

AN EMPIRICAL ASSESSMENT OF THE CONSTRUCT "WORK LOCUS OF CONTROL"

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ABSTRACT

This study is concerned with the domain specificity of the locus of control construct within the workplace. The research investigated whether Spector's (1988) work locus of control scale, a work centred conceptualisation of Rotter's (1966) locus of control measure, demonstrated evidence of criterion - related validity. This was done by assessing its relationship to leader-member exchange and organisational commitment. The results indicated that work locus of control correlated with both leader-member exchange and organisational commitment and that leader-member exchange acted as a mediator of the relationship between work locus of control and organisational commitment. This is consistent with results from a similar study undertaken by Kinicki & Vecchio (1994) who employed Rotter's (1966) general locus of control measure. The current research demonstrated stronger relationship than Kinicki & Vecchio's (1994) study, which suggests that Spector's (1988) domain specific scale may predict work behaviour more precisely than Rotter's (1966) more general measure.

The central concern of the present study is with the domain specificity of the locus of control construct, within the organisational context. The research focussed specifically on assessing the criterion related validity of Spector's work locus of control scale, which is the only domain specific measure of locus of control for use in organisational settings, and whose psychometric properties have not been well researched.

Organisational studies investigating the locus of control construct have been dominated by Rotter's (1966) locus of control scale. However, Rotter's (1966) scale has been the subject of some criticism among researchers, concerning the uni-dimensionality and generality of the construct measured (Collins, 1974; Gurin, Gurin & Morrison, 1978; Nowicki, 1976). Other concerns have related to the stable, trait-like nature of the locus of control beliefs (Davis & Davis, 1972; Gilmore & Minton, 1974; O'Brien & Kabanoff, 1979; Sandler & Lakey, 1982). In response to such concerns, Rotter (1975;1990) has argued that users of his locus of control scale have not fully grasped the theory in which the construct is rooted and that much of the recent research on locus of control has not been associated with social learning theory, which serves as its foundation.

Locus of control or perceived external versus internal control of reinforcement is a personality variable which denotes the degree to which individuals perceive that they control or are controlled by their environment (Rotter, 1966). As a personality variable, locus of control has been subject to much of the controversy that historically has surrounded personality theory and research i.e. whether individual differences or situations are the main determinant of behaviour. Briefly, the type, trait and psycho-dynamic models of personality assume that behaviour is determined by latent, stable dispositions (internal factors) whereas situationists and many social learning theorists assume that behaviour is determined by situational or external factors (Endler & Edwards, 1978). Those theorists who argue that behaviour is determined by internal factors regard these factors as stable, enduring and generalisable across situations, whereas those who see behaviour as situationally determined argue that responses to the environment are domain specific and thus change according to the situation. Endler (1976), however, argues that the problem of whether individual differences or situations are the major source of behavioural variance is a pseudo issue. He suggests that because of the complex nature of human personality, a more useful paradigm than the trait or the situational perspective is an interactionist one, which examines how persons and situations interact in eliciting behaviour. In terms of the interactionist perspective, notions of stability (generality) in personality and variability (specificity)

are a matter of degree not kind, much like a continuum. The question now arises as to where locus of control falls within the personality debate. According to Rotter (1954), a fundamental tenet underlying social learning theory, and thus the locus of control construct, is that "the unit of investigation for the study of personality is the interaction of the individual and his/her meaningful environment" (p.85). Rotter states further that to deal accurately with behaviour, both personal determinants and environmental determinants must be acknowledged. Traits, needs and habits are not sufficient; situational parameters need to be examined (Phares, 1976). Thus, Rotter (1981) clearly postulates that social learning theory, and hence locus of control, is located within an interactionist position. Such an understanding of the locus of control construct opposes of uni-dimensionality and stability in locus of control beliefs.

Consistent with the above conceptualisation of the locus of control construct, both Rotter (1975) and Phares (1976) have called for the development of domain specific measures of locus of control rather than general measures which assume stability and generality of the locus of control construct. Researchers have responded to these appeals by developing or adapting existing locus of control measures for each behaviour and domain deemed to be worth predicting. This has now led to a "plethora" of locus of control scales developed for domain specificity (Furnham & Steele, 1993). Spector's (1988) work locus of control scale is the only locus of control scale developed for the work setting. Thus, while locus of control is conceptualised as a general expectancy that rewards or outcomes are controlled either by one's own actions (internals) or by other forces (externals), the construct of work locus of control is focussed on the workplace and is specifically concerned with organisational rewards or outcomes such as promotions, salary increases and general career advancement. In an attempt to validate the work locus of control scale, Spector (1988) correlated his measure against work variables which had been correlated previously with Rotter's (1966) scale. He reported that many of the correlations between work locus of control and organisational variables were stronger than the correlations observed between those same variables and the more general locus of control scale of Rotter. However, at this point there has been relatively little subsequent research which has used the work locus of control scale. The little research that has been done (for example, Blau, 1993; Orpen, 1991) has confirmed Spector's (1988) findings that the work locus of control scale evinces stronger relationships with a variety of organisational variables than the more general locus of control scale of Rotter, suggesting that this is a variable well worth investigating further. This was done in the present study in a similar manner to the research mentioned above. The present study replicated a portion of a relatively recent research study which had utilised Rotter's generalised locus of control measure in an organisational setting. The replicated study, which was

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undertaken by Kinicki & Vecchio (1994), found that locus of control correlated with leader member exchange and organisational commitment. In addition, the study found that leader member exchange mediated the relationship between locus of control and organisational commitment. The present study investigated the identical relationship, but with Spector's (1988) work locus of control scale. The objectives this study were to assess whether work locus of control is related in the same way to the variables assessed by Kinicki & Vecchio (1994) (i.e. leader member exchange and organisational commitment) and if so, whether the relationships would be stronger than those found in Kinicki and Vecchio's (1994) study. Substantially stronger relationships found with Spector's (1988) work locus of control measure would suggest that it may predict work behaviour more precisely than Rotter's (1966) more general locus of control scale.

Based on Kinicki and Vecchio's (1994) research, the present study examined the following hypotheses:

H1: Work locus of control will correlate with organisational commitment.

H2: Work locus of control will correlate with leader-member exchange.

H3: Leader-member exchange will serve as a mediator of the relationship between work locus of control and organisational commitment.

METHOD

Sample and procedure

The present research was carried out within a large life assurance organisation. Employees from all levels in the organisational hierarchy participated in the study except for members in top management. The questionnaires were completed in company time on a voluntary basis. Anonymity and confidentiality were guaranteed to all participating employees. Of the 150 questionnaires distributed, 113 were returned, representing a response rate of 75%. Five records were unusable, thus reducing the response rate to 72%. The biographical details of the respondents are presented in Table 1.

TABLE 1
BIOGRAPHICAL DETAILS OF THE SAMPLE

| Variable | | N | % | Mean | SD |
|-----------|---------------|----|------|------|-----|
| Age | | | | 27,4 | 5,2 |
| Sex | Male | 45 | 41,7 | | |
| | Female | 63 | 58,3 | | |
| Race | White | 87 | 83,7 | | |
| | Black | 10 | 9,6 | | |
| | Coloured | 5 | 4,8 | | |
| | Asian | 2 | 1,9 | | |
| Education | Below matric | 12 | 11,3 | | |
| | Matric | 36 | 34,0 | | |
| | Diploma | 37 | 34,9 | | |
| | Degree | 8 | 7,5 | | |
| | Post-graduate | 13 | 12,3 | | |

Measures

Leader Member Exchange. Leader-member exchange was measured by the member form of the Leader Member Exchange Scale (Scandura & Graen, 1984). The scale comprises 7 items with a four point response format. A high total score indicates a positive social interaction in which the leader enhances a subordinate's role by providing information, influence and support. (Sample item: "How well do you feel your immediate supervisor understands your problems and needs?"). Scandura and Graen (1984) found that the scale

demonstrated acceptable test-retest reliability ($r = 0,42$; $p < 0,001$) and internal consistency (Cronbach alpha of 0,86).

Organisational Commitment. The 15-item Organisational Commitment Questionnaire (Mowday, Steers & Porter, 1979) was used to measure organisational commitment. Subjects are required to indicate their agreement or disagreement on a seven point scale with 1 indicating strongly disagree and 7 indicating strongly agree (Sample item: I am proud to tell others I am part of this organisation). This inventory is used commonly as an assessment of the degree of commitment that a person feels to his/her organisation. Acceptable test re-test reliability ($r = 0,53$; 0,63 and 0,75) and internal consistency (Cronbach alpha = 0,90) have been demonstrated previously (see Mowday et al., 1979).

Work Locus of Control. Spector's (1988) Work Locus of Control Scale was used to measure locus of control. The scale is a 16-item measure of generalised control beliefs in work settings. The possible responses range from 1 (disagree very much) to 5 (agree very much). Low scores denote internality and high scores indicate externality. (Sample item: "On most jobs people can pretty much accomplish whatever they set out to accomplish"). Cronbach alpha's of 0,85, 0,80 and 0,75 on various samples were established by Spector (1988).

RESULTS

Correlations were computed to test the first two hypotheses. Thereafter, the statistical procedure described by Baron and Kenny (1986) – Moderated Multiple Regression – was used to establish whether leader-member exchange served as a mediator of the relationship between work locus of control and organisational commitment. Three different regression equations were estimated: first regressing leader-member exchange on work locus of control; second, regressing organisational commitment on work locus of control and third, regressing organisational commitment on both work locus of control and leader member exchange. Mediation is established if the following requirements are fulfilled: the independent variable affects the mediator (the first equation); the independent variable affects the dependent variable (the second equation); and the mediator affects the dependent variable when considered jointly with the influence of the independent variable (the third equation) (Baron & Kenny, 1986). Furthermore, the effect of the independent variable on the dependent variable must be less in the third equation than in the second. Perfect mediation exists if the independent variable has no effect on the dependent variable when the mediator is controlled (Baron & Kenny, 1986).

TABLE 2
MEANS, STANDARD DEVIATIONS AND CORRELATIONS AMONG VARIABLES

| Variable | N | Mean | S.D. | 1 | 2 | 3 |
|------------------------------|-----|-------|-------|--------|--------|------|
| 1. Organisational Commitment | 104 | 86,96 | 11,27 | 1,00 | | |
| 2. Work locus of control | 91 | 75,21 | 9,29 | 0,42** | 1,00 | |
| 3. Leader-member exchange | 107 | 13,69 | 4,17 | 0,49** | 0,38** | 1,00 |

* $p < 0,05$

** $p < 0,001$

As far as hypothesis 1 is concerned, the results from Table 2 indicate that a moderate correlation exists between work locus of control and organisational commitment $r = 0,42$ ($p < 0,001$). In addition, the result fulfills the statistical requirement of

TABLE 3
TEST FOR LEADER MEMBER EXCHANGE AS A MEDIATOR OF THE WORK LOCUS OF CONTROL – COMMITMENT RELATIONSHIP

| Regression equation | Beta | R ² |
|----------------------------------------------------------------------------------------------|------|----------------|
| <u>Equation 1</u> | | |
| Dependent variable: leader-member exchange Independent variable: work locus of control | 0,38 | 0,14** |
| <u>Equation 2</u> | | |
| Dependent variable: organisational commitment Independent variable: work locus of control | 0,42 | 0,18** |
| <u>Equation 3</u> | | |
| Dependent variable: organisational commitment | | |
| Independent variables: work locus of control | 0,26 | 0,01** |
| leader-member exchange | 0,43 | 0,16** |

*p < 0,05

**p < 0,001

mediation that the independent variable be statistically related to the dependent variable (Baron & Kenny, 1986). As far as hypothesis 2 is concerned, the results in Table 2 also indicate that a correlation exists between work locus of control and leader-member exchange $r = 0,38$ ($p > 0,001$).

Results from Table 3 (regression equation 1) indicate that work locus of control predicts a significant portion of the variance in leader-member exchange ($R^2 = 0,14$; $p < 0,001$; $B = 0,38$). This result confirms the initial requirement for the establishment of statistical mediation which proposes that the independent variable affect the mediator in the first equation.

Further results from Table 3 (equation 2) indicate that work locus of control accounts for significant variation in the dependent variable ($R^2 = 0,18$; $p < 0,001$; $B = 0,42$). This result satisfies the second requirement for statistical mediation which postulates that the independent variable affects the dependent variable.

Where organisational commitment was regressed onto both leader-member exchange and work locus of control, taking into account partial regression coefficients, the results (see Table 3), indicated that leader member exchange accounted for significant variance in organisational commitment ($R^2 = 0,16$; $p < 0,001$) which satisfies the requirement of mediation that the mediator must affect the dependent variable in the third equation, when the independent variable is controlled. Furthermore, the results indicated that work locus of control accounted for less variation in organisational commitment, when leader-member exchange was controlled ($R^2 = 0,01$; $p < 0,001$; $B = 0,26$), which is consistent with the requirement of mediation that the influence of the independent variable on the dependent variable, must be less in the third equation than in the second. More specifically, statistical mediation is present when the effect of the independent variable is no longer significant in the third equation. However, Baron & Kenny (1986) postulate that this last requirement must be envisaged as a continuum. If the path from the independent variable to the dependent variable is greater than zero, but insignificant, this indicates the operation of multiple mediating factors. Where the variance accounted for by the path is reduced substantially but still significant, as in the present study, this is evidence of partial mediation.

DISCUSSION

The present research demonstrated that a significant positive relationship exists between leader member exchange and organisational commitment (see Table 2). This finding is consistent with the view that differences in employee commitment are an important outcome of leader-member exchange, as postulated by Kinicki and Vecchio (1994) as well as Koslowski and Doherty (1989). Also, the research established a significant positive correlation between work locus of control and leader-member exchange (see Table 2). Such results are consistent with the suggestions of Yukl (1909) and Dienesch and Lident (1986) who postulated that individual differences are a potential antecedent of supervisory-subordinate relations. Furthermore, Graen & Cushman (1975) proposed that subordinates of an in-group are selected because of factors such as competence, skill and motivation to assume greater responsibility which Kinicki & Vecchio (1994) suggested are factors associated with those who have an internal locus of control. Finally the importance of the results is clear when considered in relation to the findings of Kinicki and Vecchio (1994). The present research found the correlation between work locus of control and organisational commitment to be 0,42 ($p < 0,001$) and the correlation between work locus of control and leader member exchange to be 0,38 ($p < 0,001$). In the research undertaken by Kinicki and Vecchio (1994) using Rotter's (1966) scale, correlations were found to be 0,22 ($p < 0,001$) and 0,32 ($p < 0,01$) for work locus of control and organisational commitment, and work locus of control and leader member exchange respectively. In addition, the regression analysis results indicate that work locus of control accounts for significant variation in organisational commitment ($R^2 = 0,18$; $p < 0,001$; $B = 0,42$). It is relevant to note that Kinicki & Vecchio (1994), employing Rotters (1966) scale, found $R^2 = 0,03$ ($p < 0,05$; $B = 0,18$) for the same equation, which is substantially lower. The results also indicate that leader member exchange accounts for significant variation in organisational commitment ($R^2 = 0,16$; $p < 0,001$; $B = 0,43$). However, when leader member exchange was controlled in the third equation, work locus of control continued to account for significant variation in organisational commitment but there is a drop in the amount of variance explained ($R^2 = 0,01$; $p < 0,001$; $B = 0,26$). Kinicki and Vecchio (1994) demonstrated a non significant path from the independent variable to the dependent variable in the third equation, but it is important to

note that in Kinicki and Vecchio's study, locus of control was barely significant in the second equation. ($R^2 = 0,03$; $p < 0,05$).

The stronger relationships demonstrated in this study compared with Kinicki and Vecchio's (1994) results are consistent with Spector's (1988) findings that correlations between work locus of control and organisational variables were stronger than those observed between the same variables and more general locus of control scales. Such findings suggest that the Work Locus of Control scale may predict work behaviour more precisely than the general scales. Furthermore, the findings provide criterion-related validation evidence for Spector's Work Locus of Control Scale. It is relevant to note here that many of the organisational variables measured in Spector's (1988) study were measured with incomplete questionnaires. The present study demonstrated that where organisational commitment was measured with all the items of Mowday, Steer's and Porter's (1979) Organisational Commitment Questionnaire, higher, more significant relationships were found.

On a broader level, the present findings, taken together with past research may have implications for personality theory. The findings support a domain specific conceptualization of locus of control which is consistent with both Phares (1976) and Rotter's (1975) views of the construct. As mentioned previously, the locus of control construct is rooted in social learning theory which is interactionist in nature. Locus of control is characterised within social learning theory as a person's generalised expectancy that rewards/outcomes are dependent on either internal or external factors. Of relevance here is that Rotter (1975) postulated that generalised expectancies are learned, and depend on the success or failure they have enjoyed in the past. The concept of learned generalised expectancies (such as locus of control) is not congruent merely with a stable, trait-like perspective, but rather seems to suggest an information processing (cognitive) approach. Thus, this conceptualisation of locus of control allows for variability in accordance with present associative experience, and at the same time allows for stability over domains of experience.

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