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Publisher's version / Version de l'éditeur:

Journal of Occupational and Organizational Psychology, 78, March 1, pp. 141-147, 2005-03-01

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NRCC-46972

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March 2005

A version of this document is published in / Une version de ce document se trouve dans:
Journal of Occupational and Organizational Psychology, 78, (1), March, pp.
141-147

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The role of Leader-Member Exchanges in mediating the relationship between locus
of control and work reactions

Martin, R.,¹ Thomas, G.,² Charles, K.,³ Epitropaki, O.,⁴ & McNamara, R.²

¹ School of Psychology, University of Queensland, Brisbane, Australia

² School of Psychology, Cardiff University, UK

³ Institute for Research in Construction, National Research Council, Ottawa, Canada

⁴ Athens Laboratory for Business Administration, Athens, Greece

Address for correspondence:

Dr Robin Martin

School of Psychology

University of Queensland

Brisbane QLD 4072, Australia

tel. +61 7 3365 6392

fax. +61 7 3365 4466

email r.martin@psy.uq.edu.au

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Abstract

The relationship between locus of control, the quality of exchanges between subordinates and leaders (LMX) and a variety of work-related reactions (intrinsic/extrinsic job satisfaction, work-related well-being, and organisational commitment) are examined. It was predicted that people with an internal locus of control develop better quality relations with their manager and this, in turn, results in more favourable work-related reactions. Results from two different samples ($n = 404$ and $n = 51$) supported this prediction and also showed that LMX either fully, or partially, mediated the relationship between locus of control and all the work-related measures.

Introduction

Leader-member Exchange theory (LMX) represents a theoretical approach to understanding leadership at work (Gerstner & Day, 1997; Graen & Uhl-Bien, 1995; Liden, Sparrowe & Wayne, 1997; Schriesheim, Castro & Cogliser, 1999). LMX differs from other leadership theories by focusing on the dyadic relationship between the leader and subordinate (member). Originally, leadership theorists believed that a leader displayed the same style to all his/her subordinates (termed the Average Leadership Style approach) while the LMX approach argues that leaders develop relationships of different quality with their subordinates and this affects a range of individual and organisational outcomes. Low quality LMX relationships, sometimes termed 'out-group exchanges' (Dansereau, Cashman & Graen, 1973), are ones where individuals are disfavoured by the leader and, as such, they receive fewer valued resources. Exchanges between the leader/subordinate simply follows the employment contract with little attempt by the leader to develop or motivate the subordinate. In contrast, high quality LMX relationships, referred to as 'in-group' exchanges (Dansereau et al., 1973), are ones where individuals are favoured by the leader and where they receive many valued resources. Exchanges between the leader/subordinate go beyond the formal work contract and involve managers showing influence and support, and where the subordinate is given more autonomy and responsibility.

Research on LMX has tended to either examine antecedent factors predicting the LMX relationship or the relationship between LMX and outcome factors. Relatively little research has examined these perspectives together within a theoretical explanation linking antecedent factors, LMX and outcome factors (Epitropaki & Martin, 2004). Of the antecedent factors that have been examined in relation to LMX, it is worth noting that relatively little attention has been directed towards the role of individual difference (Liden et al., 1997) even though there are theoretical reasons to include such variables (see Bauer & Green, 1996; Yukl, 1989). In this paper, we focus on one such factor that is implicated in LMX development, locus of control, which is concerned with the amount of control people believe they have over their environment. People with an internal locus of control believe that they can influence their environment and that their actions

affect what happens to them. On the other hand, people with an external locus of control believe that they have little influence over the environment and what happens to them is due to external factors (such as, luck or the actions of others).

In this paper we focus on the relationship between one antecedent factor (namely, locus of control) and how LMX might mediate the relationship between this and outcome factors. We are proposing that people with an internal locus of control develop good quality LMX relationships with their manager and that this leads to positive work-place reactions (such as, job satisfaction). This prediction rests on establishing the following three relationships (a) locus of control (antecedent) predicts LMX, (b) locus of control predicts outcome reactions, and (c) LMX predicts outcome reactions. If these relationships occur we can then test the potential mediating role of LMX in the relationship between locus of control and outcome reactions. While a full explanation of this theoretical process is beyond the scope of the present article, in the next section we briefly outline our arguments to support these individual relationships.

Since it is known that followers' behaviours can affect the LMX relationship (e.g., Deluga & Perry, 1991), then we would expect that people who believe they can control their working environment (and affect their interactions with others) should develop better quality relationships with their manager. Consistent with this view is evidence that people with an internal locus of control engage in more upward influencing tactics with their manager, i.e. strategies to change their manager's behaviour (Kapoor, Ansari & Shukla, 1986; Ringer & Boss, 2000; Schilit, 1986) and also use more task-oriented coping strategies (Anderson, 1977) compared to externals. Therefore, internals may perceive that they are more in 'control' of the quality of the relationship with their manager and, since they use more adaptive coping strategies, be perceived as more proactive and deal better with stressful situations. Based on this we would predict that internals would develop better quality relations with their manager than do externals, relationship (a) above.

The concept of locus of control has received a lot of attention in the organisational literature (Spector, 1982) and it has been shown to be related to a variety of work-related

reactions (such as, job satisfaction and organisational commitment, Judge & Bono, 2001; Judge, Locke, Durham & Kluger, 1998; Spector, 1986; 1988; Spector, Cooper, Sanchez, et al., 2002). As one might expect, people with internal locus of control report higher levels of job satisfaction and organisational commitment, relationship (b) above. The relationship between LMX and outcome factors has been supported in a meta-analytic review by Gerstner and Day (1997) who show that there is a reliable relationship between the quality of exchanges between subordinates and their managers and a range of psychological reactions. Thus, having a positive relationship with one's manager leads to positive reactions to work, relationship (c) above.

We now turn to consider the potential mediating role of LMX between locus of control and the outcome factors. Kinicki and Vecchio (1994) report one of the few studies to examine the role of locus control on LMX relationships. Consistent with the above analysis, they found that LMX mediated the relationship between locus of control and organisational commitment. However, Kinicki and Vecchio (1994) analysed the unit mean scores for the measures (that is, averaged across individuals for each manager) thus greatly reducing the sample size and variance in the LMX ratings (for an alternative approach see Cogliser & Schriesheim, 2000). Since LMX theory is a dyadic analysis, with managers developing individuals' quality relationships with each subordinate, it is appropriate to analyse the potential mediating role of LMX at the individual level. Furthermore, Kinicki and Vecchio (1994) only examined one outcome, organisational commitment, and ignored the statistically strong relationship between locus of control and job satisfaction (Judge & Bono, 2001). In this research, we explore the potential mediating role of LMX in the relationship between locus of control and a range of potential outcomes in two cross-sectional studies.

Method

Participants. Data were collected from two samples of participants.¹ Sample A consisted of 404 employees who worked in a head office, based in the Midlands of the UK, of a large financial services organisation. Sixty-six percent of the sample were female with the average age and organisational tenure being 31 and 6.83 years respectively. Sample B consisted of 51

administrative staff members of a head office of a utilities company based in South Wales.

Thirty-three percent of the staff were female and the average age and organisational tenure were 36.8 and 14.83 years respectively. Each sample consisted of a range of administrative jobs from semi-skilled to senior management.

Procedure. For each sample, questionnaires were distributed to participants at work with full instructions for completion. To ensure confidentiality, the participants were not required to give their name or any information that could identify themselves. The participants were asked to return the completed questionnaire in a sealed envelope to the research team either directly through the post or via a member of staff (who would then forward them to the research team). The response rate for samples A and B was 54% and 39% respectively.

Measures. The same measures were used in both samples (Cronbach's alpha for internal consistency for sample A and B are given after each measure). Locus of control was measured using the 8-item internal control dimension of Spector's (1988) Work Locus of Control Scale (see also Macan, Trusty & Trimble, 1996) (alphas of .72/.76). To assess the quality of Leader-Member Exchange, the LMX7 was used (Graen & Uhl-Bien, 1995) (alphas of .91/.95). Intrinsic and extrinsic job satisfaction was measured using two 7-item scales developed by Warr, Cook and Wall (1979) (alphas of .76/.74 and .83/.82). Intrinsic job satisfaction refers to the level of satisfaction with various elements of ones's job (e.g., recognition you get for good work, opportunity to use your abilities) while extrinsic job satisfaction refers to the level of satisfaction with organisational factors (e.g., hours of work, physical work conditions). Work-related well-being was measured using Warr's (1990) 12-item combined job-related anxiety-comfort and depression-enthusiasm scales (alphas of .89/.89). Organizational commitment was measured with a 9-item scale developed by Cook and Wall (1980) (alphas of .83/.88).

Statistical analysis. The hypothesis that LMX acts as a mediator between locus of control and outcome variables was tested via a series of regression analyses. According to Baron and Kenny (1986), four conditions must be met in order to conclude that mediation has taken place. First, the independent variable (locus of control) must affect the mediator (LMX); second, the

mediator must affect the dependent variables (intrinsic/extrinsic job satisfaction, work-related well-being, and organisational commitment) whilst controlling for the independent variable; third the independent variable must affect the dependent variables, and fourth, the relationship between the independent variable and the dependent variable (step 3) must either reliably reduce (the reduction can be tested with the Sobel test, 1982, see Baron & Kenny, 1986) or become nonsignificant when the mediator is controlled.

Results and Discussion

The results for the mediation analyses are reported in same order as the four steps indicated above and for samples A and B respectively. The first condition for mediation, namely a reliable relationship between locus of control and LMX, was found for each sample, $\beta = .394$, $p < .001$ and $\beta = .435$, $p < .01$. The more respondents rated themselves as having an internal locus of control, the better they perceived the quality of their relationship with their manager. The second condition for mediation, LMX would predict the dependent variables whilst controlling for locus of control, was found for (a) intrinsic job satisfaction, $\beta = .554$, $p < .001$ and $\beta = .706$, $p < .001$, (b) extrinsic job satisfaction, $\beta = .475$, $p < .001$ and $\beta = .531$, $p < .001$, (c) work-related well-being, $\beta = .414$, $p < .001$ and $\beta = .389$, $p < .01$, and (d) organisational commitment, $\beta = .426$, $p < .001$ and $\beta = .414$, $p < .01$.

The third and fourth steps test for mediation and this occurs if the significant relationship between locus of control and the dependent variable (step three) either reliably reduces or becomes nonsignificant when controlling for LMX (step four). The condition for mediation was met for (a) intrinsic job satisfaction, $\beta = .469$, $p < .001$ being reduced to $\beta = .247$, $p < .001$ (Sobel test, $t = 6.93$, $p < .001$) in Sample A and $\beta = .516$, $p < .001$ being reduced to $\beta = .209$, $p < .04$ (Sobel test, $t = 2.93$, $p < .003$) in Sample B, (b) extrinsic job satisfaction, $\beta = .356$, $p < .001$ being reduced to $\beta = .168$, $p < .001$ (Sobel test, $t = 5.54$, $p < .001$) for Sample A but no mediation for Sample B, (c) work-related well-being, $\beta = .281$, $p < .001$ being reduced to $\beta = .117$, $p < .05$ (Sobel test, $t = 6.15$, $p < .001$) in Sample A and $\beta = .531$, $p < .001$ being reduced to $\beta = .361$, p

<.05 (Sobel test, $t = 2.88$, $p < .01$) in Sample B, and (d) organisational commitment, $\beta = .309$, $p < .001$ being reduced to $\beta = .141$, $p < .01$ (Sobel test, $t = 6.35$, $p < .001$) in Sample A and $\beta = .468$, $p < .001$ being reduced to $\beta = .287$, $p < .05$ (Sobel test, $t = 2.27$, $p < .05$) in Sample B. The condition for mediation was not met for extrinsic job satisfaction in Sample B as there was not a reliable reduction in beta-weights between steps three and four, $\beta = .620$, $p < .001$ not reliably reducing to $\beta = .389$, $p < .001$.

Consistent with our hypotheses, the relationship between internal locus of control and intrinsic/extrinsic job satisfaction, work-related well-being, and organisational commitment was mediated by perceptions of LMX relations (the latter finding replicates Kinicki & Vecchio, 1994). The fact that LMX acted as a partial mediator shows there might also be a direct relationship between locus of control and outcome factors or that additional variables, other than LMX, accounted for the relationship.

Our explanation for these results revolves around the different types of relationships people with an internal vs. external locus of control develop with their manager. Previous research has shown that internals are more likely to use upward influencing tactics on their manager (Ringer & Boss, 2000) and use more task-oriented coping strategies (Anderson, 1977) compared to externals. Therefore, since internals may perceive that they are more in 'control' over their interactions with their manager, and because they tend to be more adaptive in dealing with task-related problems, they develop better quality LMX relations compared to externals.

In summary, these results show that locus of control is an important antecedent of the quality of relationship which people develop with their manager and this determines a range of work-related reactions. Whilst one cannot rule out a range of methodological problems associated with cross-sectional research (such as, common method variance), the consistency in these findings across the two different samples increases our confidence of the validity of these effects. Our explanation for the results, given above, clearly goes beyond the current findings but we believe this helps to shape a research agenda for the future. The next stage of research, we

believe, should focus more closely on the antecedents of LMX, such as locus of control, to more fully understand how subordinate-manager exchanges develop at the dyadic (Graen, & Uhl-Bien, 1995) and workgroup (Hogg & Martin, 2003) levels.

Footnotes

¹ The collection of data from each sample was conducted by different researchers at different times and therefore it was not possible to combine them.

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