

The Leadership Quarterly

The Leadership Quarterly 13 (2002) 545-559

Impact of leadership style and emotions on subordinate performance

Janet R. McColl-Kennedy^{a,*}, Ronald D. Anderson^{b,1}

^aUQ Business School, The University of Queensland, Brisbane, QLD 4072, Australia ^bKelley School of Business, Indiana University, Indianapolis, IN 46202-5151, USA

Abstract

This article examines whether the emotions of frustration and optimism mediate, fully or partially, the relationship between leadership style and subordinate performance in the context of structural equation modeling. The findings show that transformational leadership has a significant direct influence on frustration and optimism, with the negative influence of frustration having a stronger effect on performance than the positive influence of optimism. Frustration and optimism are found to have a direct influence on performance, and the emotions, frustration and optimism, fully mediate the relationship between transformational leadership and performance. Thus, the effect of transformational leadership style on performance is significant, but indirect.

© 2002 Elsevier Science Inc. All rights reserved.

1. Introduction

Regardless of their respective organization's size or structure, most leaders strive to maximize the performance of their subordinates in order to achieve organizational goals. Indeed, leadership has been defined in terms of mobilizing the workforce towards attaining organizational goals (Yukl, 1998). It is not surprising, therefore, that considerable attention has been focused on attempting to motivate the workforce to this end.

^{*} Corresponding author. Tel.: +61-7-3365-6673/6475; fax: +61-7-3365-6988. *E-mail addresses: j.mccoll-kennedy@business.uq.edu.au (J.R. McColl-Kennedy), randers@iupui.edu (R.D. Anderson).

¹ Tel.: +1-317-274-2446; fax: +1-317-274-3312.

The style of the leader is considered to be particularly important in achieving organizational goals, with research consistently demonstrating the benefits of transformational leadership style over the more traditional forms, such as transactional leadership style, in terms of achieving organizational goals (see, for instance, Awamleh, 1999; Conger, 1999; Dubinsky, Yammarino, Jolson, & Spangler, 1995; Yammarino, Spangler, & Bass, 1993). The leader's style is also considered important in being able to evoke performance among subordinates (Barling, Weber, & Kelloway, 1996; Berson, Shamair, Avolio, & Popper, 2001; Zacharatos, Barling, & Kelloway, 2000).

However, the leader's style alone cannot be responsible for the performance of workers, nor for the attainment of organizational goals. The workers too play an important role. Specifically, workers' perceptions of their leader's style, and their feelings about their ability to perform and achieve organizational goals appear to be important factors. Furthermore, the employees' perception of their relationship with their manager, and in particular the level of support they receive from their manager, would seem to influence performance.

Past research has demonstrated relationships between the following constructs: (a) leadership style and attainment of organizational goals; (b) leadership style and emotions; and (c) feelings of optimism and performance. Yet, no study has attempted to develop a model of leadership style and emotions as mediators of performance. Clearly, knowing whether leadership style directly influences emotions of optimism and, conversely, frustration, and indirectly performance on the part of the worker, has significant implications for management.

This article therefore attempts to bridge this gap in the literature by arguing why these constructs are important and how they appear to be linked in a conceptual model. Specifically, the objective of this paper is to evaluate whether two emotions common in the workplace, frustration and optimism, may be viewed as a consequence of transformational leadership style and as antecedents of subordinate performance. The evaluation is conducted in the context of structural equation modeling, using a sample of sales representatives from a global pharmaceutical company.

1.1. Leadership behaviors

Leaders are typically expected to provide supervisory feedback, and accordingly, this behavior has been extensively researched in the management literature (cf. Jaworski and Kohli, 1991; MacKenzie, Podsakoff, & Rich, 2001; Teas & Horrell, 1981). The focus of this approach to leadership is to provide positive feedback to the subordinates for commendable performance and negative feedback for unacceptable performance. MacKenzie et al. (2001) view these reward and punishment scenarios as typical transactional leader behaviors, rather than transformational leader behaviors.

The concept of transformational leadership, first named by Burns (1978) in his exploration of "world class leaders" and championed by Bass (1985a, 1985b, 1990, 1997, 1998), has enjoyed wide theoretical and practical acceptance (Avolio, 1999; Tichy & Devanna, 1986). Transformational leadership has been described as guidance through individualized consid-

eration, intellectual stimulation, inspirational motivation, and idealized influence (Bass, 1997). Individualized consideration emphasizes personal attention, while intellectual stimulation encourages use of reasoning, rationality, and evidence.

Studies have investigated relationships between transformational leadership style and a wide range of consequences, such as leadership trust (Podsakoff, MacKenzie, & Bommer, 1996), self-efficacy beliefs (Kirkpatrick & Locke, 1996), leadership satisfaction (Hater & Bass, 1988; Yammarino & Bass, 1990), worker absenteeism and satisfaction (George & Jones, 1997; Staw, Sutton, & Pelled, 1994; Weiss & Cropanzano, 1996), and performance outcomes (Barling et al., 1996; Howell & Avolio, 1993).

Although transactional and transformational leadership share common elements such as providing clarity of desired outcomes, recognizing accomplishments, and rewarding high performance, there are substantive differences in process and behavior. Transformational leadership involves creating changes in values, goals, and aspirations that are consistent with the values of followers. Transformational leaders implement change through articulating a vision, fostering acceptance of group goals, providing individualized support and intellectual stimulation and clarifying performance expectations (MacKenzie et al., 2001).

Transformational leadership is viewed as directly affecting organizational performance (Barling et al., 1996; Howell & Avolio, 1993) and indirectly affecting organizational performance through its effects on subordinates' satisfaction with their leader (Hater & Bass, 1988). Further, performance is considered to be affected indirectly through the effects of leadership on subordinates' affective commitment (Barling et al., 1996). Organizations are increasingly recognizing the importance of supporting junior staff through mentoring programs (Sosik & Godshalk, 2000).

Transformational leadership also is viewed as playing a key role in developing effective behaviors for mentors. Certainly, there have been claims that the nature of employees' relationships with their managers determines how long the employees remain with the organization and how productive they are within the organization (Spiker & Brown, 2000). Indeed, transformational leadership has been consistently claimed to be more effective than the other leadership styles (Dubinsky et al., 1995) by "lifting ordinary people to extraordinary heights" (Boal & Bryson, 1988, p. 11). This transformation takes place through individual interactions between leaders and subordinates, and particularly through the manner in which transformational leaders communicate with subordinates.

1.2. Emotions

Publications such as *The Managed Heart* (Hochschild, 1983) and *Emotional Intelligence* (Goleman, 1995) have certainly brought the discussion of emotions in the workplace out into the open. Both subordinates and leaders can be expected to feel and display emotion. Emotions range from highly positive, such as optimism and joy, to highly negative emotions, such as frustration and anger. Although there has been a reluctance to acknowledge the existence of emotions in a work setting, it is clear that workers in their multiple interactions with fellow workers and leaders are exposed to situations that produce emotions that can potentially influence their feelings, attitudes and behaviors.

Ashforth and Humphrey (1995) attest to evidence of a keen interest in understanding emotions in the workplace. Some have claimed that the workplace is "one of the most interpersonally frustrating contexts that people have to deal with" (Fitness, 2000, p. 148). Despite the increasing interest in emotions and their impact on leadership style and performance, research investigating the role of emotion on workers and its influence on interworker relationships has yet to be fully explored (Fitness, 2000; Lewis, 2000).

Emotions appear to play a significant role in terms of one's enthusiasm for their work. Leaders who understand emotions appear to motivate subordinates to work more effectively and efficiently (Grossman, 2000), and inspirational motivation in the form of vision and sense of mission is assumed to raise levels of optimism and enthusiasm (Dubinsky et al., 1995). Indeed, Ashkanasy and Tse (2000) claim that transformational leaders employ emotions to persuade their followers to engage in positive thinking in terms of developing both a positive vision and new ideas. In particular, leaders that support subordinates tend to elicit feelings of optimism. But without such support employees tend to feel pessimistic. Employees who lose enthusiasm for work (sometimes named the "working wounded") do not put forth the same level of effort as in the past, and this impacts on their performance (Manion, 2000).

Transformational leaders in particular appear to use emotion to motivate their subordinates (Bass & Avolio, 1994; Dubinsky et al., 1995). Transformational leaders are recognized as using emotion to communicate a vision and to elicit responses from their subordinates (Ashkanasy & Tse, 2000; Lewis, 2000). They tend to be optimistic (Spreitzer & Quinn, 1996) and more sensitive to subordinates' needs, and provide personalized attention or at least give the impression of giving individualized attention (Askhanasy & Tse, 2000). Indeed, Berson et al. (2001, p. 54) assert that transformational leaders use "transformational influence to excite followers to work towards long-term ideals and strategic objectives."

1.3. Optimism

The benefits of optimism have been touted for years, and supported by some empirical evidence (Peale, 1956; Strutton & Lumpkin, 1993). Spreitzer and Quinn (1996) have demonstrated that transformational leaders are more optimistic than other types of leaders and tend to have strong positive feelings about their environmental surroundings. Accordingly, they tend to interpret information, exchanges, and interactions with colleagues from a positive perspective (Ashkanasy & Tse, 2000). Self-regulation theory, which in part describes the series of events thought to occur when barriers to goals being obtained are presented (Carver & Scheier, 1985), suggests that people engage in efforts to achieve goals when they feel optimistic. In contrast, a pessimistic viewpoint may result in reduced effort (Bandura, 1977). Thus, the first set of propositions is:

Proposition 1: A perceived strong level of transformational leadership style has a direct positive influence on experienced optimism.

Proposition 2: A perceived strong level of transformational leadership style has a direct negative influence on experienced frustration.

1.4. Optimism-performance relationship

There appears to be a direct relationship between the level of optimism and the amount of work employees expend. Indeed, optimism has been used by organizations to distinguish between high and low performers. For instance, optimism has been cited as a predictor of sports performance (Seligman, Nolen-Hoeksema, Thornton, & Thornton, 1990) and as a predictor of college grades (Schulman, 1999). Schulman (1999) asserts that optimism impacts positively on sales productivity among sales people, and claims a large body of evidence supports the contention that optimistic expectations of success play a significant role in the achievement of success. He argues that the belief that one will succeed is the driver that inspires the effort necessary to overcome obstacles. Workers who look optimistically on the world are likely to "see adversity as a challenge, transform problems into opportunities, put in the hours to refine skills, persevere in finding solutions to difficult problems, maintain confidence, rebound quickly after setbacks and persist" (Schulman, 1999, p. 33).

The above contention is derived from Seligman's (1975) "helplessness theory" that states that people who believe that they have no control over the objective will be unlikely to put in the work required in order to achieve their goal. This is because they cannot see the point in putting in the work. Thus, "learned helplessness" is a debilitating cognitive state where individuals may possess skills required to do their job but perform at a suboptimal level because they attribute prior failures to uncontrollable causes (Campbell & Martinko, 1998). Yet, Berson et al. (2001, p. 56) argue that transformational leaders "instill optimism, confidence and faith in their followers by suggesting that although their challenges appear formidable, they can be successful by working together to create a better future."

1.5. Frustration-performance relationship

Workers who feel that they have little or no control over a desired objective will be unlikely to put in the work that is required to achieve that objective (Campbell & Martinko, 1998; Martinko & Gardner, 1982; Seligman, 1975). Moreover, workers who have attempted to succeed in the past but have been unsuccessful or who do not possess an optimistic outlook will become frustrated and come to the view that any extra work is only wasted effort. They rationalize this behavior by explaining failures according to attribution theory that is based on the dimensions of stability (stable/unstable), specificity (global/specific), and focus (internal/external) (Weiner, 1986; Wimer & Kelley, 1982).

People who infer stability (the cause is going to last a long time), a global orientation (it will affect many aspects of my life), with an internal focus (I am to blame for this) as explanations for failures are more likely to feel frustrated and will likely reduce the work they expend and their performance (Schulman, 1999). Several researchers (cf. Struthers, Weiner, & Allred, 1998; Wimer & Kelley, 1982) have applied attribution theory to organizational settings. Applying attribution theory specifically to the leader—subordinate context would suggest that a lack of managerial support is likely to lead to the following conclusions: my manager is going to be around for a while (stability), my manager has the ability to affect a

whole range of aspects of my work life (global orientation) and I have not performed as I should (internal focus).

The above is frustrating to the worker and so the worker feels that there is little point in putting work into performing. Indeed, Abramson, Seligman, and Teasdale (1978) showed that feelings of helplessness and depressed affect come from repeated attributions that are thought to be internal, stable, and global. Thus, we argue that not having leader support is likely to lead to feelings of frustration and, in turn, reduced performance.

Hence, the second set of propositions is the effects of emotions on performance.

Proposition 3: Experienced optimism has a direct positive influence on performance.

Proposition 4: Experienced frustration has a direct negative influence on performance.

2. Method

2.1. Conceptual models

The four propositions specify a model structure where the emotions of optimism and frustration mediate between leadership and performance. The acceptability of fit of the full mediation model and the validity of the propositions is evaluated in the context of a structural equation model. An alternative to the full mediation model is a partial mediation model that allows a direct linkage between leadership and performance, as well as the indirect linkages through the emotion variables. Comparison of the full and the partial mediation models permits testing of whether the effect of leadership on performance is fully or partially mediated by optimism and frustration.

2.2. Sample

Since the sales function is critical to an organization's success, managers place considerable attention on the leadership aspects of the sales personnel. It is well recognized that sales people experience considerable stress and are more likely than most workers to face heavy emotional demands (Cordes & Dougherty, 1993). Thus, knowing how leadership style influences performance and the role of emotions on this relationship may be particularly relevant to sales. Therefore, a sales sample was selected for this study.

A survey of sales representatives of a global pharmaceutical firm located in Australia was undertaken. Only 2 of 139 sales representatives did not complete the self-administrated questionnaires, yielding a response rate of 98.6%. The data for the study are based on the completed variable measurements for 121 sales representatives. The sample was composed of 58 males and 63 females. The average age for females was 34 years, and for males was 39 years. Seventy-two percent of the males and 73% of the females had completed a university degree.

2.3. Measures

The relatively small sample size in relation to the number of study variables required that weighted composites of the measured indicators rather than individual measurements be used to represent the constructs in the structural equation modeling. The four elements of transformational leadership are assumed to be theoretically and empirically related (Bass & Avolio, 1994), and have been postulated to be indicators of one underlying construct (Dubinsky et al., 1995). Measurements from self-reported questionnaires on four items representing individualized consideration ("Gives personal attention to each sales representative"), intellectual stimulation ("Emphasizes the use of my intelligence"), inspirational motivation ("Increases my level of enthusiasm"), and idealized influence ("Transmits a sense of mission") are used to construct an equal weighted composite scale to represent transformational leadership. Each leadership indicator is measured on a 6-point agreement scale.

The reported frequencies of experience of irritation, tenseness, and frustration emotions are the three indicators for the frustration construct. Frequencies of experience of optimism, enthusiasm, and excitement emotions are the indicators for the optimism scale. Questionnaire items for optimism and frustration scales are measured on a 5-point scale indicating degree of frequency. The questionnaire wording for the indicators of the transformational leadership, frustration, and optimism constructs was constructed by the authors and is provided in Appendix A.

Data for the measurement of performance were provided from company records. The performance measure is derived from performances in an incentive program explicitly designed to provide an objective indication of an individual's actual performance. The goal attainment was not based on subjective supervisor ratings, but upon achievement of specific territory quotas. The incentive program awarded points for goal attainment that could be converted into tangible rewards. The measure of performance is the percentage of points possible to attain, and thus ranged from 0 to 100.

3. Results

3.1. Measurement

Exploratory factor analysis, with an oblique rotation, applied to the set of indicators of the construct scales, provides a descriptive assessment of unidimensionality. The results yielded three well-defined factors with eigenvalues greater than one that accounted for 72% of the variance of the indicators. The average factor pattern coefficients were .84, .81, and .79 for the indicators of the leadership, optimism, and frustration factors, respectively. Further, no cross-factor loadings were of sufficient magnitude to reject unidimensionality, since no indicator loaded on a nonhypothesized factor greater than .25. Thus, the exploratory results provide evidence of very clear relationships between the indicators and the related constructs, and support unidimensionality with differential weighted construct scales.

Further evidence of unidimensionality, plus an evaluation of the adequacy of equal indicator weighting, is obtained from application of tau-equivalent confirmatory factor analysis to each scale (Jöreskog & Sörbom, 1993). Prior to the confirmatory factor analyses, the assumption of multivariate normality was evaluated for the indicators of each scale using the Mardia coefficient of multivariate kurtosis (Mardia, 1970). When excessive kurtosis is found, the Satorra-Bentler scaled chi-square is used to adjust the inflated chi-square goodness-of-fit statistic (Satorra & Bentler, 1994). The confirmatory factor analytic results support the construction of equal-weighted indicator composites as unidimensional scales to represent the constructs (leadership: $\chi^2 = 8.5$, df = 5, P = .13; frustration: $\chi^2 = 3.6$, df = 2, P = .17; optimism: $\chi^2 = .6$, df = 2, P = .73).

The reliabilities, measured by the Cronbach α coefficient, are .89 for leadership scale, and .75 for each of the emotion scales. The amount of measurement error variance for each scale is modeled to be equal to $(1-\alpha)$ times the scale variance (Jöreskog & Sörbom, 1993). No significant differences could be attributed to differences in gender, age, or education for the construct scales or performance.

3.2. Structural equation models

In comparisons of full versus partially mediated models, evidence of mediation is established when a partially mediated model does not provide a significant improvement over the more parsimonious fully mediated model (Kelloway, 1995, 1996). Since the partial mediation alternative is nested within the full mediation model, the significance testing of additional linkages is based on a difference chi-square statistic (Maruyama, 1998).

The descriptive goodness-of-fit indexes, based on recommended minimum evaluations (Hu & Bentler, 1999), are the comparative fit index (CFI \geq .95), standardized root mean residual (SRMR < .05) and the adjusted goodness-of-fit (AGFI \geq .9). Maximum likelihood parameter estimation is implemented using EQS (Bentler, 1995). The obtained standardized coefficient of multivariate kurtosis for the four scales and the performance variable is 3.30, which is judged not to be excessive and not requiring adjustment of the maximum likelihood test statistic.

The full mediation model (Fig. 1) is found to have an excellent overall fit (χ^2 =.912, df=3, P=.82; CFI=1.000, SRMR=.023, AGFI=.987). Evaluation of the partial mediation model, with an additional linkage from leadership to performance, also has an excellent fit (χ^2 =.897, df=2, P=.64; CFI=1.000, SRMR=.023, AGFI=.981). However, the significance of difference in fit in reference to the full mediation model is nonsignificant ($\Delta\chi^2$ =.015, Δdf =1, P=.90). Therefore, the direct linkage from leadership to performance is not supported and the partial mediation model is rejected in favor of the full mediation model.

Table 1 summarizes the unstandardized and standardized structural coefficients, standard errors, critical ratios, and *P* values for the full mediation model.

Each unstandardized structural coefficient is at least two standard errors different from zero and significant in reference to the traditional .05 level, except the coefficient relating optimism to performance (1.60 standard errors). Thus, Propositions 1 and 2, that transformational leadership style has a direct positive influence on experienced optimism and a direct

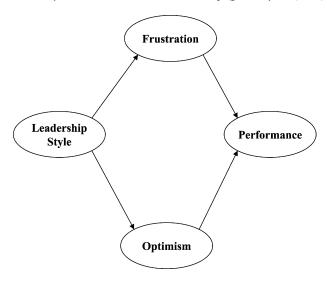


Fig. 1. Frustration and optimism fully mediate the relationship between leadership style and performance.

negative influence on experienced frustration, are strongly supported. Proposition 4, experienced frustration has a direct negative influence on performance, is also strongly supported. Weaker support is indicated for the proposition that experienced optimism has a direct positive influence on performance, Proposition 3, with the borderline *P* value of .057.

The standardized structural coefficients of Table 1 are often labeled as standardized direct effects and offer a uniform interpretation of potential relationship change for construct equations. The standardized direct effect of transformational leadership on frustration is estimated to be negative .52. Thus, it is interpreted that a one standard deviation increase in the perception of transformational leadership is expected to result in a .52 standard deviation decrease in experienced frustration. The estimated standardized direct effect of transformational leadership on experienced optimism is .44; thus a one standard deviation increase in leadership is expected to result in a .44 standard deviation increase in experienced optimism. Further, a one standard deviation increase in experienced frustration is expected to yield a .28 standard deviation decrease in performance, whereas a one standard deviation increase in experienced optimism should result in a .17 increase in performance.

The proportion of variance of a dependent construct attributed to a set of specified causes is given by the squared multiple correlation (SMC) for the equation. When there is a single

Table 1 Summary of structural coefficients

Relationship	Unstandardized coefficient	Standard error	Critical ratio	P value	Standardized coefficient
Leadership → frustration	245	.047	- 5.208	<.001	52
Leadership → optimism	.190	.045	4.246	<.001	.44
Frustration → performance	-2.108	.787	-2.677	.004	28
$\underline{Optimism} \rightarrow performance$	1.364	.855	1.596	.057	.17

specified cause of a dependent construct, the SMC is equal to squared standardized structural coefficient or direct effect. In general, with one or multiple specified causes of a dependent construct, an SMC is equal to one minus the standardized error variance of the construct equation (Bentler, 1995, p. 98). Since transformational leadership does not have a specified cause in the model, all of the construct variance is due to unspecified causes. The empirical construct correlations, reliabilities and standard deviations, estimated structural model correlations, standardized error variances and construct equation SMCs for the fitted full mediation model are summarized in Table 2.

The SMC for frustration is 1-.73=.27, indicating approximately 27% of the variation in frustration can be attributed to leadership. Approximately 19% of the variance in optimism, SMC=1-.81=.19, can be attributed to leadership. Thus, the magnitudes of the SMCs for the structural relationships for transformation leadership as a cause of frustration and optimism are considered moderate. A weaker relationship is found for frustration and optimism as combined causes of performance, with an SMC of .1-.87=.13.

The structural correlations resulting from the fitted full mediation model are decomposed into standardized direct and indirect structural effects, and unanalyzed relations (Fox, 1984, p. 271) and are displayed in Table 2. The direct standardized structural effects are the standardized structural coefficients given in Table 1 and are interpreted above in reference to standard deviation changes. The indirect influence of leadership on performance is estimated from the sum of the products of the direct standardized effects on the paths from leadership to frustration (-.52) to performance (-.28) and from leadership to optimism (.44) to performance (.17).

Thus, the estimated indirect effect of leadership on performance is $.22=(-.52 \times -.28 + .44 \times .17)$, and is interpreted that a one standard deviation change in leadership is expected to result in a .22 change in performance. The sum of direct and indirect standardized effects

Table 2		
Summary of empirical	and model	associations

Variable	Leadership	Frustration	Optimism	Performance
Empirical correlations ^a				
Leadership	.89			
Frustration	43	.75		
Optimism	.36	24	.75	
Performance	.20	29	.22	1.00
Standard deviations	4.17	2.13	1.96	13.98
Structural model correlations				
Leadership	1.00			
Frustration	52	1.00		
Optimism	.44	23	1.00	
Performance	.22	32	.23	1.00
Standardized error variance	1.00	.73	.81	.87
Construct equation SMC	_	.27	.19	.13

All correlations significant at .05.

^a Reliabilities are in the main diagonal.

yields the total effect for a paired relationship. The largest total effect on performance is – .28 caused by frustration, with the next largest effect of .22 caused indirectly by leadership, followed by optimism with the smallest total effect, .17.

The fitted model completely portrays the relationship between a pair of constructs when the total effect is equal to the structural correlation. When the relationship is not modeled and there is a structural correlation, the result is summarized in an analysis of effects as an unanalyzed relation. The full mediation model postulates no linkage between frustration and optimism. However, there is a structural correlation of -.23 between the emotions resulting from the fitted model, as shown in Table 2. The difference between the structural correlations of the emotions and performance, and the total effects of the emotions on performance is due to very small unanalyzed structural correlation, which is reflected in the excellent fit of the full mediation model.

4. Discussion

This study demonstrates that employee perceptions of a high transformational leadership style—one that evidences personal attention to the subordinate, emphasizes use of the subordinate's intelligence, increases the subordinate's level of enthusiasm, and transmits a sense of mission—can positively influence the employee in two key areas: directly increasing optimism and indirectly increasing performance. Conversely, perceptions of a low level of transformational leadership can result in high levels of frustration that can have a negative influence on the worker's performance. Further, frustration and optimism are found to mediate the relationship between transformational leadership style and performance.

The results of this study suggest that organizations should seek to attract transformational leaders and encourage transformational leadership style in their current leaders. Such efforts should increase optimism and reduce frustration among subordinates, which in turn should lead to increased performance among subordinates. The study results extend the claim made by Dubinsky et al. (1995) that transformational leadership can influence attitudes and behaviors to include frustration and optimism emotions. Furthermore, the study provides evidence to support Berson et al.'s (2001) claim that transformational leaders are able to positively influence their subordinates.

Interestingly, our study finds that perceived leadership style has a stronger absolute influence on the employee's feelings of frustration than on optimism. Specifically, the negative influence of frustration has a stronger effect on performance than the positive influence of optimism. As hypothesized, if the worker feels frustrated he or she will not perform as well compared to when the worker feels optimistic. This is a significant finding that underscores the importance of the impact of frustration on employees' performance, as well as the potential of transformational leadership style to reduce frustration levels and indirectly provide a positive impact on performance.

Given the significant negative relationship between feelings of frustration and performance, particular attention should be paid to signs of frustration in subordinates. Indeed, Schulman (1999) has shown that these feelings are likely to result in further feelings of

frustration, which may lead to even more serious feelings of pessimism and helplessness. Campbell and Martinko (1998) found that empowered individuals in contrast to "learned helplessness" individuals felt less tedium and were more persistent and more positive. Seligman and Schulman (1986) found that pessimistic sales people were twice as likely as their optimistic colleagues to quit by the end of their first year. Yet, Schulman (1999) has demonstrated that these negative feelings can be unlearned and, when detected and addressed, even turned around into optimism.

The role of the leader is clearly very important and thus organizations should endeavor to recruit and nurture transformational leadership qualities among the leaders for increased performance among subordinates. However, organizations should not place all the emphasis solely on leaders, as there appears to be some evidence that the learning of optimism has to involve the individual concerned. Beck, Rush, Shaw, and Emery (1979) and Seligman (1991) have demonstrated that people can learn ways to overcome self-defeating beliefs. Schulman (1999) points out how sales people can learn to be optimistic through cognitive training. The first step requires the identification of self-defeating beliefs. Secondly, evidence is gathered to allow proper evaluations of these self-defeating beliefs. Finally, the self-defeating beliefs may be replaced with constructive beliefs.

4.1. Study limitations

The results of any structural modeling effort are limited by variable selection, the available database, and the quantitative implementation. Specific to this study is the potential exclusion of variables that could have a causal influence on performance. Also, the study is conducted with the data of a single firm, rather than a sample of organizations, so it is not appropriate to generalize the results to all organizations. Further, the interpretation of the model must be made in terms of latent variables that cannot be directly measured. Thus, the analysis is descriptive at the theoretical level and cannot be extended to prediction of observable variables.

Appendix A. Questionnaire items

Questionnaire wording	Scaling		
Transformational leadership construct:	1 = strongly disagree to 6 = strongly agree		
Gives personal attention to each sales representative			
Transmits a sense of mission to us			
Increases my level of enthusiasm			
Emphasizes the use of my intelligence			
Frustration construct:	1 = never to $5 = very$ frequent		
Frustration experienced in the organization			
Tenseness experienced in the organization			
Irritation experienced in the organization			
Optimism construct:	1 = never to $5 = very$ frequent		
Optimism experienced in the organization			
Enthusiasm experienced in the organization			
Excitement experienced in the organization			

References

- Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in humans: critique and reformulation. *Journal of Abnormal Psychology*, 87, 49–74.
- Ashforth, B. E., & Humphrey, R. H. (1995). Emotion in the workplace: a reappraisal. Human Relations, 48, 97-125.
- Ashkanasy, N. M., & Tse, B. (2000). Transformational leadership as management of emotion: a conceptual review. In N. Ashkanasy, C. Hartel, & W. Zerbe (Eds.), *Emotions in the workplace: developments in the study of the managed heart* (pp. 221–235). Westport, CT: Quorum Books.
- Avolio, B. J. (1999). Full leadership development: building the vital forces in organizations. Thousand Oaks, CA: Sage.
- Awamleh, G. R. (1999). Perceptions of leader charisma and effectiveness: the effects of vision content, delivery, and organizational performance. *The Leadership Quarterly*, 10(3), 345–373.
- Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice Hall.
- Barling, J., Weber, T., & Kelloway, E. K. (1996). Effects of transformational leadership training and attitudinal and fiscal outcomes: a field experiment. *Journal of Applied Psychology*, 81, 827–832.
- Bass, B. M. (1985a). Leadership and performance beyond expectations. New York: Free Press.
- Bass, B. M. (1985b). Leadership: good, better, best. Organizational Dynamics, 13(3), 26-40.
- Bass, B. M. (1990). Bass & Stogdill's handbook of leadership. New York: Free Press.
- Bass, B. M. (1997). Personal selling and transactional/transformational leadership. *Journal of Personal Selling and Sales Management*, 27(3), 19–28.
- Bass, B. M. (1998). Transformational leadership. Mahwah, NJ: Erlbaum.
- Bass, B. M., & Avolio, B. J. (1994). Improving organizational effectiveness through transformational leadership. Thousand Oaks, CA: Sage.
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). Cognitive therapy of depression: a treatment manual. New York: Guilford Press.
- Bentler, P. M. (1995). EQS structural equations program manual. Encino, CA: Multivariate Software.
- Berson, Y., Shamair, B., Avolio, B. J., & Popper, M. (2001). The relationship between vision strength, leadership style and context. *The Leadership Quarterly*, 12, 53–73.
- Boal, K. B., & Bryson, J. M. (1988). Charismatic leadership: a phenomenological and structural approach. In J. G. Hunt, B. R. Baliga, H. P. Dachler, & C. A. Schriesheim (Eds.), *Emerging leadership vistas* (pp. 5–28). Lexington, MA: Lexington Books.
- Burns, J. M. (1978). Leadership. New York: Harper & Row.
- Campbell, C. R., & Martinko, M. J. (1998). An integrative attributional perspective of empowerment and learned helplessness: a multimethod field study. *Journal of Management*, 24(2), 173–200.
- Carver, C. S., & Scheier, M. F. (1985). Self-consciousness, expectations, and coping process. In T. Field, P. M. McCabe, & N. Schneiderman (Eds.), *Stress and coping* (pp. 305–330). Hillsdale, NJ: Elbaum.
- Conger, J. A. (1999). Charismatic and transformational leadership in organizations: an insider's perspective on these developing streams of research. *The Leadership Quarterly*, 10(2), 145–169.
- Cordes, C. L., & Dougherty, T. W. (1993). A review and integration of research on job burnout. Academy of Management Review, 18(4), 621–656.
- Dubinsky, A. J., Yammarino, F. J., Jolson, M. A., & Spangler, W. D. (1995). Transformational leadership: an initial investigation in sales management. *Journal of Personal Selling and Sales Management*, 15, 17–29.
- Fitness, J. (2000). Anger in the workplace: an emotion script approach to anger episodes between workers and their superiors, co-workers and subordinates. *Journal of Organizational Behavior*, 21, 147–162.
- Fox, J. (1984). Linear statistical models and related methods. New York: Wiley.
- George, J. M., & Jones, G. R. (1997). Experiencing work: values, attitudes, and moods. *Human Relations*, 50, 393–416.
- Goleman, D. (1995). Emotional intelligence: why it can matter more than IQ. New York: Bantam Books.
- Grossman, R. J. (2000). Emotions at work. Health Forum Journal, 43(5), 18-22.
- Hater, J. J., & Bass, B. M. (1988). Superiors' evaluations and subordinates' perceptions of transformational and transactional leadership. *Journal of Applied Psychology*, 73, 695–702.

- Hochschild, A. R. (1983). The managed heart: commercialization of human feelings. Berkeley, CA: University of California Press.
- Howell, J. M., & Avolio, B. J. (1993). Transformational leadership, transactional leadership, locus of control and support for innovation: key predictors of consolidated-business-unit performance. *Journal of Applied Psychol*ogy, 78, 891–902.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55.
- Jaworski, B. J., & Kohli, A. K. (1991). Supervisory feedback: alternative types and their impact on salespeople's performance and satisfaction. *Journal of Marketing Research*, 28(2), 190–201.
- Jöreskog, K. G., & Sörbom, D. (1993). LISREL 8, analysis of linear structural relations by the method of maximum likelihood. Chicago, IL: International Education Services.
- Kelloway, E. K. (1995). Structural equation modeling in perspective. *Journal of Organizational Behavior*, 16, 215–224.
- Kelloway, E. K. (1996). Common practices in structural equation modeling. In C. L. Cooper, & I. T. Robertson (Eds.), *International review of industrial and organizational psychology, vol. 11* (pp. 141–180). London: Wiley.
- Kirkpatrick, S. A., & Locke, E. A. (1996). Direct and indirect effects of three core charismatic leadership components on performance and attitudes. *Journal of Applied Psychology*, 81, 36–51.
- Lewis, K. M. (2000). When leaders display emotion: how followers respond to negative emotional expression of male and female leaders. *Journal of Organizational Behavior*, 21, 221–234.
- MacKenzie, S. B., Podsakoff, P. M., & Rich, G. A. (2001). Transformational and transactional leadership and salesperson performance. *Journal of Academy of Marketing Science*, 29(2), 115–134.
- Manion, J. (2000). Retaining current leaders. *Health Forum Journal*, 43(5), 24–27.
- Martinko, M. J., & Gardner, W. L. (1982). Learned helplessness: an alternative explanation for performance deficits. Academy of Management Review, 7(2), 195-204.
- Mardia, K. V. (1970). Measures of multivariate skewness and kurtosis with applications. *Biometrika*, 57, 519–530.
- Maruyama, G. M. (1998). Basics of structural equation modeling. Thousand Oaks, CA: Sage.
- Peale, N. V. (1956). The power of positive thinking. Englewood Cliffs, NJ: Prentice Hall.
- Podsakoff, P. M., MacKenzie, S. B., & Bommer, W. H. (1996). Transformational leader behaviors and substitutes for leadership as determinants of employee satisfaction, commitment, trust and organizational citizenship behaviors. *Journal of Management*, 22, 259–298.
- Satorra, A., & Bentler, P. M. (1994). Corrections to test statistic and standard errors in covariance structure analysis. In A. Von Eye, & C. C. Clogg (Eds.), *Analysis of latent variables in development research* (pp. 399–419). Newbury Park, CA: Sage.
- Schulman, P. (1999). Applying learned optimism to increase sales productivity. *Journal of Personal Selling and Sales Management*, 19(1), 31–37.
- Seligman, P. (1975). Helplessness: on depression, development, and death. San Francisco: Freeman.
- Seligman, P. (1991). Learned optimism. New York: Knopf.
- Seligman, P., Nolen-Hoeksema, S., Thornton, K. M., & Thornton, M. (1990). Explanatory style as a mechanism of disappointing athletic performance. *Psychological Science*, *1*, 143–146.
- Seligman, P., & Schulman, P. (1986). Explanatory style as a predictor of productivity and quitting among life insurance sales agents. *Journal of Personality and Social Psychology*, 50, 832–838.
- Sosik, J. J., & Godshalk, V. M. (2000). Leadership styles, mentoring functions received, and job-related stress: a conceptual model and preliminary study. *Journal of Organizational Behavior*, 21, 365–390.
- Spiker, B. K., & Brown, L. L. (2000). First, break all the rules (Book review). Management Communication Quarterly, 14(2), 322-328.
- Spreitzer, G. M., & Quinn, R. E. (1996). Empowering middle managers to be transformational leaders. *Journal of Applied Behavioral Science*, 32(3), 237–261.
- Staw, B., Sutton, R., & Pelled, L. (1994). Employee positive emotion and favorable outcomes at the workplace. Organization Science, 5, 51–71.

- Struthers, C. W., Weiner, B., & Allred, K. (1998). Effects of causal attributions on personnel decisions: a social motivation perspective. Basis and Applied Social Psychology, 20(2), 155–166.
- Strutton, D., & Lumpkin, J. R. (1993). The relationship between optimism and coping styles of salespeople. *Journal of Personal Selling and Sales Management*, 13(2), 71–82.
- Teas, R. K., & Horrell, J. F. (1981). Salespeople satisfaction and performance feedback. *Industrial Marketing Management*, 10(1), 49.
- Tichy, N., & Devanna, M. (1986). The transformational leader. New York: Wiley.
- Weiner, B. (1986). An attributional theory of motivation and emotion. New York: Springer-Verlag.
- Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: a theoretical discussion of the structure, causes and consequences of affective experiences at work. In R. I. Sutton, & B. M. Staw (Eds.), *Research in organizational behavior*, vol. 18 (pp. 1–74). Greenwich, CT: JAI Press.
- Wimer, S., & Kelley, H. H. (1982). An investigation of the dimensions of causal attribution. *Journal of Personality and Social Psychology*, 43(6), 1142–1162.
- Yammarino, F. J., & Bass, B. M. (1990). Long-term forecasting of transformational leadership and its effects among naval officers: some preliminary findings. In K. E. Clark, & M. B. Clark (Eds.), *Measures of leadership* (pp. 151–169). Greensboro, NC: Center for Creative Leadership.
- Yammarino, F. J., Spangler, W. D., & Bass, B. M. (1993). Transformational leadership and performance: a longitudinal investigation. *The Leadership Quarterly*, 4, 81–102.
- Yukl, G. (1998). Leadership in organizations. (4th ed.). Englewood Cliffs: Prentice Hall.
- Zacharatos, A., Barling, J., & Kelloway, E. K. (2000). Development and effects of transformational leadership in adolescents. The Leadership Quarterly, 11(2), 211–226.