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The effects of transformational leadership behaviours on follower outcomes: An identity-based analysis

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The aim of this study was to explore two of the mechanisms by which transformational leaders have a positive influence on followers. It examined the mediating role of follower’s leader and group identification on the associations among different transformational leader behaviours and follower job satisfaction and supervisor-rated job performance. One hundred and seventy-nine healthcare employees and 44 supervisors participated in the study. The results from multilevel structural equation modelling provided results that partially supported the predicted model. Identification with the leader significantly mediated the positive associations between supportive leadership, intellectual stimulation, personal recognition, in the prediction of job satisfaction and job performance. Leader identification also mediated the relationship between supportive leadership, intellectual stimulation, personal recognition, and group identification. However, group identification did not mediate the associations between vision leadership and inspirational communication, in the prediction of job satisfaction and job performance. The results highlight the role of individualized forms of leadership and leader identification in enhancing follower outcomes.

Keywords: Identification; Self-concept; Transformational leadership.
Over the past 25 years, a large body of research has focused on transformational leadership which is a behaviour-based model of leadership. Transformational leaders are considered to have a motivating influence on followers in terms of enhanced job attitudes and behaviours (Barling, Weber, & Kelloway, 1996; Dvir, Eden, Avolio, & Shamir, 2002; Fuller, Patterson, Hester & Stringer, 1996; Lowe, Kroeck, & Sivasubramanian, 1996). Prominent leadership researchers have begun to explore the mechanisms by which transformational leaders exert these positive effects. One potential mediator that has been recognized is follower identification (Kark & Shamir, 2002; Shamir, House & Arthur, 1993; van Knippenberg, van Knippenberg, de Cremer, & Hogg, 2004). Transformational leaders may assist in building followers' sense of identification with the leader (leader identification) and identification with the work group (group identification).

Although leadership theorists generally agree that identification processes have a major role to play in explaining the influence of transformational leadership, there has not been a thorough examination of these processes. One future research suggestion, made by van Knippenberg, van Knippenberg, de Cremer, and Hogg (2004), is to “investigate whether different aspects of leadership indeed may be differentially associated with follower personal (i.e., leader identification) and social identification (i.e., group identification)” (p. 833). This suggestion echoes the request made by other theorists (Kark & Shamir, 2002; Kark, Shamir, & Chen, 2003; Shamir, Zakay, Breinin, & Popper, 1998), and is based on the argument that transformational leadership may involve different influence processes (Yukl, 2006).

Previous studies on leadership and the mediating role of follower identification have focused either on the broad concept of transformational leadership (e.g., Kark et al., 2003), on a specific subfactor of leadership (e.g., self-sacrificial leadership: de Cremer & van Knippenberg, 2002, 2004), or on a variety of subfactors of charismatic leadership (Shamir et al., 1998). These studies have examined how leadership is associated with follower outcomes, mediated by identification with the leader (Kark et al., 2003) and identification with the group (de Cremer & van Knippenberg, 2002, 2004; Kark et al., 2003). However, no study, to our knowledge, has yet answered van Knippenberg and colleagues’ (2004) challenge to examine together the mediating role of leader and group identification in the relationship between specific transformational leadership behaviours and follower outcomes. Thus, the central aim of the current study is to examine the influence of several subdimensions of transformational leadership (supportive leadership, intellectual stimulation, personal recognition, vision leadership, and inspirational communication) on the follower outcomes of job satisfaction and job performance, mediated by two types of follower identification; namely, leader identification and group identification.
TRANSFORMATIONAL LEADERSHIP

Transformational leadership is a behaviour-based approach to leadership that explains how certain leaders foster performance above expectations in followers (Bass, 1985; Yammarino, Dionne, & Chun, 2002). According to the model, these leaders do so by engaging in behaviours that help encourage followers to transform their values and goals from self-interests to organizational interests (Bass, 1985). Transformational leaders achieve these positive results by displaying one or more of the following behaviours—“idealized influence”, “inspirational motivation”, “intellectual stimulation”, and “individualized consideration” (Bass, 1985).

There has been a great deal of empirical evidence promoting the benefits of transformational leadership for a range of follower work attitudes and behaviours (Barling et al., 1996; Bass, Avolio, Jung, & Berson, 2003; Dumdum, Lowe, & Avolio, 2002; Judge & Piccolo, 2004; Lowe et al., 1996; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). However, it has been noted that the processes by which transformational leaders exert their effects on followers has not been adequately addressed (Yukl, 1999, 2006), especially in relation to the psychological effects on followers (Lord & Brown, 2004). Relatedly, prominent leadership theorists have called for a more intensive study of the subdimensions of transformational leadership, as well as other specific leadership behaviours. For example, Avolio, Bass, and Jung (1999) stated that future leadership research should not limit itself to a global measure of transformational leadership. Rather, researchers and practitioners should evaluate each of the components which comprise transformational leadership (Avolio et al., 1999). Also, Bass, and Avolio (1993) have invited “critics and supporters to join in the effort to shape a theory and model of leadership that captures a broader array of leadership behaviours and attributes than previously studied” (p. 76). Yukl (1999, 2006) also discusses different underlying influence processes (identification and internalization/self-concordance), and the importance of studying these processes in order to enhance our understanding of leadership effectiveness. More recently, van Knippenberg et al. (2004) and Kark and Shamir (2002) have reinforced and further defined this challenge by suggesting research investigates whether different components of leadership are differentially associated with follower’s identification with the leader and group, and associated follower outcomes.

FOLLWER IDENTIFICATION AS A MEDIATOR OF TRANSFORMATIONAL LEADERSHIP

Identification is often discussed as one of the key psychological mechanisms responsible for the motivational effects of transformational leaders. It is
a well-established construct within the field of social psychology and is articulated within the theoretical framework of Social Identity Theory (SIT; Tajfel & Turner, 1979, 1986). According to SIT, an individual’s sense of self (i.e., self-concept) is represented by a set of categories, which may be classified as either personal or social identities (Banaji & Prentice, 1994; Brewer & Gardner, 1996). Personal identities refer to individuated features of the person which reflect the uniqueness of the individual. By contrast, social identities are tied to a particular social context and they reflect the person’s relationship with significant others and groups (Brewer & Gardner, 1996; Lord, Brown, & Freiberg, 1999). The basic proposition of SIT is that social identification with a referent person or group involves the incorporation of the person’s or group’s norms and values into the individual’s self-concept (Tajfel & Turner, 1986).

Identification has been successfully applied to organizational contexts, in the examination of organizational identification—a sense of oneness with the organization (Ashforth & Mael, 1989). In the organizational context, identification is considered to be a powerful concept in explaining individual’s performance, well-being, and turnover intentions (for an overview, see van Dick, 2004). For example, van Dick, Christ, et al. (2004) found in four organizational samples that identification with the organization was associated with job satisfaction, which in turn predicted turnover intentions. In a later study, van Dick, Grojean, Christ, and Wieseke (2006) found that organizational identification was associated with higher levels of organizational citizenship behaviour. Importantly, the concept of organizational identification is considered to have multiple foci, including personal identification with one’s career, group identification with one’s workgroup, occupational group, and overall organization (van Dick, Wagner, Stellmacher, & Christ, 2004).

The current study focuses on two key aspects of social identities in the organizational context, which transformational leaders are thought to be capable of priming: identification with the leader (i.e., leader identification) and identification with the immediate group within which they work (i.e., group identification). This anticipated dual effect of transformational leadership on leader identification and group identification is articulated within a comprehensive, theoretically based conceptual framework proposed by Kark and Shamir (2002). Leader identification is described as a self-categorization process that involves an individual defining him or herself in terms of the attributes of the leader, shifting their focus on individual gains to gains for the leader, and experiencing a high level of connection with the leader. It is expected that when a leader exhibits certain transformational leadership behaviours that raise the salience of the leader–follower relationship and increase the distinctiveness of the individual follower, the follower’s sense of identity in relation to the leader is primed.
Such behaviours may include any leader action that is focused on the individual follower, is affective, and considerate of the welfare of the follower (Kark & Shamir, 2002). For example, supportive, developmental, nurturing, and intellectually stimulating behaviours are considered to provide individualized attention to the follower. Such individualized behaviours are likely to enhance the connection between the leader and follower, and to be reciprocated by the individual, resulting in a high level of identification with the leader.

The idea that certain transformational leadership behaviours can foster a strong sense of leader identification is consistent with the dyadic perspective on leadership as illustrated in the leader–member exchange approach to leadership (LMX; Graen & Uhl-Bien, 1995). However, leadership also can be viewed as a group phenomenon whereby a leader is responsible for leading a group of followers as a whole (Shamir et al., 1998). Thus, certain transformational leaders are also considered to be instrumental in establishing a sense of group identification. Group identification involves individuals defining themselves on the basis of the attributes of the workgroup, shifting their focus on individual gains to gains for the group and experiencing a high level of connection with the group. Group identification can be enhanced through transformational leadership behaviours that focus on the group entity, linking the self-concept of the follower to the shared values and identity of the group as a whole (Shamir et al., 1993). Such group-focused behaviours may include expressing a common vision, communicating using collective language (e.g., “we”), and highlighting group membership.

As explained by Kark and Shamir (2002), the theoretical frameworks used to explain the dual influence of transformational leadership on social identities include Shamir et al.’s (1993) self-concept based motivational theory and Lord et al.’s (1999) self-concept based theory of leadership. In Shamir and colleague’s (1993) self-concept based motivation theory of leadership, leader and group identities are explained as two of seven self-concept processes that explain the motivating effects of leadership. In a similar vein, Lord and colleague’s (1999) self-concept based theory of leadership also focuses on the importance of follower identities in explaining the motivational effects of leadership. These theories explain that leaders can have a potent influence on follower’s social identities and that these identities are “powerful determinants of follower behaviour and reactions to leaders” (p. 167; Lord et al., 1999). Indeed, social identification has motivational and behavioural consequences as it is argued that a high level of identification leads the follower to engage in activities that are consistent with the identity group (Ashforth & Mael, 1989). The follower is motivated to participate in these activities because it “clarifies and reaffirms his or her self concept” (p. 325; Shamir, 1990).
The empirical research on transformational leadership and follower identification has generally focussed on group identification, with results supporting its positive link to leadership behaviours. For example, Shamir and colleagues (1998) found that supportive leadership and the group-focused charismatic behaviour of emphasizing collective identity were positively associated with group identification. Whereas supportive leadership was used as a control variable in this particular study, Shamir and colleagues noted that charismatic leader behaviours were more strongly related to group identification compared to leader supportive behaviour, which can be considered as a behaviour that is more individualized in focus. Other studies also have observed links between charismatic leadership and group identification, and provided support for the mediating role of group identification on follower outcomes. For example, de Cremer and van Knippenberg (2002) found that group identification mediated the relationship between self-sacrificial leadership (moderated by procedural fairness) and cooperation. In a later study, the same researchers found that group identification mediated the relationship between self-sacrificial leadership (moderated by leader self-confidence) and follower ratings of leadership effectiveness, cooperation with leader and the group, and job involvement (de Cremer & van Knippenberg, 2004). Conger, Kanungo, and Menon (2000) also showed that the positive relationship between a global measure of charismatic leadership and follower empowerment was mediated by group identification. These results provide support for the mediating role of group identification on the association between charismatic leadership and follower outcomes.

The results from the aforementioned studies suggest that leader behaviours that are more charismatic in nature contribute to the development of group identification, and group identification mediates the effects of these leadership behaviours on follower outcomes. Relatively fewer studies have examined the mediating role of leader identification on the associations between transformational leadership and follower outcomes. Kark et al. (2003) attempted to rectify this situation by investigating both leader and group identification in relation to a global measure of transformational leadership. The researchers argued that eliciting different identities would result in different follower consequences, with leader identification resulting in dependence and group identification resulting in empowerment (Kark et al., 2003). Results provided support for these propositions. Leader identification acted as a mediator between transformational leadership and dependence, whereas group identification acted as a mediator between transformational leadership and empowerment variables.

Although Kark et al.’s (2003) study provides some initial insight into the dual effects of transformational leadership, it also raises a pertinent question about the types of transformational leadership behaviours that are
implicated in each of these effects, especially in relation to personal identification, where transformational leadership exhibited stronger effects. As discussed by Kark and Shamir (2002), the components of transformational leadership that prime identification with the leader should be associated with higher levels of leader identification, whereas certain transformational leadership behaviours that prime identification with the workgroup should be associated with higher levels of group identification. The current study aims to answer this question by specifying the leader behaviours that are associated with leader identification and group identification.

Consistent with Kark and Shamir’s (2002) conceptual framework, we propose that more individualized forms of leadership behaviours (i.e., supportive leadership, intellectual stimulation, and personal recognition) will be positively related to identification with the leader.

**Hypothesis 1:** Supportive leadership is positively associated with leader identification.

**Hypothesis 2:** Intellectual stimulation is positively associated with leader identification.

**Hypothesis 3:** Personal recognition is positively associated with leader identification.

By contrast, leadership behaviours that are group focused are more likely to prime group identification. A leader who expresses an idealized picture of the future based around organizational values (i.e., vision) and who expresses positive and encouraging messages about the organization, and statements that build motivation and confidence (i.e., inspirational communication) is expected to effectively build follower identification with the work group to which they belong. It is the reference to the collective that is inherent in these aspects of leadership that are considered to promote group identification.

**Hypothesis 4:** Vision leadership is positively associated with group identification.

**Hypothesis 5:** Inspirational communication is positively associated with group identification.

The final set of hypotheses relate to the mediating role of follower identification on outcomes. As discussed in the preceding review, prior research has examined the mediating influence of identification on the associations between leadership and various follower outcomes such as follower empowerment, cooperation, and job involvement. The current study examined two key follower outcomes associated with transformational
leadership: job satisfaction and job performance. Leadership theories have emphasized the importance of leaders in building positive employee attitudes towards the job (job satisfaction) and enhancing personal involvement with and productivity at work (job performance). And empirically, research has shown that transformational leadership has a substantial impact on employee job satisfaction and job performance (Barling et al., 1996; Bono & Judge, 2003; Dvir et al., 2002; Lowe et al., 1996). Moreover, followers’ social identities are considered to be strongly related to follower behaviour that is consistent with the identity group (Ashforth & Mael, 1989; Shamir, 1990). In Kark and Shamir’s (2002) conceptual model, they propose that leader identification would be related to efforts to enhance the leader’s well-being and benefits, such as showing loyalty and commitment to the leader, and willingness to cooperate with the leader. Group identification is proposed to lead to enhanced motivation to contribute to the group, such as cooperating and engaging in organizational citizenship behaviours. Whether these motivated work behaviours are directed towards the leader or group, they are likely to result in an increase in job performance. Furthermore, leader identification is expected to enhance the follower’s affective or emotional well-being, and job attitudes in terms of a sense of meaningfulness, job efficacy, self-esteem, and energy. And group identification is proposed to relate to higher levels of group efficacy and cohesion. Prior research has not directly tested the association, but it is likely that both leader and group identification are associated with an increase in job satisfaction due to the positive emotions and attitudes that they elicit.

**Hypothesis 6:** Supportive leadership is positively associated with follower outcomes (job satisfaction and supervisor-rated performance) and these associations are mediated through leader identification.

**Hypothesis 7:** Intellectual stimulation is positively associated with follower outcomes (job satisfaction and supervisor-rated performance) and these associations are mediated through leader identification.

**Hypothesis 8:** Personal recognition is positively associated with follower outcomes (job satisfaction and supervisor-rated performance) and these associations are mediated through leader identification.

**Hypothesis 9:** Vision is positively associated with follower outcomes (job satisfaction and supervisor-rated performance) and these associations are mediated through group identification.

**Hypothesis 10:** Inspirational communication is positively associated with follower outcomes (job satisfaction and supervisor-rated performance) and these associations are mediated through group identification.
METHOD

Participants and procedure

The study was conducted in an Australian community-based healthcare organization that provides human service activities. These services include aged care, domiciliary nursing, respite, accommodation, support, and information services for people of all ages. The services are delivered through a domiciliary nursing service, nursing homes, hostels, independent and supported living units, employment placement for all jobseekers including people with disabilities, day respite care centres, and special programmes. All employees were invited to participate in the study. The study was advertised at group meetings. A research assistant administered surveys at group meetings in the central office and posted out surveys to all employees based at other locations. Reply-paid, university-addressed envelopes were included so that surveys were directly posted back to the university researchers.

Of 500 employees in a not-for-profit community-based healthcare organization, 234 completed surveys were received (46.8% response rate). Forty-four supervisors provided job performance ratings for 179 of these 234 employees. Thus, complete employee–supervisor data was obtained for 179 employees (35.8% response rate). One hundred and forty-nine of the employees were female and 24 were male (six nonrespondents). The age range was 15–79 years, with a mean age of 45.77 years ($SD = 13.05$ years). Most employees were employed on a permanent full-time basis (37%) or a permanent part-time basis (36%), some were employed on a casual basis (13%) and a few were on probation (2%) or under contract (2%)—10% did not disclose their employment status. The amount of time the participants had worked in the organization ranged from 1 month to 30 years, with an average of 5.92 years ($SD = 6.33$ years). The amount of time the employees had worked with their current supervisor ranged from 1 month to 20 years, with an average of 2.36 years ($SD = 3.26$ years).

Seven of the supervisors were male and 37 were female. The age ranged from 24 years to 69 years with an average of 44.25 years ($SD = 10.78$ years). Eighty-three per cent of these supervisors worked on a permanent basis; the remaining 17% were employed on a permanent part-time basis. The supervisors rated between 1 and 13 employees.

Measures

The measurement of variables was separated within a nine-page self-report questionnaire and interspersed with other variables of interest to the larger project. This questionnaire was administered to all employees. Supervisors also received a shorter two-page questionnaire which asked them to provide
ratings of all of his/her employees under his/her direct supervision. These surveys were then linked (by identification code) to employee responses on the self-report survey. Unless otherwise specified, measures used a 5-point scale ranging from “strongly disagree” (1) to “strongly agree” (5).

Leadership. Rafferty and Griffin’s (2004) transformational leadership scale was used to measure supportive leadership (e.g., “My supervisor considers my personal feelings before acting”), intellectual stimulation (e.g., “My supervisor challenges me to think about old problems in new ways”), personal recognition (e.g., “My supervisor commends me when I do a better than average job”), vision leadership (e.g., “My supervisor has a clear understanding of where we are going”), and inspirational communication (e.g., “My supervisor says positive things about the work group”). Three items were used to measure each type of leadership behaviour, except for vision leadership where the reverse-scored item “Has no idea where the organization is going” was removed because it was not internally consistent with the two other items in the scale (it reduced the internal consistency reliability from .84 to .67) and it received a low standardized regression weight (.31) in a one-factor congeneric model.

Similar to that observed by Rafferty and Griffin (2004), the five leader behaviours were moderately to strongly positively correlated with each other, with correlations ranging from .52 to .71. To assess the factor structure of the scale, we conducted several multilevel CFAs which accounted for the nested structure of the data. We conducted multilevel factor analysis and tested competing, theoretically plausible models. The first CFA model included all five factors with the observed items loading onto their respective factor. The fit indices revealed a reasonable fit to the data, $\chi^2 = 150.12$, $df = 67$, $p < .001$, $\chi^2/df = 2.24$, TLI = .94, CFI = .95, RMSEA = .08. All of the items had high standardized regression weights (above .74). Other models were tested to evaluate lower-order factor solutions (i.e., one-, two-, and three-factor models). The one-factor model did not fit the data well, $\chi^2 = 413.50$, $df = 77$, $p < .001$, $\chi^2/df = 5.37$, TLI = .77, CFI = .81, RMSEA = .16. This one-factor model is essentially the one-factor test described by Podsakoff, MacKenzie, Lee, and Podsakoff, (2003). The two-factor model (combination of vision and inspirational communication reflecting more charismatic forms of leadership, and a combination of supportive leadership, intellectual stimulation, and personal recognition reflecting more individualized forms of leadership) also did not fit the data well, $\chi^2 = 392.33$, $df = 76$, $p < .001$, $\chi^2/df = 5.16$, TLI = .80, CFI = .83, RMSEA = .15. The three-factor model (combination of vision and inspirational communication as charismatic forms of leadership, a combination of supportive leadership and intellectual stimulation as individualized form of leadership, and personal recognition as a transactional
form of leadership) also was poor fitting, $\chi^2 = 287.36$, $df = 74$, $p < .001$, $\chi^2/df = 3.88$, TLI = .85, CFI = .88, RMSEA = .13.

**Leader identification.** Identification with the supervisor was measured using the following three items: “I am a person who identifies with my supervisor”, “I am a person who feels strong ties with my supervisor”, and “When I talk about my supervisor, I usually say ‘we’ rather than ‘they’”). These items were from Brown, Condor, Matthews, Wade, and Williams’ (1986) group identification scale and Mael and Ashforth’s (1992) organizational identification scale.

**Group identification.** Group identification was measured using the following three items: “I am a person who identifies with the group”, “I am a person who feels strong ties with the group”, and “I am a person who sees myself as belonging to the group” from Brown et al.’s (1986) group identification scale.

**Job satisfaction.** Employee job satisfaction was measured with three items by Warr (1991). “How satisfied are you with your job?” was measured on a scale from “I am not at all satisfied” (1) to “I am extremely satisfied with my job, and couldn’t be more satisfied” (5), “How much do you enjoy your job?” was measured on a scale from “I don’t enjoy my job” (1) to “I really enjoy my job and I couldn’t enjoy it more” (5), and “How happy are you with your job?” was measured on a scale from “I am not happy” (1) to “I am extremely happy in my job and couldn’t be more happy” (5).

**Supervisor-rated job performance.** Five items developed by Gould (1979) were adapted to measure the level of work performance of employees, as rated by supervisors. Using a 5-point Likert scale from “poor” (1) to “excellent” (5), supervisors were asked to respond honestly and openly to statements concerning the work standards of all of their direct reports. Items included an assessment of quantity, quality, ability, effort, and overall performance. These items included “quality of work he/she does”, “quantity or volume of work he/she does”, “amount of effort devoted to his/her job”, “his/her ability to do the job”, and “his/her overall performance”.

**RESULTS**

**Overview of analyses**

To analyse the data, we followed an adapted two-step procedure (Anderson & Gerbing, 1988) as demonstrated by Jackson (2008), Rowe (2003), Rowe and Hill (1998), Rowe and Rowe (1999). It combines the analytic
approaches of multilevel analysis and structural equation modelling. There were a number of distinct steps to the analyses. First, we conducted one-factor, congeneric measurement models to obtain maximally reliable composite scores. Rowe explains that the use of maximally reliable composite scores is vital in fitting both single- and multilevel regression models (Bryk & Raudenbush, 1992; Goldstein, 1995), and structural equation models (Arbuckle & Wothke, 1999; McDonald, 1978, 1985, 1994). Each of these congeneric measurement models provided factor score regression weights which were used to proportionally weight the raw score ratings on each item in the computation of a composite score. According to Holmes-Smith and Rowe (1994), the reliability of the composite score is maximized if the items are weighted using this method. The maximally reliable composite scores were then recomputed as Normal scores in PRELIS in preparation for fitting a multivariate multilevel model to the data. The purpose of fitting a multivariate multilevel model is to partition the variances and covariances among the model composites into separate individual-level (Level 1) and supervisor-level (Level 2) variance covariance matrices (du Toit & du Toit, 1999; Goldstein & McDonald, 1988; Muthen, 1994; Raudenbush, 1995; Rowe, 2003). The individual-level variance covariance matrix data was used to assess the fit of the hypothesized and alternative models.

Also, for each composite score we computed the “maximized” reliability coefficient (Coefficient H; Werts, Rock, Linn, & Joreskog, 1978). Although Cronbach’s (1951) alpha coefficient is the more traditional internal consistency statistic, it is a lower-bound estimate of reliability for congeneric measures (Miller, 1995; Raykov, 1997, 1998). Bollen (1989) recommends using the “maximized” reliability coefficient, Coefficient H, as an alternative for measuring the reliability of congeneric measures. Munck (1979) showed that the reliability information can be built into the single-indicator structural model, by fixing both the regression coefficients ($\beta_i$s)—the regression of each composite score on its latent variable—and the measurement error variance ($\theta_i$s) associated with each composite score. The advantage of this approach is that the number of parameters to be estimated is reduced, which enhances model robustness.

**Descriptive statistics**

Table 1 reports the means, standard deviations, optimized reliability coefficients, and intercorrelations among the study variables at the individual level (Level 1).

The results of model testing are presented in Table 2. The first model (Model 1) tested was the hypothesized fully mediated model. This model did not fit the data very well, $\chi^2 = 50.13$, $df = 17$, $p < .001$, $\chi^2/df = 2.95$, ...
TLI = .89, CFI = .95, RMSEA = .10. Several alternative theoretically plausible models were tested. First, it was tested whether the two mediators were associated (Model 2a) by including a path between leader identification and group identification. The fit of this model was adequate, $\chi^2 = 34.41$, $df = 16$, $p < .01$, $\chi^2/df = 2.15$, TLI = .94, CFI = .97, RMSEA = .08. Second, a partially mediated model (Model 3) was tested by including direct paths between the explanatory variables and the response variables. This model demonstrated a poor fit to the data, $\chi^2 = 22.63$, $df = 7$, $p < .01$, $\chi^2/df = 3.23$, TLI = .88, CFI = .98, RMSEA = .11. A fully mediated model with both mediators acting as mediators of all leadership behaviours (Model 4) was evaluated. This model also demonstrated a poor fit to the data, $\chi^2 = 36.35$, $df = 12$, $p < .001$, $\chi^2/df = 3.03$, TLI = .89, CFI = .96, RMSEA = .11.

Thus, the best fitting model was the partially mediated model with a path between the two mediators (Model 2a). To evaluate the influence of common method variance, a latent factor was included with all measures for leadership behaviours, leader identification, group identification, and job satisfaction as indicators to this factor (Model 2b). Even though this model revealed poorer fit indices, it was not significantly worse than Model 2a, $\chi^2 = 22.63$, $df = 7$, $p < .01$, $\chi^2/df = 2.55$, $\Delta \chi^2 (\Delta df = 9) = 11.78$, $ns$, TLI = .92, CFI = .98, RMSEA = .09. Model 2a was used to evaluate the study hypotheses and the results are summarized in Figure 1.

Hypothesis 1 proposed that supportive leadership is positively associated with leader identification. This hypothesis was supported, as supportive leadership had a positive relationship with leader identification, $\beta = .38$, $p < .001$. Hypothesis 2 was also supported as intellectual stimulation was

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<th>M</th>
<th>SD</th>
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<th>7</th>
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<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Supportive leadership</td>
<td>3.83</td>
<td>0.91</td>
<td>(.94)</td>
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<td>2. Intellectual stimulation</td>
<td>3.56</td>
<td>0.81</td>
<td>.53†</td>
<td>(.90)</td>
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<td>3. Personal recognition</td>
<td>3.91</td>
<td>0.93</td>
<td>.63‡</td>
<td>.59‡</td>
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<td>4. Vision leadership</td>
<td>3.93</td>
<td>0.82</td>
<td>.52‡</td>
<td>.59‡</td>
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<td>5. Inspirational communication</td>
<td>3.90</td>
<td>0.87</td>
<td>.64‡</td>
<td>.71‡</td>
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<td>.63‡</td>
<td>(.95)</td>
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<td>6. Leader identification</td>
<td>3.53</td>
<td>0.89</td>
<td>.55‡</td>
<td>.49‡</td>
<td>.52‡</td>
<td>.49‡</td>
<td>.53‡</td>
<td>(.90)</td>
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<td>7. Group identification</td>
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<td>0.65</td>
<td>.33‡</td>
<td>.20‡</td>
<td>.31‡</td>
<td>.21‡</td>
<td>.26‡</td>
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<tr>
<td>8. Job satisfaction</td>
<td>3.64</td>
<td>0.94</td>
<td>.43‡</td>
<td>.37‡</td>
<td>.45‡</td>
<td>.36</td>
<td>.47</td>
<td>.47‡</td>
<td>.25‡</td>
<td>(.98)</td>
<td></td>
</tr>
<tr>
<td>9. Job performance (supervisor rated)</td>
<td>3.87</td>
<td>0.81</td>
<td>.31‡</td>
<td>.17*</td>
<td>.38‡</td>
<td>.17*</td>
<td>.17*</td>
<td>.30‡</td>
<td>.15*</td>
<td>.18*</td>
<td>(.96)</td>
</tr>
</tbody>
</table>

*p < .05, †p < .01, ‡p < .001. Coefficient H is in parentheses along the diagonal.
<table>
<thead>
<tr>
<th>Model</th>
<th>Fit statistics</th>
<th>Residuals</th>
<th>Incremental fit indices</th>
<th>Indices of model parsimony</th>
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<tr>
<td></td>
<td>$\chi^2$ (df), $p$-value</td>
<td>Normed $\chi^2$ (df)</td>
<td>RMSEA (PCLOSE)</td>
<td>SRMR</td>
</tr>
<tr>
<td>1. Hypothesized</td>
<td>50.13(17), $p &lt; .001$</td>
<td>2.95</td>
<td>.10 (.005)</td>
<td>.06</td>
</tr>
<tr>
<td>2a. Link between mediators (no CMV)</td>
<td>34.41(16), $p = .005$</td>
<td>2.15</td>
<td>.08 (.08)</td>
<td>.048</td>
</tr>
<tr>
<td>2b. Link between mediators (with CMV)</td>
<td>22.96(9), $p = .006$</td>
<td>2.55</td>
<td>.09 (.06)</td>
<td>.03</td>
</tr>
<tr>
<td>3. Partial mediation</td>
<td>22.63(7), $p = .002$</td>
<td>3.23</td>
<td>.11 (.02)</td>
<td>.048</td>
</tr>
<tr>
<td>4. Mediation through both mediators</td>
<td>36.35(12), $p &lt; .001$</td>
<td>3.03</td>
<td>.11 (.01)</td>
<td>.05</td>
</tr>
</tbody>
</table>
positively associated with leader identification, $\beta = .23$, $p < .05$. Hypothesis 3 was supported as personal recognition was positively associated with leader identification, $\beta = .22$, $p < .05$. Hypothesis 4 and 5 were not supported as vision leadership, $\beta = -.04$, ns, was not positively associated with group identification, and inspirational communication, $\beta = .04$, ns, was not positively associated with group identification. The lack of support for Hypotheses 4 and 5 meant that the mediation Hypotheses 9 and 10 also were not supported.

The significance of standardized indirect effects was used to evaluate the mediation hypotheses for supportive leadership (Hypotheses 6), intellectual stimulation (Hypothesis 7), and personal recognition (Hypothesis 8). There was a significant mediating effect via leader identification for the associations between supportive leadership and job performance (Standardized Indirect effect $= 0.14$, $p < .01$, 95% CI $= .08$; .23), supportive leadership and job satisfaction (Standardized Indirect effect $= 0.21$, $p < .01$, 95% CI $= .12$; .32), intellectual stimulation and job performance (Standardized Indirect effect $= 0.08$, $p < .01$, 95% CI $= .03$; .17), intellectual stimulation and job satisfaction (Standardized Indirect effect $= .12$, $p < .01$, 95% CI $= .04$; .21), personal recognition and job performance (Standardized Indirect effect $= 0.08$, $p < .05$, 95% CI $= .02$; .16), personal recognition and job satisfaction (Standardized Indirect effect $= 0.21$, $p < .05$, 95% CI $= .03$; .23). Hypotheses 6, 7, and 8 were supported.

**DISCUSSION**

Follower identification processes have been identified as one of the core mechanisms by which transformational leaders have a positive influence on
followers (Kark & Shamir, 2002; Shamir et al., 1993; van Knippenberg et al., 2004). Leading theorists have argued that effective leaders can behave in ways to enhance follower’s sense of identification with the workgroup–
group identification, as well as to promote a stronger sense of identification
with the leader–leader identification. It is via the enhancement of group or
leader identification that positive outcomes may be realized. The current
study tested this proposition by examining the influence of five specific
leader behaviours on job satisfaction and job performance, mediated
by leader and group identification. Overall, the results supported the
hypotheses in relation to the mediating role of leader identification, but did
not support the hypotheses in relation to the mediating role of group
identification. The results revealed differential patterns of associations
across the leader behaviours which suggest that future leadership research
needs to focus on specific leader behaviours as opposed to global leadership
styles.

Leader identification as a mediator of supportive leadership,
intellectual stimulation, and personal recognition on follower
outcomes

In line with Hypothesis 1, supportive leadership was positively associated
with leader identification. This result is consistent with past research,
which has observed a positive relationship between leader supportive
behaviour and identification with and trust in the leader (measured as a
combined scale: Shamir et al., 1998). It also confirms Kark and Shamir’s
(2002) theoretical discussion that leadership which provides individualized
support and help can engender feelings of identification with the leader.
Similarly, Hypothesis 2 was supported in that intellectual stimulation
was positively associated with leader identification. Intellectual stimulation
is another form of leadership which is considered to prime follower’s
identification with the leader (Kark & Shamir, 2002). When leaders
encourage followers to exercise their intellect (by asking questions
and thinking about problems in new ways), it may signify to followers
that the leader is individually concerned about the welfare, growth,
and development of the follower. Furthermore, the results provided
support for the mediating role of leader identification on the association
between supportive leadership (Hypothesis 6), intellectual stimulation
(Hypothesis 7), and job satisfaction and supervisor-rated performance.
Leaders who provided more support to followers, and encouraged
followers to critically and independently evaluate issues, tended to have
followers who felt closer ties with the leader and this sense of identity was
associated with higher level of job satisfaction as well as higher supervisor-
rated performance.
Hypothesis 3 also was supported, whereby personal recognition was positively related to leader identification. Personal recognition is considered to be transformational in its effects and certainly, this effect can be observed by its strong and positive, indirect association with job satisfaction and job performance. Although it is conceptually related to transformational leadership, it is important to consider that personal recognition has its origins in transactional leadership, as it relates to the provision of contingent reward for performance. The fact that of the five leadership behaviours, personal recognition had the largest correlation with job performance, \( r = .38 \), is consistent with its more transactional basis compared to the four other traditionally transformational leadership behaviours.

The results provided support for Kark and Shamir’s (2002) contention that certain leader behaviours may be likely to engender leader identification. The behaviours that were individualized (supportive leadership, intellectual stimulation, and personal recognition) appeared to have strong associations with leader identification. While vision leadership, \( r = .49 \), and inspirational communication, \( r = .53 \), were similarly positively correlated with leader identification, the analyses showed that the model (which included paths between these behaviours and leader identification) was not a good fit to the data (Model 5). This pattern of results suggests that when more individualized leader behaviours are present, then vision leadership and inspirational communication have nonsignificant effects.

The results for supportive leadership contrast with the findings of Rafferty and Griffin (2004, 2006), who raise the question whether supportive leadership is transformational in its effect. In their analysis, it was observed to have a weaker impact on various motivational outcomes (e.g., commitment, helping, role breadth, self-efficacy) as compared to the other leader behaviours. However, the results of the current study indicate that supportive leadership’s effects were the strongest of all leadership behaviours. This divergent result may be explained by the nature of the sample. The current study was conducted in a healthcare organization where there may be a benevolent norm of supporting and helping others, and where support is valuable in effectively completing one’s job. In comparison, Rafferty and Griffin’s studies were conducted in public-sector companies related to the provision of road infrastructure and building/capital works policy implementation. Indeed, the mean for supportive leadership does show that leaders tended to provide more support in the current study compared to the studies of Rafferty and Griffin. The mean value of supportive leadership in Rafferty and Griffin’s studies was 2.90 (Rafferty & Griffin, 2004) and 3.27 (Rafferty & Griffin, 2006), whereas the mean was 3.84 in the current study. Thus, it may be that the importance and influence of supportive leadership varies according to the nature of the work due to a different value placed on that style of leadership for completing one’s work.
Group identification as a mediator of inspirational communication and vision on follower outcomes

Hypotheses 4 and 5 were not supported as inspirational communication and vision were not significantly associated with group identification. In fact, all of the hypotheses in relation to inspirational communication and vision were not supported which raises questions about the utility of inspirational communication and vision in comparison to the other leader behaviours. Certainly, the correlations showed that inspirational communication and vision were significantly associated with group identification, \( r_s = .26 \) and \( .21 \), as well as job satisfaction, \( r_s = .47 \) and \( .36 \), and supervisor-rated job performance, \( r_s = .17 \) and \( .17 \). However, when all leader behaviours were included in the path model, the effects of inspirational communication and vision were negligible.

It may be that, in a healthcare organization, the other more individualized forms of leader behaviours were more influential on employees in terms of their sense of identity, satisfaction, and performance. Certainly, research that has examined group identification as a moderator of the effects of leadership has suggested that as followers define themselves more in collective or social terms, and as the group-related aspects of leadership become more important, then the more individualized, interpersonal aspects of leadership become less influential (Hogg, 2001; Hogg & van Knippenberg, 2003; van Knippenberg & Hogg, 2003). Thus, the reverse may be also true: when followers identify with the leader and where the relational aspects of leadership are more important, the individualized, interpersonal aspects of leadership may become more powerful.

Another explanation is that since inspirational communication and vision aim to arouse followers’ emotions and motivation there may be more relevant affect-based mediating mechanisms such as self-efficacy, self-esteem, hope, optimism, and resiliency (Luthans & Youssef, 2007; van Knippenberg et al., 2004). It is recommended that future research explores the role of these positive state-like psychological resources as potential mediators of the association between inspirational communication and vision, and follower outcomes.

The fact that none of the leadership behaviours were directly related to group identification is somewhat consistent with Kark and colleague’s (2003) finding that transformational leadership was more strongly related to leader identification compared to group identification. The findings suggest that leaders may have a stronger influence on leader identification compared to group identification. This is not surprising as group identification may be influenced by other factors outside the leader’s control (e.g., group member composition). In comparison, a follower’s sense of identification with the leader may be largely influenced by the follower’s
perceptions of, and attitudes surrounding the leaders’ behaviour. Also, our findings extend Kark and colleagues result to reveal the specific types of leader behaviours that contribute to the relatively stronger association with leader identification—supportive leadership was a very strong predictor, $\beta = .38$, $p < .001$, and intellectual stimulation $\beta = .23$, $p < .05$, and personal recognition, $\beta = .22$, $p < .05$, were also positive correlates.

Rather than vision and inspirational communication, it was the more individualized forms of leadership which were associated with group identification, albeit via leader identification. Thus, in this study, the effect of leadership behaviours on group identification appeared to be indirect (via leader identification). This result contributes to the current empirical findings and theoretical discussion by suggesting that the association between certain transformational leadership behaviours and group identification is mediated by leader identification. When individuals received supportive leadership, intellectual stimulation and were recognized and rewarded for their work performances, they tended to develop stronger ties with their supervisor, which also was associated with stronger identification with the workgroup. This particular pattern suggests greater complexities in the psychological mechanisms underlying the effects of transformational leadership behaviours, whereby different self-concept variables may impact on each other before a transformational effect is observed.

Of note is that group identification was not associated with job satisfaction or performance. Previous research examining the mediating role of group identification has observed outcomes such as improved co-operation, perceptions of leadership effectiveness, follower empowerment and job involvement (Conger et al., 2000; de Cremer & van Knippenberg, 2002g, 2004; Kark et al., 2003). It may be the case that group identification does act as an intermediary variable in explaining the motivational effects of leadership, but perhaps more selectively on more group-related constructs. Future research may wish to explore outcomes that may be considered more group focused, such as cooperation and cohesion.

**Practical implications**

Overall, the study’s findings are largely consistent with previous theoretical discussion and empirical work on the mediating role of identification on the association between leadership behaviours and follower outcomes (Kark & Shamir, 2002; Kark et al., 2003). However, the findings extend this literature by articulating the specific leadership behaviours that may be implicated in these mediating processes. Supportive leadership, intellectual stimulation and personal recognition had significant positive relationships
with job satisfaction and supervisor-rated job performance, mediated by leader identification. However, inspirational communication and vision leadership did not have significant effects. By revealing which leader behaviours have more or less of a role in enhancing follower satisfaction and performance, leadership training programs may be better equipped to efficiently target efficacious behaviours. In particular, the results indicate that behaviours which are more individualized and supportive are associated with enhanced job performance and job satisfaction. For leaders who wish to improve productivity and create a more satisfied workforce, the results indicate that their energies are best directed towards individualized leadership behaviours that are tailored to the needs of the follower. In comparison to inspirational communication and vision, the individualized behaviours may be easier to develop, as they require the leader to provide task and emotional support, recognition and praise, and to ask questions of, or provide challenges to followers. Arguably, teaching leaders how to behave in a visionary way and to communicate with inspiration is a more difficult undertaking.

Although the current study’s findings suggest that individualized leadership behaviours are more important than group-focused behaviours, it is emphasized that the findings should be considered in light of the context of the organization. The current study was conducted within the health sector, so the findings may be of special relevance to leaders who work in a healthcare environment. There may be greater imperative for leaders in the healthcare setting compared to other organizational settings, to model expected behaviours of care, concern, and recognition for individual followers. The climate within healthcare organizations emphasizes the need to take care of others, and to be considerate of the welfare and well-being of others. Therefore, it is an environment where individualized behaviours may be encouraged, supported, and valued, compared to the group-focused behaviours of inspirational communication and vision. Also, it may be that individualized behaviours are more important within a fairly stable, unchanging organizational environment where individuals’ roles and performance targets are clearly defined, and where there is little pressure to increase profit. It is likely that group-focused leadership behaviours are important in other organizational settings. For example, organizational settings that are dynamic, changing, ambiguous, and entrepreneurial may require leaders that behave with inspiration and vision. Thus, the benefits of individualized versus group-focused behaviours may depend on the goals and values of the organization within which they work. For practising leaders, it is important to recognize that different behaviours may be appropriate in different situations and to strengthen their capacity to adapt to these situations in an effective way.
Methodological strengths, potential limitations, and future research

A strength of the current study is that it was conducted with employees and supervisors in ongoing relationships working in a healthcare organization. Given the specific context of the study, however, the findings may be only generalizable to the healthcare industry. As already discussed, different industries can have quite different organizational climates, which may have an impact on which types of leadership are effective in motivating employees. Future research should examine the model in a variety of different organizations, and measure organizational climate or values. It may be hypothesized that where an organization values altruism and support, then leaders who exhibit supportive behaviours may be most effective. Another prediction is that organizations that are change focused and creative may benefit from leaders who set a vision, inspire followers through conversation and positive language.

A key strength of the research is that supervisor ratings of job performance were obtained. This is a specific suggestion made by Podsakoff et al. (2003) to control for common method biases. Obtaining ratings from supervisors is resource-intensive, but researchers in this area are encouraged to continue to collect objective measures to reduce the influence of common method variance. It should be noted that although the portion of the model with respect to supervisor-rated job performance was less susceptible to common method variance biases, the mediating model including job satisfaction was vulnerable to these biases. This is because the leadership behaviours, identification variables, and job satisfaction were collected in a cross-sectional survey self-rated by employees. Thus, the direction of causality between these variables cannot be fully established and the observed relationships also may be inflated due to certain rater errors such as consistency motif or implicit theories (Podsakoff et al., 2003). To disentangle the direction of effects and reduce the influence of rater errors, a longitudinal panel-type designed study should be conducted to identify whether leadership behaviours at Time 1 are associated with identification and job satisfaction at later points in time, while controlling for leadership behaviours at these later time points. Additionally, obtaining measures of leadership behaviours, identification, and outcomes from different sources would assist in controlling for same rater errors. In the current study, the single-common-method-factor approach was used to evaluate the statistical effects of common method variance (Podsakoff et al., 2003). It resulted in a model that was not significantly better than the best fitting model, and a comparison between the pathways in these models showed that there were no significant differences.
Although identification processes provided an explanation for the effects of leadership on follower outcomes in the current study, it does not preclude the role of other variables, such as the self-concept variables of self-efficacy, self-esteem, and self-consistency (de Cremer, van Knippenberg, van Dijke, & Bos, 2006; van Knippenberg et al., 2004). Thus, the current studies’ findings, while in support of the mediating role of leader and group identification, do not deny that other processes may be at work. Future research should simultaneously explore several mediators, including different levels of identification. Findings from such research would reveal which processes are more or less important in explaining the positive outcomes of effective leadership.

Also, we encourage researchers to broaden the types of outcomes measured, beyond those typically studied. For example, the literature on work stress has started to examine the role of leader behaviour in improving follower psychological well-being (Arnold, Turner, Barling, Kelloway, & McKee, 2007; van Dierendonck, Haynes, Borrill, & Stride, 2004). Follower cooperation also has been examined (de Cremer & van Knippenberg, 2002, 2004) and there are other organizational citizenship behaviours that can also be investigated (e.g., civic virtue behaviour). Given the motivational effects implied in discussions of effective leadership, it may be important to also measure follower’s autonomous motivation (Bono & Judge, 2003; Gagne & Deci, 2005).

It also is suggested that research continue to explore the underlying dynamics of destructive leader behaviours, which has received comparatively less research attention than transformational leadership (Aryee, Chen, Sun & Debrah, 2007; Einarsen, Aasland, & Skogstad, 2007; Kelloway, Sivanathan, Francis, & Barling, 2005; Skogstad, Einarsen, Torsheim, Aasland, & Hetland, 2007; Tepper, 2000; Zellars, Tepper, & Duffy, 2002). Given the overwhelming negative consequences of destructive forms of leader behaviours, it would be interesting to see whether similar processes explain the effects of destructive leadership. For example, justice has been implicated in both sets of literature (Aryee et al., 2007; de Cremer, van Dijke, & Bos, 2007; Pillai, Schriesheim, & Williams, 1999; Tepper, 2000; van Knippenberg, de Cremer, & van Knippenberg, 2007).

Another possibility for future research is to examine whether the group-focused leadership behaviours of vision and inspirational communication are associated with greater consensus (agreement) in ratings of leadership among group members, compared to the individual-focused leadership behaviours. A similar argument has been proposed for LMX, where Schyns, Maslyn, and Weibler (2010) propose that in large groups (where leaders have large spans of control), the LMX dimensions of loyalty and professional respect are expected to receive high consensus.
ratings, whereas the LMX dimensions of affect and contribution should receive low consensus ratings. Loyalty and professional respect are considered to be attributes of a leader and followers can develop these perceptions from a distance (as in a group situation)—they do not necessarily have to have direct one-on-one contact with the leader to establish their views regarding loyalty and professional respect. By contrast, the LMX dimensions of affect and contribution implicitly require frequent and direct interaction between the follower and leader. These propositions may also hold for the transformational leader behaviours examined in the current study. Vision and inspirational communication can be viewed as perceptions of behaviours that can be developed by observing the leader’s interactions at the group-level—thus, the consensus among group members should be high. By contrast, supportive leadership, intellectual stimulation and personal recognition require an individual’s appraisal of their personal relationship with the leader. As such, the consensus among group members with respect to these behaviours is expected to be low.

CONCLUSION

In summary, this research provided an identity-based analysis of the effects of specific leader behaviours on follower outcomes. The current research has addressed some of the key future research directions as described by van Knippenberg and colleagues (2004). It has addressed the call to focus on specific leader behaviours, and multiple mediating processes. It has shown that leader and group identification processes are affected to varying degrees by specific leader behaviours, and that leader identification is a more common explanatory mechanism—at least in the context of the organization examined in this study. Future research should explore the underlying psychological processes of followers in more depth and breadth, as well as take account of contextual/climate factors that may determine which leader behaviours are more beneficial for followers.

REFERENCES


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