providing support for H1a. Results for follower satisfaction in the leader were similar, with significant ($F(1) = 152.2$, $p = .01$, partial $\eta^2 = .61$) differences between the high behavioral integrity ($m = 4.05$, S.D. $= .99$) and low behavioral integrity condition ($m = 1.68$, S.D. $= .68$); thus, Hypothesis 1b was also supported.

5. Study 2

5.1. Participants and procedures

Data were collected from clinical nurses and their managers in a regional healthcare organization. Eighty-three nurses participated in the study for a response rate of 80%. Participants were 95.3% women with a mean age of 45.4 years. Average organizational tenure was 6.59 years, average job tenure was 4.04 years, and average tenure with manager was 2.02 years. All participants had at least three months' tenure with their manager. Potential non-response bias was assessed by comparing demographics of usable responses with demographics of non-usable (anonymous) responses and non-participants. Results of a MANOVA for age and gender revealed no significant differences on these variables for participants as compared to non-participants.

Research primarily focused on two levels of management (i.e., a manager and her direct reports). To allow for adequate levels of analysis testing, follower reports about the leader *and* leader reports about followers (more specifically, each follower) were collected and matched. To allow for this matching, identification of participants in the data collection was necessary, as were assurances of strict confidentiality to the participants. Ideally, data about each leader–follower dyad within a team would have been collected. Realistically, though, it was difficult, if not impossible, for each leader to furnish data about each follower, particularly if the leader had many direct reports (followers). Thus, it was necessary to obtain a limited sample of dyads. Because this was the case, 1–2 direct reports for each leader were randomly selected for levels of analysis testing in the study. Accordingly, individual-level responses were used to allow for an adequate sample size for hypothesis testing. Data were collected on site in

paper-and-pencil format. Participants who were not able to complete the surveys on-site were provided with postage-paid envelopes which were addressed directly to the principal investigator.

5.2. Measures

5.2.1. Behavioral integrity

For consistency across studies, we measured each follower's perception of their leader's behavioral integrity with the same 8-item scale developed by Simons et al. (2007) which was modified slightly to reflect the actual terminology used in the organization (i.e., managers were referred to as "clinical coordinators"). Sample questions include, "If my clinical coordinator promises something, it will happen" and "There is a match between my clinical coordinator's words and actions." All items are measured on a five-point scale ranging from 0 ("strongly disagree") to 4 ("strongly agree").

5.2.2. Trust

As in Study 1, we used Mayer and Gavin's (2005) four-item trust scale. All items are measured by each follower on a five-point scale ranging from 0 ("strongly disagree") to 4 ("strongly agree"). Trust questions were modified slightly to reflect a shift from the follower to the manager. For example, "If someone questioned my motives, my manager would give me the benefit of the doubt", was changed to, "If someone questioned my manager's motives, I would give him/her the benefit of the doubt."

5.2.3. Satisfaction

Follower satisfaction with the leader was again measured with two items adapted from the Multifactor Leadership Questionnaire (MLQ-5X, Bass & Avolio, 1997). These items are: (a) "In all, how satisfied are you with your clinical coordinator?"; (b) "In all, how satisfied are you that the methods of leadership used by your clinical coordinator are the right ones for getting your team's job done?" These questions are answered using a five-point Likert scale ranging from 0 ("very dissatisfied") to 4 ("very satisfied").

5.2.4. Job performance

Self-reports of follower job performance were obtained using three items from Mott's (1972) scale which are designed to measure quantity, quality, and efficiency of work. Such an approach has been used in previous research to measure job performance because of its correlation with objective performance measures (Chun, Yammarino, Dionne, Sosik, & Moon, 2009). As an example, the question that measures quantity of work, "Thinking of the various things which I do for my job, how much am I producing?" is assessed on a scale ranging from 0 ("my production is very low") to 4 ("my production is very high").

5.2.5. Control variables

Prior research (e.g., Tsiu & O'Reilly, 1989) has demonstrated the need to control for demographic (e.g., age and sex) and relational (e.g., organizational tenure and tenure with leader) variables in leadership studies. Thus, standard demographic information (i.e., age, sex, job and organizational tenure, and tenure with the leader) was collected from all participants in the field study. Also, because of the ubiquitous popularity of integrity as a normative ideal (Palanski & Yammarino, 2007; Palanski & Yammarino, 2009), social desirability was measured with a 10-item scale (Strahan & Carrese Gerbasi, 1972).

6. Results

Table 1 contains factor loadings and cross-loadings for all variables. Table 2 contains means, standard deviations, correlations, and square roots of average variance extracted (see explanation of PLS analysis below) for all variables.

Preliminary tests (both correlations and regressions) showed no statistically significant relationships among age, sex, organizational tenure, supervisor tenure, and social desirability and either the other exogenous (i.e., behavioral integrity) or endogenous (i.e., trust, satisfaction, and job performance) variables in the model. Thus, these variables were excluded from substantive tests of the model.

Within and between analysis (WABA) (Dansereau, Alutto, & Yammarino, 1984; Dansereau & Yammarino, 2000) was used to test the assertion that the constructs in the study are individual-level constructs. Although WABA is often used for substantive tests of theoretical models, it may also be employed as sort of a "pre-test" for the proper level of analysis of each variable and to help assess the degree and level of analysis of relationships among variables, as illustrated by Dansereau and Yammarino (2000). WABA was used in this capacity in Study 2. WABA consists of three basic steps. First, in WABA I, the level of analysis (e.g., dyad) of each variable is assessed to determine whether scores for each variable vary primarily within, between, or both within and between the units of interest. Second, in WABA II, the hypothesized relationship between variables is assessed at a particular level of analysis (e.g., dyad) to determine whether covariation between the variables varies primarily within, between, or both within and between the units of interest. Finally, the results from WABA I and WABA II are combined to draw an overall conclusion about the proper level of analysis of a bivariate relationship. Each variable and bivariate relationship in the model was testing with WABA to determine the level of analysis of operation. The results of WABA indicated significant variation both within and between dyads *and* within and between groups for all variables and relationships in the model. These equivocal results at two levels indicate that the proper level of analysis resides at neither the dyad level nor group level. Instead, the results provide evidence that the proper

Table 1
Factor and cross-factor loadings, average variance extracted, and internal consistency reliabilities extracted from measures in Study 2.

Factors				
Item	1	2	3	4
1. Leader behavioral integrity (AVE = .84; Consistency = .98)				
1	**.87**	.74	.67	.07
2	**.91**	.72	.64	.07
3	**.96**	.80	.76	.14
4	**.88**	.70	.61	.08
5	**.91**	.78	.71	.10
6	**.94**	.79	.71	.11
7	**.91**	.72	.61	.04
8	**.94**	.80	.73	.08
2. Follower satisfaction with leader (AVE = .96; Consistency = .98)				
1	.81	**.98**	.77	.18
2	.81	**.98**	.79	.25
3. Follower trust in leader (AVE = .57; Consistency = .84)				
1	.69	.73	**.84**	.27
2	.47	.62	**.76**	.46
3	.66	.57	**.73**	.11
4	.34	.44	**.67**	.20
4. Follower job performance (AVE = .63; Consistency = .84)				
1	.17	.29	.38	**.86**
2	.01	.07	.22	**.78**
3	.00	.11	.16	**.73**

Note: Factor loadings are indicated in boldface.
AVE = Average Variance Extracted.
Consistency = Internal Consistency Reliability.

level of analysis is the individual level (an individual differences perspective). These results support Simons' (2002) assertion that behavioral integrity is based on individual perceptions.

For testing of both the measurement model and the theoretical model, Partial Least Squares (PLS) using *SmartPLS* (Ringle, Wende, & Will, 2005) was employed as the primary data analysis technique. PLS is widely used for initial data testing and has several advantages over other techniques (Chin & Newsted, 1999; Sosik, Kahai, & Piovos, 2009). PLS does not require multivariate normal distribution and is suitable for the analysis of small samples. Moreover, PLS can help to reduce measurement error by weighting the individual indicators of a multi-indicator variable. Other forms of path modeling, such as Structural Equation Modeling, are generally used in confirmatory model testing and may be susceptible to error in situations where there is a low construct-to-sample size ratio, as was generally the case in this study. PLS also has the ability to test both the measurement model and theoretical model simultaneously. This ability makes PLS preferable to multiple regression analysis in which the measurement model and theoretical model must be tested independently. Finally, as demonstrated below, PLS is useful for establishing validity (especially discriminant validity) among variables which may have similar conceptual frameworks (i.e., in this case, behavioral integrity, trust, and satisfaction are all based upon follower perceptions).

The test of the measurement model includes three primary parts: 1) individual item reliability, 2) internal consistency, and 3) discriminant validity. Tables 1 and 2 include results for all three parts. Individual item reliability was assessed by examining the factor loadings of each measure on its corresponding construct. Fornell and Larcker (1981) suggest accepting items which have more explanatory power than error variance. In practice, the generally accepted cutoff is .7 or greater. In exploratory research, however, this standard is often relaxed, especially when using well-established scales (Barclay, Higgins, & Thompson, 1995). All factor loadings in Study 2 were greater than .5 and most were well above .7; thus, individual item reliability was generally quite robust for the constructs in these studies.

Construct internal consistency may be assessed by composite internal scale reliability, which is similar to Cronbach's alpha.

Table 2
Means, standard deviations, reliabilities, and correlations for Study 2.

	Variables	Mean	S.D.	1	2	3	4
1	Leader behavioral integrity	3.43	.92	**.92**			
2	Follower sat. w/ leader	3.32	.27	.83**	**.98**		
3	Follower trust in leader	3.12	.75	.75**	.80**	**.76**	
4	Follower job performance	3.45	.43	.42*	.12*	.56**	**.79**

Note: N = 83. Boldfaced values on the diagonal represent the square root of the average variance extracted (AVE).
*p < .05.
**p < .01.

Fornell and Larcker (1981) suggest a cutoff of .7 for internal consistency. A second way to measure internal consistency is with Average Variance Extracted (AVE), which is a measure of variance accounted for by the underlying construct. Fornell and Larcker (1981) suggest a cutoff of .5 for AVE. All constructs met both criteria for internal consistency.

Discriminant validity in PLS is assessed in two ways. First, each item should load higher on the construct that it is supposed to measure than on any other construct (Carmines & Zeller, 1979). All items in the study met this criterion. Second, each construct should share more variance with its items than with any other construct in the model (Barclay et al., 1995). This criterion is usually assessed similar to a multi-trait/multi-method approach. Specifically, the square root of the AVE of a construct should be greater than the construct's correlation with any other construct in the model. For Study 2, an examination of Table 2 (in which the square root of the AVE is located on the diagonal) demonstrates that this criterion was also met, with the exception of leader trust in the follower, whose square root of the AVE (.76) is slightly less than the correlation between follower trust in the leader and follower satisfaction with the leader (r = .80). Given the conceptual similarity between trust and satisfaction (Dirks & Ferrin, 2002), this finding is not surprising and, overall, the variables in this study showed adequate discriminant validity.

Results of the test of the theoretical model are shown in Fig. 2. The standardized beta coefficient for each path in the model was obtained from the PLS algorithm in *SmartPLS*. Statistical significance of each path in the theoretical model was determined by the t-value for a given bivariate relationship based on a bootstrapping technique with 500 iterations. Results showed that leader behavioral integrity was positively related to follower trust in the leader (b = .74, p<.01); thus, Hypothesis 1a was supported. Similarly, as predicted by Hypothesis 1b, there was a significant positive relationship between leader behavioral integrity and follower satisfaction with the leader (b = .83, p<.01). The relationship between leader behavioral integrity and follower job performance was positive (b = .42), but not significant; thus, Hypothesis 3 was not supported. Based on prior research, Hypothesis 4a suggested that a relationship between follower trust in the leader and follower job performance. Results for this hypothesis showed a positive relationship as predicted (b = .56, p<.01). Hypothesis 4b predicted a positive relationship between follower satisfaction with the leader and follower job performance. Results did indicate a positive relationship (b = .12), but this relationship was non-significant.

7. Study 3

7.1. Participants and procedures

Participants were 149 students (mostly juniors) in an introductory organizational behavior class at a medium-size public university in the Northeast United States who were randomly assigned to teams of 3–5 members each. Thirty-six students were assigned as team leaders by the researchers based on the results of previously-administered personality test results. Specifically, students who scored highest on the team in extraversion and conscientiousness were assigned to be team leaders. The remaining students (n = 113) were assigned as team followers. The useable number of participants was reduced to 148 participants (35 leaders and 113 followers) working on 35 teams of 3–5 members each. Participants had a mean age of 21 years, were split evenly between men and women, and had a mean of 4.8 years of at least part-time work experience.

In this study, participants were placed into teams with the purpose of working on one major semi-structured class project over the course of ten weeks. Each team was assigned to analyze a business case by using organizational behavior theory and research and to produce a creative but succinct written analysis. Graduate teaching assistants were responsible for providing feedback to
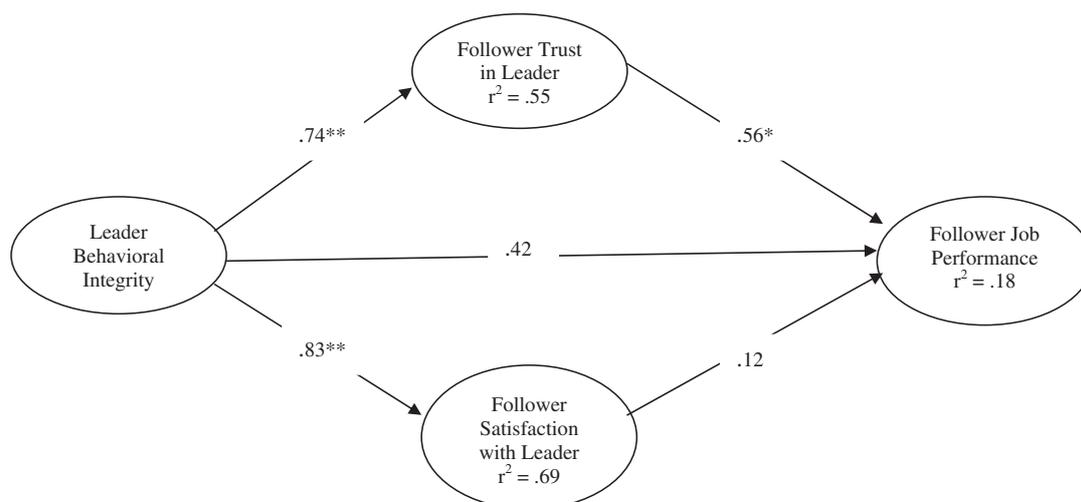
Results on path lines are standardized *b* weights.
 * p < .05
 ** p <.01

Fig. 2. PLS results from Study 2.

the teams as needed and for assigning a team grade on the finished product. In an effort to simulate "real-world" experiences and enhance generalizability of the results, the team leader was responsible for scheduling and conducting team meetings and communicating with the class instructor and teaching assistants. Team leaders were given limited reward and coercive power (e.g., the option to reallocate extra credit based on contribution and performance). In addition, team members were given individual responsibilities within the team (e.g., communicating with professors and teaching assistants).

In order to confirm that behavioral integrity is an individual-level construct, we collected "matched report" data at two different times during the 10-week project period (at about the half-way point and after the project was complete). Specifically, follower reports about the leader *and* leader reports about *each* follower were collected and matched; in other words, we collected complete dyad-level data for every leader–follower dyad in every team at both Time 1 and Time 2. To allow for this matching, identification of participants was necessary in the data collection, as were assurances of strict confidentiality to the participants. Students were offered extra credit in exchange for participation in the study. Data in the form of surveys were collected online through survey software.

7.2. Measures

7.2.1. Behavioral integrity

For consistency across studies, we measured each follower's perception of their leader's behavioral integrity with the same 8-item scale developed by Simons et al. (2007) which was modified slightly to reflect the actual terminology used in the study (i.e., managers were referred to as "team leaders"). We used the same scale for leaders' perceptions of each of their respective follower's behavioral integrity. All items are measured on a five-point scale ranging from 0 ("strongly disagree") to 4 ("strongly agree"). Data used in hypothesis testing were collected at Time 1.

7.2.2. Trust

As in Studies 1 and 2, we used Mayer and Gavin's (2005) four-item trust scale. All items are measured by each follower on a five-point scale ranging from 0 ("strongly disagree") to 4 ("strongly agree"). We used this scale for both follower trust in each leader and leader trust in each follower at Time 1.

7.2.3. Satisfaction

Follower satisfaction with the leader and leader satisfaction with the follower were measured at Time 1 with two items based on the Multifactor Leadership Questionnaire (MLQ-5X, Bass & Avolio, 1997). These questions were answered using a five-point Likert scale ranging from 0 ("very dissatisfied") to 4 ("very satisfied").

7.2.4. Job performance

As in Study 2, we used Mott's (1972) scale which is designed to measure quantity, quality, and efficiency of work. Ratings of follower job performance were obtained at Time 2 from each leader.

7.2.5. Control variables

As in Study 2, we collected data about demographics (age and sex) and social desirability using a 10-item scale (Strahan & Carrese Gerbasi, 1972). Data were collected at Time 1.

7.3. Results

The primary purposes for Study 3 included utilizing a somewhat larger sample size, testing for multi-level effects, and using different data collection times and sources of ratings to help mitigate single-source bias. It is important to note that data for independent variables were collected at Time 1 (about halfway through the team life-cycle) and the dependent variable (follower job performance) were collected at Time 2 (after the conclusion of all team projects).

As in Study 2, preliminary tests showed no significant relationships among age, sex, or social desirability and the other variables in the model; thus, we dropped these control variables from the test of the theoretical model. As discussed above, specification of the proper level of analysis of variables and relationships is an important issue. Thus, we tested each variable and bivariate relationship in the model at three specific levels of analysis (individual, dyad and group) using WABA. The results of WABA indicated significant variation both within and between dyads *and* within and between groups for all variables and relationships in the model. These equivocal results at two levels of analysis indicate that the proper level of analysis resides at neither the dyad level nor group level. Instead, the results once again provide evidence that the proper level of analysis is the individual level (an individual differences perspective). As with the results from Study 2, these results support Simons' (2002) assertion that integrity is based on individual perceptions.

Table 3 contains factor loadings and cross-loadings for all variables. Table 4 contains means, standard deviations, correlations, and square roots of average variance extracted for all variables.

As in Study 2, for testing of both the measurement model and the theoretical model, Partial Least Squares (PLS) using *SmartPLS* (Ringle, Wende, & Will, 2005) was employed as the primary data analysis technique. As indicated in Tables 3 and 4, the test of the measurement model (consisting of individual item reliability, internal consistency, and discriminant validity) showed robust reliability, consistency, and validity for all variables.

Table 3
Factor and cross-factor loadings, average variance extracted, and internal consistency reliabilities extracted from measures in Study 3.

Item	1	2	3	4	5	6	7
Factors							
1. Leader behavioral integrity (AVE = .73; Consistency = .96)							
1	**.81**	.23	.22	.18	.18	.18	.22
2	**.84**	.26	.19	.21	.20	.22	.27
3	**.82**	.37	.32	.26	.25	.26	.25
4	**.86**	.35	.35	.27	.26	.23	.26
5	**.88**	.34	.33	.23	.22	.18	.34
6	**.89**	.34	.33	.24	.24	.18	.29
7	**.85**	.25	.21	.21	.21	.20	.26
8	**.89**	.22	.20	.22	.22	.20	.23
2. Follower satisfaction with leader (AVE = .90; Consistency = .95)							
1	.33	**.94**	.64	.01	.11	.14	.20
2	.34	**.95**	.59	.07	.11	.24	.26
3. Follower trust in leader (AVE = .59; Consistency = .85)							
1	.20	.37	**.78**	.11	.07	.07	.22
2	.18	.39	**.80**	.31	.25	.24	.36
3	.25	.67	**.68**	.02	.11	.10	.23
4	.34	.59	**.82**	.17	.13	.13	.21
4. Follower job performance (AVE = .83; Consistency = .94)							
1	.25	.06	.23	**.93**	.53	.74	.60
2	.28	.07	.10	**.93**	.58	.82	.61
3	.19	.11	.16	**.88**	.56	.72	.55
5. Follower behavioral integrity (AVE = .84; Consistency = .98)							
1	.14	.08	.07	.48	**.81**	.47	.37
2	.25	.17	.19	.59	**.96**	.58	.45
3	.22	.15	.15	.55	**.91**	.56	.42
4	.26	.15	.17	.56	**.94**	.53	.39
5	.20	.08	.14	.55	**.92**	.52	.40
6	.20	.11	.19	.55	**.93**	.52	.39
7	.25	.10	.17	.55	**.92**	.62	.49
8	.23	.19	.16	.57	**.92**	.55	.40
6. Leader satisfaction with follower (AVE = .87; Consistency = .93)							
1	.32	.22	.24	.80	.57	**.94**	.63
2	.31	.14	.18	.75	.54	**.93**	.52
7. Leader trust in follower (AVE = .51; Consistency = .80)							
1	.27	.25	.28	.39	.25	.41	**.75**
2	.31	.30	.31	.41	.30	.41	**.77**
3	.24	.11	.26	.62	.46	.61	**.81**
4	.00	.04	.06	.32	.22	.22	**.46**

Note: Factor loadings are indicated in boldface.
AVE = Average Variance Extracted.
Consistency = Internal Consistency Reliability.

Table 4
Means, standard deviations, reliabilities, and correlations for Study 3.

	Variables	Mean	S.D.	1	2	3	4	5	6	7
1	Leader behavioral integrity	3.12	.82	**.86**						
2	Follower sat. w/ leader	2.99	.54	.35*	**.90**					
3	Follower trust in leader	2.86	.69	.32**	.66**	**.77**				
4	Follower job performance	3.31	.73	.27*	.05	.21*	**.91**			
5	Follower behavioral integrity	3.20	.80	.25*	.35**	.19*	.61**	**.91**		
6	Leader sat. w/ follower	3.15	.79	.34**	.20*	.23*	.83**	.60**	**.94**	
9	Leader trust in follower	3.09	.76	.31**	.24*	.33**	.64**	.46**	.62**	**.71**

Note: N = 113. Boldfaced values on the diagonal represent the square root of the average variance extracted (AVE).
*p < .05.
**p < .01.

Results of the test of the theoretical model are shown in Fig. 3. The standardized beta coefficient for each path in the model was obtained from the PLS algorithm in *SmartPLS*. Statistical significance of each path in the theoretical model was determined by the t-value for a given bivariate relationship based on a bootstrapping technique with 500 iterations. Results showed that leader behavioral integrity was positively related to follower trust in the leader (b = .33, p<.05); thus, Hypothesis 1a was supported. Similarly, in support of Hypothesis 1b, there was a significant positive relationship between leader behavioral integrity and follower satisfaction with the leader (b = .35, p<.05). The relationship between leader behavioral integrity was positive (b = .25, p<.05); thus, Hypothesis 2 was supported. Results showed no relationship (b = .00) between leader behavioral integrity and follower job performance; thus, Hypothesis 3 was not supported. Based on prior research, Hypothesis 4a predicted a positive relationship between follower trust in the leader and follower job performance, and this hypothesis was marginally supported (b = .11, p<.10). For Hypothesis 4b, there was a significant relationship between follower satisfaction with the leader and follower job performance (b = .22, p<.05). Hypothesis 5, which predicted that follower behavioral integrity would be related to follower job performance, was supported (b = .14, p<.05). Follower behavioral integrity is also related to leader trust in the follower (b = .46, p<.01) (Hypothesis 6a), which is in turn related to follower job performance (Hypothesis 6b) (b = .20, p<.05). Similarly, Hypothesis 7a is supported as follower behavioral integrity is related to leader satisfaction with the follower (b = .60, p<.01), which is in turn related to follower job performance (b = .65, p<.01), as predicted by Hypothesis 7b.

8. Comparison of results from Studies 2 and 3

Given the exploratory design of the studies, it is helpful to contrast results across studies in an attempt to focus attention on the most important findings. The purpose of Study 1 was to provide evidence that leader behavioral integrity causes trust and satisfaction, but the primary focus of our model is job performance. As a result, we focused on the PLS results from Studies 2 and 3 (see Table 5).

Unlike covariance-based SEM approaches, PLS does not specify overall model fit indices which are designed to relate parameter estimates to the sample covariances. Thus, one potential drawback to covariance-based SEM approaches is that well-specified models with excellent fit indices may still reflect models which have low R-square values. In contrast, PLS offers an alternative method of evaluating exploratory models by examining factor loadings, path coefficients, and R-square values. Chin (1998) recommends that path loadings should be around .20 (and preferably above .30) in order to be considered meaningful. Similarly, although there are not exact guidelines for R-square values, relatively higher R-square values are preferable. We should note that the R-square values in Table 5 are isolated for each path; in other words, they are the R-square values assuming no other
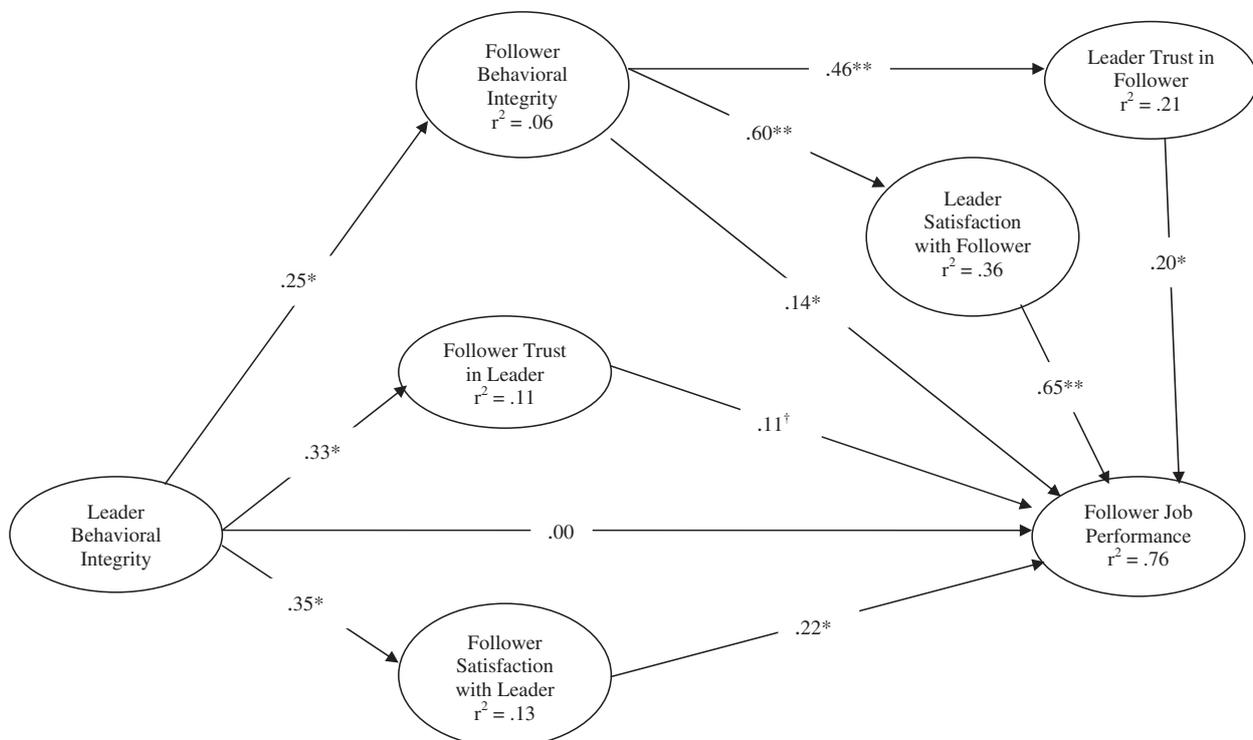
Results on path lines are standardized *b* weights.
[†]p < .10
* p < .05
** p <.01

Fig. 3. PLS results from Study 3.

Table 5
Comparison of Studies 2 and 3.

H	Path	Study 2		Study 3	
		b	r^2	b	r^2
1a	Leader behavioral integrity → Follower trust in leader[a]	.74**	.55	.33*	.11
1b	Leader behavioral integrity → Follower satisfaction w/ leader[a]	.83**	.69	.35*	.13
2	Leader behavioral integrity → Follower behavioral integrity	–	–	.25*	.06
3	Leader behavioral integrity → Follower job performance	.42	.03	.00	.02
4a	Follower trust in leader → Follower job performance	.56*	.17	.11[†]	.08
4b	Follower satisfaction with leader → Follower job performance	.12	.01	.22*	.03
5	Follower behavioral integrity → Follower job performance	–	–	.14*	.37
6a	Follower behavioral integrity → Leader trust in follower	–	–	.46**	.21
6b	Leader trust in follower → Follower job performance	–	–	.20*	.41
7a	Follower behavioral integrity → Leader satisfaction w/ follower	–	–	.60**	.36
7b	Leader satisfaction with follower → Follower job performance	–	–	.65**	.69

Notes:
[a] Hypotheses 1a and 1b were also supported in the experimental design of Study 1.
b is the standardized weight for the specified path.
r^2 values are for the specified path only.
Dashed lines indicate that the path was not tested in Study 2.
[†] $p < .10$.
* $p < .05$.
** $p < .01$.

exogenous variables in the model. We isolated the values in an attempt to glean some indications of the relative importance of each exogenous variable. These results are discussed below.

9. Discussion

These three studies were designed to investigate how leader and follower behavioral integrity might impact follower job performance. Although each study was designed for a specific purpose, each study was limited in a number of ways but also designed to offset limitations of the other studies (discussed below). Still, when the results are taken together, we can begin to draw some initial overall conclusions about the associations among behavioral integrity and performance. The first area of investigation centers on the impact of leader behavioral integrity on follower job performance, both directly and indirectly (via trust and satisfaction). Results for Hypothesis 3 in both Study 2 and Study 3 indicated that there is no direct relationship between leader behavioral integrity and follower job performance. This lack of a clear direct relationship between leader behavioral integrity and follower job performance is not completely unexpected given prior theory (Simons, 2002) and empirical results about other forms of integrity (e.g., Colquitt et al., 2007). For example, Simons (2002) posited that trust in the leader would indirectly mediate the leader behavioral integrity and follower job performance relationship. Moreover, robust direct antecedents of job performance are notoriously difficult to identify. It seems that leader behavioral integrity can at best help to create conditions (e.g., trust) under which followers can perform their jobs, but it cannot directly make them perform well. In contrast, the evidence for one's *own* (vis-à-vis one's *leader*'s) behavioral integrity affecting one's own job performance is much stronger (i.e., the follower behavioral integrity–follower job performance link in Study 3), likely because an individual has much more control to both promise and subsequently deliver high individual job performance. For example, Hinkin and Schriesheim (2009) found a positive relationship between supervisor behavioral integrity and supervisor job performance. In short, the results from the studies indicated that leader behavioral integrity's impact on follower job performance is indirect; specifically it is by creating trust (and, to a lesser extent, by facilitating satisfaction and follower integrity). The results provide support for what Mathieu and Taylor (2006) describe as indirect effects model in which there is not a direct relationship between the independent variable X (in this model, leader behavioral integrity) and the dependant variable Y (in this model, follower job performance), but there are still intervening variable(s) M (in this model, trust, satisfaction, and follower behavioral integrity) that shed light on the nature of the relationship between X and Y. Thus, while there is no evidence for X → Y, there is evidence for X → M and M → Y, and insight which is meaningful (Kenny, 2008).

The results about the important role of trust are not surprising given earlier research (Simons et al., 2007), but the results here add to our knowledge of this relationship in important ways. First, based on the results from the online experiment (Study 1), there is now tentative evidence for internal validity; in other words, behavioral integrity causes (results in) trust. Second, the behavioral integrity/trust relationship holds across people and situations. It holds for perceptions from adults with work experience (Study 1), professionals in workplace settings (Study 2), and participants in temporary, task-oriented groups (Study 3). Combined with the established relationship between trust and performance (Colquitt et al., 2007; Dirks & Ferrin, 2002) which was replicated here (Hypothesis 4a), we have evidence that leader behavioral integrity plays a modest role in enhancing follower job performance.

In a similar fashion, results from all three studies also indicate a relationship between leader behavioral integrity and follower satisfaction with the leader (Hypothesis 1b). However, given the lack of a significant relationship between follower satisfaction with the leader and job performance in Study 2 along with the relatively modest relationship between these variables in Study 3,

the role of satisfaction is still a question. One reason for these results might stem from the conceptual similarity of trust and satisfaction with respect to the leader. In their meta-analysis, Dirks and Ferrin (2002) found a correlation of .73 between these variables. We also found high correlations in both Study 2 (r = .80) and Study 3 (r = .66), which likely indicates that follower satisfaction with the leader adds little explanatory power due to possible multicollinearity.

Results from Study 3 indicated that leader behavioral integrity might also have an impact on follower job performance by impacting follower behavioral integrity (Hypothesis 3). The direct path between leader and follower behavioral integrity was relatively modest (b = .25, r^2 = .06). In contrast, the direct and indirect impact of follower behavioral integrity itself on follower job performance appears to be much more robust. The direct impact of follower behavioral integrity on follower job performance is modest with a good amount of variance explained (r^2 = .37), but with a marginal path coefficient (b = .14). The path which includes trust is better (b = .20, r^2 = .41), but the path through satisfaction is particularly robust (b = .65, r^2 = .69). Thus, it seems that follower behavioral integrity is important for producing good job performance, but the relative importance of satisfaction is much higher for a follower's own behavioral integrity than it is for a leader's behavioral integrity.

The results in Table 5 also provide a glimpse as to the overall relative importance of leader vs. follower behavioral integrity for predicting follower job performance simply by comparing individual paths. We can gain further insight by comparing parts of the model. The total variance explained by the model in Fig. 2 (with just leader behavioral integrity, follower trust in the leader, and follower satisfaction in the leader as predictors) was meaningful in both Study 2 (r^2 = .17) and Study 3 (r^2 = .14). In contrast, the total variance explained by the "follower" portion of the model (with follower behavioral integrity, leader trust in the follower, and leader satisfaction with the follower as predictors) was much higher in Study 3 (r^2 = .70). Thus, based on the results of Study 3, it seems that follower behavioral integrity is perhaps more important than leader behavioral integrity for driving follower job performance.

9.1. Limitations

One potential limitation concerns the almost exclusive individual differences perspective in all three studies. While Study 1 was designed to measure individual perceptions, Studies 2 and 3 were designed to test for alternative (i.e., dyad and group) levels of analysis via WABA through collecting self-other data for leader–follower dyads and groups. In one sense, the findings about relationships holding at the individual level of analysis are not surprising. For example, Simons' (2002) concept of behavioral integrity as a *perceived* pattern of alignment of words and actions, is implicitly individual-level in nature. In other words, behavioral integrity, like trust, is strictly in the eyes of the "individual" beholders. In another sense, though, the lack of any systematic dyad- or group-level effects as assessed by WABA is somewhat puzzling. If behavioral integrity is truly consistency of an acting entity's words and actions, then we might expect to see some evidence of consistency across raters of a focal target (e.g., across follower ratings of a leader). It is easy to conceive of a very high integrity leader espousing/enacting the same values and making/keeping the same promises to all members of a team. At the very least, even if a leader treats every follower differently, it is conceivable that a leader and a single follower would agree on the leader's displayed behavioral integrity (i.e., dyadic agreement). Still, no such dyadic or group effects were found, which prompts one to wonder how much the *actual* consistency of words and actions really matters. Clearly, future research is needed on these issues.

A second potential limitation stems from possible common method/source bias, especially in Studies 2 and 3. Although the PLS results showed support for the discriminant validity of the variables in both studies, we were concerned that the magnitude of their relationship might be exaggerated by common-method bias, as data were collected in the same way from the same raters in both studies (although predictor and criterion variables were collected at different times in Study 3). As such, we performed post hoc analyses to test for the possible effects of common-method bias.

In a structural equation model, the presence of common-method bias can be assessed by including a common-method factor in the model being tested and linking this factor to indicators measured by this common method. Williams, Edwards, and Vandenberg (2003) suggest that the common-method factor may be modeled using a scale for social desirability, which can be a potential reason for the common-method bias. The surveys administered in both the laboratory and field studies included 10 true–false questions that measured social desirability (Strahan & Carrese Gerbasi, 1972). Items measuring this variable included "I like to gossip at times" and "I never resent being asked to return a favor." A scale for social desirability was constructed from these items and was used to assess the level of common-method bias.

Unlike covariance-based structural equation modeling (which is implemented using packages such as LISREL and AMOS), PLS does not allow one to link more than one construct with an indicator. Therefore, to model the effects of a substantive construct and the common-method factor on any survey-based indicator, one has to adjust the structural equation model by using a method suggested by Liang, Saraf, Hu, and Xue (2007) which was adapted by Palanski, Kahai, and Yammarino (2011) for use with a measure of social desirability. This method involves the modeling of survey-based indicators that need to be tested for common-method bias as new constructs. Essentially, one adds new constructs to the model, one for each survey-based indicator. Each of these new constructs is modeled with a single but different survey-based indicator and is modeled as being dependent on both the substantive construct (that the indicator is representing) and the common-method factor. See Fig. 4 for a depiction of the resulting model (for simplicity, Fig. 4 represents only the variables tested in both Study 2 and Study 3; however, we followed the same procedure for all variables in Study 3 by including measures of leader and follower social desirability and linking them to their corresponding constructs). Liang et al. (2007) argue that this adjustment is valid because the variance that is shared between a survey-based indicator and its substantive construct remains unaltered and is now represented as the variance shared between two constructs (i.e., the new single-indicator construct representing the indicator and the substantive construct represented by the indicator). Similarly, the variance shared between a
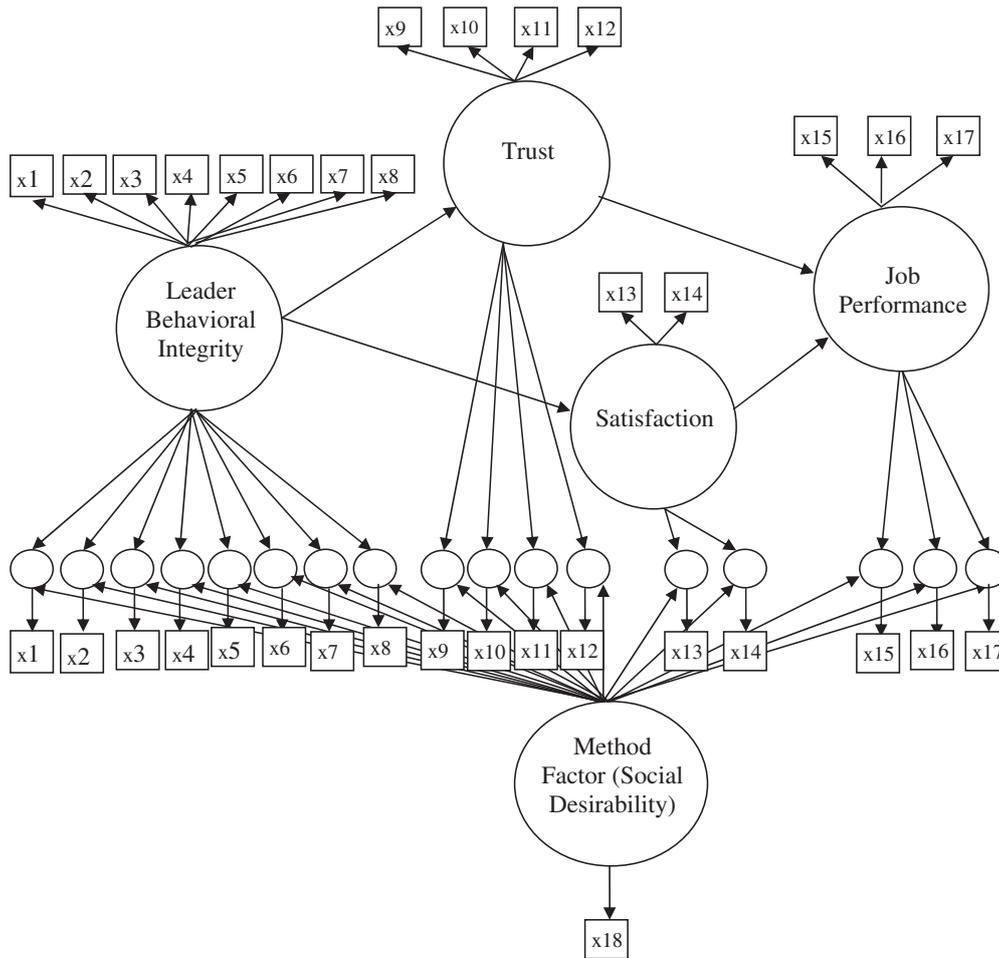
Note:
Leader behavioral integrity, trust, satisfaction, and job performance are substantive constructs.
The method factor is added to the theoretical model to assess common-method bias. x1 through
x17 are indicators of constructs obtained using a survey. x18 is a scale based on items obtained
from the same survey. The small circles below substantive constructs are single-indicator
constructs that were added to represent survey-based indicators.

Fig. 4. PLS model for assessing common-method bias.

survey-based indicator and the common-method factor is unaltered and is now represented as the variance shared between the new single-indicator construct representing the indicator and the common-method factor.

According to Williams et al. (2003), common-method bias may be suggested when (a) the common-method factor has a significant effect on the new constructs representing survey-based indicators, and (b) the new constructs share more variance with the common-method factor than with their respective substantive constructs. Results of testing the new model suggest that common-method bias is probably not a serious concern in either Study 2 or Study 3. Specifically, in Study 2 only one of the seventeen paths from the common-method factor to the new constructs representing survey-based indicators was significant (the significant path was from the common-method factor to an item of job performance). The magnitudes of path coefficients in Study 2 ranged from .01 to .08. In Study 3, none of the thirty-one paths was significant, and the magnitudes of path coefficients ranged from .01 to .14. In both studies, none of the new constructs shared more variance with the common-method factor than they did with their respective substantive constructs. In the Study 2, the average substantively explained variance was .71, while the average method-based variance was .02. Thus, the ratio of substantively explained variance to method-based variance was 29:1. In Study 3, the corresponding variances were .01 and .43 and the ratio was 43:1. The results of these tests indicate that common method/source bias was likely not an issue in Study 2 or in Study 3.

A third potential limitation involves some organizational structure issues in Study 2. In this study, nurses and other clinical staff working in 17 physician/clinical offices were considered as teams. There is some question as to how much interdependence there is among the staff in any given office. Nurses in these offices tended to work independently or with a physician, but not necessarily with other nurses. There is certainly some interdependence (e.g., covering work shifts), but perhaps not to the degree that might be found in other types of teams. Also, leaders could not provide individual reports for every follower because of the large number of followers assigned to each leader. Further, the limited time available to each survey participant necessitated a cross-sectional study and shorter survey lengths. Finally, limited leader reports of follower job performance necessitated the use of follower self-

reports for both exogenous and endogenous variables. The use of follower self-reports of job performance likely inflated the correlations between trust and satisfaction and performance.

A fourth potential limitation is the use of students in Study 3. Although every effort was made to simulate "real world" team experiences via leader assignment, leader power to reallocate rewards, and specific job assignments, the generalizability the results from student samples remains the subject of debate. Further, all follower ratings were provided by the team leader, including follower job performance. Even though job performance data were collected at a different time and we controlled for common-source bias, the possibility remains that relationships might be artificially inflated. Further, while based on theory, the current design does not eliminate the possibility of reverse causality (i.e., that job performance drives trust, satisfaction, and behavioral integrity perceptions). Finally, uniform team sizes (3–5 members each) in the study may mask possible effects due to the relative number of followers for a particular leader (for instance, it may be easier for a leader to manage behavioral integrity perceptions when she or he has fewer followers).

9.2. Implications

Despite these limitations spread across the three studies, the overall results of these studies support previous theoretical propositions that leader behavioral integrity is important for developing follower trust (Simons, 2002), satisfaction (Palanski & Yammarino, 2009), and to a lesser extent, follower behavioral integrity. Given the confusion in meaning and conflicting results in previous leader integrity research, these results, while tentative, are not trivial. Perhaps the most interesting finding is that displaying high behavioral integrity is also important for followers. For a practicing manager or employee, the finding that behavioral integrity is important is potentially very beneficial, for the concept of behavioral integrity is relatively simple and straightforward. Behavioral integrity is simply making sure that one's actions are in accordance with the values that one espouses as well as keeping promises which are made. As such, behavioral integrity is easy to understand; its successful implementation, however, may prove to be more difficult for several reasons.

First, in the midst of the myriad of other cares and responsibilities which employees face, it is difficult to monitor proactively words one is espousing and subsequently enacting (or not) and the promises one is making and keeping (or not). Second, as the levels of analysis results in Studies 2 and 3 confirmed, perceptions of behavioral integrity are an individual-level phenomenon, which implies that it is not enough for leaders (especially) to manage simply a general pattern of behavioral integrity. Instead, leaders need to manage multiple perceptions simultaneously. If integrity really is "in the eye of the beholder," as the individual differences results in Studies 2 and 3 suggested, then a focal leader must take care to manage impressions of integrity with all relevant stakeholders (e.g., followers, bosses, and customers). If different stakeholders desire different values or promises, then the focal leader may be faced with some tough choices. In effect, the difficulty of managing behavioral integrity is exacerbated by the need to manage individual perceptions. Third, displaying high behavioral integrity might at some point involve a cost beyond time and energy. For example, a leader may espouse the value of fairness, but be faced with a situation in which giving preferential treatment to one particular customer might have short-term benefits. In order to maintain high behavioral integrity, the leader might need to forgo this preferential treatment and its accompanying benefits.

Given the difficulty in managing behavioral integrity and the evidence that successful management might have at best a modest impact on follower job performance, we are faced with the following question: is having behavioral integrity even worth it for leaders? This is no small question given the plethora of scholarly and popular assertions that integrity is important for leadership. In spite of the potential difficulties, our answer is a resounding "yes" for a few key reasons. First, the importance of trust as a key antecedent for many desirable outcomes (e.g., higher satisfaction, more OCBs, lower turnover intentions, more willingness to accept change) means that learning to develop trust is important, and it appears that behavioral integrity is an effective means of doing so. Second, as results from Study 3 indicated, behavioral integrity appears to have a cascading effect to followers. As leaders display high behavioral integrity and a strong leadership style, followers begin to do the same. Not only does follower job performance increase as a result, but over time the leader becomes more trusting of the follower and can spend less time supervising and more time focusing on his/her own job performance. Although the results in Study 3 showed only a modest relationship, there may be other avenues for developing follower behavioral integrity. For example, only a direct relationship was tested here, but the presence of mediators (e.g., team norms for behavioral integrity) could strengthen this relationship. Third, although the results here indicated an individual differences perspective with respect to behavioral integrity and leadership, these results need not remain static. In other words, over time and with persistence, leaders may be able to display consistent behavioral integrity such that individual differences coalesce into an overall group perception of the leader's behavioral integrity. The result of such a situation may be that a leader would need to spend less time building perceptions of behavioral integrity, instead making a more modest investment of time and energy simply to maintain the high level of behavioral integrity. Fourth, and perhaps most importantly, the results from these studies imply that a simple, straightforward means of becoming a more effective leader (i.e., displaying high behavioral integrity) is available to all who seek it. What appears to be needed most is simply hard work—hard work to be aware of one's own behavioral integrity, hard work to manage followers' individual perceptions of integrity, and hard work to develop behavioral integrity in followers.

9.3. Future directions

Future research could begin to consider other aspects of integrity. For example, research on authentic leadership (Luthans & Avolio, 2003) and ethical leadership (Brown et al., 2005) is beginning to examine other virtues which have sometimes been

described as integrity or integrity-like. In the same way, the theoretical model presented here may be used to guide research on other virtues, especially with consideration of other levels of analysis. Relatedly, future research should also consider the role that transparency (Gardner, Avolio, Luthans, May, & Walumbwa, 2005) might play with respect to integrity. For example, perhaps the individual differences found here are due to low levels of transparency on the part of a leader. Higher levels of transparency might serve to make integrity more salient. Considering behavioral integrity along with other virtues could serve to substantiate behavioral integrity's role in fostering overall ethical conduct and ethical leadership.

Future research also needs to examine the more subtle effects of behavioral integrity including intra- and inter-personal variation, agreement about specific values, and the role of organizational and national culture in driving perceptions of behavioral integrity. For example, multi-level analysis in these studies indicated an individual differences perspective for leader behavioral integrity; future research should examine whether a focal leader's behavioral integrity varies across followers, situations, time, or some combination of all three. Further, additional research might examine whether there is some optimal level of behavioral integrity; in other words, is 100% consistency necessary or will perhaps 80% suffice? Another question which should be addressed is how much does leader-follower agreement about the specific values espoused and enacted really matter? For example, research by Markham, Yammarino, Murry, and Palanski (2010) indicated that leader–follower agreement about work values moderates the relationship between leader–member exchange and follower performance. However, Tepper (2007) showed that leaders who display a mixture of *both* supportive and abusive styles (actions which are akin to low behavioral integrity) were more detrimental to followers than leaders who displayed an exclusively abusive style (actions which are akin to high behavioral integrity). This finding raises another important question: Does the content of words and actions matter? Nascent tangential evidence in behavioral integrity research appears to indicate that there may be wide latitude for the actual content of the espoused/enacted values, but at some point there is a limit. Moral philosophy would hold that the limit is reached when the values are clearly unethical. Perhaps the limit might be reached when the value sets held by a leader and follower are both morally defensible, but one party (or both parties) has a particular affinity for his or her values vis-à-vis the other party's values (e.g., A likes apples and B likes oranges, and in most cases A and B will agree to disagree…except that in this case A really, really likes apples and thinks anyone who likes oranges should be severely sanctioned). Perhaps the limit is reached when the other party's values pose a threat to one's self-concept, for instance.

The effect of both organizational and national culture upon perceptions of behavioral integrity should also be examined. For example, Cha (2009) showed that the effects of lower leader behavioral integrity were buffered in organizations with strong value orientations. Friedman, Simons, and Hong (2009) demonstrated that perceptions of the promise-keeping aspect of behavioral integrity differed between American and Indian workers. Both of these nacent streams of research indicate that phenomena at higher levels of analysis (i.e., culture) impact perceptions of behavioral integrity.

Finally, the research here is largely descriptive of integrity. Future research should suggest and test some prescriptive steps for improving integrity at all organization levels. For example, perhaps interventions such as self-reflective exercises along with periodic feedback from stakeholders could assist both leaders and followers in developing behavioral integrity. Many possibilities exist for improving integrity, and finding even a few validated techniques could be very helpful for people in organizations.

Appendix

Scripts for Study 1

High behavioral integrity condition

The following paragraphs describe a typical week in the life of a manager. Please read through this information carefully, and then answer the questions about this material as directed.

Background information:

Pat Smith is the team manager for a sales team in an office supply company. Although Pat does receive some direction from the vice-president of sales, Pat has a significant amount of control over the team. For instance, Pat is able to set sales goals, assign tasks, and decide the amount of sales bonuses.

The team consists of Pat Smith and four other sales persons (Elizabeth, Bob, Steve, and Susan), all of whom have worked for Pat for at least 6 months.

Monday:

Like usual, Pat presides over the Monday morning meeting with the team. Here are some selected quotes that Pat made during the meeting:

> "You all know that we need to meet our sales goals this month, but I want to say once again that we must not inflate our sales by promising things that we can't deliver. We never compromise our values here."

> "Elizabeth, I know that you have been having a hard time trying to convince the new manager at Main Street Tax Services to buy from us. Email me after the meeting—I promise that I will clear some time on my schedule this week to set up a meeting with them."

"It's much easier to keep a current customer happy than to find a new customer, so I want to make sure that all of you are spending at least two mornings each week talking to our existing customers. Two mornings, OK? That includes me."

Tuesday:

Team member Elizabeth sends the following email to Pat: "Pat, as you mentioned in yesterday's meeting, we need to set up a time to talk to Main Street Tax Services about buying from us. Their manager can only meet at 9 AM on Thursday—is that OK? This is really important."

Pat responds with this email: "Elizabeth, Thursday is very busy for me, but I will make time for the meeting. See you then."

Wednesday:

Pat spends the entire morning calling on existing customers.

Just after lunch, Bob, another team member, walks into Pat's office and asks, "Pat, I've got a great chance to get some new business. Sandy, the office manager at the local college, just called and would like to purchase all of the office supplies for the entire college from us! This could really make my sales goals for the year. The only thing is, she needs the supplies within 2 weeks. I told her that it would take at least 4 weeks, but she insisted that they need them in 2 weeks. Can we make an exception to our policies just this one time? This is important."

Pat answers Bob's question, saying, "Bob, this is a great opportunity. I would like to fill the order, but I know that we can't deliver that much merchandise in 2 weeks. In order to do it, we'd have to shortchange every other customer. Please call Sandy back and tell her that we will work as quickly as possible, but that a 2 week delivery isn't going to happen."

Bob asks, "But what if we lose the sale?"

Pat replies, "We can't do it. Even if we lose the sale, we must not promise something we can't deliver."

Thursday:

Pat wakes up on Thursday morning and checks email. Pat's boss, the VP of sales, has asked Pat to prepare a brief summary about Pat's leadership of the sales team for the board of directors. Specifically, the board wants to understand how Pat goes about leading the team. Pat knows that this project could be a convenient excuse for skipping the meeting with Elizabeth and Main Street Tax Services.

Pat calls Elizabeth on her cell phone, saying, "Elizabeth, I am on my way. I had a request from my boss to do some work, but I will do it tonight. This meeting is a priority and I made a promise to you."

After she hangs up, Elizabeth calls Steve, another member of the team. Elizabeth says, "Steve, can you believe it? Pat had something come up, but is still coming to the meeting. This always happens."

Steve responds, "Yes, that's pretty typical for Pat. No doubt about it—Pat Smith keeps commitments."

After the meeting, Pat spends all afternoon and most of the evening finishing the summaries for the board.

Friday:

Pat drags into the office and would give anything to avoid calling existing customers. Still, Pat knows calling on existing customers is a priority for the team, and spends the rest of the morning on the phone with existing customers.

Pat spends Friday afternoon analyzing sales information and preparing for next Monday's meeting.

Low behavioral integrity condition

The following paragraphs describe a typical week in the life of a manager. Please read through this information carefully, and then answer the questions about this material as directed.

Background information:

Pat Smith is the team manager for a sales team in an office supply company. Although Pat does receive some direction from the vice-president of sales, Pat has a significant amount of control over the team. For instance, Pat is able to set sales goals, assign tasks, and decide the amount of sales bonuses.

The team consists of Pat Smith and four other sales persons (Elizabeth, Bob, Steve, and Susan), all of whom have worked for Pat for at least 6 months.

Monday:

Like usual, Pat presides over the Monday morning meeting with the team. Here are some selected quotes that Pat made during the meeting:

> "You all know that we need to meet our sales goals this month, but I want to say once again that we must not inflate our sales by promising things that we can't deliver. We never compromise our values here."

> "Elizabeth, I know that you have been having a hard time trying to convince the new manager at Main Street Tax Services to buy from us. Email me after the meeting—I promise that I will clear some time on my schedule this week to set up a meeting with them."

"It's much easier to keep a current customer happy than to find a new customer, so I want to make sure that all of you are spending at least two mornings each week talking to our existing customers. Two mornings, OK? That includes me."

Tuesday:

Team member Elizabeth sends the following email to Pat: "Pat, as you mentioned in yesterday's meeting, we need to set up a time to talk to Main Street Tax Services about buying from us. Their manager can only meet at 9 AM on Thursday—is that OK? This is really important."

Pat responds with this email: "Elizabeth, Thursday is very busy for me, but I will make time for the meeting. See you then."

Wednesday:

Pat begins the morning by calling on existing customers, but after 30 minutes, an old co-worker stops in the office. They spend the next two hours chatting about old times. It is very apparent to the rest of the team that Pat is not calling on existing customers.

Just after lunch, Bob, another team member, walks into Pat's office and asks, "Pat, I've got a great chance to get some new business. Sandy, the office manager at the local college, just called and would like to purchase all of the office supplies for the entire college from us! This could really make my sales goals for the year. The only thing is, she needs the supplies within two weeks. I told her that it would take at least 4 weeks, but she insisted that they need them in two weeks. Can we make an exception to our policies just this one time? This is important."

Pat answers Bob's question, saying, "Bob, this is a great opportunity. I would like to fill the order, but I know that we really can't deliver that much merchandise in two weeks. In order to do it, we'd have to shortchange every other customer. But…we could really use the increased sales."

Bob asks, "So what should I tell her?"

Pat replies, "We are really promising something we can't deliver, but so what? We really need this sale. I'll pull a few strings with a friend down in Distribution. We'll just tell our other customers that we had some shipping problems and that their orders will be a few weeks late. We really need to keep up the appearance of acting honestly, though—so let's just keep this little deal between us, OK?"

Thursday:

Pat wakes up on Thursday morning and checks email. Pat's boss, the VP of sales, has asked Pat to prepare a brief summary about Pat's leadership of the sales team for the board of directors. Specifically, the board wants to understand how Pat goes about leading the team. Pat knows that this project could be a convenient excuse for skipping the meeting with Elizabeth and Main Street Tax Services.

Pat calls Elizabeth on her cell phone, saying, "Elizabeth, I am sorry to break my promise, but something just came up and I can't make the meeting."

After she hangs up, Elizabeth calls Steve, another member of the team. Elizabeth says, "Steve, can you believe it? Pat isn't coming to the meeting. This always happens."

Steve responds, "Yes, that's pretty typical for Pat. No doubt about it—Pat Smith can't keep commitments."

Pat spends all morning working on the summary, but is still able to go home early.

Friday:

Pat drags into the office and would give anything to avoid calling existing customers, even though it is a team priority. Pat then mutters, "Hey, I'm the boss. Status does have its privileges,", and then heads out to the local coffee shop to read the newspaper.

Pat spends Friday afternoon analyzing sales information and preparing for next Monday's meeting.

References

Atwater, L. E., & Yammarino, F. J. (1992). Does self-other agreement on leadership perceptions moderate the validity of leadership and performance predictions? *Personnel Psychology*, *45*, 141–164.

Audi, R., & Murphy, P. E. (2006). The many faces of integrity. *Business Ethics Quarterly*, *16*, 3–21.

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

Avolio, B. J., Mahtre, K., Norman, S. M., & Lester, P. (2009a). The moderating effect of gender on leadership intervention impact. *Journal of Leadership & Organizational Studies*, *15*, 325–341.

Avolio, B. J., Mhatre, K., Norman, S. M., & Lester, P. (2009b). The moderating effect of gender on leadership intervention impact: An exploratory review. *Journal of Leadership & Organizational Studies*, *15*, 325–341.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.

Barclay, D., Higgins, C., & Thompson, R. (1995). The partial least squares (PLS) approach to causal modeling, personal computer adoption and use as an illustration. *Technology Studies*, *2*, 285–309.

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

Bass, B. M., & Avolio, B. J. (1997). *Full range of leadership: Manual for the Multi-factor Leadership Questionnaire.* Palo Alto, CA: Mind Garden.

Bass, B. M., & Steidlmeier, P. (1999). Ethics, character, and authentic transformational leadership behavior. *Leadership Quarterly*, *10*, 181–217.

Blau, P. M. (1964). *Exchange and power in social life.* New York: Wiley.

Brower, H. H., Lester, S. W., Korsgaard, M. A., & Dineen, B. R. (2009). A closer look at trust between managers and subordinates: Understanding the effects of both trusting and being trusted on subordinate outcomes. *Journal of Management*, *35*, 327–347.

Brown, M. E., Trevino, L. K., & Harrison, D. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, *97*, 117–134.

Carmines, E. G., & Zeller, R. A. (1979). *Reliability and validity assessment.* Beverly Hills, CA: Sage.

Cha, S. (2009). Leadership and the idealogical halo: How employees respond to violations of organizational values. *Paper presented at the Academy of Management conference, Chicago, IL.*

Chin, W. W. (1998). Issues and opinion on Structural Equation Modeling. *MIS Quarterly*, *22*, vii–xvi.

Chin, W. W., & Newsted, P. R. (1999). Structural equation modeling analysis with small samples using partial least squares. In Rick Hoyle (Ed.), *Statistical strategies for small sample research* (pp. 307–341). Thousand Oaks, CA: Sage.

Chun, J. U., Yammarino, F. J., Dionne, S. D., Sosik, J. J., & Moon, H. K. (2009). Leadership across hierarchical levels: Multiple levels of management and multiple levels of analysis. *Leadership Quarterly*, *20*, 689–707.

Colquitt, J. A., Scott, B. A., & LePine, J. A. (2007). Trust, trustworthiness, and trust propensity: A meta-analytic test of their unique relationships with risk taking and job performance. *The Journal of Applied Psychology*, *92*, 909–927.

Conger, J. A., Kunungo, R. N., & Menon, S. T. (2000). Charismatic leadership and follower effects. *Journal of Organizational Behavior*, *21*, 747–767.

Craig, S. B., & Gustafson, S. B. (1998). Perceived leader integrity scale: An instrument for assessing employee perceptions of leader integrity. *Leadership Quarterly*, *9*, 127–145.

Dansereau, F., Alutto, J. A., & Yammarino, F. J. (1984). *Theory testing in organizational behavior: The varient approach.* Englewood Cliffs, NJ: Prentice-Hall.

Dansereau, F., & Yammarino, F. J. (2000). Within and between analysis: The variant paradigm as an underlying approach to theory building and testing. In K. J. Klein & S.W.J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (pp. 425–466). San Francisco, CA: Jossey-Bass.

Den Hartog, D. N., & Koopman, P. L. (2002). In N. Anderson (Ed.), *Leadership in organizations. Handbook of industrial, work, and organizational psychology, Vol. 2.* (pp. 166–187) London: Sage.

Dineen, B. R., Lewicki, R. J., & Tomlinson, E. C. (2006). Supervisory guidance and behavioral integrity: Relationships with employee citizenships and deviant behavior. *The Journal of Applied Psychology*, *91*, 622–635.

Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *The Journal of Applied Psychology*, *87*, 611–628.

Dirks, K. T., & Skarlicki, D. P. (2008). The relationship between being perceived as trustworthy by coworkers and individual performance. *Journal of Management*, *35*, 136–157.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobserved variables and measurement error. *Journal of Marketing Research*, *18*, 39–50.

Friedman, R., Simons, T., & Hong, Y. (2009). Culture's impact on behavioral integrity: When is a promise not a promise? *Paper presented at the Academy of Management conference, Chicago, IL.*

Fry, L. W. (2003). Toward a theory of spiritual leadership. *Leadership Quarterly*, *14*, 693–727.

Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. (2005). "Can you see the real me?" A self-based model of authentic leader and follower development. *Leadership Quarterly*, *16*, 343–372.

Grojean, M. W., Resick, C. J., Dickson, M. W., & Smith, D. B. (2004). Leaders, values, and organizational climate: Examining leadership strategies for establishing an organizational climate regarding ethics. *Journal of Business Ethics*, *55*, 223–241.

Hackman, J. R. (1992). In M. D. Dunnette, & L. M. Hough (Eds.), *Group influences on individuals in organizations (2nd ed.). Handbook of industrial and organizational psychology*, *Vol. 3.* (pp. 199–268) Palo Alto, CA: Consulting Psychologists Press.

Hinkin, T., & Schriesheim, C. (2009). The psychological contract at work: Testing a model of leader reinforcement practices, behavioral integrity, trust, and subordinate outcomes. *Paper presented at the Academy of Management conference, Chicago, IL.*

House, R. J. (1977). A 1976 theory of charismatic leadership. In J. G. Hunt & L.L. Larson (Eds.), *Leadership: The cutting edge* (pp. 189–207). Carbondale, IL: Southern IllinoisU. Press.

Howell, J. M., & Avolio, B. J. (1995). Charismatic leadership: Submission or liberation? *Business Quarterly*, *60*, 62–71.

Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *The Journal of Applied Psychology*, *89*, 755–768.

Kenny, D. A. (2008). Reflections on mediation. *Organizational Research Methods*, *11*, 353–358.

Kirkpatrick, S. A., & Locke, E. A. (1991). Leadership: Do traits matter? *The Executive*, *5*, 48–60.

Liang, H., Saraf, N., Hu, Q., & Xue, Y. (2007). Assimilation of enterprise systems: The effect of institutional pressures and the mediating role of top management. *MIS Quarterly*, *31*, 59–87.

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

Marcus, B., Lee, K., & Ashton, M. C. (2007). Personality dimensions explaining relationships between integrity tests and counterproductive behavior: Big Five, or one in addition? *Personnel Psychology*, *60*, 1–34.

Markham, S. E., Yammarino, F. J., Murry, W., & Palanski, M. E. (2010). Leader–member exchange, shared values, and performance: Agreement and levels of analysis do matter. *Leadership Quarterly*, *21*, 469–480.

Mathieu, J. E., & Taylor, S. E. (2006). Clarifying conditions and decision points for mediational type inferences in organizational behavior. *Journal of Organizational Behavior*, *27*, 1031–1056.

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, *20*, 709–734.

Mayer, R. C., & Gavin, M. B. (2005). Trust in management and performance: Who minds the shop while employees watch the boss? *Academy of Management Journal*, *48*, 874–888.

Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application.* Thousand Oaks, CA: Sage.

Mott, P. E. (1972). *The characteristics of effective organizations.* New York: Harper & Row.

Palanski, M. E., & Carroll, E. A. (2006). The role of behavioral integrity as an antecedent to leader emergence. *Paper presented as part of a symposium for Academy of Management annual conference, Atlanta, GA, August, 2006.*

Palanski, M. E., & Yammarino, F. J. (2007). Integrity and leadership: Clearing the conceptual confusion. *European Management Journal*, *25*, 171–184.

Palanski, M. E., & Yammarino, F. J. (2009). Integrity and leadership: A multi-level conceptual framework. *Leadership Quarterly*, *20*, 405–420.

Palanski, M. E., Kahai, S. S., & Yammarino, F. J. (2011). Team virtues and performance: An examination of transparency, behavioral integrity, and trust. *Journal of Business Ethics*, *99*, 201–216.

Parry, K. W., & Proctor-Thomson, S. B. (2002). Perceived integrity of transformational leaders in organizational settings. *Journal of Business Ethics*, *35*, 75–96.

Ringle, C. M., Wende, S., & Will, A. (2005). *Smart PLS 2.0.* Hamburg, Germany: University of Hamburg. http://www.smartpls.de

Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of Management Review*, *23*, 393–404.

Sackett, P. R., & Wanek, J. E. (1996). New developments in the use of measures of honesty integrity, conscientiousness, dependability trustworthiness, and reliability for personnel selection. *Personnel Psychology*, *49*, 787–829.

Schneider, B. (1987). The people make the place. *Personnel Psychology*, *40*, 437–453.

Schneider, B., Goldstein, H. W., & Smith, D. B. (1995). The ASA framework: An update. *Personnel Psychology*, *48*, 513–537.

Simons, T. L. (1999). Behavioral integrity as a critical ingredient for transformational leadership. *Journal of Organizational Change Management*, *12*, 89–104.

Simons, T. L. (2002). Behavioral integrity: The perceived alignment between managers' words and deeds as a research focus. *Organization Science*, *13*, 18–35.

Simons, T. L., Friedman, R., Liu, L. A., & McLean-Parks, J. (2007). Racial differences in sensitivity to behavioral integrity: Attitudinal consequences, in-group effects, and "trickle down" among black and non-black employees. *The Journal of Applied Psychology*, *92*, 650–665.

Simons, T. L., & McLean-Parks, J. (2000). The sequential impact of behavior integrity on trust, commitment, discretionary service behavior, customer satisfaction, and profitability. *Paper presented at the annual Academy of Management Conference, Toronto, ON.*

Sosik, J. J., Kahai, S. S., & Piovos, M. J. (2009). Silver bullet or voodoo statistics? A primer for using the partial least squares data analytic technique in group and organizational research. *Group & Organization Management*, *34*, 5–36.

Strahan, R., & Carrese Gerbasi, K. (1972). Short, homogeneous versions of the Marlowe–Crowne social desirability scale. *Journal of Clinical Psychology*, *28*, 191–193.

Tepper, B. J. (2007). Abusive supervision in work organizations: Review, synthesis, and research agenda. *Journal of Management*, *33*, 261–289.

Trevino, L. K., Hartman, L. P., & Brown, M. (2000). Moral person and moral manager: How executives develop a reputation for ethical leadership. *California Management Review*, *42*, 128–142.

Tsiu, A. S., & O'Reilly, C. A. (1989). Beyond simple demographic effects: The importance of relational demography in supervisor–subordinate dyads. *Academy of Management Journal*, *32*, 402–423.

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

Weber, M. (1947). *The theory of social and economic organizations.* Translated by T. Parsons. New York: Free Press.

Williams, L. J., Edwards, J. R., & Vandenberg, R. J. (2003). Recent advances in causal modeling methods for organizational and management research. *Journal of Management*, *29*, 903–926.

Wright, T. A., & Quick, J. C. (2009). The emerging positive agenda in organizations: Greater than a trickle, but not yet a deluge. *Journal of Organizational Behavior*, *30*, 147–159.

Yammarino, F. J., Dionne, S. D., Chun, J. U., & Dansereau, F. (2005). Leadership and levels of analysis: A state-of-the-science review. *Leadership Quarterly*, *16*, 879–919.

Yammarino, F. J., & Dubinsky, A. J. (1994). Transformational leadership theory: Using levels of analysis to determine boundary conditions. *Personnel Psychology*, *47*, 787–811.

Yammarino, F. J., Spangler, W. D., & Dubinsky, A. J. (1998). Transformational and contingent reward leadership: Individual, dyad, and group levels of analysis. *Leadership Quarterly*, *9*, 27–54.