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Employee recognition, meaningfulness and behavioural involvement: Test of a moderated mediation model

Abstract

This study examines how and under what conditions recognition practices are related to employee behavioural involvement at work. Combining social cognitive theory, social information processing theory and self-concordance theory, we develop and test a moderated mediation model in which a) manager recognition promotes behavioural involvement both directly and indirectly through the intervening role of meaningfulness and b) coworker recognition strengthens the benefits of manager recognition to meaningfulness and subsequent behavioural involvement. The results of a study of 130 employees provided empirical support for our model. These findings help clarify how different sources of recognition can shape the effective behavioural involvement in the workplace; they also emphasize the role of meaningfulness as an important psychological mechanism that explains the recognition-behaviour relation. The implications for theory and practice are discussed.

Keywords: recognition; meaningfulness; behavioural involvement; manager; coworker.

Introduction

Employee recognition has received increased focus from scholars and organizations as a non-monetary managerial strategy to incentivize effective behaviour at work (Brun & Dugas, 2008). Recognition is generally defined as the assignment of personal non-monetary rewards (i.e., interest, approval, and appreciation) for individual efforts and work accomplishment to recognize and reinforce the desired behaviours displayed by an employee (Brun & Dugas, 2008; Long & Shields, 2010; McAdams, 1999). Developing promising findings on the benefits of recognition to work-related results, managers have consistently invested in recognition programmes as motivational instruments in the workplace (Feys, Ansee, & Wille, 2013). However, despite the progress that has been made, the recognition literature continues to suffer from limitations that may preclude consistent evidence-based recommendations for employee recognition practices in the work environment.

First, to date, recognition research has mainly focused on recognition practices in the context of employee in-role performance (Stajkovic & Luthans, 2003), thus disregarding other work-related behaviours that are essential to an organization's effectiveness, such as individual extra-role contributions. To obtain a more comprehensive portrait of the role of recognition in nurturing work performance and to consequently recommend the implementation of recognition practices as reliable motivational instruments, it is important to consider both the in-role and extra-role behavioural outputs of recognition. The research has shown that these actions can be captured together by the overarching construct of behavioural involvement, which is defined "as a set of empowered, active, and relatively self-determined contributions of employees aiming at securing work effectiveness or at improving work efficiency within the organization" (Boudrias, Morin, & Lajoie, 2014, p. 438).

Second, despite the advances made in understanding the final consequences of employee recognition, there is much less evidence regarding the intermediate mechanisms

that can explain the impact of recognition practices on their end results. Therefore, further research is needed to more adequately evaluate the processes through which recognition exerts its beneficial effects on employee behaviours. Finally, the current literature on recognition suffers from an exclusive emphasis on managerial-based recognition, which neglects the role of other organizational sources in the recognition process. Among these, coworkers may significantly contribute to the benefits of recognition because, due to their greater presence relative to managers in the organization, they interact more frequently with employees (Chiaburu & Harrison, 2008) and consequently have the potential to elicit additional appreciation and approval signals that reinforce those emitted by managers. Therefore, assessing the joint contributions of managerial and peer recognition can help clarify whether different sources of recognition can be adopted in concert to optimise the benefits of recognition to employee outcomes.

The goal of this study is to advance the current knowledge on the benefits of recognition on employee in-role and extra-role behaviours by clarifying how two different sources of recognition, i.e., managers and coworkers, can contribute to behavioural involvement in the workplace. Thus, we integrate the social cognitive theory (Bandura, 1986), the social information processing theory (Salancik & Pfeffer, 1978) and the self-concordance theory (Sheldon & Elliot, 1999) to propose and test a moderated mediation mode (see Figure 1) in which a) recognition from managers is directly related to behavioural involvement; b) meaningfulness, “the value of a work goal or purpose, judged in relation to an individual’s own ideals or standards” (Spreitzer, 1995, p. 1443), is involved as a mediating process explaining the positive relations between recognition from managers and behavioural involvement; and c) the recognition from coworkers acts as a moderating condition that strengthens the indirect positive effect of managerial recognition on behavioural involvement via meaningfulness.

[Figure 1 about here]

By assessing the proposed model, this study demonstrates that the social cognitive theory, the social information processing theory and the self-concordance theory are complementary theoretical approaches that, when combined, can help clarify the processes and boundary conditions associated with the direct and indirect effects of recognition on the employee behavioural involvement in the workplace. Indeed, as we discuss in the next sections, the social cognitive theory provides the conceptual foundation to predict a direct effect of manager recognition on behavioural involvement and suggests that by increasing the likelihood that desired personal outcomes will occur in the future, this form of recognition will boost employees' motivation to invest their efforts in in-role and extra-role behaviours. The social information processing theory and the self-concordance theory jointly provide important insights to clarify how a) by providing relevant information about the intrinsic value of employees' performance and their work-related competence, manager recognition promotes a concordance between the work activities and the self, which is conducive to enhanced meaningfulness and is indirectly conducive to behavioural involvement, and b) by making the information about the self-concordant nature of employees' jobs more salient, coworker recognition can intensify the indirect contribution of manager recognition to behavioural involvement via meaningfulness.

Thus, by integrating different theoretical approaches, our study meaningfully contributes to the extant literature on workplace recognition. For the first time, our study unravels two alternative pathways through which recognition practices affect employee behavioural involvement: a direct pathway that links manager recognition with behavioural involvement and an indirect pathway in which manager recognition, alone and in combination with coworker recognition, is indirectly related to behavioural involvement through the mediating role of meaningfulness.

Recognition from managers and behavioural involvement

After debating the use of monetary incentives to motivate effective performance for many years (Gerhart, Rynes, & Fulmer, 2009), scholars have recently recommended the identification of alternative non-monetary managerial incentives to employee behaviour (Long & Shields, 2010). Consequently, research has begun to highlight the benefits of “non-cash” managerial recognition on several work-related outcomes (Brun & Dugas, 2008). For example, in their employee recognition review, Brun and Dugas (2008) emphasized the important role of recognition in preventing workplace psychological distress (Dany & Livian, 2002) and promoting increased engagement (Tremblay, Guay, & Simard, 2000), on-the-job learning (Lippit, 1997) and job satisfaction (Appelbaum & Kamal, 2000). Additionally, empirical evidence has demonstrated that managerial non-monetary recognition positively contributes to employee psychological well-being (Merino & Privado, 2015a).

In this study, we move a step forward by examining the in-role and extra-role performance as joint behavioural outcomes of managerial recognition. As anticipated above, these two complementary types of performance can be represented together by the concept of behavioural involvement, which reflects proactive engagement in one’s job (Boudrias, Gaudreau, Savoie, & Morin, 2009). Specifically, behavioural involvement has been conceived and empirically operationalized by Boudrias and Savoie (2006) as a multi-dimensional construct that encompasses five in-role and extra-role behavioural dimensions: 1) *conscientiousness in performing job tasks*, which implies completing the expected tasks proficiently; 2) *amelioration efforts to improve job tasks*, which refers to causing useful changes to one’s work; 3) *collaboration to maximize group efficiency*, which entails collaborating with one’s colleagues to optimise workgroup performance; 4) *personal initiative to improve group efficiency*, which involves reviewing and adjusting workgroup processes to make them more efficient; and 5) *involvement at the organizational level*, which implies

engaging in maintaining and improving the organization's efficiency. In-role behaviours are represented by the first behavioural dimension (1), whereas extra-role behaviours (i.e., behaviours that exceed normal expectations) are captured by the remaining dimensions (2-5).

Thus, the former commonly reflect the task aspects of performance, which is the work-related activities that are prescribed by role requirements (Motowidlo & Van Scotter, 1994), whereas the latter cover the contextual dimension, which is the work-related activities that benefit the organization but that are not dictated by role requirements (Motowidlo & Van Scotter, 1994). Thus, the extra-role component of behavioural involvement is similar to organizational citizenship behaviour in that both represent voluntary conducts that are expected to positively contribute to organizational effectiveness (Boudrias & Savoie, 2006). However, the extra-role dimensions of behavioural involvement differ from organizational citizenship behaviours, in that the former uniquely encompass task-oriented activities that employees proactively pursue to meet and exceed work-related goals (Boudrias & Savoie, 2006), whereas the latter further involve interpersonal initiatives (i.e., altruism and helping actions) and forms of involvement (i.e., adherence to informal organizational rules) that tend to be more reactive (Bolino, Valcea, & Harvey, 2010) and that are as aimed at receiving desirable outcomes, such as social approval from others (Podsakoff, Whiting, Podsakoff, & Blume, 2009). Combined, all of the components of behavioural involvement imply that an individual is highly behaviourally engaged to contribute positively to the organization success.

The contribution of managerial recognition to employee behavioural involvement can be explained through the lens of social cognitive theory (Bandura, 1986). The social cognitive perspective argues that a large part of human behaviour is regulated by the individual's capacity of setting and anticipating the desired outcomes of potential actions through cognitive representations of the future to guide and motivate the behavioural efforts in the

present (Bandura, 1989; Bandura, 2006). In accordance with the social cognitive theory, the recognition literature suggests that such a capacity can be effectively stimulated by manager recognition. Indeed, by receiving personal appreciation from managers for their own efforts and performance, employees would develop the perception that their desired personal consequences are likely to occur (Stajkovic & Luthans, 1998, 2001), thereby self-regulating their future behavioural involvement. Although a direct link between managerial recognition and employee behavioural involvement has yet to be studied, the social cognitive perspective has been applied to the organizational domain to predict and empirically show the direct motivational effect of manager recognition on in-role performance (Stajkovic & Luthans, 2003). Moreover, prior empirical research provides indirect support to our arguments, as it indicates that empowering managerial practices, which involve the recognition and reward of employee performance, among others, significantly boost subordinates' in-role and extra-role behaviours (Boudrias et al., 2009; Montani, Courcy, Giorgi, & Boilard, 2015). Therefore, we advance the following hypothesis:

Hypothesis 1: Managerial recognition will be positively related to employee behavioural involvement.

The mediating role of meaningfulness

Despite the promising findings on the positive effects of recognition on employee outcomes, research has neglected the mechanisms through which such effects are transmitted. Indeed, to the best of our knowledge, one study has addressed this issue (Merino & Privado, 2015a) by showing that the relation between manager recognition and employee well-being was mediated by psychological resources, the individual's traits, and states that allow better adaptation to the environment and promote individual progress toward personal goals (Merino & Privado, 2015b). However, the specific processes that link managerial recognition to employee behavioural involvement have yet to be examined. Our objective is to fill this

research gap by proposing that the positive contribution of recognition to in-role and extra-role performance can occur not only directly but also indirectly via the mediating role of meaningfulness. This concept is referred to as “the value of a work goal or purpose, judged in relation to an individual’s own ideals or standards” (Spreitzer, 1995, p. 1443).

Note that in this study, we focus on meaningfulness as a mediating process rather than on other psychological mechanisms that have shown to link the motivational characteristics of the work environment (i.e., those characteristics that can boost employee motivation) with performance-related outcomes. This choice is motivated by two theoretically and empirically grounded reasons. First, the theory and research on rewards suggest that the positive motivational effects of intrinsic rewards, such as recognition, are primarily driven by the informational aspect of rewards (Guzzo, 1979; Shanab, Peterson, Dargahi, & Deroian, 1981). This aspect specifically provides the individual with a visible identification of the types of behaviours that the organization values (Long & Shields, 2010; Shanab et al., 1981). Thus, the informational aspect of rewards emphasizes the uniqueness and importance of the employees’ performed activity (Honneth, 1995a, 1995b; Islam, 2013), thereby directly regarding the meaning the employees ascribe to their own work (Spreitzer, 1995).

Accordingly, by conveying the informational aspect of reward to the employees, recognition is expected to immediately shape the individual sense of meaningfulness in the workplace. Second, the key motivational models of workplace behaviour, such as Hackman and Oldham’s (1976) job characteristics model or Kahn’s (1990) model of employee engagement, have identified meaningfulness as a key process linking the characteristics of the work environment with work outcomes. Indeed, the empirical findings have consistently shown meaningfulness to be the primary mediator between motivational contextual characteristics and employee outcomes (e.g., Fried, 1991; Humphrey, Nahrgang, & Morgeson 2007) and the strongest predictor of employee engagement (e.g., May, Richard,

Gilson, & Harter, 2004; Shamir, 1999). We therefore expect meaningfulness to be particularly determinant in driving the effects of recognition on employee behavioural involvement.

The social information processing theory and the self-concordance theory can help explain the proposed mediated relation. According to the social information processing theory (Salancik & Pfeffer, 1978), salient cues transmitted by the immediate social environment are used by individuals to construct and interpret reality; one means by which such interpretations are formed is the development of perceptions that concern the meaningfulness and importance of the job (Salancik & Pfeffer, 1978). Supporting the social information processing perspective, the empirical research has revealed that managers, by serving and acting as representatives of the organization, are a key source of salient social cues that employees use to assess the meaningfulness of their own job (Coyle-Shapiro & Shore, 2007). However, this theoretical perspective does not provide specific information concerning the characteristics and functions that the social environment must possess to allow employees to experience an enhanced sense of meaningfulness at work.

Conversely, the self-concordance theory (Sheldon & Elliot, 1999) can provide important knowledge on this matter, as it suggests that it is the specific perception of congruence between one's activity and ones' own values, motives and/or goals that positively shapes the meanings people make of their activities and that motivates superior performance (Bono & Judge, 2003; Sheldon & Elliot, 1999). Such a congruence means individuals' behaviours express their authentic interests and values; consequently, these latter are integrated within the self, and there is a strong feeling of ownership for them (Bono & Judge, 2003; Sheldon & Houser-Marko, 2001). In accordance with this theoretical approach, work experiences that promote a sense of self-concordance between employees' values and their work-related tasks or behaviours have been shown to increase the meaningfulness of work (Dik, Steger, Fitch-Martin, & Onder, 2013; Shamir 1991).

By combining the complementary insights from the information processing and self-concordance perspectives, it is therefore reasonable to contend that the more the informational cues emanating from the social environment allow employees to view their work as more self-concordant, the more likely it is that employees, in turn, develop a higher sense of meaningfulness that would boost their behavioural involvement. In this respect, the recognition literature suggests that manager recognition would be particularly effective in transmitting such informational cues, thus having the potential to enhance employee meaningfulness and, ultimately, to enhance behavioural involvement. Indeed, through recognition practices, managers convey important information concerning the worth and competence of what an employee does, which are relevant input to the process of self-concordance and, consequently, positive meaning-making (Wrzesniewski, Dutton, & Debebe, 2003).

Specifically, managers, by providing genuine appreciation for employees' work-related efforts, emphasize the intrinsic value of their performance rather than providing pragmatic extrinsic reasons for the required behaviours (Shamir, House, & Arthur, 1993). Consequently, employees will perceive their work behaviours as emanating from internal self-related causes. According to the self-concordance theory, this perceived internal causation of behaviour is essential for employees to recognize a more positive alignment between their work and the self (deCharms, 1968) and, consequently, to experience a higher sense of meaningfulness (Sheldon & Elliot, 1999). Moreover, by showing acknowledgement and approval for a job well done, managers make successful mastery experiences more salient to employees (Bandura, 1997). Thus, managers enable their followers to experience increased competence (Stajkovic & Luthans, 2001) and personal control on their job (Dik et al., 2013; Gecas, 1991; Wrzesniewski & Dutton, 2001), which promote a higher congruence between the work activities and the self (Deci & Ryan, 2000; Sheldon & Elliot, 1999) that is conducive

to a higher sense of meaningfulness. The results from separate streams of research provide indirect support to these arguments; this shows that the provision of non-monetary recognitions (e.g., positive feedback) fosters feelings of internal causality (Deci & Ryan, 1983, the expectation that life outcomes are contingent upon one's own behaviour (Rotter, 1966), and competence (Fisher, 1978; Podsakoff & Farh, 1989). In addition, such experiences are associated with increased meaningfulness (Rosso, Dekas, & Wrzesniewski, 2010).

The self-concordance theory (Sheldon & Elliot, 1999), in turn, suggests that the enhanced sense of meaningfulness shaped by managerial recognition would promote higher behavioural involvement. Indeed, because meaningful work-related behaviours are experienced as consistent with the self, employees will develop an increased sense of identification with both their overall work and their overall workplace (Seibert, Wang, & Courtright, 2011); consequently, they will be more motivated to be fully behaviourally involved at work (Sheldon, 2002). In accordance with these assumptions, previous studies have demonstrated that employees who experience meaningfulness at work report increased internal work motivation, which is the degree to which an individual experiences positive internal feelings when performing effectively on the job (Hackman & Oldham, 1980; Roberson, 1990), and engagement (May, Gilson, & Harter, 2004; Soane et al., 2013); these are widely recognized as being essential to boost sustained efforts in both in-role (Gagné & Deci, 2005; Schaufeli, Taris, & Bakker, 2006) and extra-role (Battistelli, Galletta, Portoghese, & Vandenberghe, 2013; Halbesleben, Wheeler, & Shanine, 2013) behaviours. Additionally, in separate studies, meaningfulness has been shown to directly boost in-role performance (Hackman & Oldham, 1980; Wrzesniewski, 2003), whereas psychological empowerment, which is an overarching construct that involves the experience of meaningfulness (Spreitzer, 1995), has been related to increased extra-role behaviours (Avolio, Zhu, Koh, & Bhatia, 2004). In sum, we propose the following hypotheses:

Hypothesis 2: Managerial recognition will be positively related to meaningfulness.

Hypothesis 3: Meaningfulness will be positively related to employee behavioural involvement.

Hypothesis 4: The positive relationship between manager and employee behavioural involvement will be partially mediated by meaningfulness.

The moderating role of coworker recognition

Due to their position of authority and their power in the organization (Fiske, 1992), managers are presumed to have a unique and more salient influence on employee perceptions and subsequent behaviours compared with organizational members who share a similar hierarchical status with employees, such as coworkers (Martínez-Corts, Boz, Medina, Benítez, & Munduate, 2011; Ng & Sorensen, 2008). Indeed, because managers tend to be considered representatives of the organization (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002), they play a more important role than coworkers in transmitting organizational beliefs and values to employees (Eby, Lockwood, & Butts, 2006). Thus, managers should be more effective in conveying the information that the organization appreciates and recognizes employee efforts and performance. Accordingly, when managers provide substantial appreciation to their followers, we do not expect coworker recognition to exert an additive main effect on employee meaningfulness and behavioural involvement.

However, the social information processing theory offers a different perspective that suggests that coworker recognition has the power to strengthen the benefits of managerial recognition to employees. Indeed, an important corollary of the social information processing theory is that the availability of information in one's immediate environment is essential to better notice and interpret one's work and to consequently form the perceptions and attitudes (i.e., meaningfulness) that will guide subsequent behaviours (i.e., behavioural involvement) (Salancik & Pfeffer, 1978). In this regard, because coworkers generally ensure a greater

presence relative to managers in the organization and share the same status as the employees, they tend to interact more frequently with their colleagues than with managers (Chiaburu & Harrison, 2008). Hence, this allows focal employees to more easily access further information that will help them structure their focus on and interpretation of their job.

Consistent with a social information processing perspective, we posit that, when employees receive appreciation and acknowledgement by their colleagues, the information concerning the self-concordant nature of their job that is transmitted through managerial recognition is made more salient to them. Indeed, by providing frequent recognitions that emphasize the intrinsic value of their job and the perceived competence to execute it, coworkers convey information that is consistent with those transmitted by managers (Liu, Lee, Mitchell, Holtom, & Hinkin, 2012). Thus, the recognition increases the likelihood that employees will consider the social cues that allow them to interpret their job as more congruent with their self; consequently, they will experience a heightened sense of meaningfulness that is conducive to increased behavioural involvement. Conversely, if employees perceive signs of depreciation from colleagues for the work accomplishments and efforts, the information necessary to form perceptions and judgements regarding their job may be less readily available to them. Hence, the salience of the information conveyed by managers would be reduced, thereby diminishing the odds that employees will develop solid perceptions of job meaningfulness.

Moreover, coworkers are expected to play a key role in enhancing managers' trustworthiness and credibility, which are essential to improve the effectiveness of manager recognition in emphasizing the value of subordinates' job and their work-related competences (Chiaburu & Harrison, 2008; Kelman, 1961; Gist, 1987). Indeed, on the one hand, the more an influencing agent (i.e., a manager) is considered credible and reliable, the more likely it is that the verbal and non-verbal messages that he conveys will be internalized and integrated

within the value system of the receiver (i.e., the employee) (Ashforth & Kreiner, 1999; Kelman, 1961). On the other hand, when influential people, such as managers, are considered credible and trustworthy, they are more effective in raising competence and efficacy beliefs in others via verbal encouragements (Bandura, 1986, 1997; Gist, 1987).

In this respect, the social identity theory and the research on leadership (Fielding & Hogg, 1997; Hogg, 2001) provide important insights for understanding the role of coworkers in affecting the manager's credibility and trustworthiness and shaping the effects of managerial recognition practices on meaningfulness. Specifically, researchers consistently suggest that employee trust in leader increases to the extent that this latter is perceived as a source of a consensual reality (Pierro, Cicero, Bonaiuto, van Knippenberg, & Kruglanski, 2005). That is, the more subordinates obtain information and cues from their manager for which they have received consensual validation from other group members, such as coworkers, the more likely it is that the supervisor will be qualified as a valuable and reliable source of social reality (Kruglanski, Shah, Pierro, & Mannetti, 2002). Thus, when coworkers recognize and acknowledge employees' work in a manner that confirms supervisors' recognition-related practices, these latter will be consensually validated by employees and will thus earn their trust (Fielding & Hogg, 1997; Platow & Van Knippenberg, 2001). Therefore, employees will be more likely to internalize the intrinsic value of the work that has been recognized and appreciated by their manager and will be persuaded to have the competence to perform well, thus experiencing heightened meaningfulness and ultimately behavioural involvement.

In contrast, when managers' positive recognition is not mirrored by an equivalent coworker reaction, employees will be more likely to distrust their managers as a reliable and trustworthy source of information to the extent to which their work efforts are appreciated and valued within the work environment. Such a lessened credibility of managers will thus thwart

the effectiveness of their recognition practices in highlighting the worth of employees' work and the related competences. Consequently, employees will be less likely to ascribe importance to their own job and to become behaviourally involved in their role. Combined, these arguments lead us to propose that the benefits of managerial recognition to meaningfulness and the subsequent employee behavioural involvement are enhanced when employees can frequently receive analogous forms of recognition from their colleagues. Therefore, we expect coworker recognition to improve the benefits of manager recognition to meaningfulness and consequently to behavioural involvement:

Hypothesis 5: Coworker recognition will moderate the positive relationship between manager recognition and meaningfulness, such that the relationship will be stronger when coworker recognition is higher.

Hypothesis 6: Coworker recognition will moderate the positive indirect relationship between manager recognition and employee behavioural involvement via meaningfulness, such that the indirect relationship will be stronger when coworker recognition is higher.

Method

Participants and procedure

This study was conducted in nine French Canadian organizations from three different industries: automotive (56.9%), home-products manufacturing (25.4 %), and transportation management (17.7%)¹. All organizations agreed to participate in a study on employee behavioural involvement. In return, the organizations received a research report with the aggregated results on their subordinates' perceptions of work conditions and their behavioural involvement. Because supervisors' evaluations were used to measure employee behavioural involvement, the organizations provided us with a list of their employees; this allowed us to pre-code the subordinates' questionnaires and match them with the supervisors' assessments.

Informed consent to participate in the research was obtained both from subordinates and their supervisors, and the participants' answers remained confidential.

Participants answered via either a web-based or a paper-and-pencil questionnaire, depending on the organization's choice. The research was conducted in two phases. In the first phase, we collected information from employees to assess their perceptions of manager recognition, coworker recognition and job meaningfulness. Of the 360 questionnaires sent, 249 were returned (response rate: 69%). In a second phase, we requested supervisors to assess behavioural involvement of subordinates that participated in the study, and each supervisor rated approximately five subordinates. In this phase, 151 supervisory assessments were collected (response rate: 61%). After deleting dyads with incomplete responses on the study variables, 130 dyads remained in the study, resulting in a final response rate of 36.11%. With regards to the sample characteristics, participants had an average age of 33.55 years (SD = 7.30); the majority were men (64.6%) who possessed a high school degree (56.1%). In terms of organizational tenure, 22.3% of participants had worked for their current organization for less than 1 year, 41.6% between 1 and 5 years, 12.3% between 6 and 10 years, 8.5% between 10 and 15 years, and 15.4% for more than 10 years. There were no significant differences between the initial pool of respondents and the retained sample with regard to demographic characteristics.

Measures

Manager and coworker recognition. Manager and coworker recognition were measured with five items each from Migneault, Rousseau and Boudrias's (2009) scale. Respondents were requested to indicate how frequently (1 = "never" to 5 = "always") their manager/coworkers displayed the measured behaviours. The five items for the manager recognition were "My supervisor shows appreciation for my contributions", "My supervisor acknowledges my performance", "My supervisor appreciates my efforts", "My supervisor

congratulates me for my achievements”, and “My supervisor takes an interest in what I’m doing”. The five items for the coworker recognition were “My coworkers appreciate my efforts”, “My coworkers congratulate me for my achievements”, “My coworkers value my contributions in the workplace”, “My coworkers acknowledge my performance”, and “My coworkers recognize my efforts”. Cronbach’s alpha for manager and coworker recognition was .92 and .90, respectively. Past research (Lapointe & Boudrias, 2013; Migneault et al., 2009; Boudrias, Aubé et al., 2010) indicated that manager and coworker recognitions scales were found to be distinct and reliable unitary scales (alphas ranging from .83 to .96). The correlations between the scales are moderate ($r = .44$ to $.50$, $p < .01$). The manager recognition scale displays predictive validity because it was found to be related to both in-role and extra-role job involvement behaviours ($r = .13$ to $.29$, $p < .01$; Chénard-Poirier, Sinclair & Boudrias, 2013; Sinclair, Boudrias & Lapointe, 2014). The coworker recognition scale was also found to be linked to behavioural involvement ($r = .31$ to $.42$, $p < .01$; Lapointe & Boudrias, 2013; Migneault et al., 2009; Boudrias, Aubé et al., 2010).

Meaningfulness. The three-item scale from the Spreitzer (1995) psychological empowerment instrument was used to measure meaningfulness. The respondents answered this instrument based on a Likert scale ranging from 1 (“totally disagree”) to 5 (“totally agree”) (e.g., “My job activities are personally meaningful to me”). Cronbach’s alpha for this three-item scale was .85. The reliability and validity of the French version of Spritzer’s scale has been demonstrated in multiple samples (Boudrias, Rousseau et al., 2010; Boudrias et al., 2014). For instance, this scale was found to be a unitary reliable dimension (alpha ranging from .77 to .90). It was also found to be positively related to the affective organizational commitment ($r = .49$, $p < .01$), in-role and extra-role behavioural involvement ($r = .36$ to $.52$, $p < .01$) and negatively related to burnout dimensions ($r = -.29$ to $-.52$, $p < .01$) and intent to quit ($r = -.36$, $p < .01$).

Employee behavioural involvement. Boudrias and Savoie's (2006) 15-item scale was used to measure employee behavioural involvement ($\alpha = .96$). Using a ten-point scale ranging from 1 ("almost never") to 10 ("almost always"), supervisors were requested to indicate the extent to which their followers had been involved in the following five in-role and extra-role behavioural processes over the previous six months: conscientiousness in performing job tasks ($\alpha = .96$), amelioration efforts to improve job tasks ($\alpha = .96$), collaboration to maximize group efficiency ($\alpha = .93$), personal initiative to improve group efficiency ($\alpha = .88$), and involvement at the organizational level ($\alpha = .91$). Evidence supporting the validity of this measure has been reported in prior research (e.g., Boudrias et al. 2014). In this study, a global score of employee behavioural involvement was used. This choice was based on prior knowledge of this scale. Indeed, in a first confirmatory factorial analysis study, Boudrias et al. (2009) found that the five distinguishable dimensions were correlated. The mean correlation between the dimensions was .54 ($SD = .12$) and appeared sufficient to compute a reliable global score ($\alpha = .85$; Boudrias et al., 2009). A second study by Boudrias and colleagues (2010) further indicated that a second-order factor structure for the behavioural involvement construct satisfactorily fitted the data ($CFI, TLI > .90, SRMR, RMSEA < .08$). Finally, in the present study, the fit indices for the five first-order factors (i.e., one in-role behaviour dimension and four extra-role behaviours dimensions) plus one second-order factor were acceptable ($CFI = .96, RMSEA = .09, SRMR = .04$); the correlations between the five dimensions range from .63 to .92 (mean = .79). These findings suggest that these dimensions are indicators of an overarching construct, referred to in this study as behavioural involvement. Our choice is also consistent with prior studies, which have adopted the unitary score of behavioural involvement to capture the employee who is overall active in-role and extra-role behaviours (Boudrias et al. 2009; Montani et al., 2015).

Control variables. In accordance with previous research on meaningfulness and both in-role and extra-role behaviours, we controlled for the following variables to determine their proportional impact on meaningfulness and employee in-role and extra-role behaviours: gender (Harris, Kacmar, & Zivnuska, 2007; Heilman & Chen, 2005; Tummers & Knies, 2013), age (McEvoy & Cascio, 1989; Organ & Ryan, 1995; Tummers & Knies, 2013) education (Ng & Feldman, 2009; Tummers & Knies, 2013), and organizational tenure (Ng & Feldman, 2010).

Results

First, we established discriminant validity among the study variables by conducting a confirmatory factor analysis (CFA) using Mplus 7.11 (Muthén & Muthén, 1998-2012). For behavioural involvement, we used the scale scores of the five dimensions to indicate the respective overarching factor. For all other study constructs, we used individual items as observed indicators. As observed from Table 1, the hypothesized four-factor model (manager recognition, coworker recognition, meaningfulness, and behavioural involvement) displayed a suitable fit to the data ($\chi^2 [146] = 264.79$, CFI = .94, RMSEA = .08, SRMR = .05) and outperformed any simpler representation of the data ($p < .01$). Table 2 provides descriptive statistics, correlations and reliability estimates for the measures.

Moreover, because the independent variables (manager and coworker recognition) and the mediator (meaningfulness) were collected at the same time with self-report scales, common method bias problems may have arisen and inflated the study results. In accordance with Podsakoff, MacKenzie and Podsakoff's (2012) statistical recommendations, we used the unmeasured latent method factor approach to control for the effects of common method variance, prior to testing the hypotheses. This specific approach was chosen because it does not require specifying the source of method bias and because it controls for any systematic variance among the items that is independent of the covariance because of the constructs of

interest (Podsakoff et al., 2012). This technique is recommended when the specific source of method bias is unknown or cannot be measured (Williams, Cote, & Buckley, 1989), as in the present study.

Accordingly, to assess the potential increase in the model fit that would be obtained from explaining the unmeasured method factor, we added a common method factor to the three-factor model, including supervisor recognition, coworker recognition and meaningfulness. The model provided a better fit to the data than the same model without the method factor ($\chi^2 [74] = 93.93$, CFI = .97; RMSEA = .06; SRMR = .06, $\Delta \chi^2 (13) = 40.00$, $p < .01$). Nonetheless, the factor loadings in this model remained significant and highly similar to those of the three-factor model without the method factor². These results therefore suggest that common method bias does not pose a serious threat in our study.

[Table 1 about here]

[Table 2 about here]

To test the hypothesized model, we conducted bootstrap analyses using the PROCESS macro for SPSS (Hayes, 2012), which uses ordinary least square to estimate the direct, indirect and moderated indirect effects. This method allows the simultaneous testing of complete models that integrate mediation and moderation to examine the conditional nature of indirect effects, as is recommended by methodologists (Edwards & Lambert, 2007; Preacher, Rucker and Hayes (2007). This approach also implies a bootstrap procedure to estimate the indirect effects, which overcomes the problems associated with Baron and Kenny's (1986) causal steps and Sobel's test, such as low statistical power (Hayes, 2009; Preacher & Hayes, 2008). Bootstrapping involves resampling the data multiple times and calculating the statistic of interest (Efron & Tibshirani, 1993). A 95% confidence interval is next created through the bias-corrected percentile method, to test the significance of indirect effects and their difference. Accordingly, the indirect effects were assessed using bootstrapping with 5,000

resamplings, as recommended by Hayes (2013), to generate 95% bias-corrected confidence intervals of both direct and indirect effects. Participant gender, age, education, and organizational tenure were included as controls for the entire model.

Table 3 presents the results of (moderated) the multiple regression analyses predicting meaningfulness and behavioural involvement and provides the basic information that is necessary to test Hypotheses 1-6. In Hypothesis 1, we argued for a positive direct relationship between manager recognition and employee behavioural involvement; such a relationship did exist ($B = .47, p < .05$), as shown in Table 3 (Model 3). In Hypotheses 2, 3, and 4, we predicted that manager recognition would also be indirectly related to behavioural involvement via the mediating role of meaningfulness. Table 3 (Model 2) shows that manager recognition was positively associated with meaningfulness ($B = .35, p < .01$, Hypothesis 2). Moreover, Table 3 (Model 5) shows that meaningfulness, in turn, was positively linked to employee behavioural involvement ($B = .47, p < .05$, Hypothesis 3). Based on 5,000 replications, bootstrap analyses further showed that the indirect effect of managerial recognition on behavioural involvement via meaningfulness was significant (indirect effect = .16, 95% CI = .03, .24, Hypothesis 4). Therefore, Hypotheses 2, 3, and 4 were supported. Additionally, as shown in Table 3, none of the direct paths from coworker recognition to either meaningfulness ($B = .09, ns$, Model 2) or behavioural involvement ($B = .04, ns$, Model 5) were significant.

Finally, Hypotheses 5 and 6 stated that manager recognition would be more strongly related to meaningfulness and indirectly to behavioural involvement for employees reporting higher recognition from coworkers. Following Cohen and Cohen's (1983) recommendations, we centred the controls and main predictors (i.e., manager recognition and coworker recognition) and then entered at Step 1 and 2, respectively; furthermore, the interaction term between manager recognition and coworker recognition was introduced at Step 3. As shown

in Table 3 (Model 3), the interaction term of manager and coworker recognition was significantly associated with meaningfulness ($B = .17, p < .05$) and explained a significant amount of the variance in meaningfulness beyond that explained by the main effects ($R^2 = .27, \Delta R^2 = .03, p < .05$).

Therefore, we explored the shape of this interaction by conducting a simple slope test (Aiken & West, 1991). The results revealed that manager recognition was positively and significantly related to meaningfulness ($B = .50, p < .05$) when coworker recognition was high (1 SD above the mean); however, this relationship became non-significant ($B = .21, ns$) when coworker recognition was low (1 SD below the mean). Figure 2 depicts the interaction of supervisor and coworker recognition. These results lend full support to Hypothesis 5.

[Figure 2 about here]

Finally, to test whether the supervisor recognition-meaningfulness-behavioural involvement indirect relationship increased at higher levels of coworker recognition (Hypothesis 6), we used 5,000 bootstrapping resamplings to generate bias-corrected 95% confidence intervals (CIs) for the magnitude of the indirect effects at different values of coworker recognition. As hypothesized, the conditional indirect effect of supervisor recognition on behavioural involvement via meaningfulness was stronger when coworker recognition was high (indirect effect = .24, CI = .07, .49) rather than low (indirect effect = .10, CI = .00, .29). Additionally, the index of moderated mediation was significant (index = .08, CI = .02, .19), which suggests that the indirect paths from manager recognition to behavioural involvement differed significantly across different levels of coworker recognition. Therefore, Hypothesis 6 was fully supported.

Discussion

Theoretical implications

This study's objective was to elucidate the effects of recognition on workers' behavioural involvement. Prior research has highlighted the importance of recognition practices to improve employee engagement in in-role performance but has neglected extra-role behaviours. However, considering these two performance outcomes in concert is important to better ascertain whether recognition practices can simultaneously sustain employees' active contributions to secure work effectiveness and boost their proactive actions to improve their job and the organizational environment. Our study is the first, to our knowledge, to provide evidence for a significant positive link between manager recognition and employee overall behavioural involvement in in-role and extra-role behaviours. Thus, this investigation supports the social cognitive assumption that when individuals are provided the possibility to anticipate desired personal outcomes at work, they are likely to invest more efforts in goal-oriented behaviours (Bandura, 1989; Bandura, 2006). Specifically, and importantly, our study extends this theoretical perspective to the context of behavioural involvement at work and suggests that the more employees receive recognition from their managers, the more likely they are to foresee it as suggestive of forthcoming desired outcomes (Stajkovic & Luthans, 2001) and, thus, the more likely they are to invest their efforts in-role and extra-role behaviours.

Furthermore, by establishing this direct positive relationship, we identified a managerial practice that is more specific than the general high-performance management practices usually associated with employee active contributions in the workplace (Seibert et al., 2011). High-performance practices are generally referred to as those human resource practices that "increase employees' knowledge, skills, and abilities (KSAs), empower employees to leverage their KSAs for organizational benefit, and increase their motivation to do so" (Combs, Liu, Hall, & Ketchen, 2006, p. 502). Therefore, this study highlighted the unique contribution of managerial recognition practices to performant in-role and extra-role

behavioural conducts. Importantly, the manager recognition-behavioural involvement association found in this study is consistent with previous studies that reported a positive effect of high-performance management practices on employee engagement in both in-role (Karatepe, 2013) and extra-role activities (Morrison, 1996; Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2006). This finding suggests that managerial recognition has the potential to be as valuable as other high-performance work practices in mobilizing employee behavioural involvement. Consequently, more research focus should be devoted to examining the impact of this practice on important employee and organizational outcomes.

However, our research further identified the perceptions of meaningfulness as an important mechanism that explains how manager recognition contributes to employee behavioural involvement. Based on the social information processing theory and on the self-concordance theory, we offered an additional explanation for the relationship between manager recognition and behavioural involvement that extends beyond the anticipation of future desired outcomes. That is, the relationship is based on the idea that employees rely on the salient information received by recognition practices to evaluate the degree to which their job is concordant and meaningful to them. Thus, employees are more or less motivated to be involved in in-role and extra-role behaviours based on the judgement of the meaningfulness of their job in relation to their internal values, goals and motives. The support we found for this theoretical framework, above the direct recognition-behaviour relationship, emphasizes the important role of perceptions of meaningfulness in the experience of recognition practices.

As such, this result supports the assumption implied in social information processing theory that the immediate social environment (i.e., the degree of recognition employees receive from managers) provides salient informational cues allowing people to determine the extent to which their work is meaningful to them. However, importantly, this result also enriches this theoretical approach with the self-concordance principle, which suggests that for

the work environment to elicit rather than inhibit the experience of meaningfulness among employees, it should promote an alignment between the work and the individuals' values, motives and goals. Our investigation suggests that managers who acknowledge and appreciate employees' work accomplishments provide relevant informational cues that, by emphasizing the importance of employees' work and their underlying competences, can effectively exert such a self-concordant function, thus raising higher levels of meaningfulness and ultimately, behavioural involvement.

This finding also has important implications for the extant theory on employee meaningfulness because it helps clarify the social factors that affect meaningfulness in the workplace, an issue that has been largely ignored in the literature (Rosso et al., 2010). Prior research has indeed primarily focused on the intrapersonal determinants, thus downplaying important social or contextual variables whose investigation would allow the development of a more comprehensive understanding of meaningfulness. More recently, a few studies have begun to address this issue by examining the role of leadership as a source of meaning of work. For example, Ghadi, Fernando, and Caputi (2013) reported a positive relationship between transformational leadership practices and employee meaningfulness, whereas Tummers and Knies (2013) identified the leader-member exchange as a determinant of meaningfulness. Our study moves a step further and shows that the provision of simple, genuine appreciation and the acknowledgement of employee accomplishments and efforts are relevant practices that leaders can enact to boost the perceptions of employees' work as more personally important and valuable.

Moreover, although not explicitly predicted by our model, our results further showed that manager recognition positively affected meaningfulness and behavioural involvement over and beyond coworker recognition, which was non-significantly (although positively) associated with them. These findings, which are consistent with our expectations, support the

widely held view that managers, by acting as representatives of the organization, are more likely to transmit salient organizational views and beliefs than coworkers, thereby having a more influential role on employee attitudes and behaviours. Prior research has indeed shown that managers' practices, such as the provision of social support, have a stronger effect on employee-level outcomes than analogous coworkers' practices (Ng & Sorensen, 2008).

However, consistent with our predictions, our study showed that coworkers significantly contribute to meaningfulness and behavioural involvement by strengthening the positive effects of managerial recognition. It was indeed found that when employees perceived poor recognition from their colleagues, the benefits of manager recognition to meaningfulness and, indirectly, to behavioural involvement disappeared. This finding supports the social information processing framework suggesting that when fewer relevant informational cues are available to employees, it is less likely that they will notice and interpret such cues to provide meaning to their job and thus enact corresponding behaviours. Therefore, our study contributes to validate the largely unexplored social information processing-based assumption that employees' sense of meaningfulness relies on the combination and interaction among social sources of information rather than on single sources (Rosso et al., 2010) and that coworkers represent a relevant source that has the potential to significantly shape the meaning and value of their work (Wrzesniewski et al., 2003). Indeed, prior empirical studies have primarily relied on the analysis of the effects of single sources on employee meaningfulness. As Rosso et al. (2010) claimed in their review of the meaning or work, "this bias toward focusing on the impact of single sources of meaning has limited our ability to reach a more comprehensive understanding of how employees make meaning of their work." (p. 116). We partially addressed this limitation by showing for the first time that the interaction among multiple sources of recognition (i.e., manager and coworkers) is

essential to shape the employee construction of meaning in the workplace and mobilize subsequent behavioural involvement.

Combined, the findings from this study have important implications for the human resource management literature. Indeed, social recognition has been widely advocated as a management practice that has a positive impact on employee effective functioning at work (Bishop, 1987; Grawitch, Gottschalk, & Munz, 2006). However, social recognition's use as a specific intervention to improve work performance has been seriously disregarded. Our results address this important void by providing empirical evidence that recognition can significantly improve employee behavioural involvement. Specifically, in contrast to prior human resource management research, our study is the first to show that the higher importance ascribed to one's work represents an immediate benefit that employees receive from being recognized by their supervisors and that such a heightened sense of meaningfulness is responsible for driving the positive effects of recognition to behavioural involvement. Thus, we provide the first empirical evidence for the human resource management view that the power of recognition resides in its capacity to emphasize the uniqueness and value of the individual, his/her work and his/her particular competencies (Honneth, 1995a, 1995b). Specifically, by focusing on acknowledging people as intrinsically valuable and competent in themselves, we corroborate the relevance of a care approach on human resource management that promotes employee effective functioning and flourishing in the workplace (Islam, 2013). Moreover, although current human resource management literature emphasizes people in leadership positions as key providers of recognition (e.g., Stajkovic & Luthans, 2001, 2003), our study moves a step beyond by showing how social appreciation and acknowledgments offered by peers are essential to increase the effectiveness of manager recognition in helping employees construe positive meaning in their work and in motivating higher behavioural involvement. Thus, our findings are unique in informing the

human resource management literature; in addition, they show that the emission of consistent signs of appreciation from managers and coworkers is essential to optimise the motivational benefits of recognition to employee behavioural involvement at work.

Study limitations

These findings should also be considered, given several limitations that bear noting. First, our research has a cross-sectional design, which impedes the derivation of accurate inferences that concern the causal paths among the study variables and eliminates possible alternative pathways. This issue is particularly salient for the relationship between meaningfulness and behavioural involvement because prior research has provided evidence for reciprocal effects between active motivational states and employee behavioural involvement (Boudrias et al., 2014). Longitudinal and experimental designs should be conducted in future studies to establish the directionality of associations among variables. Nonetheless, the use of different data sources and the assessment of the moderating effect should help mitigate concerns regarding causality in this study (Zhang, Lepine, Buckman, & Wei, 2014). A second limitation is that independent, moderating and mediating variables were assessed through employees' self-report rating, which may increase the possibility that the results are inflated by common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, managers provided ratings of employees' behavioural involvement in this study, thereby limiting the likelihood of common method bias. However, measures from additional sources such as peers' ratings of employee behavioural involvement should be included in future research to prevent this concern.

A third limitation is that our study focused exclusively on non-monetary recognition, which precludes controlling for cash-based forms of recognitions that have been shown to positively influence employee performance (Long & Shields, 2010; Stajkovic & Luthans, 2001). Therefore, the inclusion of monetary incentives should be warranted in future studies

to explain their effects on meaningfulness and behavioural involvement. According to Lawler (1992), behavioural involvement that is not sustained by proper contingent material rewards will fade over time. Thus, non-monetary rewards such as recognition remain the type of rewards that is the most readily accessible to managers and that proved to be effective to foster involvement according to this study.

Practical implications

Even considering the limitations of our study, our results have a number of important implications for human resource management practices. First, the most immediate inference that can be derived from this study is that employees will be more motivated to invest their efforts in the accomplishment of task requirements and the improvement of their job or environment if they receive genuine appreciation for such efforts and their corresponding accomplishments by managers. This conclusion emphasizes the worth of relying on non-monetary reward practices to directly mobilize both in-role and extra-role behaviours at work. Importantly, because the objects of recognitions are both accomplishments and efforts, such programmes should make employees realize that their efforts, not their successful performance alone, are being noticed, appreciated and valued by their managers (Brun & Dugas, 2008). Thus, actions that target the reward of work results can include recognizing employee expertise and providing work assignments in accordance with their qualifications, providing professional practice awards, and implementing programmes to reward innovation. Actions that recognize efforts can entail thanking employees for their involvement in work projects, recognizing employees' ideas regardless of their future utilization, highlighting the time invested in a team project, and appreciating perseverance in pursuing difficult tasks.

Another relevant conclusion from our findings is that the meaning employees ascribe to their work is an important mechanism through which managerial recognition operates to positively shape behavioural involvement. Therefore, managers should be aware that to boost

followers' involvement in effective in-role and extra-role behaviours, they should allow followers to experience a heightened sense of meaningfulness by taking actions that target the promotion of a perceived congruence between their jobs and their deeply held beliefs and values (Baumeister & Vohs, 2002; Gecas, 1991). Importantly, this study indicates that such managerial actions should entail the genuine recognition and appreciation of employees' efforts and positive accomplishments at work.

However, our findings indicate that coworkers also have a relevant role to play in this regard. Indeed, we demonstrated that the benefits of managerial recognition to meaningfulness and, indirectly, behavioural involvement are significantly strengthened when employees receive consistent recognition from their colleagues. Therefore, this research evidence informs management and organizations that the sense of being appreciated by both peers and managers in the workplace is essential to optimise the odds that employees will ascribe positive meaning to their job and will thus be more performant in the execution of in-role and extra-role behaviours. Accordingly, managers should be aware that recognition programmes will be more effective in nurturing behavioural involvement to the extent that both vertical and horizontal forms of acknowledgement and appreciation are provided to employees. Thus, beyond relying on the managerial actions outlined above, managers would benefit from establishing and nurturing a positive climate of recognition among peers. For instant, managers could sponsor initiatives such as encouraging positive feedback on a colleague's professional qualifications or the spontaneous acknowledgement of a colleague who has been confronted with a major work challenge. Thus, these actions will help the manager boost the effectiveness of his own recognition practices in the promotion of job meaningfulness and employee behavioural involvement. Combined, these practical implications point to the relevance of planning and implementing human resource training programs targeted at guiding managers and coworkers in the identification and employment

of the proper recognition practices that are expected to be the generators of meaning for individuals' work and the motivational drivers of behavioural involvement.

To conclude, this work represents an important step forward into the clarification of the processes explaining the benefits of recognition in the workplace and the boundary conditions associated with such effects. We hope that our findings will encourage researchers to further examine the consequences of recognition at work and that they will contribute to elucidate the different pathways through which this practice affects employee behavioural involvement.

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage. doi: 10.1037/10520-147
- Appelbaum, S. H., & Kamal, R. (2000). An Analysis of the Utilization and Effectiveness of Non-financial Incentives in Small Business. *The Journal of Management Development, 19*, 733-763. doi: 10.1108/02621710010378200
- Ashforth, B. E., & Kreiner, G. E. 1999. "How can you do it?": Dirty work and the challenge of constructing a positive identity. *Academy of Management Review, 24*, 413-434. doi: 10.5465/amr.1999.2202129
- Avolio, B. J., Zhu, W., Koh, W., & Bhatia, P. (2004). Transformational leadership and organizational commitment: mediating role of psychological empowerment and moderating role of structural distance. *Journal of Organizational Behavior, 25*, 951-968. doi: 10.1002/job.283
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice-Hall. doi: <http://dx.doi.org/10.4135/9781446221129.n6>
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44*, 1175-1184. doi: 10.1037/0003-066X.44.9.1175
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.
- Bandura, A. (2006). Toward a psychology of human agency. *Perspectives on Psychological Science, 1*, 164-180. doi: 10.1111/j.1745-6916.2006.00011.x
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182. doi: 10.1037/0022-3514.51.6.1173
- Battistelli, A., Galletta, M., Portoghese, I., Vandenberghe, C. (2013). Mindsets of commitment and motivation: Interrelationships and contribution to work outcomes.

- The Journal of Psychology: An Interdisciplinary and Applied*, 147, 17-48. doi: 10.1080/00223980.2012.668146
- Baumeister, R. F., & Vohs, K. D. (2002). The pursuit of meaningfulness in life. In C. R. Snyder & S. J. Lopez (Eds.), *The handbook of positive psychology* (pp. 608–618). New York, NY: Oxford University Press.
- Bishop, J. (1987). The recognition and reward of employee performance. *Journal of Labor Economics*, 5, S36-S56. doi: 10.1086/298164
- Bolino, M. C., Valcea, S., & Harvey, J. (2010). Employee, manage thyself: The potentially negative implications of expecting employees to behave proactively. *Journal of Occupational and Organizational Psychology*, 83, 325-345. doi: 10.1348/096317910x493134
- Bono, J. E., & Judge, T. A. (2003). Core self-evaluations: A review of the trait and its role in job satisfaction and job performance. *European Journal of Personality*, 17, S5-S18. doi: 10.1002/per.481
- Boudrias, J.-S., Gaudreau, P., Savoie, A., & Morin, A. J. S. (2009). Employee empowerment: From managerial practices to employees' behavioral empowerment. *Leadership & Organization Development Journal*, 30, 625-638. doi: 10.1108/01437730910991646
- Boudrias, J.-S., Morin, A. J. S., & Lajoie, D. (2014). Directionality of the associations between psychological empowerment and behavioural involvement: A longitudinal autoregressive cross-lagged analysis. *Journal of Occupational and Organizational Psychology*, 87, 437-463. doi: 10.1111/joop.12056
- Boudrias, J.-S., Aubé, C., Rousseau, V., Savoie, A., Duguay, G., & Morin, E. M. (2010). L'habilitation comportementale au travail : structure factorielle et convergence/distinction avec l'habilitation psychologique. *Revue québécoise de psychologie*, 31, 173-199.

- Boudrias, J.-S., Rousseau, V., Migneault, P., Morin, A. J., & Courcy, F. (2010). Habilitation psychologique: Validation d'une mesure en langue Française. *Swiss Journal of Psychology, 69*, 147-159. doi: 10.1024/1421-0185/a000017
- Boudrias, J.-S., & Savoie, A. (2006). Les manifestations comportementales de l'habilitation au travail: développement d'un cadre conceptuel et d'un instrument de mesure. *Psychologie du travail et des organisations, 12*, 119-138. doi: 10.1016/j.pto.2006.03.005
- Brun, J. P., & Dugas N. (2008). An analysis of employee recognition: Perspectives on human resources practices. *The International Journal of Human Resource Management, 19*, 716-730. doi: 10.1080/09585190801953723
- Chénard-Poirier, L.A., Sinclair, R., & Boudrias, J.S. (2013). Les pratiques de gestion du supérieur immédiat et leurs effets synergiques sur les comportements d'implication des employés. Unpublished research paper. University of Montreal.
- Chiaburu, D., S., & Harrison, D. A. (2008). Do peers make the place? Conceptual synthesis and meta-analysis of coworker effects on perceptions, attitudes, OCBs, and performance. *Journal of Applied Psychology, 93*, 1082-1103. doi: 10.1037/0021-9010.93.5.1082
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Combs, J., Liu, Y., Hall, A., & Ketchen, D. (2006). How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance. *Personnel Psychology, 59*, 501-528. doi: 10.1111/j.1744-6570.2006.00045.x
- Coyle-Shapiro, J. A.-M., & Shore, L. M. (2007). The employee-organization relationship: Where do we go from here? *Human Resource Management Review, 17*, 166-179.

- Dany, F., & Livian, Y-F. (2002), *La nouvelle gestion des cadres: employabilité, individualisation et vie au travail*. (2nd ed.). Paris: Vuibert. doi: 10.1016/j.hrmr.2007.03.008
- deCharms, R. (1968). *Personal causation: The internal affective determinants of behavior*. New York, NY: Academic Press.
- Deci, E. L. & Ryan, R. M. (1983). *Intrinsic motivation and human behaviour*. New York, NY: Plenum Press.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry*, 11, 227-268. doi: 10.1207/S15327965PLI1104_01
- Dik, B. J., Steger, M. F., Fitch-Martin, A. R., & Onder, C. C. (2013). Cultivating meaningfulness at work. In C. Routledge & J. Hicks (Eds.), *The experience of meaning in life: Classical perspectives, emerging themes, and controversies* (363-377). New York, NY: Springer. doi: 10.1007/978-94-007-6527-6_27
- Eby, L. T., Lockwood, A., & Butts, M. (2006). Perceived organizational support for mentoring: A multiple perspectives approach. *Journal of Vocational Behavior*, 68, 267-291. doi: 0.1016/j.jvb.2005.07.003
- Edwards, J. R., & Lambert, L. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, 12, 1-22. doi: 10.1037/1082-989X.12.1.1
- Efron, B., & Tibshirani, R. J. (1993). *An introduction to the bootstrap*. Boca Raton, FL: Chapman & Hall. doi: 10.1007/978-1-4899-4541-9
- Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and

- employee retention. *Journal of Applied Psychology*, 87, 565-573. doi: 10.1037/0021-9010.87.3.565
- Feys, M., Ansee, F., & Wille, B. (2013). Responses to co-workers receiving recognition at work. *Journal of Managerial Psychology*, 28, 492-510. doi: 10.1108/JMP-08-2011-0025
- Fielding, K. S., & Hogg, M. A. (1997). Social identity, self-categorization, and leadership: A field study of small interactive groups. *Group Dynamics: Theory, Research, and Practice*, 1, 39-51. doi: 10.1037//1089-2699.1.1.39
- Fisher, C. D. (1978). The effects of personal control, competence, and extrinsic reward systems on intrinsic motivation. *Organizational Behavior and Human Performance*, 11, 273-288. doi: 10.1016/0030-5073(78)90054-5
- Fiske, A. P. (1992). The four elementary forms of sociality: Framework for a unified theory of social relations. *Psychological Review*, 99, 689-723. doi: 10.1037/0033-295X.99.4.689
- Fried, Y. (1991). Meta-analytic comparison of the job diagnostic survey and job characteristics inventory as correlates of work satisfaction and performance. *Journal of Applied Psychology*, 76, 690-697. doi: 10.1037/0021-9010.76.5.690
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26, 331-362. doi: 10.1002/job.322
- Gecas, V. (1991). The self-concept as a basis for a theory of motivation. In J. A. Howard & P. L. Callero (Eds.), *The self-society dynamic: cognition, emotion, and action* (pp. 171-187). New York, NY: Cambridge University Press. doi: 10.1017/CBO9780511527722.010

- Gerhart, B., Rynes, S. L., & Fulmer, I. S. (2009). Pay and Performance: Individuals, Groups, and Executives. *The Academy of Management Annals*, 3, 251-315. doi: 10.1080/19416520903047269
- Ghadi, M. Y., Fernando, M., & Caputi, P. (2013). Transformational leadership and work engagement: The mediating effect of meaning in work. *Leadership & Organization Development Journal*, 34, 532-550. doi: 10.1108/LODJ-10-2011-0110
- Gist, M. E. (1987). Self-efficacy: Implications for organizational behavior and human resource management. *Academy of Management Review*, 12, 472-485. doi: 10.2307/258514
- Grawitch, M. J., Gottschalk, M., & Munz, D. C. (2006). The path to a healthy workplace: A critical review linking healthy workplace practices, employee well-being, and organizational improvements. *Consulting Psychology Journal*, 58, 129-147. doi: 10.1037/1065-9293.58.3.129
- Guzzo, R. A. (1979). Types of rewards, cognitions, and work motivation. *The Academy of Management Review*, 4, 75-86. doi: 10.2307/257405
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16, 250-279. doi: 10.1016/0030-5073(76)90016-7
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison-Wesley.
- Halbesleben, J. R. B., Wheeler, A. R., & Shanine, K. K. (2013). The moderating role of attention-deficit/hyperactivity disorder in the work engagement-performance process. *Journal of Occupational Health Psychology*, 18, 132-143. doi: 10.1037/a0031978
- Harris, K. J., Kacmar, K. M., & Zivnuska, S. (2007). An investigation of abusive supervision as a predictor of performance and the meaning of work as a moderator of the relationship. *Leadership Quarterly*, 18, 252-263. doi: 10.1016/j.leaqua.2007.03.007

- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76, 408-420. doi: 10.1080/03637750903310360
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable moderation, mediation, and conditional process modeling. Macro and manuscript available at <http://www.afhayes.com/spss-sas-and-mplus-macros-and-code.htm>
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- Heilman, M. E., & Chen, J. J. (2005). Same behavior, different consequences: Reactions to men's and women's altruistic citizenship behavior. *Journal of Applied Psychology*, 90, 431-441. doi: 10.1037/0021-9010.90.3.431
- Hogg, M. A. (2001). A social identity theory of leadership. *Personality and Social Psychology Review*, 5, 184-200. doi: 10.1207/s15327957pspr0503_1
- Honneth, A. (1995a). *The struggle for recognition: the moral grammar of social conflicts*. Cambridge: Polity.
- Honneth, A. (1995b). *The fragmented world of the social: essays in social and political philosophy*. Albany, NY: State University of New York Press.
- Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, 92, 1332-1356. doi: 10.1037/0021-9010.92.5.1332
- Islam, G. (2013). Recognizing employees: reification, dignity and promoting care in management. *Cross Cultural Management: An International Journal*, 20, 235-250. doi: 10.1108/13527601311313490

- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692-724. doi: 10.2307/256287
- Karatepe, O. M. (2013). High-performance work practices and hotel employee performance: The mediation of work engagement. *International Journal of Hospitality Management*, 32, 132-40. doi: 10.1016/j.ijhm.2012.05.003
- Kelman, H. C. (1961). Processes of opinion change. *Public Opinion Quarterly*, 25, 57-78. doi: 10.1086/266996
- Kruglanski, A. W., Shah, J. Y., Pierro, A., & Mannetti, L. (2002). When similarity breeds content: Need for closure and the allure of homogeneous and self-resembling groups. *Journal of Personality and Social Psychology*, 83, 648-662. doi: 10.1037/0022-3514.83.3.648
- Lapointe, É. & Boudrias, J.-S. (2013). L'habilitation des salariés : le rôle du supérieur et des collègues. *Psychologie du Travail et des Organisations*, 19(4), 318-335.
- Lawler, E. E. (1992). *The ultimate advantage: Creating the high-involvement organization*. San Francisco, CA: Jossey-Bass.
- Lippit, M. (1997). Creating a Learning Environment. *Human Resources Professional*, 10, 5, 23-26.
- Liu, D., Lee, T., Mitchell, T, Holtom, B., & Hinkin, T. (2012). When employees are out of step with coworkers: How job satisfaction change and dispersion influence individual- and unit-level turnover. *Academy of Management Journal*, 55, 1360-1380. doi: 10.5465/amj.2010.0920
- Long, R. J., & Shields, J. L. (2010). From pay to praise? Non-cash employee recognition in Canadian and Australian firms. *The International Journal of Human Resource Management*, 21, 1145-1172. doi: 10.1080/09585192.2010.483840

- Martínez-Corts, I., Boz, M., Medina, F., Benitez, M., & Munduate, L. (2011). Coping with interpersonal conflict in small business: the moderating role of supervisor and co-worker support. *Revista de Psicología del Trabajo y de las Organizaciones*, 27, 117-129. doi: 10.5093/tr2011v27n2a4
- May, D. R., Gilson, L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, 77, 11-37. doi: 10.1348/096317904322915892
- McAdams, J. L. (1999). Nonmonetary rewards: cash equivalents and tangible awards. In L.A. Berger & D. R. Berge (Eds), *The compensation handbook: A state-of-the-art guide to compensation strategy and design* (pp. 241-260). New York, NY: McGraw-Hill.
- McEvoy, G. M., & Cascio, W. F. (1989). Cumulative evidence of the relationship between employee age and job performance. *Journal of Applied Psychology*, 74, 11-17. doi: 10.1037/0021-9010.74.1.11
- Merino, D. M., & Privado, J. (2015a). Does employee recognition affect positive psychological functioning and well-being? *Spanish Journal of Psychology*, 18, 1-7. doi: 10.1017/sjp.2015.67
- Merino M. D., & Privado J. (2015b). Positive psychological functioning: Evidences for a new construct and its measurement. *Anales de Psicología*, 31, 1-10.
- Migneault, P., Rousseau, V., & Boudrias, J.-S. (2009). The influence of work climate components on individual's empowerment. *European Review of Applied Psychology*, 59, 239-252. doi:10.1016/j.erap.2009.02.001
- Montani F., Courcy F., Giorgi G., & Boilard A. (2015). Enhancing nurses' empowerment: The role of supervisors' empowering management practices. *Journal of Advanced Nursing* 71, 2129-2141. doi: 10.1111/jan.12665

- Morrison, E. W. (1996). Organizational citizenship behavior as a critical link between HRM practices and service quality. *Human Resource Management, 35*, 493-512. doi: 10.1002/(SICI)1099-050X(199624)35:4%3C493::AID-HRM4%3E3.0.CO;2-R
- Motowidlo, S. J., & Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology, 79*, 475-480. doi: 10.1037//0021-9010.79.4.475
- Muthén, L. K., & Muthén, B. O. (1998-2012). *Mplus user's guide* (Seventh Edition). Los Angeles, CA: Muthén & Muthén.
- Ng, T. W. H., & Sorensen, K. L. (2008). Toward a further understanding of the relationships between perceptions of support and work attitudes: A meta-analysis. *Group and Organization Management, 33*, 243-268. doi: 10.1177/1059601107313307
- Ng, T. W. H., & Feldman, D. C. (2009). How broadly does education contribute to job performance? *Personnel Psychology, 62*, 89-134. doi: 10.1111/j.1744-6570.2008.01130.x
- Ng, T. W. H., & Feldman, D. C. (2010). The relationships of age with job attitudes: A meta-analysis. *Personnel Psychology, 63*, 677-718. doi: 10.1111/j.1744-6570.2010.01184.x
- Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology, 48*, 775-802. doi: 10.1111/j.1744-6570.1995.tb01781.x
- Pierro, A., Cicero, L., Bonaiuto, M., van Knippenberg, D., & Kruglanski, A. W. (2005). Leader group prototypicality and leader effectiveness: The moderating role of need for cognitive closure. *The Leadership Quarterly, 16*, 503-516. doi: 10.1016/j.leaqua.2005.06.002

- Platow, M. J., & van Knippenberg, D. (2001). A social identity analysis of leadership endorsement: The effects of leader ingroup prototypicality and distributive intergroup fairness. *Personality and Social Psychology Bulletin*, *27*, 1508-1519.
- Podsakoff, P. M. & Farh, J.-L. (1989). Effects of feedback sign and credibility on goal setting and task performance. *Organizational Behavior and Human Decision Processes*, *44*, 45-67. doi: 10.1016/0749-5978(89)90034-4
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, *65*, 539-569. doi: 10.1146/annurev-psych-120710-100452
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*, 879-903. doi: 10.1037/0021-9010.88.5.879
- Podsakoff, N. P., Whiting, S. W., Podsakoff, P. M., & Blume, B. D. (2009). Individual- and organizational-level consequences of organizational citizenship behaviors: A meta-analysis. *Journal of Applied Psychology*, *94*, 122-141. doi: 10.1037/a0013079
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*, 879-891. doi: 10.3758/BRM.40.3.879
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, *42*, 185-227. doi: 10.1080/00273170701341316
- Roberson, L. (1990). Functions of work meanings in organizations: Work meanings and work motivation. In A. P. Brief & W. R. Nord (Eds.), *Meanings of occupational work* (pp. 107–134). Lexington: Lexington Books.

- Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior*, 30, 91-127. doi: 10.1016/j.riob.2010.09.001
- Salancik, G., & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. *Administrative Science Quarterly*, 23, 224-253. doi: 10.2307/2392563
- Schaufeli, W. B., Taris, T. W., & Bakker, A. B. (2006). Dr. Jeckyll or Mr. Hyde: On the differences between work engagement and workaholism. In R. J. Burke (Ed.), *Research companion to working time and work addiction* (pp. 193-217). Northampton, UK: Edward Elgar.
- Schneider B, Ehrhart MG, Mayer DM, Saltz JL, Niles-Jolly K. (2005). Understanding organizational-customer links in service settings. *Academy of Management Journal*, 48, 1017-1032. doi: 10.5465/AMJ.2005.19573107
- Seibert, S. E., Wang, G., & Courtright, S. H. (2011). Antecedents and consequences of psychological and team empowerment in organizations: A meta-analytic review. *Journal of Applied Psychology*, 96, 981-1003. doi: 10.1037/a0022676
- Shamir, B. (1999). Leadership in boundaryless organizations: Disposable or indispensable? *European Journal of Work and Organizational Psychology*, 8, 49-71. doi: 10.1080/135943299398438
- Shamir, B., House, R. J., & Arthur, M. B. (1993). The motivational effects of transformational leadership: A self-concept based theory. *Organization Science*, 4, 577-594. doi: 10.1287/orsc.4.4.577
- Shanab, M. E., Peterson, D., Dargahi, S., & Deroian, P. (1981). The effects of positive and negative verbal feedback on the intrinsic motivation of male and female subjects. *Journal of Social Psychology*, 115, 195-205. doi: 10.1080/00224545.1981.9711659

- Sheldon, K. M. (2002). The self-concordance model of healthy goal-striving: When personal goals correctly represent the person. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 65-86). Rochester, NY: University Of Rochester Press.
- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology*, *76*, 482-497. doi: 10.1037/0022-3514.76.3.482
- Sheldon, K. M., & Houser-Marko, L. (2001). Self-concordance, goal-attainment, and the pursuit of happiness: Can there be an upward spiral? *Journal of Personality and Social Psychology*, *80*, 152-165. doi: 10.1037//0022-3514.80.1.152
- Sinclair, R., Boudrias, J.-S., & Lapointe, E. (2014). Les différentes pratiques managériales d'habilitation comme antécédents des dimensions comportementales de l'habilitation. In J. Vacherand-Revel, M. Dubois, M.E. Bobillier Chaumon, R. Kouabenan & P Sarnin (Eds), *Changements organisationnels et technologiques : nouvelles pratiques de travail et innovations managériales* (p. 169-179). Paris: L'Harmattan.
- Soane, E., Shantz, A., Alfes, K., Truss, C., Rees, C., & Gatenby, M. (2013). The association of meaningfulness, well-being, and engagement with absenteeism: A moderated mediation model. *Human Resource Management*, *52*, 441-456. doi: 10.1002/hrm.21534
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, *38*, 1442-1465. doi: 10.2307/256865
- Stajkovic, A. D., & Luthans, F. (1998). Social cognitive theory and self-efficacy: Going beyond traditional motivational and behavioral approaches. *Organizational Dynamics*, *26*, 62-74. doi: 10.1016/S0090-2616(98)90006-7

- Stajkovic, A., & Luthans, F. (2001). Differential effects of incentive motivators on work performance. *Academy of Management Journal*, *44*, 580-590. doi: 10.2307/3069372
- Stajkovic, A., & Luthans, F. (2003). Behavioral management and task performance in organizations: conceptual background, meta-analysis, and test of alternative models. *Personnel Psychology*, *56*, 155-194. doi: 10.1111/j.1744-6570.2003.tb00147.x
- Tremblay, M., Guay, P., & Simard, G. (2000), *L'engagement organisationnel et les comportements discrétionnaires: L'influence des pratiques de gestion des ressources humaines*. Centre interuniversitaire de recherche en analyse des organisations (CIRANO). Manuscript available at <http://perso.wanadoo.fr/etics/cours%20staps/grh/theorie.pdf>
- Tummers, L. G., & Knies, E. (2013). Leadership and meaningful work in the public sector. *Public Administration Review*, *73*, 859-868. doi: 10.1111/puar.12138
- Williams, L. J., Cote, J., & Buckley, M. (1989). Lack of method variance in self-reported affect and perceptions at work: Reality or artifact? *Journal of Applied Psychology*, *74*, 462-468. doi: 10.1037//0021-9010.74.3.462
- Wrzesniewski, A. (2003). Finding positive meaning in work. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship*. San Francisco, CA: Berrett-Koehler Publishers, Inc.
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, *26*, 179-201. doi: 10.5465/AMR.2001.4378011
- Wrzesniewski, A., Dutton, J. E., & Debebe, G. (2003). Interpersonal sensemaking and the meaning of work. *Research in Organizational Behavior*, *25*, 93-135. doi: 10.1016/S0191-3085(03)25003-6

Zhang, Y., LePine, J. A., Buckman, B. R., & Wei, F. (2014). It's not fair...Or is it? The role of justice and leadership in explaining work stressor-job performance relationships.

Academy of Management Journal, 57, 675-697. doi: 10.5465/amj.2011.1110

Footnote

¹ The results of a one-way ANOVA indicated that there was no significant difference among the three industries in the levels of either employee meaningfulness ($F_{(2, 127)} = .15, ns$) or behavioural involvement ($F_{(2, 127)} = 2.76, p < .001$). This finding suggests that it was not necessary to control for the industrial sector.

² The results are available upon requests.