



Employee empowerment

From managerial practices to employees' behavioral empowerment

Employee
empowerment

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Abstract

Purpose – The purpose of this paper is to extend past research by investigating the relationships between supervisors' empowering management practices (SEMP), employees' psychological empowerment (PE), and a new measure of employees' behavioral empowerment (BE). A mediation model is hypothesized.

Design/methodology/approach – A questionnaire study is conducted among 359 non-managerial employees. Because BE is both self-reported and externally assessed, relationships are verified with single-source and multi-source data.

Findings – SEMP are quite strongly related to PE, but more weakly related to BE. Structural equation analyses tend to support a model where PE completely mediates the relationship between supervisors' managerial practices and employees' BE.

Research limitations/implications – This cross-sectional study does not provide indication of causality among the variables.

Practical implications – First, this paper suggests that feeling empowered is a pivotal mindset that needs to be created by supervisors to generate proactive behaviors. Second, the moderate correlation found between PE and BE measures suggests that they capture different facets of empowerment. Given management concern for bottom line results, behavioral measures should not be ignored in assessing employee empowerment.

Originality/value – This paper used a behavioral criterion to assess employee empowerment rather than relying solely on a psychological measure.

Keywords Empowerment, Employee behaviour, Psychology (motivation)

Paper type Research paper

In the past decade, many organizations have implemented managerial approaches based on empowerment (e.g. self-managed work teams, total quality management), on the expectation that these will increase employee productivity as well as innovation (Lawler, 1986; Wellins *et al.*, 1991). However, such outcomes are not automatic.

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For benefits to materialize, empowering managerial approaches should foster feelings of empowerment among employees and, ultimately, stimulate employee behaviors in the direction of expected outcomes. Although many studies have investigated the relationships between managerial practices and a psychological state of empowerment, few have examined employee empowerment in terms of its behavioral manifestations. The goal of this paper is to extend past research by investigating the relationships between supervisors' empowering management practices (SEMP), employees' psychological empowerment (PE), and employees' behavioral empowerment (BE).

Theoretical background

Employee empowerment can be conceived in two ways:

- (1) as a set of managerial practices aiming at increasing employees' autonomy and responsibilities; and
- (2) as an individual (pro)active work orientation.

Recent theoretical work suggests that empowering managerial practices should foster a certain psychological mindset to lead to empowered behaviors (Spreitzer, 1995a, b; Thomas and Velthouse, 1990).

Seminal work by Spreitzer (1995a, b, 1997) has helped define PE as a global mindset including four cognitions reflecting a proactive orientation with regard to one's role in the organization. Empowered individuals:

- (1) find meaning in their work role;
- (2) feel competent to perform their work role;
- (3) have a feeling of self-determination with regard to specific means to achieve expected results; and
- (4) believe that they can have a real impact on organizational outcomes.

Several studies have focused on PE as the sole criterion to determine if employees are empowered in their job (Carless, 2004; Corsun and Enz, 1999; Koberg *et al.*, 1999; Morrison *et al.*, 1997; Siegall and Gardner, 2000). However, these investigations did not verify if psychologically empowered individuals also display empowered behaviors at work.

Employees' behaviors reflecting empowerment have been neglected despite their practical importance. Presumably, empowerment is not only implemented to change employee cognitions, but also to foster (pro)active behaviors that could have an impact on organizational outcomes. Until recently, one explanation for this shortcoming was a lack of specific behaviorally based instruments to appraise individual empowerment. In that respect, the Boudrias and Savoie (2006) study has provided a conceptual framework and a new instrument to assess BE. Based on a review of the empowerment literature (Conger and Kanungo, 1988; Laschley, 1999; Spreitzer, 1997; Thomas and Velthouse, 1990) and interviews of 20 managers from diverse organizations, their study pointed out that empowered employees conscientiously assume their work-related responsibilities and proactively initiate changes in their work environment. Empowerment could thus be manifested through both active "in-role" and "extra-role" performance (e.g. proactive behaviors, organizational citizenship behaviors – OCB). In their study, BE was defined as relatively self-determined behaviors aimed at securing work effectiveness or at

improving work efficiency within the organization. An integrative questionnaire was then created and validated with factor analyses. The five dimensions measured by the behavioral empowerment questionnaire (BEQ) are defined in Table I.

Compared to other behaviorally based instruments available (e.g. OCB), the BEQ measures more specifically individual empowerment, defined as an active or proactive work involvement. To avoid content contamination, behavioral indicators that were not in line with this definition (e.g. following rules, not complaining) were not included in the BEQ. Moreover, this questionnaire provides a global score of BE which integrates in-role and extra-role contributions, which were both part of the definition of BE.

Relationships between PE and BE

According to Spreitzer (1995a, b), PE is a critical mindset that needs to be created by empowering conditions (e.g. supervision style, job design) to generate employees' BE. Because psychologically empowered workers see themselves as competent and able to influence their jobs and work environments in a meaningful way, they are more likely to proactively execute their job responsibilities and innovate in their job.

Relationships between PE and a diverse set of behavioral outcomes have been investigated. Those studies show that PE is positively related to in-role performance (Bartram and Casimir, 2007; Cirka, 2000; Liden *et al.*, 2000), customer service (Peccei and Rosenthal, 2001), voicing of ideas and helping (Cirka, 2000), innovative behaviors (Alge *et al.*, 2006; Janssen *et al.*, 1997), and diverse measures of citizenship behaviors (Alge *et al.*, 2006; Menon, 2001; Wat and Schaffer, 2005). These various studies lend support to the idea that PE positively influences BE. However, these studies present two limitations. First, behavioral outcomes measured in these studies were not always selected as indicators of empowerment. For example, the compliance facet of some citizenship behavior measures may not be an appropriate indicator of individual empowerment because it entails a passive rather than active work orientation. Second, some studies (Janssen *et al.*, 1997; Menon, 2001; Peccei and Rosenthal, 2001) relied only on self-report instruments to assess employee behaviors making their results more prone to methodological artifacts (e.g. social desirability, common method variance).

Influence of supervisors' managerial practices on PE and BE

According to Lawler (1986), empowerment occurs when organizations implement high-involvement managerial systems. To do so, Lawler suggests delegating larger decision-making power to first-line employees, providing appropriate training for them,

Dimension	Definition
Efficacy in performing job tasks	Demonstrating conscientiousness and skill in performing one's job tasks and responsibilities
Improvement efforts in job tasks	Reviewing one's job tasks and making changes in order to better perform one's job or making one's work more useful
Effective collaboration	Collaborating with colleagues in order to ensure optimal group functioning to complete the work unit tasks
Improvement efforts in the work group	Reviewing one's work unit functioning and taking action in order to improve group efficiency
Involvement at an organizational level	Being involved in the organization to maintain and improve efficacy at an organizational level

Table I.
Dimensions of the BEQ

giving them access to relevant strategic information and rewarding employees for achieving results. From these propositions, some studies have tried to identify empowering managerial practices that are under supervisors' control. Arnold *et al.* (2000) suggested that participative decision-making, leading by example, coaching, informing and interacting positively with the team could be effective SEMP. Such managerial practices would lead employees to see more value in their personal contributions (meaning), to develop an increased self-efficacy to perform and extend their work role (competence), to perceive more opportunity to make choices regarding different facets of their job (self-determination), and to feel that they can really make a difference in their work environment (impact). The study by Konczak *et al.* (2000) provides empirical support to this proposition by showing that similar supervisor practices are strongly correlated to PE. Studies have also shown that supervisors' empowering practices, measured in terms of delegation/consultation (Menon, 2001) and transformational leadership (Avolio *et al.*, 2004; Bartram and Casimir, 2007; Morrison *et al.*, 1997), are positively related to PE. Therefore, much empirical evidence supports the positive influence of SEMP on PE.

As far as relationships between SEMP and BE are concerned, few specific studies are available. An exploratory study done by Boudrias *et al.* (2003) suggested the existence of a moderate positive relationship between SEMP and self-reported behavioral involvement in a sample of working students. However, past related research has shown significant, although weak, relationships between management practices and behavioral outcomes conceptually related to BE. Indeed, review studies have revealed weak correlations between participative management and performance (Wagner, 1994) as well as between a supervisor's autonomy support and employee citizenship behaviors (Podsakoff *et al.*, 1996). Overall, these results may suggest that SEMP could be a distal antecedent of BE and a more proximal antecedent of PE.

PE as a mediating variable

According to Spreitzer's (1995a, b) theoretical model, PE might be a mediating variable between SEMP and BE. In other words, empowering managerial practices would contribute to develop an empowered mindset among employees (e.g. PE) and, in return, this mindset would be the motivational drive leading employees to do their job skilfully, see how things could be done differently and take concrete action to increase efficacy in their jobs as well as in their organizations.

Some studies supported the existence of the following mediation relationships: SEMP → PE → behavioral job involvement (Boudrias *et al.*, 2003), autonomy support and competency feedback → PE → helping and voice (Cirka, 2000), and empowering organizational practices → PE → innovation (Spreitzer, 1995a). However, mixed findings have been found with regard to the mediating role of PE in the relationships between empowering leadership and task performance. Some have found positive results (Aryee and Chen, 2006; Bartram and Casimir, 2007), yet others have failed to demonstrate any mediation of PE on the relationship between empowering leadership and employee task performance (Corrigan, 1998; Liden *et al.*, 2000). One hypothesis that could explain the latter is that the less integrative behavioral outcome variables studied (e.g. task performance instead of BE) might have reduced the possibility to observe the mediation effect expected. Indeed, task performance in itself may not always be a good indicator of empowerment because high performance

in some contexts can be achieved without proactively taking initiatives. Therefore, research is needed with behavioral outcomes more in line with empowerment to draw conclusions on the mediating role of PE.

This study

This study aims at verifying four hypotheses implied by a mediation model. Hypotheses are set at a global construct level. The first three hypotheses refer to bivariate relationships or direct effects:

H1. SEMP is positively correlated with PE.

H2. SEMP is positively correlated with BE.

H3. PE is positively correlated with BE.

The fourth hypothesis refers to a mediation (indirect) effect:

H4. PE completely mediates the relationship between SEMP and BE.

This study will verify if a complete mediation model fits the data better than an alternative model of partial mediation.

Methodology

Procedure and participants

Participants were recruited from three service organizations operating in Canada (health services, insurance, and communications). Employees targeted were at the non-managerial level and various job types (project manager, salesperson, customer service representative, and clerical worker) were represented. In each organization, the study was conducted in two stages. First, employees were asked to answer a web-based questionnaire measuring SEMP, PE, and BE. A personal identification code was provided to access the questionnaire, in order to identify each employee to later match responses with the supervisor appraisal. In the second phase, employees' supervisors were asked to assess the BE of a maximum of five of their employees randomly selected by the authors. Confidentiality was guaranteed both for employees and supervisors.

Participation rate was above 70 percent in all three organizations. The total sample of employees was made up of 359 individuals (health services, $n = 204$; insurance, $n = 92$; and communication, $n = 63$). With regard to sample characteristics, 60 percent were women, 47 percent were between 36 and 55 years of age, and 43 percent were 35 years or younger. Most of the employees (88 percent) worked full-time and 50 percent had more than five-year tenure tracks in their organization. Among these 359 employees, 185 were assessed by their immediate supervisor.

Measures

Supervisors' empowerment management practices. SEMP were assessed with a 30-item questionnaire. Based on Konczak *et al.* (2000) and Arnold *et al.* (2000), five dimensions were measured:

- (1) delegating or sharing power (e.g. delegates authority to the group members that is equal to their level of responsibility);

- (2) fostering development of skills (e.g. indicates opportunities for us to learn in our work);
- (3) *communicating relevant job information* (e.g. shares information with us that is useful in doing our work);
- (4) recognizing and rewarding performance (e.g. gives rewards based on the level of performance achieved); and
- (5) maintaining positive relations with the group (e.g. treats the members of my work group as equals).

Employees were asked to indicate how frequently (1 = never to 5 = always) their supervisor displays each of the behaviors. An exploratory factor analysis suggested that the 30 items may be grouped in a single factor explaining 61.3 percent of the common variance of items. This is consistent with studies (Arnold *et al.*, 2000; Konczak *et al.*, 2000) suggesting that there are strong enough correlations between various supervisors' empowerment practices to legitimize using a one-dimensional measure. Therefore, an overall score combining the 30 items was computed for this study.

Psychological empowerment. PE was measured with Spreitzer's (1995b) instrument. This 12-item questionnaire measures PE through four dimensions: meaning (e.g. the work I do is meaningful to me), competence (e.g. I am self assured about my capabilities to perform my work activities), self-determination (e.g. I can decide on my own how to go about doing my work) and impact (e.g. my impact on what happens in my work group is large). Employees were asked to indicate their level of agreement with each item (1 = do not agree to 5 = strongly agree). A global PE score was created by computing the mean of the four dimensions to reflect the PE construct composed of the shared variance of these dimensions (Spreitzer, 1995b).

Behavioral empowerment. BE was measured with the Boudrias and Savoie (2006) questionnaire. Empowered behaviors were assessed both by employees and their supervisors. The self-report questionnaire contains 30 items whereas the supervisor questionnaire comprises 18 items selected among the self-report questionnaire items. Both questionnaires measure five types of behaviors:

- (1) efficacy in performing job tasks (e.g. perseverance in achieving the best standards of quality in my work);
- (2) improvement efforts in job tasks (e.g. making changes to improve efficiency in performing my tasks);
- (3) effective collaboration (e.g. keeping coworkers informed of the progress of my work in group projects);
- (4) effort for improvement in the work group (e.g. introducing new ways of doing things in my work group); and
- (5) involvement at the organizational level (e.g. making suggestions to improve the organization's functioning).

Respondents were asked to indicate how frequently (1 = rarely to 5 = very often) they have demonstrated (self-report questionnaire) or observed (supervisor questionnaire) each behavior over the past six months. Scores for each dimension were created by computing the mean of items associated with a dimension. Then, an overall BE score was created by computing the overall mean of the five dimensions. Factorial analyses

were performed in this study revealing acceptable support for a five correlated factor structure for the self-report version ($\chi^2 = 1,137$, $df = 395$, comparative fit index (CFI) = 0.90, non-normed fit index (NNFI) = 0.90, root-mean-square error of approximation (RMSEA) = 0.07, standardized root-mean-square residual (SRMR) = 0.05) and the supervisor version ($\chi^2 = 237$, $df = 125$, CFI = 0.96, NNFI = 0.95, RMSEA = 0.07, SRMR = 0.05). The convergence between self-reported BE and supervisors' assessment of BE was then verified. Results indicate that self-reported scores were higher than supervisor assessments [$t(184) = -3.28$, $p < 0.01$], but that these two scores were significantly correlated ($r = 0.21$, $p < 0.01$).

Analytical strategy

H1-H3 were verified with zero-order correlations between SEMP, PE, and BE. *H4* was tested with structural equation modeling with latent variables (method of estimation: maximum likelihood). Two variables (PE and BE) were set as latent variables in the mediation model. Studying relationships between latent variables instead of observed variables has the advantage of providing relationship estimates taking the measurement error associated with latent variables into account. Several indices provided by EQS 5.7 software were used to assess model fit. The exact fit was tested using the χ^2 -statistic. Relative goodness-of-fit indices were also examined. A minimally acceptable fit is obtained when CFI and NNFI values are above 0.90 and when RMSEA and SRMR values are smaller than 0.08 (Hu and Bentler, 1999).

The mediation hypothesis was tested in two separate models. In the first model, all variable measures were from the employee-reported questionnaires (single-source-employee model, $N = 359$), whereas in the second model, the BE score was from the supervisor assessments (multi-source model, $N = 185$).

Results

Preliminary analyses were performed to make sure that employees who were assessed by their supervisor (multi-source sample) were equivalent to employees who were not assessed by their supervisor. No significant differences were found with regard to the main variable mean scores [SEMP: $t(357) = -0.83$, $p > 0.05$; PE: $t(357) = -1.03$, $p > 0.05$; self-reported BE: $t(357) = -1.83$, $p > 0.05$] nor with regard to demographic variables [sex: $\chi^2(1, N = 338) = 1.14$, $p > 0.05$; age: $\chi^2(4, N = 336) = 1.65$, $p > 0.05$; full-time vs part-time job: $\chi^2(1, N = 338) = 0.03$, $p > 0.05$; tenure: $\chi^2(6, N = 339) = 3.62$, $p > 0.05$].

Table II shows descriptive statistics and Table III displays the zero-order correlations between variables. All scales included in this study present adequate reliability ($\alpha > 0.70$).

Testing direct relationships between variables

First, a significant correlation was found between SEMP and PE ($r = 0.40$, $p < 0.01$), confirming *H1*. Second, SEMP were significantly correlated with BE, when self-reported ($r = 0.15$, $p < 0.05$). The relationship was of similar magnitude, yet marginally non-significant, when BE was externally assessed ($r = 0.13$, $p = 0.08$). Therefore, *H2* was partially supported. Third, there was a significant relationship between PE and BE, whether BE was self-reported ($r = 0.37$, $p < 0.01$) or assessed by an external source ($r = 0.16$, $p < 0.05$). Therefore, *H3* was supported.

Variables	<i>n</i>	<i>M</i>	SD	α
1. SEMP	359	3.56	0.81	0.98
2. PE	359	3.75	0.73	0.83
3. Meaning	359	3.69	0.99	0.91
4. Competence	359	4.09	0.78	0.84
5. Self-determination	359	3.79	0.91	0.88
6. Impact	359	3.42	0.91	0.80
7. BE (e)	359	3.67	0.57	0.74
8. BE (s)	185	3.41	0.75	0.85
9. Efficacy in performing job tasks (e)	359	4.71	0.42	0.89
10. Efficacy in performing job tasks (s)	185	4.28	0.71	0.88
11. Improvement efforts in job tasks (e)	359	4.14	0.77	0.92
12. Improvement efforts in job tasks (s)	185	3.44	0.96	0.93
13. Effective collaboration (e)	359	3.97	0.79	0.84
14. Effective collaboration (s)	185	3.55	0.91	0.84
15. Improvement efforts in work group (e)	359	3.28	0.99	0.91
16. Improvement efforts in work group (s)	185	3.11	1.04	0.93
17. Involvement at an organization level (e)	359	2.22	1.00	0.93
18. Involvement at an organization level (s)	185	2.68	1.05	0.92

Table II.
Descriptive statistics
for study variables

Notes: (e) – employee self-reports, (s) – supervisor assessments; all variables were measured with five-point scales; SEMP, supervisors’ empowerment management practices; PE, psychological empowerment; BE, behavioral empowerment

Testing the mediation hypothesis

Because preliminary analyses indicated that data deviate from a multivariate normal distribution for the single-source model (Mardia = 11.30), the Satorra-Bentler χ^2 (SB χ^2) and the robust standard error of parameter estimates were used. Non-corrected estimates were used to assess the multi-source model since data did not deviate significantly from normality (Mardia = 2.35).

Results of structural equation modeling analyses are presented in Table IV. For both single-source and multi-source models, the complete mediation model I did not meet acceptable goodness-of-fit criteria (RMSEA \geq 0.08). In both cases, the addition of a correlation between residuals of two BE indicators (e.g. efficacy- and improvement task) improved the model fit (single-source: $\Delta\chi^2(1) = 68.13, p < 0.01$; multi-source: $\Delta\chi^2(1) = 16.56, p < 0.01$). This implies that these indicators share some variance not entirely reflected in the latent concept of BE. This might be explained by the possibility that these two indicators reflect a proximal involvement, while other BE indicators are more distal in nature.

Following this modification, the complete mediation model II showed acceptable goodness-of-fit indices (CFI and NNFI > 0.90; SRMR and RMSEA < 0.08). We then compared this complete mediation model with a partial mediation model. Results indicated that the partial mediation model does not fit the data better than the complete mediation model for both single-source ($\Delta\chi^2(1) = 1.08, p > 0.05$) and multi-source models ($\Delta\chi^2(1) = 0.21, p > 0.05$). The addition of a direct link between SEMP and BE was not statistically significant (single-source: $B = -0.01, ES = 0.01, p > 0.05$; multi-source: $B = 0.02, ES = 0.04, p > 0.05$) and did not improve the model fit. Figure 1 shows estimates of the complete mediation model II that was retained.

	1	2	3	4	5	6	7	8	9	10	11	12
1. SEMP		0.37*	0.34*	0.22*	0.29*	0.32*	0.13	0.15**	0.13	0.13	0.10	0.02
2. PE	0.40*		0.81	0.76*	0.82*	0.85*	0.16**	0.18**	0.10	0.18**	0.19*	0.03
3. Meaning	0.35*	0.83*		0.45	0.52*	0.58*	0.15**	0.18**	0.07	0.16**	0.13	0.07
4. Competence	0.22*	0.74*	0.48*		0.51*	0.53*	0.09	0.10	0.10	0.05	0.14	0.00
5. Self-determination	0.36*	0.84*	0.56*	0.52*		0.61*	0.07	0.11	0.04	0.07	0.12	-0.05
6. Impact	0.35*	0.84*	0.60*	0.48*	0.64*		0.21*	0.19**	0.11	0.27*	0.23*	0.07
7. BE	0.15*	0.37*	0.32*	0.31*	0.21*	0.38*		0.67*	0.86*	0.75*	0.89*	0.80*
8. Efficacy – task	0.19*	0.29*	0.30*	0.32*	0.15*	0.19*	0.40*		0.54*	0.50*	0.44*	0.33*
9. Improvement – task	0.15**	0.33*	0.30*	0.31*	0.18*	0.29*	0.71*	0.43*		0.48*	0.77*	0.59*
10. Collaboration – group	0.11**	0.22*	0.22*	0.14**	0.11**	0.24*	0.75*	0.25*	0.39*		0.57*	0.47*
11. Improvement – group	0.11**	0.33*	0.25*	0.25*	0.21*	0.37*	0.86*	0.16*	0.49*	0.61*		0.69*
12. Involvement – organization	0.05	0.20*	0.14*	0.17*	0.11**	0.23*	0.72*	0.03	0.29*	0.37*	0.55*	

Notes: * $p < 0.01$, ** $p < 0.05$; correlations for the single-source sample ($n = 359$) are below the diagonal and correlations for the multi-source sample ($n = 185$) are above the diagonal; SEMP, supervisors' empowerment management practices; PE, psychological empowerment; BE, behavioral empowerment

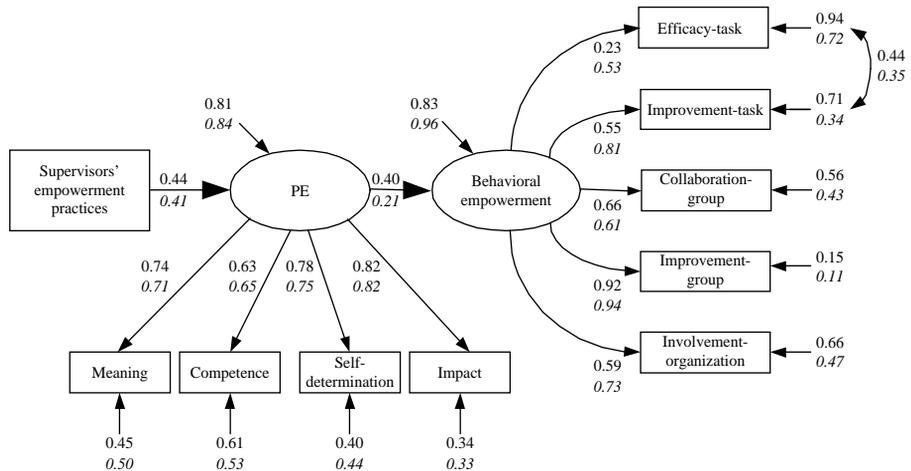
Table III.
Zero-order correlations between study variables

	χ^2	SB χ^2	df	CFI	NNFI	SRMR	RMSEA	$\Delta\chi^2$	Δ df
<i>Single-source-employee</i>									
1. Complete mediation I	166.47	143.76	34	0.88	0.85	0.08	0.10	-	-
2. Complete mediation II ^a Model 2 vs 1	98.34	86.23	33	0.95	0.93	0.07	0.07	68.13*	1
3. Partial mediation ^a Model 3 vs 2	97.26	85.68	32	0.95	0.92	0.07	0.08	1.08	1
<i>Multi-source</i>									
1. Complete mediation I	78.11	-	34	0.94	0.92	0.06	0.08		
2. Complete mediation II ^a Model 2 vs 1	61.55	-	33	0.96	0.95	0.06	0.07	16.56*	1
3. Partial mediation ^a Model 3 vs 2	61.34	-	32	0.96	0.95	0.06	0.07	0.21	1

Notes: * $p < 0.01$, ** $p < 0.05$; all χ^2 and SB χ^2 are statistically significant at: $p < 0.001$; ^aaddition of correlation between residuals associated with “efficacy-task” and “improvement-task”; CFI, comparative fit index; NNFI, non-normed fit index; SRMR, standardized root-mean-square residual; RMSEA, root-mean-square error of approximation

Table IV.

Fit indices for models assessed



Note: All parameters were statistically significant ($p < 0.05$)

Figure 1. Parameter estimates of the complete mediation model II for single-source-employee (bold characters) and multi-source (italics characters) models

To conclude with more certainty on the mediation effect, we decomposed the relationship between variables in direct and indirect effects. To confirm a complete mediation, the direct effect should be non significant (demonstrated above) and the indirect effect should be statistically significant. In the single-source model, the indirect effect is significant ($B = 0.02$, $ES = 0.01$, $p < 0.01$), thus confirming complete mediation. PE explains approximately 74 percent of the relationship between SEMP and BE in the single-source model. In the multi-source model, the indirect effect is marginally non-significant ($B = 0.03$, $ES = 0.02$, $p = 0.06$), partially supporting the mediation hypothesis. Still, PE explains 65 percent of the relationship between SEMP and BE.

Discussion

This study examined the relationships between SEMP, employees' PE and a new measure of employees' BE. Moreover, in addition to self-reported assessments, BE was also assessed by an external rater.

Relationships between SEMP, PE, and BE

This study found that SEMP are quite strongly correlated with PE but more weakly correlated with BE. Results of structural equation modeling tend to support that PE is a mediating variable between SEMP and BE. First, the complete mediation model satisfactorily fit the data and the addition of a direct link between SEMP and BE did not improve the model fit. Second, the decomposition of the effect revealed that PE mediates a substantial amount of the relationship between empowerment practices and BE. These results provide support for Spreitzer's (1995a, b) theoretical model suggesting that managerial practices can influence employees' behaviors through their capacity to instill a proactive motivational orientation (e.g. PE) in individuals.

The fact that PE plays a mediating role between empowering managerial practices and employees' BE is in line with some previous research that studied BE and diverse outcome variables such as in-role performance (Aryee and Chen, 2006; Bartram and Casimir, 2007), helping and voice (Cirka, 2000) and innovation (Spreitzer, 1995a). Yet, our results differ from studies that failed to find a mediation effect of PE between leadership and task performance measures (Corrigan, 1998; Liden *et al.*, 2000). Two explanations might be put forward regarding these inconsistent results. First, inconsistencies may be due to the small magnitude of the relationship between managerial practices and employees' behavior. This small effect strongly limits the possibility to demonstrate a mediation effect. Second, outcome measures used to test mediation effects in previous studies were somewhat disparate, each one looking at specific behavioral facets, which were not always specifically indicative of individual empowerment. To increase the likelihood to find a mediation effect, we used a more integrative behavioral measure of individual empowerment (Boudrias and Savoie, 2006). This might have helped to find the mediation effect expected. Yet, we also observed a small relationship between managerial practices and employee behaviors (Wagner, 1994; Podsakoff *et al.*, 1996).

From a practical standpoint, our study reiterates that managerial practices do not have a strong direct influence on employee behaviors or performance. Therefore, implementing participative supervisory practices in line with empowerment may not be sufficient to make employees behave in an empowered manner. This study suggests that it might be necessary for supervisors to ensure that their employees experience cognitions (meaning, competence, self-determination, and impact) associated with personal ownership with regard to their role. Accordingly, supervisors should not only be concerned with whether they implement the best managerial practices aimed at empowering individuals (Lawler, 1986; Wellins *et al.*, 1991), but rather, they also should mostly be concerned with and monitor whether they are taking appropriate actions leading employees to experience positive psychological states and feel personal ownership in their work role. If supervisors are able to create and sustain a high level of PE, our study suggests that they can increase the likelihood to observe truly empowered behaviors among their employees.

PE and BE: two criteria to assess individual empowerment

This study provided the opportunity to assess the relationship between PE, the most popular criterion used to measure individual empowerment, and a new behaviorally based measure of empowerment (BE). Overall, results indicate that these two criteria measures are positively correlated. However, the size of correlations between PE and BE differs according to the rating source of BE. A moderately high correlation is observed when BE is self-assessed whereas a rather weak correlation is observed when BE is rated by the supervisor. More research is needed to determine the true magnitude of the correlation between PE and BE. At present, the moderate correlation between the two criteria suggests that they capture different facets of employee empowerment. As another practical implication, we would recommend that researchers seriously consider using behavioral measures to assess employee empowerment given organizations' expectations for tangible benefits associated with empowerment.

Limitations and future research

Our study presents some limitations and points to some future research areas. First, this cross-sectional study cannot provide answers on relationship causality between supervisors' practices, PE and BE. Second, the data pertaining to SEMP and PE were obtained via a common method from a single source and therefore may overestimate the strength of relationships between these variables. Third, there was a moderate convergence between the self-reported measure of BE and the BE assessment provided by supervisors. However, this situation does not differ from the multi-source literature (Warr and Bourne, 1999) and may be explained by the fact that different actors (e.g. employee, supervisor) have different perspectives when assessing employee behavior. Fourth, the BE questionnaire used in this study should be further investigated, as we found that the global latent construct may not adequately reflect relationships between two of its indicators. Moreover, we found that "efficacy in performing job tasks" loaded less heavily on the BE construct, which raises the question of whether this dimension is a good indicator of BE.

Conclusion

If organizations wish to know whether they are benefiting from their managerial empowerment practices, it is crucial to both measure if they are successfully fostering a proactive motivational orientation in their employees, as well as BE among their employees. This study extends past research by investigating how managerial practices influence not only employee motivation but also employee behaviors. Our results suggest that supervisors' empowering practices contribute to fostering PE, which, in turn, influences BE. Therefore, supervisors could influence the occurrence of empowered behaviors if they can develop a positive mindset among their collaborators with regard to their work role and their contribution to the organization.

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