VU Research Portal

The role of the follower in the relationship between empowering leadership and empowerment: A longitudinal investigation

van Dierendonck, D.; Dijkstra, M.T.M.

published in

Journal of Applied Social Psychology
2012

DOI (link to publisher)

[10.1111/j.1559-1816.2012.01022.x](https://doi.org/10.1111/j.1559-1816.2012.01022.x)

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

van Dierendonck, D., & Dijkstra, M. T. M. (2012). The role of the follower in the relationship between empowering leadership and empowerment: A longitudinal investigation. *Journal of Applied Social Psychology*, 42, E1-E20. <https://doi.org/10.1111/j.1559-1816.2012.01022.x>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

E-mail address:

vuresearchportal.ub@vu.nl

The Role of the Follower in the Relationship Between Empowering Leadership and Empowerment: A Longitudinal Investigation

DIRK VAN DIERENDONCK¹

*Rotterdam School of Management
Erasmus University, Rotterdam
Rotterdam, The Netherlands*

MARIA DIJKSTRA

*Free University, Amsterdam
Amsterdam, The Netherlands*

The purpose of this longitudinal study among 212 Dutch prison officers was to enhance insight into the nature of the relationship between empowering leader behavior and follower psychological empowerment. Empowerment was conceptualized as intrinsic task motivation, manifested in a set of 4 cognitions reflecting the individual's work-role orientation. Data were analyzed with structural equation modeling using a cross-lagged panel design. The results showed that followers' belief to be able to affect organizational outcomes (i.e., impact) at Time 1 was related to increased delegation by the leader 3 months later. Furthermore, followers' perceptions of autonomy regarding initiation and regulation of one's own actions (i.e., self-determination) at Time 1 was related to increased accountability by the leader 3 months later.

In today's global world of continuous change and competition, organizations face a multitude of challenges. The trend, for example, toward decentralized, organization forms (Houghton & Yoho, 2005) asks for a different kind of working from both leaders and employees. Leaders are expected to be more adaptive and flexible (Bass, Avolio, Jung, & Berson, 2003), and often are asked to lead and motivate not only individuals, but also teams as a whole (Chen, Kirkman, Kanfer, & Rosen, 2007). Employees are required to show increased initiative and innovation. Thus, a different approach is needed, both from employees and from leaders. As a result, modern leadership is moving toward a facilitating, motivational approach where followers are explicitly encouraged to take responsibility (Bass et al., 2003). It is against this background that a growing interest in psychological empowerment and empowering leadership is emerging.

Psychological empowerment is a multidimensional motivational construct, rooted in theories on employee involvement, and democracy on the shop floor on the one hand; and in psychological theories on the importance

¹Correspondence concerning this article should be addressed to Dirk van Dierendonck, Rotterdam School of Management, Burg Oudlaan 50, 3062 PA Rotterdam, The Netherlands. E-mail: DvanDierendonck@rsm.nl

of experiencing a sense of control over one's work (e.g., Cotton, 1993; Spreitzer, 2008; Wagner, 1994) on the other. *Leadership* is comprehensively defined as a process of social influence in which an individual enlists the aid and support of others to achieve a common goal (e.g., Hakimi, 2010; Northouse, 2004). It follows that it is primarily the leader who is in the position to motivate followers. Leaders can do so by creating an atmosphere in which empowerment can grow, and by giving employees the feeling they control and may use organizational resources that will benefit their performances.

Regretfully, research on empowering leadership as a key element for psychological empowerment mainly draws on cross-sectional data of either empowering leader behavior (e.g., Srivastava, Bartol, & Locke, 2006; Vechio, Justin, & Pearce, 2010) or psychological empowerment (e.g., Hochwälder & Bergsten Brucefors, 2005; Liden, Wayne, & Sparrowe, 2000; Wang & Lee, 2009). Furthermore, empowering leadership and psychological empowerment are generally held to be two different, yet complementary perspectives on empowerment at work, with surprisingly little work bridging them (Faulkner & Laschinger, 2008; Spreitzer, 2008). This is unfortunate because it limits our opportunity to gain insight into the nature of the relationship between empowering leader behavior and psychological empowerment, and it does not allow us to learn more about how leaders and followers may influence one another.

In the present study, we address this situation in two ways. First, we aim to supplement the traditional view that empowering leader behavior results in empowered employees. Based on theoretical reasoning and empirical evidence from related fields, we instead suggest that the behaviors of empowered followers may as well have an impact on the empowering activities of leaders. Therefore, we expect this relationship most likely to be reciprocal. Second, in this study we opt for a longitudinal design, allowing us to examine the developing relationship between leader and followers. However, given the individual nature of psychological empowerment, we start from the perspective of individual followers in order to understand the impact of empowering leadership (Menon, 2001; for empirical applications, see Ahearne, Mathieu, & Rapp, 2005; Keller & Dansereau, 1995).

Psychological Empowerment and Intrinsic Motivation

Conger and Kanungo (1988) defined *empowerment* as the motivational concept of self-efficacy focused on enabling people. In developing the general approach to psychological empowerment taken by Conger and Kanungo, Spreitzer (1995) focused on the concept of intrinsic task motivation. According to Deci (1975), "A person is intrinsically motivated if he performs an

activity for no apparent reward except the activity itself” (p. 113). Such intrinsic motivation is strongly associated with the concept of *autonomy*, which involves exercising the will and having the experience of choice (Gagné & Deci, 2005). *Psychological empowerment* is defined as increased intrinsic task motivation manifested in four cognitions—also referred to as *task assessment* (Spreitzer, 1995; Thomas & Velthouse, 1990)—which relate to aspects that can also be found in earlier theories on motivation (e.g., Bandura 1986; Deci, 1975; Hackman & Oldham, 1980) and involve (a) meaning; (b) competence; (c) impact; and (d) self-determination.

Meaning refers to the value of a work goal or purpose in comparison to ideals and standards; that is, the match between requirements of a work role and the employee’s beliefs, attitudes, values, and behaviors (Brief & Nord, 1990; Dewettinck, Singh, & Buyens, 2003; Spreitzer, 1995). High levels of meaning result in commitment, involvement, and concentration of energy (Thomas & Velthouse, 1990). As such, this concept is related to *meaningful work*, which is conceptualized as finding a purpose in work that is greater than the extrinsic outcomes of work (Arnold, Arad, Rhoades, & Drasgow, 2000).

Competence refers to belief in one’s own capabilities to perform a task (Gist & Mitchell, 1992; Spreitzer, 1996) and is strongly associated with Bandura’s (1986) concept of self-efficacy (Dewettinck et al., 2003). Perceptions of competence comprise an individual’s beliefs about what he or she can and cannot accomplish in competence-relevant settings, such as the work environment. High levels of competence are related to a sense of confidence and effectiveness in action and result in initiating behaviors, high effort, and persistence in the face of obstacles (Bandura, 1986; Thomas & Velthouse, 1990).

Impact—also known as *knowledge of results* (Hackman & Oldham, 1980)—reflects one’s belief to be able to affect or influence organizational outcomes (Ashforth, 1989; Spreitzer, 1995) concerning strategic, administrative, and operational decisions (Dewettinck et al., 2003). Impact is associated with the ability to recognize opportunities and become more strongly motivated (Thomas & Velthouse, 1990).

Self-determination is the employee’s perception of autonomy in the initiation and regulation of one’s own actions (Bell & Staw, 1980; Deci, Cornell, & Ryan, 1989; Dewettinck et al., 2003). External factors (e.g., tangible rewards, deadlines, surveillance, evaluations) tend to undermine intrinsic motivation by diminishing these feelings of autonomy. Both theory development (Conger & Kanungo, 1988; Spreitzer, 1995; Thomas & Velthouse, 1990) and construct validation of an empowerment measure by Spreitzer point to the potential significance of this concept in terms of its possible and positive influence on outcomes that benefit both individuals and organizations (Liden et al., 2000).

Leadership and Empowering Leader Behavior

The principal task of a leader is to mobilize others. Behavior of the leader can be expected to be of influence on the psychological empowerment of followers. The results of studies on leadership have indicated a positive relation between empowering subordinates and organizational effectiveness (Conger & Kanungo, 1988). Cross-sectional evidence for this relation was found in a study by Spence Laschinger, Purdy, and Almost (2007) among nurses, and by Ahearne et al. (2005) in their study among salespeople. Motivation and empowerment, therefore, are key concepts that are highly valued because of their capability "to produce."

Empowering leadership has its roots in social cognitive theory (Bandura, 1986), in participative goal-setting research (e.g., Erez & Arad, 1986), as well as in the shared leadership approach (Carson, Tesluk, & Marrone, 2007; Pearce & Conger, 2003). The perspective of the employee and the leader's actions to involve others in decision making is regarded as central. It emphasizes employee self-influence processes and actively encourages followers to lead themselves to self-direction and self-motivation (e.g., Houghton & Yoho, 2005; Pearce & Sims, 2002). Empowering leadership involves behavior-focused strategies, constructive thought-pattern strategies, and natural reward strategies. It is associated with encouraging self-leadership and is often defined as the process of leading others to lead themselves (Manz & Sims, 1991).

In this study, therefore, we specifically focus on the three dimensions of empowering leader behavior that all particularly point to the enabling and supportive aspects of leadership: (a) delegation of authority; (b) accountability; and (c) facilitation. Although there is no general agreement on the number and nature of empowering leader behavior dimensions, often-used measures of the construct (e.g., Ahearne et al., 2005; Arnold et al., 2000; Boudrias, Gaudreau, Savoie, & Morin, 2009; Konczak, Stelly, & Trusty, 2000) represent in one way or another these particular three dimensions. As such, they can be considered to be at the core of empowering leadership.

First, *delegation of authority* is, in fact, giving away some of your own power to others (Burke, 1986), which, in turn, increases intrinsic motivation through changes in meaning, competence, impact, and self-determination (Spreitzer, 1995; Thomas & Velthouse, 1990). Earlier studies on the subject have identified delegation of authority as the crucial aspect of empowering leader behavior (Arnold et al., 2000; Konczak et al., 2000).

Second, accentuating *accountability* for outcomes is another dimension of empowering leader behavior. It is about giving people clear goals to strive for, but also holding them responsible for achieving these goals. Reallocating

power by delegating authority goes together with responsibility for outcomes placed with individuals and teams (Ford & Fottler, 1995).

The third dimension of empowering leader behavior is identified as *facilitation*. Leaders are required to share knowledge and information, with a significant proportion of the leaders' time spent on encouraging learning and securing appropriate training to ensure that employees develop skills that are relevant for empowerment efforts (Wellins, Byham, & Wilson, 1991).

The aforementioned descriptions of delegation of authority, accountability, and facilitation clearly indicate the importance of the perspective of the employee. By enabling followers to lead themselves, empowering leaders grant much of their power and influence to employees. By having control over task assessments, employees are expected to be more dedicated and intrinsically motivated.

Leader Behavior and Psychological Empowerment of Employees

In their theoretical analysis of the followers' role in the leadership process, Howell and Shamir (2005) proposed that the followers' self-concepts would influence the type of relationships they would form with their leader. Howell and Shamir explicitly stated that followers play an active role in the leadership process. In a first test for this model, Dvir and Shamir (2003) showed the relevance of followers' initial levels of—among other things—self-actualization, engagement, and self-efficacy for the transformational leadership that developed in 54 military units in a 4-month training course. Furthermore, an earlier longitudinal study provided evidence for the influence of follower well-being on leader behavior by showing a reciprocal relation between leaders and followers in a sample of 562 staff members of two community trusts (Van Dierendonck, Haynes, Borrill, & Stride, 2004). Finally, an experimental study by Ehrhart and Klein (2001) showed the relevance of the follower role in the formation of leader–follower relationships.

Theories from related disciplines have also demonstrated the influence of empowerment among followers on their leaders' empowering behavior. Buunk and Hoorens (1992), for example, argued that followers who feel self-assured and take initiative may stimulate and reinforce positive leader behavior; while more passive, less responsive followers might negatively influence their leader. Similarly, Hobfoll's (1989) conservation of resources theory suggests a process with so-called *gain-spirals*, where people strive to use their positive energy (here, empowerment) to enhance their resources (here, a more empowering relation with their leader). In fact, both theories stress the active role of followers in the development of social relationships,

such as the leader–follower relationship. Based on recent theory development inside and outside the leadership field, and in view of the foregoing, we hypothesize that there will be a reciprocal relationship between empowering leadership and follower empowerment.

The Present Study

The present study aims to reveal the directional influence of the relationship between leaders and followers. It is expected that leaders and followers have a reciprocal influence on each other. A longitudinal field study was conducted, and data were analyzed with structural equation modeling. With data from two measurement points, a cross-lagged design could be used that allows for possible insight into potential causality (Burkholder & Harlow, 2003). The field setting allows for greater external validity than does an experimental setting. Structural equation modeling further strengthens our approach because it is considered to be less biased, since measurement errors can be removed from the actual directional testing.

The arrows in Figure 1 show the different models that were tested. Three models were tested against the stability model. Arrow A signifies the stability coefficient that is included in all models. The first model represents a time-lagged influence of leader behavior on subordinate empowerment (Arrow B). The second model represents a time-lagged influence of subordinate empowerment on leader behavior (Arrow C). The third model indicates a reciprocal influence over time (Arrows B and C).

Figure 1. Conceptual model of empowering leadership and empowerment.

Method

Participants

Study participants were personnel from two prisons in the eastern part of The Netherlands. They participated in a longitudinal field study that was conducted twice, with an interval of 3 months. In the first wave, 341 persons participated, and 212 persons participated in both waves. This represents 55% (first wave) and 34% (second wave) of the total population, of which 72% were female. The participants' mean age was 40.3 years ($SD = 9.9$), with 12.1 years ($SD = 8.7$) of work experience within a prison setting. For the leadership items, the participants were asked to rate their direct supervisors (47 different leaders, span of control ranging between 1 and 19). There were no significant differences in gender, $t(211) = 1.03, p = .303$; age, $t(211) = 1.28, p = .201$; or work experience, $t(211) = .84, p = .204$, between the first and second waves.

Measures

The survey was in Dutch. The original English language scales were translated into Dutch by both authors separately. Differences in translation were discussed and resolved by a back-translation procedure.

Empowering leadership. Empowering leadership was measured with three dimensions based on Konczak et al.'s (2000) measure; namely, delegating authority, facilitation, and accountability. Responses were rated on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Delegating authority was measured with three items: "My manager gives me the authority I need to make decisions that make the work easier," "My manager gives me the authority to make changes necessary to improve things," and "My manager relies on me to make my own decisions about issues that affect how work gets done." Reliability was good at both times ($\alpha s = .79$ and $.78$, respectively).

Facilitation was measured with five items: "My manager shares information I need to ensure high quality results," "My manager encourages me to use systematic problem-solving methods," "My manager provides me with the information I need to meet inmates' needs," "My manager encourages continuous learning," and "My manager focuses on corrective action, rather than placing blame when I make a mistake." Reliability was excellent at both times ($\alpha s = .90$ and $.88$, respectively).

Accountability was measured with three items: "My manager holds me accountable for the work I am assigned," "I am held accountable for

performance and results,” and “My manager holds people responsible for the way they treat inmates.” Reliability was acceptable at both times (α s = .80 and .71, respectively).

Employee empowerment. We measured employee empowerment with the survey developed by Spreitzer (1995). It assesses the extent to which employees feel empowered on the job. This is done for each of the four dimensions of empowerment conceptualized by Thomas and Velthouse (1990). The survey consists of 12 items (i.e., 3 for each dimension). Responses were rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items for the four dimensions are “The work I do is every important to me” (meaning); “I am confident about my ability to do my job” (competence); “I have significant autonomy in determining how I do my job” (self-determination); and “My impact on what happens in my department is large” (impact). Cronbach’s alphas for the scales for the two waves were .88 and .89 for meaning; .77 and .76 for competence; .75 and .74 for self-determination; and .85 and .90 for impact.

Data Analysis

The strength and direction of the relations between empowering leadership and employee empowerment were assessed with a two-wave, cross-lagged panel model using MPlus 5.21 (Muthén & Muthén, 2009), which is particularly important in view of the aim of this study; namely, to find empirical evidence for longitudinal directions (Burkholder & Harlow, 2003). To operationalize empowering leadership, the latent variables indicating the three dimensions were based on the separate items. Similarly, the operationalization of the four empowerment dimensions was based on the items of each scale. Furthermore, within MPlus, we could account for the nested structure of our dataset (i.e., employees completing the survey about the same supervisor). Statistically controlling for the multi-level structure is important in order to obtain the correct error variances.

In conducting behavioral research in general and leadership research in particular, there is always the risk of common method bias, especially if—as in our study—the data are all collected from one source (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The most important remedy to control for method bias is through the design of the study. If access to data from different sources is impossible, a temporal separation of the independent and dependent variable is the next best option. In our study, the time lag was 3 months, which is generally considered to be long enough to reduce bias as a result of contextual cues, respondents remembering previous completed items, and making prior responses less relevant for current responses (Podsakoff et al., 2003).

Furthermore, statistical methods can reduce method bias. Our use of structural equation modeling with a manifest and latent model with all items measured twice—the same survey was used at Time 1 and Time 2—allows for a different correction of method variance than the methods suggested in Podsakoff et al.'s (2003) study, which specifically dealt with cross-sectional designs or with longitudinal designs where variables were measured on either occasion, yet not on both. Our cross-lagged panel design allows for two statistical remedies to control for method bias, specifically focusing on the longitudinal character of the data.

First, to correct for the influence of correlated measurement error across time, we allowed the error term of the items that were measured repeatedly over time to correlate (Russell, Kahn, Altmaier, & Spoth, 1998). For example, the error term of the items of impact at Time 1 were allowed to correlate with the error term of the same items of impact at Time 2. This corrects for the possible methodological impact of using the same measurement instrument twice.

Second, following Zapf, Dormann, and Frese (1996), third variable effects such as occasion factors (e.g., positive affect) and background variables (e.g., age, gender) were controlled by partialling out the baseline level of a variable. Figure 1 shows the different models that were tested. In all of these models, the predicted variables at Time 2 were controlled for by their baseline levels at Time 1. This partialling out of the variance as a result of stability over time is an important advantage of a longitudinal design like ours. In addition, at Time 1 and Time 2, the empowerment dimensions and the empowering leadership dimensions were allowed to correlate. In this way, we corrected for variance as a result of similarity in concepts measured with a self-report survey.

Results

Means, standard deviations, and correlations of the study variables are presented in Table 1. Following Anderson and Gerbing (1988), we tested the adequacy of the measurement model before actually testing the relations in the latent variable model. This preliminary step is essential because if the measurement model is misspecified, a fitting model cannot be found. In all analyses, to take into account the nested structure of the data, the cluster option within MPlus was used. Structural equation programs provide several fit indexes that can be used to compare different models against each other. In this paper, we used the four most common used fit indexes; that is, Akaike's information criterion (AIC), comparative fit index (CFI), Tucker–Lewis index (TLI), and standardized root mean square residual (SRMR).

Table 1

Descriptive Statistics and Intercorrelations of Study Variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Delegating authority, Time 1	5.31	0.96	—												
2. Accountability, Time 1	5.50	0.90	.37	—											
3. Facilitation, Time 1	4.72	1.08	.57	.36	—										
4. Meaning, Time 1	5.54	0.79	.28	.01	.19	—									
5. Competence, Time 1	5.60	0.60	.20	.06	-.03	.35	—								
6. Self-determination, Time 1	5.33	0.85	.47	.06	.05	.34	.37	—							
7. Impact, Time 1	4.70	0.93	.37	.13	.05	.33	.42	.47	—						
8. Delegating authority, Time 2	5.45	0.79	.49	.16	.41	.25	.09	.34	.29	—					
9. Accountability, Time 2	5.70	0.60	.20	.43	.27	.08	.07	.17	.16	.49	—				
10. Facilitation, Time 2	4.90	0.96	.26	.12	.58	.10	-.15	-.03	.00	.65	.43	—			
11. Meaning, Time 2	5.49	0.85	.15	.00	.05	.59	.25	.24	.20	.26	.21	.19	—		
12. Competence, Time 2	6.08	0.50	.14	.04	-.07	.27	.61	.31	.29	.08	.16	-.17	.34	—	
13. Self-determination, Time 2	5.42	0.75	.35	.09	.06	.16	.26	.62	.39	.43	.29	.11	.26	.33	—
14. Impact, Time 2	4.85	0.94	.21	.04	.05	.21	.30	.27	.62	.41	.30	.16	.40	.29	.43

Note. *N* = 212. Correlations are depicted for participants who completed the survey twice (i.e., Time 1 and Time 2). Correlations > .13 are significant at *p* < .05.

For AIC, a lower score indicates a better fit to the data. For CFI and TLI, a value of at least .90 is recommended; and for SRMR, a value lower than .08 is recommended. The chi square is heavily influenced by sample size and, as such, was not used for comparison purposes here.

First, we tested the multidimensionality of empowering leadership. At Time 1, a one-dimensional model (all items loading on one empowering leadership dimension) was compared to the proposed three-dimensional model. The fit indexes were as follows: one-dimensional model, $\chi^2(44) = 376.52$, $p < .001$ (AIC = 10446.73; CFI = .78; TLI = .72; SRMR = .11); and three-dimensional model, $\chi^2(42) = 92.46$, $p < .001$ (AIC = 10044.37; CFI = .97; TLI = .95; SRMR = .05). These results clearly confirm the multidimensionality of our empowering leadership measure.

Second, we tested the multidimensionality of empowerment in a similar way. The fit indexes were as follows: one-dimensional model, $\chi^2(54) = 800.48$, $p < .001$ (AIC = 9976.87; CFI = .47; TLI = .35; SRMR = .13); and four-dimensional model, $\chi^2(47) = 176.31$, $p < .001$ (AIC = 9157.16; CFI = .91; TLI = .88; SRMR = .06). These results support the multidimensionality of the empowerment measure.

Finally, the full measurement model at Time 1 and Time 2 was tested whereby all latent variables were allowed to correlate. The fit indexes of the later model appear to be rather good, $\chi^2(875) = 1374.43$, $p < .001$ (AIC = 22156.12; CFI = .91; TLI = .89; SRMR = .06). The modification indexes show that the fit of the measurement model could be improved by allowing one of the delegation items to cross-load on accountability, $\chi^2(873) = 1333.05$, $p < .001$ (AIC = 22138.91; CFI = .92; TLI = .90; SRMR = .06).

The relative goodness-of-fit indexes were now all at generally accepted values, allowing us to proceed with the directional analysis, as described in the Method section. The respective standardized factor loadings were between .36 and .85 for leadership, and between .58 and .93 for empowerment. All factor loadings were significant ($p < .05$). The cross-loadings of the delegation item on accountability were .06 (*ns*) and .54 ($p < .05$), for Times 1 and 2, respectively.

Now that we have confirmed the underlying measurement model, we can proceed with testing and comparing the different latent variable models. As shown in Table 2, the model where empowerment at Time 1 is related to empowering leadership at Time 2 has a better fit than does the one with the reversed direction (the models have the same degrees of freedom, $\Delta\chi^2 = 25.52$). This indicates that it is more likely that empowerment experienced at the first measurement point has an influence on empowering leadership experienced 3 months later, than vice versa. The reciprocal model had a similar fit; however, with fewer degrees of freedom. As such, the difference

Table 2

Relation Between Empowering Leadership Behavior and Employee Empowerment

	χ^2	df^a	AIC	CFI	TLI	SRMR
Baseline stability model	1522.66	939	22214.67	.89	.88	.11
Leadership-empowerment model	1518.06	927	22223.01	.89	.88	.11
Empowerment-leadership model	1492.54	927	22205.65	.90	.88	.09
Reciprocal model	1488.19	915	22210.84	.89	.88	.09
Adjusted model	1433.25	936	22127.93	.91	.90	.08

Note. All chi-square statistics, $p < .001$.

^a df = parameters free to be estimated.

between Models 3 and 2 was not significant, $\Delta\chi^2(12) = 4.35$, $p = .98$, confirming that Model 2 fits the data best because it is the most parsimonious model. This result means that changes in empowering leadership between Time 1 and Time 2 are influenced by psychological empowerment at Time 1.

Next, we checked what qualified this effect. This can be found by checking the significance of the individual paths between the four empowerment dimensions and the three leadership dimensions in Model 2. The outcomes of Model 2 show that the strongest paths were between Time 1 Impact and Time 2 Delegation, and between Time 1 Self-Determination and Time 2 Accountability. The other paths were fixed at 0. The modification indexes show that one more path needed to be released in order to have an acceptable model fit; that is, Time 1 Self-Determination to Time 1 Delegation. The resulting adjusted model shows a reasonably good fit to the data, with relative fit indexes above generally accepted values (see Table 2).

Figure 2 shows the standardized solution of the adjusted Model 2. Both empowering leadership behavior and empowerment turned out to be relatively stable across time, with stability coefficients ranging between .45 and .78. Of the four empowerment dimensions, it was impact at Time 1 that was related to empowering leadership in terms of having a leader who at Time 2 delegated more authority; and self-determination at Time 1 that was related to delegating more authority at Time 1 and showing more accountability at Time 2.

Figure 2. Latent variable model of empowerment and empowering leadership, adjusted model standardized solution. *Note.* For reasons of clarity, the measurement model is not depicted.

Discussion

This longitudinal study set out to investigate the relationship between empowering leadership and follower psychological empowerment using a sample of prison officers. The study was conducted at two time points, with an interval of 3 months. The results show that leader empowering behavior is related to follower empowerment over time. We argued and demonstrated that the way followers feel and behave is of influence on the behavior toward them by their direct supervisors. Contrary to what one might expect, the influence of follower empowerment on leader behavior turned out to be stronger than vice versa. This model provided a more parsimonious fit to the data than did the reciprocal model. As such, we found no confirmation for our hypothesis of a reciprocal relation between leaders empowering leadership and followers' empowerment. Followers' sense of impact and

self-determination was related to increased delegation by the leader 3 months later, and by greater accountability.

Theoretical Contributions

The most important theoretical contribution of the present study is that our field data provide empirical proof for the influential role played by followers in the relationship with their leaders. The extent to which they feel empowered at work affects the way they will be treated in return. The notion that empowering leadership is related to follower empowerment in itself is not new (see Bass, 2008). However, the available work tends to be limited to providing correlations and automatically taking the leader's role for granted (e.g., Zhang & Bartol, 2010). Such an approach is not sophisticated enough to disentangle the intricate relationship between empowering leadership and follower empowerment. Therefore, in the current study, we empirically validated the model by testing the relationships in a longitudinal design. The data from this study are in line with the results presented in Van Dierendonck et al.'s (2004) longitudinal study on the relation between leader behavior and follower well-being.

Our study directly follows the first point on the research agenda put forward in Spreitzer's (2008) review of 20 years of empowerment research. She explicitly suggested the need for research into reversed causality. Our study provides an important contribution in that it actually integrates the two main perspectives on empowerment, and helps to uncover sequential dynamics of empowerment at work. Where previous studies have demonstrated the relation between social-structural (like leadership) empowerment and psychological empowerment (e.g., Spreitzer, 1996; Wallach & Mueller, 2006) and performance (Chen et al., 2007), the reversed direction has hardly ever been addressed. The central role of follower impact and self-determination in this process is in accordance with the model on job crafting that was developed by Wrzesniewski and Dutton (2001) and with Deci et al.'s (1989) application of self-determination theory to the organizational context. The intrinsic motivation that goes with impact and self-determination motivates employees to become proactive and self-starting, which may, in turn, lead to positive changes in leaders' behavior.

Practical Contributions

Gained insight into the nature of the leader–follower relationship may have far-reaching consequences for leadership practice, where it has mostly been studied with leaders as causal agents. Interestingly, followers could be made more aware that they, too, influence this relationship. As a case in

point, our model shows that self-determination of followers is related to more accountability and delegation of authority by the leader. Apparently, leaders are more likely to delegate to followers who already show initiative and self-regulation. To change their leaders' behavior, followers do not need to passively wait for an improvement, but can actively take steps themselves. Followers could learn not only that they can influence their leaders' attitude and behavior toward them; it may also be worthwhile to get acquainted with tactics and strategies to start this process. A practical implication for management development programs may be to explicitly involve followers in such programs and focus on followers' skills that could initiate such adaptive behavior.

Study Limitations and Strengths

As in any other study, this one also has its limitations, the most important being that leadership behavior and follower empowerment were both measured from the perspective of the follower. A follow-up study with a dyadic design where both leaders and followers provide information on the relationship would be valuable. However, in this case, it was an explicit choice made in view of the focus of this study; namely, the quality of the leader–follower relationship and the reciprocal influence as perceived by followers.

With this being a longitudinal study, it enabled us to partial out the stability of empowerment from Time 1 to Time 2, thereby controlling for third variable effects like occasion factors and background variables. The use of structural equation modeling with a manifest and latent model has the additional advantage of excluding the influence of error variances in the final model. Method variance, a notorious concept in cross-sectional studies, can be controlled for in longitudinal studies with measurement points at least 3 months apart (Podsakoff et al., 2003; Zapf et al., 1986). This essential aspect of our methodology can also explain why the obtained effects from self-determination at Time 1 to empowering leadership at Time 2 may not seem to be particularly strong.

The cross-lagged panel design controls for stability. Consequently, the remaining relations found between empowerment and leadership indicate influence on the changes that took place between Time 1 and Time 2. From this perspective, coefficients of .18 and .26 become respectable. Finally, a major strength of this study is that we tested different theoretically derived models.

The fact that our study was conducted in a specific setting can be both a limitation and a strength. We acknowledge that this is an atypical work environment (Vartia & Hyyti, 2002), where the work of prison officers is regulated by rules and restrictions. Given the risk of violence from the

inmates, reliance among colleagues and leader support are extremely important in creating a safe and empowering work environment. A prison setting can be characterized by role conflict and role ambiguity, lack of involvement in decision making, and professional supervision. The preferred leader behavior, therefore, reflects a focus on enhancing a sense of empowerment (Lancefield, Lennings, & Thomson, 1997). So, although one could argue whether the results may be generalized to other settings, given the need for strong reliance on each other, a culture based on empowering leadership seems to be particularly appropriate for creating safe working conditions. If followers can positively influence their leaders in such a controlled hierarchical structure, it may very well work in other settings as well.

In conclusion, the results presented here call for further research into the reciprocal effects of leader and follower behavior. Where previous research has indicated the influence of leaders on their followers' feelings and behavior, our study is one of a small—but growing—number of studies that reveal how followers themselves can be actors in influencing their leaders' behavior toward them. Despite the difference in authority between leaders and followers, both contribute to the quality of this relationship.

References

- Ahearne, M., Mathieu, J., & Rapp, A. (2005). To empower or not to empower your sales force? An empirical examination of the influence of leadership empowerment behavior on customer satisfaction and performance. *Journal of Applied Psychology, 90*, 945–955.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and two-step approach. *Psychological Bulletin, 103*, 411–423.
- Arnold, J. A., Arad, S., Rhoades, J. A., & Drasgow, F. (2000). The Empowering Leadership Questionnaire: The construction and validation of a new scale for measuring leader behaviors. *Journal of Organizational Behavior, 21*, 249–269.
- Ashforth, B. E. (1989). The experience of powerlessness in organizations. *Organizational Behavior and Human Decision Processes, 43*, 207–242.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bass, B. M. (2008). *The Bass handbook of leadership: Theory, research, and managerial applications*. New York: Free Press.
- Bass, B. M., Avolio, J. B., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology, 88*, 207–218.

- Bell, N. E., & Staw, B. M. (1980). People as sculptors versus sculptures: The roles of personality and personal control in organizations. In M. B. Arthur, D. T. Hall, & B. S. Lawrence (Eds.), *Handbook of career theory* (pp. 232–251). New York: Cambridge University Press.
- Boudrias, J.-S., Gaudreau, P., Savoie, P., & Morin, A. J. S. (2009). Employee empowerment: From managerial practices to employees' behavioral empowerment. *Leadership and Organization Development Journal*, 30, 625–638.
- Brief, A. P., & Nord, W. R. (1990). *Meaning of occupational work*. Lexington, MA: Lexington Books.
- Burke, W. (1986). Leadership as empowering others. In S. Srivastava (Ed.), *Executive power* (pp. 51–77). San Francisco: Jossey-Bass.
- Burkholder, G. J., & Harlow, L. L. (2003). An illustration of a longitudinal cross-lagged design for larger structural equation models. *Structural Equation Modeling*, 10, 465–486.
- Buunk, B. P., & Hoorens, V. (1992). Social support and stress: The role of social comparison and social exchange processes. *British Journal of Clinical Psychology*, 31, 445–457.
- Carson, J. B., Tesluk, P. E., & Marrone, J. A. (2007). Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of Management Journal*, 50, 1217–1234.
- Chen, G., Kirkman, B. L., Kanfer, R., & Rosen, B. (2007). A multilevel study of leadership empowerment and performance in teams. *Journal of Applied Psychology*, 92, 331–346.
- Conger, J. A., & Kanungo, R. N. (1988). The empowerment process: Integrating theory and practice. *Academy of Management Review*, 13, 471–483.
- Cotton, J. L. (1993). *Employee involvement: Methods for improving performance and work attitudes*. Newbury Park, CA: Sage.
- Deci, E. L. (1975). *Intrinsic motivation*. New York: Plenum.
- Deci, E. L., Conell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. *Journal of Applied Psychology*, 74, 580–590.
- Dewettinck, K., Singh, J., & Buyens, D. (2003). *Psychological empowerment in the workplace: Reviewing the empowerment effects on critical work outcomes*. Leuven, Belgium: Vlerick Leuven Gent Working Paper Series.
- Dvir, T., & Shamir, B. (2003). Follower developmental characteristics as predicting transformational leadership: A longitudinal field study. *Leadership Quarterly*, 14, 327–344.
- Erez, M., & Arad, R. (1986). Participative goal setting: Social, motivational, and cognitive factors. *Journal of Applied Psychology*, 71, 591–597.

- Ehrhart, M. G., & Klein, K. J. (2001). Predicting followers' preferences for charismatic leadership: The influence of follower values and personality. *Leadership Quarterly*, 12, 153–179.
- Faulkner, J., & Laschinger, H. (2008). The effects of structural and psychological empowerment on perceived respect in acute care nurses. *Journal of Nursing Management*, 16, 214–221.
- Ford, R. C., & Fottler, M. D. (1995). Empowerment: A matter of degree. *Academy of Management Executive*, 9(3), 21–28.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26, 331–362.
- Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review*, 17, 183–211.
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison-Wesley.
- Hakimi, N. (2010). *Leader empowering behavior: The leader's perspective*. Unpublished doctoral dissertation, Erasmus University, Rotterdam, The Netherlands.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513–524.
- Hochwälder, J., & Bergsten Brucefors, A. (2005). Psychological empowerment at the workplace as a predictor of ill health. *Personality and Individual Differences*, 39, 1237–1248.
- Houghton, J. D., & Yoho, S. K. (2005). Toward a contingency model of leadership and psychological empowerment: When should self-leadership be encouraged? *Journal of Leadership and Organizational Studies*, 11(4), 65–84.
- Howell, J. M., & Shamir, B. (2005). The role of followers in the charismatic leadership process: Relationships and their consequences. *Academy of Management Review*, 30, 96–112.
- Keller, T., & Dansereau, F. (1995). *Leadership and empowerment: A social exchange perspective*. *Human Relations*, 48, 127–146.
- Konczak, L. J., Stelly, D. J., & Trusty, M. L. (2000). Defining and measuring empowering leader behaviors: Development of an upward feedback instrument. *Educational and Psychological Measurement*, 60, 301–313.
- Lancefield, K., Lennings, C. J., & Thomson, D. (1997). Management style and its effect on prison officers' stress. *International Journal of Stress Management*, 4, 205–219.
- Liden, R. C., Wayne S. J., & Sparrowe, R. T. (2000). An examination of the mediating role of psychological empowerment on the relations between the job, interpersonal relationships, and work outcomes. *Journal of Applied Psychology*, 85, 407–416.

- Manz, C. C., & Sims, H. P. (1991). Superleading: Beyond the myth of heroic leadership. *Organizational Dynamics*, 19, 18–35.
- Menon, S. T. (2001). Employee empowerment: An integrative psychological approach. *Applied Psychology: An International Review*, 50, 153–180.
- Muthén, L. K., & Muthén, B. O. (2009). *MPlus user's guide* (5th ed.). Los Angeles: Authors.
- Northouse, P. G. (2004). *Leadership: Theory and practice*. Thousand Oaks, CA: Sage.
- Pearce, C. L., & Conger, J. A. (2003). *Shared leadership: Reframing the how and whys of leadership*. Thousand Oaks, CA: Sage.
- Pearce, C. L., & Sims, H. P., Jr. (2002). Vertical versus shared leadership as predictors of the effectiveness of change management teams: An examination of aversive, directive, transactional, transformational, and empowering leader behaviors. *Group Dynamics: Theory, Research, and Practice*, 6, 172–197.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method variance in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879–903.
- Russell, D. W., Kahn, J. H., Altmaier, E. M., & Spoth, R. (1998). Analyzing data from experimental studies: A latent variable structural equation modeling approach. *Journal of Counseling Psychology*, 45, 18–29.
- Spence Laschinger, H. K., Purdy, N., & Almost, J. (2007). The impact of leader–member exchange quality, empowerment, and core self-evaluation on nurse manager's job satisfaction. *Journal of Nursing Administration*, 37, 221–229.
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, 38, 1442–1465.
- Spreitzer, G. M. (1996). Social structural characteristics of psychological empowerment. *Academy of Management Journal*, 39, 483–504.
- Spreitzer, G. M. (2008). Taking stock: A review of more than twenty years of research on empowerment at work. In J. Barling & C. L. Cooper (Eds.), *The Sage handbook of organizational behavior: Vol. 1. Micro perspectives* (pp. 54–72). London: Sage.
- Srivastava, A., Bartol, K. M., & Locke, E. (2006). Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance. *Academy of Management Journal*, 49, 1239–1251.
- Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment: An interpretive model of intrinsic task motivation. *Academy of Management Review*, 15, 666–681.

- Van Dierendonck, D., Haynes, C., Borrill, C., & Stride, C. (2004). Leadership behavior and subordinate well-being. *Journal of Occupational Health Psychology, 9*, 165–175.
- Vartia, M., & Hyyti, J. (2002). Gender differences in workplace bullying among prison officers. *European Journal of Work and Organizational Psychology, 11*, 113–126.
- Vechio, R. P., Justin, J. E., & Pearce, C. L. (2010). Empowering leadership: An examination of mediating mechanisms within a hierarchical structure. *Leadership Quarterly, 21*, 530–542.
- Wagner, J. A. (1994). Participation's effects on performance and satisfaction: A reconsideration of the evidence. *Academy of Management Review, 19*, 312–330.
- Wallach, V. A., & Mueller, C. W. (2006). Job characteristics and organizational predictors of psychological empowerment among paraprofessionals within human service organizations: An exploratory study. *Administration in Social Work, 30*, 95–115.
- Wang, G., & Lee, P. D. (2009). Psychological empowerment and job satisfaction: An analysis of interactive effects. *Group and Organization Management, 34*, 271–296.
- Wellins, R., Byham, W., & Wilson, J. (1991). *Empowered teams: Creating self-directed work groups that improve quality, productivity, and participation*. San Francisco: Jossey-Bass.
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review, 26*, 179–201.
- Zapf, D., Dormann, C., & Frese, M. (1996). Longitudinal studies in organizational stress research: A review of the literature with reference to methodological issues. *Journal of Occupational Health Psychology, 1*, 145–169.
- Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal, 53*, 107–128.