Leadership Behavior and Subordinate Well-Being

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The authors used a longitudinal design to investigate the relation between leadership behavior and the well-being of subordinates. Well-being is conceptualized as people’s feelings about themselves and the settings in which they live and work. Staff members (N = 562) of 2 Community Trusts participated 4 times in a 14-month period. Five models were formulated to answer 2 questions: What is the most likely direction of the relation between leadership and well-being, and what is the time frame of this relation? The model with the best fit suggested that leadership behavior and subordinate responses are linked in a feedback loop. Leadership behavior at Time 1 influenced leadership behavior at Time 4. Subordinate well-being at Time 2 synchronously influenced leadership behavior at Time 2. Leadership behavior at Time 4 synchronously influenced subordinate well-being at Time 4.

There is an increasing recognition that stressful workplaces have organizational costs and negative consequences for employees (Paoli, 1997). Factors in the workplace can seriously affect the individual’s well-being and mental health (Danna & Griffin, 1999). Reduction in well-being and increases in stress levels have been associated with reduced task performance, increased absenteeism, and undesirable high levels of turnover; with frequent and severe accidents at work; and with increased apathy, alcoholism, and reduced commitment (Shirom, 1989). Organizational psychologists have, accordingly, examined a wide variety of individual and organizational variables that influence well-being and stress.

One group of variables that has been connected consistently to individual well-being is the social context in organizations. It is assumed that other people at work, especially one’s supervisor, can dramatically affect the way one feels about one’s work and about oneself (House, 1981). The social setting in which people work provides support but can also constitute a major source of stress. Poor supervisor–subordinate relationships characterized by low supervisor supportiveness, low quality of communication, and lack of feedback reduce individual well-being and contribute substantially to feelings of stress (see Cartwright & Cooper, 1994).

It is widely acknowledged that subordinates are influenced by the support received from their supervisor (e.g., Offermann & Hellmann, 1996; Sosik & Godshalk, 2000). Leadership is often mentioned in reviews of stress (e.g., Seltzer & Numerof, 1998). The supervisor–subordinate relationship is reported as one of the most common sources of stress in organizations (e.g., Landeweerd & Boumans, 1994; Tepper, 2000) and an essential element of the psychological climate within an organization (James & James, 1989). In most studies the relationship with the supervisor is operationalized in terms of the experienced support. A few studies have explicitly related supervisory behavior to subordinate well-being (e.g., Offermann & Hellmann, 1996), but there is still little longitudinal research on how leadership behavior affects subordinate well-being and stress levels. The longitudinal study reported in this article was designed to enhance our understanding of the influence that leadership behavior has on subordinates’ well-being. In this context well-being is conceptualized as people’s feelings about themselves and the settings in which they live and work.
Behavior shown by leaders toward their subordinates plays an important role in how supportive a work setting is perceived (Cherniss, 1995). Behavior characterized by trust, confidence, recognition, and feedback can enhance the well-being of subordinates. There is abundant empirical support that perceived social support from the leader is related to less perceived stress and burnout (Lee & Ashforth, 1996; Schaufeli & Enzan, 1998). Leaders who have a controlling, less supporting style, who fail to clarify responsibilities and provide supportive feedback, and who exert undue pressure may be expected to have subordinates who report lower levels of well-being (Cartwright & Cooper, 1994; Sosik & Godshalk, 2000). Cross-sectional studies have shown that a supportive environment provides positive affect, a sense of predictability, and a recognition of self-worth (Cohen & Wills, 1985).

Longitudinal studies on the directional influence of leadership behavior on well-being are, however, limited and their results inconclusive. For example, in one of the few studies that explicitly tested the longitudinal relation between leadership support and mental health, Dormann and Zapf (1999) failed to show a main effect for social support from the supervisor on depression in a three-wave study among citizens in the former East Germany. Similarly, studies by Dignam and West (1988) and Lee and Ashforth (1993) showed that workplace social support was cross-sectionally related to burnout but failed to validate such connections longitudinally. A fourth study (Feldt, Kinnunen, & Mauno, 2000) reported that positive changes in leadership relations were related to positive changes in well-being in a 1-year follow-up. Another study found a negative relation between a supportive work environment and mental health, under conditions of high responsibility (Winneb, Marcelissen, & Kleber, 1982). So, despite abundant cross-sectional evidence, longitudinal evidence on the beneficial effect of leadership behavior on subordinate well-being is still lacking.

Furthermore, earlier longitudinal studies provided evidence for a possible reversed causal relation between work conditions and employees well-being (Zapf, Dormann, & Frese, 1996). A possible explanation for this can be found by examining the relationship with their supervisor. In situations of diminished well-being, people may feel ashamed and less responsive to their social environment, including their leader. Conversely, subordinates who feel good about themselves may be more socially active, which might stimulate and reinforce positive supervisory behavior (Buunk & Hoorens, 1992).

So, not only does supervisors’ behavior influence their subordinates’ well-being, but how these subordinates feel and behave also influences how they are treated. Similar ideas have already been conceptualized within the vertical dyad linkage (or leader-member exchange [LMX], as it is now called) model of leadership (Dansereau, Graen, & Haga, 1975). LMX theory suggests that leaders differentiate how they work with each subordinate and develop a dyadic relationship with each of them (Schriesheim, Castro, & Cogliser, 1999). Affection between the leader and the subordinate is identified as one of three dimensions that must be developed to reach mutuality and reciprocity (the other two dimensions being contribution and loyalty; see Dienech & Liden, 1986). Although leadership theories do not explicitly state how a subordinate’s well-being will influence leadership behavior, well-being theories suggest that there will be an influence. For example, Frederickson’s (1998) broaden-and-build theory describes how experiencing positive emotions builds physical, intellectual, and, most important in this respect, social resources. In a similar way, Hobfoll’s (1989) conservation-of-resources theory suggests a process with so-called gain spirals. According to this theory, people strive to use their positive energy (here: more well-being) to enhance their resources (here: a more supportive relation with their manager). Translated to the work environment, both theories suggest that subordinates play an active role in the leadership–subordinate relationship. Research into related fields—motivation and job satisfaction—provides some evidence for the active role subordinates play in determining their work environment. For example, Houkes (2002) found that intrinsic motivation was a predictor of job characteristics such as autonomy and performance feedback; Wong, Hui, and Law (1998) reported that job satisfaction predicted job characteristics such as autonomy, task identity, skill variety, and feedback.

In addition, the potential effect of experiencing lower levels of well-being on interpersonal relationships can be hypothesized based on studies on depression. Research has shown that individuals interacting with people with depression get into a negative mood themselves, and this leads them to withdraw from these people (Coyne, 1976). Sacco’s (1999) social–cognitive model of interpersonal processes in depression states that the display of negative emotions inhibits support from others. Thus there are indications that the relationship between leaders and their subordinates is not one-directional but bidirectional, a relationship in which positive behavior and
feelings in one party fuel positive behavior and feelings in the other party. We, therefore, propose that the relationship between leadership behavior and subordinate well-being is most likely a process of mutual influence.

The research reported in this article used a longitudinal research design to investigate the nature of the relation between leadership behavior and the well-being of their subordinates. Figure 1 shows the different models that were tested. These models were formulated to answer two questions: (a) What is the most likely direction of the relation between leadership and well-being? and (b) What is the time frame of this relation? The second research question was tested to explore the proposition that the “true” effect or influence of leadership and well-being on each other is much shorter than the time lag of the study. In such a case, a model with synchronous effects will represent the longitudinal data more adequately than a model with a longitudinal effect in the same direction (Zapf et al., 1996). Five models were tested against the stability model. First, we tested a lagged leadership–well-being model that represents a time-lagged influence of leadership behavior on subordinate well-being. Second, we tested a lagged well-being–leadership model that represents a time-lagged influence of subordinate well-being on leadership behavior. Third, we tested a synchronous leadership–well-being model that represents a relative direct influence of leadership behavior on subordinate well-being. Fourth, we tested a synchronous well-being–leadership model that represents a relative direct influence of well-being on leadership behavior. In the fifth and final model, leadership behavior and well-being are hypothesized to have a reciprocal influence on each other.

Method

Data Collection

The data were collected as part of a larger longitudinal study in two Community Trusts in the British National Health Service, health care organizations that provide a range of community-based services that meet the health needs of people in the local population (for more information, see Van Dierendonck, Haynes, Borrill, & Stride, 2002). The present article uses well-being data, not previously analyzed, that were also collected in this context. We focused on the first four measurement points as this allowed us to test both longitudinal and synchronous relations. Thirty-eight managers participated in this study (this included 67% of managers employed in both sites). Among the managers, 34% were male and 66% were female. Their mean age was 40.7 years ($SD = 8.5$) with 16.1 years ($SD = 7.1$) of work experience in the organization and 3.4 years ($SD = 3.5$) in their management position. To gather as much information as possible, at each time point we sent surveys to all of the staff members for whom the manager was responsible. Thus additional staff members were included at Time 2, Time 3, and Time 4, whereas other respondents dropped out between measurement points. The four waves took place in February/March 1996, July/August 1996, December 1996/January 1997, and April/May 1997. The surveys were distributed by post directly to the respondents with a prepaid envelope so that completed surveys could be mailed back to the researchers.

Participants

At each time point, surveys were sent to all of the staff members who were being supervised by the managers participating in the study. The staff worked in a variety of different specialty areas throughout the Trust. These included mental health, learning difficulties, chiropody, physiotherapy, occupational therapy, and finance. The majority of participants had clinical jobs (i.e., nurses, physiotherapists, etc.). At Time 1, 1,029 people were employed by the two organizations. At this time point, 362 staff members participated in the study; their mean age was 39.9 years ($SD = 10.3$) with 4.6 years ($SD = 5.3$) of work experience in their present position; 19% were male. The participation rate dropped during the course of the study. At Time 2, 331 staff members participated; their mean age was 40.3 years ($SD = 10.5$) with 4.5 years ($SD = 4.9$) of work experience in their present position; 21% were male. At Time 3, 285 staff members participated; their mean age was 40.1 years ($SD = 9.9$) with 4.6 years ($SD = 5.0$) of work experience in their present position; 22% were male. At Time 4, 222 staff members participated; their mean age was 39.9 years ($SD = 10.2$) with 4.9 years ($SD = 5.3$) of work experience in their present position; 20% were male. A total of 562 staff members participated at least once. Staff who participated more than once rated the same manager at each time point. Demographic factors were not significantly different across time points (all $p > .05$).

Measures

Leadership behavior. Nine subscales of leadership were included originating from two measures of leadership. The first subscale focused on Presenting Feedback (e.g., “presents feedback in a helpful manner and with a workable plan for improvement if required”; Fandt, 1994). The other eight subscales focused on Coaching/Support (e.g., “willingly shared his or her knowledge and expertise with me”), Commitment to Quality (e.g., “regularly challenged me to continuously improve my effectiveness”), Communication (e.g., “clearly stated expectations regarding our team’s performance”), Fairness (e.g., “treated me fairly and with respect”), Integrity and Respect (e.g., “followed through on commitments”), Participation and Empowerment (e.g., “allowed me to participate in making decisions that affect me”), Providing Feedback (e.g., “providing me with timely, specific feedback on my performance”), and Valuing Diversity (e.g., “encouraged and accepted points of view that differed from his or her own”; Smith et al., 1995). Smithet
Figure 1. Latent variable models of leadership behavior and well-being. L1 = leadership at Time 1; WB1 = well-being at Time 1, and so on.
3. Synchronous leadership–well-being model

4. Synchronous well-being–leadership model

5. Synchronous reciprocal model

*Figure 1. (continued)*
especially valuable if an important goal is to conduct tests that allow for directional conclusions, which are based on the expectation-maximization (EM) algorithm as the starting point for model fitting. The EM algorithm (Dempster, Laird, & Rubin, 1977) is a useful technique for handling missing data problems. It is a two-step approach in which one starts with guesses about the missing data and uses those guesses to estimate the sums, sums of squares, and cross-products. In Step 2, these statistics are used to estimate a covariance matrix. Following, missing values are estimated using this matrix. Steps 1 and 2 are repeated until the estimated covariance matrix stops changing to a meaningful extent (Graham & Hofer, 2000).

There is a growing consensus that the resulting covariance matrix reflects the population values more adequately than those provided by the pairwise or listwise handling of missing data (Schafer & Graham,
2002). The covariance matrix estimated with FIML is more efficient and less biased than pairwise and listwise deletion. Two fundamental problems with listwise and pairwise deletion are that they may produce biased parameter estimates that are higher or lower than the population values and the statistical power is reduced because a substantial number of cases needs to be removed (Graham & Hofer, 2000). Two additional problems with pairwise deletion are that the covariance matrix may not be positive definite and there is no basis for estimating standard errors. An important advantage of FIML is that all the information available in the dataset is used, including information about the mean and variance of missing portions of a variable, given the observed portion(s) of other variables.

The FIML calculates twice the log-likelihood (–2*LL) of the data for each observation, first for the so-called saturated model and second for the specified model. The difference in fit function between these models provides a relative measure of fit that is distributed as chi-square. The adequacy of the model is also determined with the root-mean-square error of approximation (RMSEA). An RMSEA value of .05 or lower indicates a close fit to the data (Browne & Cudeck, 1993).

Following the suggestion of Anderson and Gerbing (1988), we tested the adequacy of the measurement model before actually testing the relations in the latent variable model. In this measurement model all latent variables were allowed to correlate. The measurement model showed a good fit to the data, \( \chi^2(121, N = 562) = 137.77, p = .128, \text{RMSEA} = .016 \), allowing us to proceed with the directional analysis, as described in the Method section. The standardized factor loadings of the leadership behavior parcels were all between .76 and .80. Well-being was determined strongly by job-related affective well-being (standardized factor loadings between .87 and .96) and to a lesser extent by the GHQ–12 (standardized factor loadings between .68 and .75). All factor loadings were significant (\( p < .05 \)).

As Table 2 shows, all three synchronous models provided a better fit to the data than the two lagged models. Furthermore, among the three synchronous models, the reciprocal model provided the best fit, \( \Delta \chi^2(6) = 40.52, p < .001 \). The outcomes of this model suggested, however, some adjustments. First, the results showed that four out of six relations between leadership behavior and well-being were nonsignificant. Subsequently, they were fixed at zero. Second, the modifications indices suggested a direct path from leadership behavior at Time 1 to leadership behavior at Time 2.
behavior at Time 4. This path was, therefore, freed to be estimated. The resulting adjusted model showed an adequate fit to the data.

Figure 2 shows the standardized solution of the adjusted model. Both leadership behavior and well-being are relatively stable across time; the stability coefficients ranged between .51 and .73. At Time 2, well-being positively influenced leadership behavior. Between Time 2 and Time 4, the situation remains relatively stable. At Time 4, leadership behavior at Time 1 positively influenced subordinate well-being, which in its turn synchronously influenced subordinate well-being.

Discussion

In this article we explored the impact of leadership behavior on subordinates’ well-being. We aimed to enhance our understanding of the nature of this relationship by focusing on two research questions. First, what is the most likely direction of the relationship between leadership behavior and subordinate well-being? Second, what is the time frame of this relationship?

With regard to the first research question, the final, adjusted model suggests that leadership behavior and subordinate well-being are linked in a feedback loop. The synchronous relation at Time 4 when leadership behavior positively influenced subordinate well-being is consistent with the findings from cross-sectional studies (Cohen & Wills, 1985). It acknowledges the important role that leaders can play in enhancing subordinates’ well-being. The synchronous relation at Time 2 well-being influencing leadership behavior demonstrates the influence subordinates have in determining the character of the

Table 2

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<th>Relation Between Leadership Behavior and Well-Being</th>
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<td>Model</td>
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Note. For all models, $p < .001$. RMSEA = root-mean-square error of approximation.

Figure 2. Latent variable model of leadership behavior and subordinate well-being, adjusted model standardized solution. The values represent stability coefficients. L1 = leadership at Time 1; WB1 = well-being at Time 1, and so on.
relationship with their manager. Subordinates who feel better about themselves also report that their manager has a more active and supportive leadership style. Taken together, the results lend support for the proposition that the relationship between leader and subordinate is a two-way reciprocal process.

We should, however, recognize that the relation between leadership behavior and well-being can also be a consequence of increases in negative feelings leading to a decrease in supportive leadership behavior, and vice versa. Hobfoll (1989) called this a loss spiral. A loss spiral exists when initial losses result in a depletion of resources (here: less supportive leadership behavior), which will over time result in more losses (here: less well-being). A similar finding is reported by Marcelissen, Buunk, Winnubst, and De Wolff (1988) among a group of white- and blue-collar workers in which employees who experienced more affective complaints as a result experienced less social support from their coworkers. Within such a loss spiral, the positive relation of leadership behavior toward their subordinates is in decreasing support from their coworkers. A mood improvement will result in a more positive outlook on life in general and on the work world (Seligman, 1991). Research by Byrne (1971) has shown that people who are in a negative mood perceive others less positively than people in a positive mood. Furthermore, a negative mood can cause people to turn away from other people out of fear of looking incompetent (Buunk & Hoorens, 1992). Alternatively, the well-being of subordinates may influence the leader’s affiliation behavior. People in general have a tendency to avoid depressed people (Sacco, 1999; the GHQ–12 is a measure of anxiety as well as depression), and leaders are probably no different. People prefer others who are feeling more positive simply because these interactions are more pleasant (Buunk & Schaufeli, 1993).

The results suggest several practical implications. First, managers should be made aware that their behavior toward their subordinates is influenced by the well-being of these subordinates. Managers should be trained to help their subordinates break the loss spiral. Nicholson’s (2003) decentering method provides some tips to achieve this. Instead of shying away from problem people, it suggests three steps to reach out and motivate them. The method requires managers to recognize where a person is coming from and their past influence on such a person. Following, managers should help subordinates reframe their situation, thereby stressing their value for the organization.

Second, and relatedly, programs aimed at diminishing stress and enhancing well-being should include not only the most stressed employees but also their managers. This will strengthen the effectiveness of such programs. Managers can better support employees’ efforts to incorporate the lessons and insights from the program. Third, subordinates should be made more aware of how their behavior influences their manager’s behavior toward them. To take responsibility for their well-being, they do not have to passively endure leadership behavior but can encourage their manager to become more involved with them in positive ways.

A limitation of our study is the missing values that were present at each time point. There is always a loss of information when some people do not fill out all surveys. To compensate for this problem, we used sophisticated SEM analytic techniques to get the most from our data. The use of the EM routine allowed for a full use of the information in our data. Although full data are of course always best, FIML is also a feasible method, to be preferred over listwise and pairwise deletion (Schafer & Graham, 2002).

A second limitation is that we did not include so-called third variables in our design. This precludes an unambiguous demonstration of causal relations (Zapf et al., 1996). However, a strong point in our design is the inclusion of stability coefficients and the
intercorrelations between the Time 1 variables. Therefore, occasion factors (e.g., weather and mood) and biographical variables (e.g., age, sex, and education) can be ruled out as sources of spurious dependency. The effects of nonconstant third variables (common factors), however, remain unknown.

A third limitation is the influence that constraining the loading of the measured variables to be equal across time has on the final outcome. Given the significant difference in the measurement model with and without constraining for leadership behavior across time, one could speculate about the extent to which this influenced the results. However, we reanalyzed the models from Figure 1 without the constraints. Both in terms of direction and time frame, the final adjusted model remained the same.

In conclusion, despite its limitations, this longitudinal study has confirmed the hypothesized reciprocal effect of supportive leadership behavior and subordinate well-being. We have, however, to conclude that this relation is more complicated than originally conceptualized (Cohen & Wills, 1985). More longitudinal research is certainly warranted.

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