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Marylène GAGNE Concordia University

Devasheesh P. BHAVE Singapore Management University, dbhave@smu.edu.sg DOI: https://doi.org/10.1007/978-90-481-9667-8 8

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GAGNE, Marylène and BHAVE, Devasheesh P.. Autonomy in the Workplace: An Essential Ingredient to Employee Engagement and Well-being in Every Culture. (2011). *Human Autonomy in Cross-Cultural Context: Perspectives on the Psychology of Agency, Freedom, and Well-Being*. 1, 163-187. Research Collection Lee Kong Chian School Of Business. **Available at:** https://ink.library.smu.edu.sg/lkcsb_research/3676

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Chapter 8 Autonomy in the Workplace: An Essential Ingredient to Employee Engagement and Well-Being in Every Culture

Marylène Gagné and Devasheesh Bhave

Notions of autonomy underlie many old and new organizational practices. Japanese quality practices, empowerment, autonomous work teams, and many more organizational practices are grounded in giving employees more discretion over their work. Autonomy also captures the popular imagination: from the bumbling attempts of Michael Scott to empower his employees in television series "The Office" to the Dilbert comic strip's sense of helplessness related to the workplace. *Modern Times*, Charlie Chaplin's epic 1930s movie on the modern workplace, poignantly illustrates the travails of a workplace bereft of autonomy. Echoes of such workplaces are depicted in recent movies on call centers such as *Call Center Movie* and *Outsourced*.

But autonomy in the workplace has lofty origins. For close to a century, the International Labor Organization (ILO) has explicitly promoted the cause of freedom, equity, security, and dignity. Autonomy, after all, is how individual rights to freedom and dignity, enshrined in the ILO constitution, manifest in the workplace. Autonomy figured as key ingredient of modern organizations in the writings of early management scholars including Chester Barnard (1938), Mary Parker Follett (1926), and Elton Mayo (1933). Even Frederick Taylor (1911) considered the father of scientific management, emphasized that scientific management was not an efficiency fad but a "mental revolution" on part of workers that would come about when management and worker interests were aligned. Through the years, therefore, theorists have highlighted autonomy as a critical interest for employees that organizations need to address (Budd, 2004; Hirschman, 1970). Evidence abounds for the importance of autonomy to employees. Spector (1986) showed in a meta-analysis of over a hundred North American samples that perceptions of job control, often considered a form of work autonomy, were associated with higher job satisfaction, commitment, involvement, performance, and motivation and with lower physical symptoms, emotional distress, role stress, absenteeism, turnover intentions, and actual turnover. Whether it is in discussions of job design or leadership, autonomy is

M. Gagné (⊠)

Department of Management, John Molson School of Business, Concordia University, Montreal, QC, Canada H3G 1M8

e-mail: mgagne@jmsb.concordia.ca

V.I. Chirkov et al. (eds.), *Human Autonomy in Cross-Cultural Context*, Cross-Cultural Advancements in Positive Psychology 1, DOI 10.1007/978-90-481-9667-8_8,

often at the heart of heated debates in management—some researchers argue that it is an essential ingredient to employee engagement, while others say it is peripheral.

In this chapter, we first review theories, primarily from industrial-organizational psychology and organizational behavior perspectives that include autonomy as a key construct. Next, we illustrate empirical results in support of these theories, drawing particular attention to cross-cultural findings. To examine cross-cultural evidence, we adopt Hofstede's (2001) values framework because it has been the most popular one in management. When evaluating these cultural results, we try to take into account the possible effects of organizational characteristics (e.g., industry, job type, size) that could be confounded with cultural effects. We also draw on empirical evidence based on self-determination theory (Deci & Ryan, 1985). Because I/O psychology research has not drawn from self-determination theory much, our job here is to integrate these independent literatures and attempt to find future avenues for I/O psychology research based on self-determination theory. We next integrate empirical findings with the variety of organizational practices that draw upon concepts and theories related to autonomy. Finally, we present an organizing framework based on self-determination theory (Deci & Ryan, 1985) to guide future cross-cultural research on autonomy in the workplace.

Conceptualizations of Autonomy

Organizational behavior research has studied autonomy by examining how workplace practices that affect experienced autonomy, such as job design and participative management, influence the performance and engagement of employees (Evans & Fischer, 1992). Conceptualizations of autonomy reflect the historical and economic environment of organizations. For instance, in the 1970s most developed economies were predominantly based on manufacturing with employees working on traditional assembly lines. Hackman and Oldham's (1975) job characteristics model (discussed below) therefore conceptualized autonomy as the extent to which the job provided employees with freedom and independence over their work schedules and work processes. In the succeeding decades, the advent of new manufacturing technologies such as flexible manufacturing systems, total quality management practices, just-in-time inventory management, and others, highlighted that a more nuanced view of autonomy was required-these new manufacturing technologies relied increasingly on integration across work units and employees (Jackson, Wall, Martin, & Davids, 1993). Considering this shift in manufacturing technologies, Wall, Corbett, Clegg, Jackson, and Martin (1990) presented several forms of control (a term that represents one conceptualization of experienced autonomy) that can be designed into manufacturing work, namely timing control (work schedules and machine-pacing), method control (discretion in undertaking work tasks), and boundary control (control over secondary activities, such as maintenance, modifications, ordering supplies, and quality assurance).

Recent economic trends include globalization, increased competition, and the transition to a services-based economy. Employee empowerment practices, centered

on giving decision-making control to employees, spawned in such an environment (Spreitzer, 1995). The current thinking in organizational behavior research draws on these developments and considers three distinct but complimentary perspectives on employee autonomy: work scheduling autonomy, work methods autonomy, and decision-making autonomy (Morgeson & Humphrey, 2006).

There are other related conceptualizations of autonomy. For example, Breaugh (1985) separated autonomy into several subcomponents, including method autonomy, scheduling autonomy, and criterion autonomy (i.e., choice in how to measure job performance), all of which have been associated with positive work outcomes, such as work satisfaction, job involvement, absenteeism, and performance quality. Sadler-Smith, El-Kot, and Leat (2003) even found support for Breaugh's multidimensional work autonomy scale in an Egyptian sample of employees. Another conceptualization of autonomy is the Maastricht Autonomy List, which purports to assess actual job autonomy by examining opportunities to exercise control. It differentiates autonomy into subcomponents of work tempo, work method, and job evaluation (de Jonge, Landeweerd, & Van Breukelen, 1994). Finally, other conceptualizations of autonomy include task-related and context-related autonomy (Gomez-Mejia, 1986) and the High Involvement Work Practices model (Lawler, 1986), which includes the power to act and make decisions. The latter has been positively related to organizational return on equity, employee commitment and satisfaction, and also negatively related to turnover in a North American sample of 3,500 employees (Vandenberg, Richardson, & Eastman, 1999). Gomez-Mejia (1986) has shown the validity of his conceptualization in a sample of over 5,000 employees from 20 countries on the 5 continents.

In addition, and consistent with the broader theme of this book, research based on self-determination theory (Deci & Ryan, 1985) has also provided strong evidence of the importance of autonomy in the workplace. In self-determination theory, autonomy means "to endorse one's actions to the highest level of reflection" (Deci & Ryan, 2007, http://www.psych.rochester.edu/SDT/index.php). When people feel autonomous, they feel free to choose to do things that are interesting or personally meaningful to them. Self-determination theory argues for the existence of three basic psychological needs, one of which is the need for autonomy. Compared to the other conceptualizations of autonomy mentioned above, self-determination theory makes a strong claim that autonomy is a need that must be satisfied in order for humans to function optimally. It has been related to better work motivation, productivity, and well-being (see Gagné & Deci, 2005 for a review).

We can see from the above review that autonomy has been discussed at great lengths in the field of organizational behavior. In this chapter we use the term "job autonomy" throughout except when referring to the specific forms of autonomy outlined above. Because autonomy has been examined from many more perspectives, its effects in the domain of work have been studied in research about concrete organizational practices aimed at improving employee performance and engagement. For this reason, the rest of the chapter focuses on research about these practices so that we can extract what we know about the importance of autonomy in the work domain. But first we turn to the theories that underlie these practices.

Theoretical Frameworks

Because autonomy, as conceptualized above, is at the heart of how work is structured, organized, designed, and managed, we organize the review of empirical research that pertains to autonomy in the workplace around theories of job design. Job design is one of the most well-studied organizational behavior topics and has generated a large body of literature from around the world. Therefore, it offers compelling cross-cultural evidence for the importance of autonomy in the workplace. Early views of job design came from a backlash against Taylorism, an early industrial approach to structuring work in organizations that included job specialization and standardization, and the use of performance-contingent pay systems (Taylor, 1911). This technique was soon found to create monotonous jobs where people could not exercise any discretion, and where they felt dissatisfied and alienated (e.g., Fay & Kamps, 2006).

Early job design approaches recommended the use of job enlargement (giving people varied tasks) and job enrichment (decision-making power) to motivate workers. Later on, more refined models of job design were developed. The most popular one was developed by Hackman and Oldham (1975), and proposed five core job characteristics to motivate employees: skill variety, task identity, task significance, job autonomy, and feedback. According to these authors, job autonomy is what makes employees feel responsible and accountable for work outcomes, and has been linked to intrinsic motivation, job satisfaction performance, and employee retention (Hackman & Oldham, 1975). Morgeson and Humphrey (2006) validated a revised and expanded job characteristics scale where they exploded the job autonomy scale intro three subscales based on Breaugh's (1985) typology discussed earlier.

There is substantial evidence validating the Job Characteristics Model (e.g., Fried & Ferris, 1987; Lawler & Hall, 1970). Employee perceptions of job characteristics are related with objective measures of job complexity derived from the Dictionary of Occupational Titles (Gerhart, 1988). In a comparative study of business owners and employed workers, Prottas and Thompson (2006) reported that although business owners experience greater stress than employed workers, they feel more autonomous in their work. This can be explained through the enriched job design of business owners relative to employed workers. Self-employed workers in the UK (business owners and independent contractors) reported higher levels of job autonomy than employees, but overall, perceptions of autonomy were equally associated with positive outcomes in all three groups of workers (Prottas, 2008). Using a repeated measures design in a South African organization, Orpen (1979) found that clerical employees who underwent job enrichment showed increases in work motivation, job satisfaction and involvement, lower absenteeism and turnover. In a recent meta-analysis of over 250 publications, mostly with Western samples, job characteristics explained between 24 and 34% of the variance in many work outcomes (Humphrey, Nahrgang, & Morgeson, 2007).

The job characteristics model is totally compatible with self-determination theory. Like the JCM, SDT argues that task design and job context can influence intrinsic motivation, and that this can be explained as the satisfaction of needs. While the JCM argues for three psychological states as mediators, namely meaningfulness, responsibility, and knowledge of results, SDT argues for the importance of satisfying needs for competence, autonomy, and relatedness. Indeed, enriched job designs have been associated with greater intrinsic work motivation in both employed and voluntary Canadian workers (Gagné, Senécal, & Koestner, 1997; Millette & Gagné, 2008).

Autonomy in the design of jobs has been shown to be important in different cultures. Vlerick and Goeminne (1994) found higher job autonomy in Belgian nurses whose work was organized around patient cases than in nurses whose work was organized around assigned tasks. In a study of 13,795 workers from Canada, China, Finland, France, and Sweden, lack of job autonomy and work complexity were related to functional incapacity, and this impact was stronger in China than in less collectivistic countries (Vaananen et al., 2005). These findings contradict what some authors have argued, which is that job autonomy is less important in collectivitistic and high power-distance cultures than it is in individualistic and low power-distance cultures (Iyengar & Lepper, 1999). Indeed, a study of Chinese and US information technology recruits shows that they hold similar beliefs regarding employer-employee obligations, including the obligation to provide job autonomy (King & Bu, 2005). Discussions between Chinese senior managers working in Chinese public organizations and the first author support this belief. These senior managers argued that feeling autonomous is essential to employee engagement in Chinese organizations.

There are still some contradictory findings related to job autonomy highlighted in the broader job design literature. Among Indian textile mill workers, perceptions of job characteristics were not associated with job involvement (Naaz, 1999), and in a Taiwanese sample working in high technology, job specialization (i.e., low job enrichment) was positively associated with self-efficacy and negatively with burnout (Hsieh & Chao, 2004). However, job design was associated with hotel performance in India (Chand & Katou, 2007), and job autonomy was related to skill utilization in Kuwait (Abdalla, 1988). More research is needed to understand these discrepant findings and find some possible cultural or organizational moderators (such as the type of work being done) of the relations between job autonomy and outcomes.

Besides the Job Characteristics Model, other job design models have been developed. Campion and Thayer's (1985) Multimethod Job Design Model includes motivational subcomponents (including job autonomy), mechanistic subcomponents, biological and perceptual/motor subcomponents. Campion (1988) showed that motivational designs are linked to satisfaction outcomes, while mechanical designs are linked to efficiency outcomes, biological designs are linked to comfort outcomes, and perceptual/motor designs are linked to reliability outcomes. Some research has shown that it is not easy to have a design that is sound motivationally *and* mechanically (Campion, 1988), and this is likely because designs that are mechanically sound probably limit the amount of discretion employees have in their job. Indeed, the introduction of just-in-time methods (which increases process control) has been shown to decrease individual autonomy (Klein, 1991). The introduction of lean production practices (lean teams, assembly lines and workflow formalization) is associated with decreased perceptions of job autonomy, which in turn is associated with reduced organizational commitment, self-efficacy, and depression (Parker, 2003). Hackman and Oldham's (1975) job characteristics differ significantly in jobs that use different technologies, and these design differences impact satisfaction and motivation (Rousseau, 1977). However, more recent research shows that there are ways to design jobs so that they are sound both motivationally and mechanically (Morgeson & Campion, 2002). For instance, Wall, Corbett, Martin, Clegg, and Jackson (1990) found that giving computer-numerical-control machine operators in UK manufacturing environments control over the maintenance and programming to rectify operational problems (in addition to loading, monitoring and unloading tasks), improved their productivity, their job satisfaction, and lowered perceived job pressure.

Warr's Vitamin model (1995) proposes yet another framework for examining job autonomy. Warr proposed that certain job attributes (for e.g., job autonomy, job demands, etc.) function like "vitamins"-they are desirable up to specific levels but are harmful or ineffective at excessive levels. Thus, Warr hypothesized curvilinear relationships between the "vitamins" and employee outcomes. Some research has shown curvilinear effects, but not always in the expected direction. Champoux (1992) found that under different levels of supervisor satisfaction or growth need strength, the curvilinear relationship could be U-shaped or inversely U-shaped. However, Xie and Johns (1995) found U-shaped relationships between some of the job characteristics and burnout, but the relationship with autonomy was linear. But in two samples of Dutch healthcare workers, job autonomy was linearly related to burnout (de Jonge & Schaufeli, 1998; Jeurissen & Nyklicek, 2001). Perhaps some variables, such as expertise level or supervisor behaviors, moderate the positive impact of job autonomy on outcomes, such that autonomy remains positive as long as it is coupled with other support mechanisms, or has more impact coupled with them.

The broader literature on job design has examined how certain contextual factors can impact the effect of job design on outcomes. Peters and O'Connors (1980) argued that situational constraints, such as technology, budgets, and time, can limit the impact of job redesign on employee motivation. However, Phillips and Freedman (1984) found that although situational constraints lead to negative affective reactions, they do not limit the effects of job design on outcomes. Organizational climate has also been shown to enhance the effects of job design on the job satisfaction of US nurses (Ferris & Gilmore, 1984). In a recent study drawing on self-determination theory, Bellerose and Gagné (2009) found that a motivational job design can actually compensate for poor leadership and help maintain motivation levels (the opposite was also true). So, if employees feel in control of the situation (through job autonomy) constraints do not necessarily have debilitating effects on their motivation. What remains to be tested in the cross-cultural generalizability of these findings? Next, we examine the effects associated with job autonomy for important outcomes for employees and organizations: employee engagement, employee performance, and employee well-being.

Employee Engagement

Employee engagement has been alternatively defined as involvement, commitment, passion, enthusiasm, effort, and energy (Macey & Schneider, 2008). Engagement has been operationalized both in cognitive terms, such as vitality, absorption, involvement, commitment, and empowerment, and in behavioral terms, such as extra-role behavior, proactivity, initiative, and adaptation. It has also been equated with autonomous motivation (Meyer & Gagné, 2008). Employee engagement has been shown in a meta-analysis to relate moderately to job autonomy (Brown, 1996). Research based on self-determination theory also shows that satisfaction of the need for autonomy is associated with greater work engagement (Baard, Deci, & Ryan, 2004; Deci et al., 2001). One popular work engagement measure, the Utrecht Work Engagement Scale, includes subscales for vigor, dedication, and absorption (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002; Schaufeli, Salanova, González-Romá, & Bakker, 2002), which have been related to the amount of control one felt he or she had on the job (Schaufeli, Taris, & vanrhenen, 2008; Sonnentag, 2003). This model is highly compatible with Ryan and Frederick's (1997) conceptualization and empirical evidence for subjective vitality, which is based on self-determination theory.

The concept of empowerment has also been used to examine employee engagement. Structural empowerment, like job autonomy, refers to having decision-making power and adequate resources to work autonomously. Kakabadse (1986) has shown that centralized and formalized organizational structures lead employees to feel powerless, which is related to job dissatisfaction, decreased organizational commitment, and over time to a greater need for rule enforcement. Psychological empowerment refers to the feelings associated with having power over one's work situation. Thomas and Velthouse (1990) put autonomy at the heart of the experience of empowerment itself, by including it among the four key psychological factors associated with empowerment (along with meaning, competence, and impact). Empowerment has been positively related to work effectiveness and satisfaction, and negatively to strain (Spreitzer, Kizilos, & Nason, 1997). Similar results were found in a large sample of Filipino service workers (Hechanova, Alampay, & Franco, 2006). The five core job characteristics from Hackman and Oldham's theory have been related to feelings of empowerment, which in turn were associated with intrinsic work motivation, in a sample of technicians and telemarketers of a Canadian telecommunications company (Gagné et al., 1997).

Job autonomy has been linked to many other behavioral and attitudinal engagement indicators. Job autonomy is positively related to role breadth (how broadly you view your organizational role), self-efficacy, flexibility, organizational commitment, and feelings of ownership (Aubé, Rousseau, & Morin, 2007; Morgeson, Delaney-Klinger, & Hemingway, 2005; Parker & Axtell, 2001). Naus, van Iterson, and Roe (2007) found that perceptions of job autonomy in a sample of Dutch workers were associated with decreased organizational cynicism, and Parish, Cadwallader, and Busch (2008) found that role autonomy was related to commitment to organizational change. Because these findings are mostly from Western samples, cross-cultural research is needed to validate them in non-Western cultures. The opposite of engagement has been studied under different labels: burnout and powerlessness, for instance. González-Romá, Schaufeli, Bakker, and Lloret (2006) argued that burnout is the opposite of work engagement. However, Schaufeli and Bakker (2004), and Schaufeli, Taris and vanrhenen (2008) also found in samples of Dutch workers that burnout and engagement are not always related to the same antecedents and outcomes, although job autonomy was related to both (see the section on well-being below for more results). Lack of engagement has also been called powerlessness. For instance, Ashforth (1989) defined powerlessness as lack of autonomy and participation, and found that it can generate reactance, helplessness, and alienation. Powerlessness has also been associated with lowered efforts, performance, and tardiness (Cummings & Manring, 1977).

Individual Performance

Job autonomy is related to individual performance and to other work behaviors. Satisfaction of the need for autonomy has been related to US bankers' performance evaluation scores (Baard et al., 2004). Claessens, Van Eerde, Rutte, and Roe (2004) found job autonomy to be a significant predictor of performance in a sample of Dutch employees. Interestingly, having high job autonomy also enhances the relationship between one's personality (as assessed through the Big 5) and job performance (Barrick & Mount, 1993) and extra-role performance (Gellatly & Irving, 2001). Millette and Gagné (2008) found that the five core job characteristics were associated with greater autonomous work motivation and better performance in a sample of French Canadian volunteer workers. Parker, Axtell, and Turner (2001) showed that job autonomy has been an important factor for proactive work behavior (proactive idea implementation and problem solving), and innovative work behaviors (Parker, Williams, & Turner, 2006; Ramamoorthy, Flood, Slattery, & Sardessai, 2005).

The satisfaction of the need for autonomy was related to positive training intentions in a Spanish sample of workers (Roca & Gagné, 2008). Cabrera, Collins, and Salgado (2006) found in a Spanish sample that job autonomy was essential to the motivation of knowledge sharing in the workplace. Gagné (2009) argues that this is because autonomy fosters the internalization of the value for sharing knowledge. Would sharing these findings be even stronger in a collectivistic culture and would autonomy be as important in this context? Morrison (2006) found that job autonomy was related to pro-social rule breaking (breaking a rule to promote the welfare of an organization or a stakeholder) in a US sample. Would we find pro-social rule breaking behavior in a culture high in power-distance or uncertainty avoidance?

Well-Being

Job autonomy has been linked to employee well-being across many cultures. Selfdetermination theory research clearly shows such a link between satisfaction of the need for autonomy and well-being (e.g., Baard et al., 2004; Deci et al., 2001). In a US sample of over 3,000 workers, job autonomy was related to higher satisfaction, and lower work-family conflict, turnover intentions and stress (Thompson & Prottas, 2006). A study of over 9,000 Netherland workers in 28 professions found that job autonomy was negatively related to burnout (Taris et al., 2002). Several studies of service and welfare workers (many in the US but also some from European countries and Japan) have found that the negative effect of work autonomy on burnout because it buffers against job stress (Daniels & Guppy, 1994; Grandey, Fisk, & Steiner, 2005; Hall et al., 2006; Lee & Ashforth, 1993; Peiro, Gonzalez-Roma, & Lloret, 1994; Stalker, Mandell, Frensch, Harvey, & Wright, 2007; Van Yperen & Hagedoom, 2003). Karasek's (1979) study of Swedish and American employees showed that job control can buffer employees against stresscaused high job demands. Interestingly, this effect was only found in people with high autonomous motivation in a sample of French-Canadian university professors (Fernet, Guay, & Senécal, 2004); and Tai and Liu (2007) found in a Taiwanese sample that the buffering effects of job autonomy were particularly important for neurotic people. Moreover, Van den Broeck, Vansteenkiste, De Witte, and Lens (2008) found that the satisfaction of the need for autonomy was a strong mediator of the effects of job control on burnout and engagement.

Are the effects of job autonomy limited to psychological health? Sprigg, Stride, Wall, Holman, and Smith (2007) found no main or moderating effect of job autonomy on musculoskeletal disorders in call center employees (although they were influenced by stress). However, Liu, Spector, and Jex (2005) found that US university employees who reported high job autonomy also reported less frustration, anxiety, turnover intentions, physical symptoms, and doctor visits. One question is whether in some cultures where people express psychological distress more physically, and whether the effects of strain would be more highly related to physical health in these groups. For example, in a German sample of male public service workers, Rau (2004) found that high job scope was related to higher diastolic blood pressure during work hours, and lower diastolic blood pressure during the night. The author interprets these results to mean that high job scope is healthy to employees. Would we find the same results in China or Latin countries?

Based on the above theoretical framework of job design, we next examine organizational practices, such as autonomous work groups and workplace monitoring, and also new work arrangements such as telecommuting and workplace monitoring.

Organizational Practices

Autonomous Work Groups

Related research from the field of organizational development (out of which quality circles and sociotechnical systems became popular; Emery, 1959) also provide much evidence for the importance of autonomy in the workplace. This work led to new ways of structuring and organizing work done by teams in organizations. Wall et al. (1990) talk about 4 key constructs that define "advanced manufacturing technology": control, cognitive demands, production responsibility, and social interaction, which they say can be promoted through the use of autonomous work groups. Autonomous work groups typically do not have a supervisor and have the following responsibilities: allocate jobs among themselves, reach production targets while meeting quality standards, solve production problems, record production data, organize schedules, order raw materials, deliver finished goods to the client, call for engineering support, and select and train new recruits (Kemp, Wall, Clegg, & Cordery, 1983). These authors found that employees working in autonomous work groups in a UK plant reported higher job satisfaction and also perceived greater work role complexity compared to workers in another industrial organization using traditional design. Similarly, in the US, Ward (1997) found that autonomous work groups reported higher receptivity to change, trust in management, and organizational commitment. Parker, Wall, and Jackson (1997) undertook a rigorous study comparing three types of work groups: work groups that were not redesigned, work groups where Just-in-Time (JIT) and Total-Quality-Management (TQM) methods were introduced, and work groups where JIT and TQM methods were introduced in conjunction with establishing autonomous work groups. The authors observed that the latter group cognitively redefined their role in the organization more than the other two groups: employees in this group developed a more strategic orientation (i.e., endorsing the organization's key strategies) and a broader role orientation (i.e., changed views of their own work responsibilities). Parker et al. argued that it was the addition of job autonomy in this group that made the difference. Other research demonstrates that the positive effects of autonomous work groups are long-lasting, especially on intrinsic work motivation (Wall, Kemp, Jackson, & Clegg, 1986).

Autonomous work groups arguably enrich the design of tasks (Campion, Medsker, & Higgs, 1993; Campion, Papper, & Medsker, 1996; Griffin, Patterson, & West, 2001). Some researchers have integrated notions from team and job design research to develop, for example, a Team Characteristics Model (Strubler & York, 2007). Cohen, Ledford, and Spreitzer (1996) found in a US sample that autonomous work groups demonstrated better group management, such as stability, clear norms, better coordination, more expertise and innovation, because of the enriched design this form of work organization creates. Members of these groups were also more involved in their work and reported more job satisfaction, commitment, and trust. Finally, they performed better (in terms of quality, productivity, costs, and safety) and were less absent.

Although more research is needed to examine how autonomous work groups would fare in other cultures, there is some cross-cultural research that addresses this issue. For example, Jin (1993) demonstrated that teams that were voluntarily formed in Chinese manufacturing plants evidenced higher motivation and performance quality (but not quantity) than teams formed through assignments. Cordery, Mueller, and Smith (1991) found that employees in autonomous work groups in a minerals processing plant in Australia reported more positive attitudes than employees in traditionally designed jobs. In an Israeli sample, Meier (1984) found that a

team approach to organizing work was related to feeling autonomous. Autonomous work groups in the Netherlands evidenced more motivating task design, higher quality relationships among team members, decreased work load, and increased well-being (van Mierlo, Rutte, Seinen, & Kompier, 2000).

Participative Management

Early organizational behavior researchers discovered that when employees were allowed to participate in decision-making, they seemed to be more engaged, to put more effort into their work, and to feel less strain (Coch & French, 1948; Kornhauser & Reid, 1965; Likert, 1967; Lowin, 1968). Participative management can take many forms. Hackman (1986) discusses the implications of giving people the authority to (1) execute their work the way they want to; (2) monitor and manage the work process; (3) design and distribute work; and (4) set goals for the unit or organization. Sashkin (1976) offers four forms of participative approaches, including (1) participation in setting goals; (2) participation in decision-making; (3) participation in solving problems; and (4) participation in the development and implementation of change in the organization, and describes when each should be used.

Cotton, Vollrath, Froggatt, Lengnick-Hall, and Jennings (1988) showed in their meta-analysis how six forms of participation (i.e., work decisions, consultative, short-term, informal, employee ownership, and representative) lead to different performance and satisfaction outcomes. Scott-Ladd, Travaglione, and Marshall (2006) found in an Australian sample that task variety fosters participation in decision making, which in turn promotes job satisfaction and commitment. Cassar (1999) found that participation is especially related to job satisfaction when used at a tactical level (task decisions). Similarly, Sagie, Elizur, and Koslowsky (1995) found that strategic change decisions made by management coupled with participation in tactical decisions (how to conduct the change) increases acceptance of the change. Black and Gregersen (1997) found in a US sample that participation in planning and evaluation was related to satisfaction, while participation in planning was related only to productivity.

Hodson (1996) found in US manufacturing firms that autonomy mediated the effects of worker participation on job satisfaction and the willingness to train coworkers (a form of prosocial behavior). Mikkelsen and Gundersen (2003) demonstrated that a participative management implementation in a Norwegian postal service yielded higher levels of perceived job autonomy, as well as improvements in stress and subjective health. Meta-analyses show that the effect of participation on satisfaction and performance is mediated by the experience of control and autonomy (Miller & Monge, 1986; Sagie, 1994). This is supportive of the self-determination theory perspective, which demonstrates that giving employees choice, a good rationale, and perspective taking is related to greater feelings of autonomy (Baard et al., 2004; Deci, Connell, & Ryan, 1989; Deci et al., 2001). Coye and Belohlav (1995) surveyed 326 US CEOs to find that the use of participative management was related to employee engagement. Overall, Western research shows that the positive effects of participative management are attributable to increased experienced autonomy.

Given these favorable effects associated with participative management, some researchers argue that employee participation is an ethical imperative (Sashkin, 1984). However, other researchers contend that too much importance is assigned to participation for employee motivation (e.g., Locke, Schweiger, & Latham, 1986), that it does not always yield desired productivity outcomes and is onerous to manage (Locke & Schweiger, 1979). For instance, Latham, Winters, and Locke (1994) found in a lab study that subjects in participative goal setting conditions felt more self-efficacious but did not perform better than subjects in assigned goal conditions. However, Latham, Erez, and Locke (1988) found that it may not be the participation itself that leads to greater acceptance and performance. In a study where they compared experimental subjects in a participatively set goals condition to those in a condition where goals were assigned along with a strong rationale for the goal, there were no performance differences. Deci, Eghrari, Patrick, and Leone (1994) indeed showed that offering a good rationale for asking someone to work on a task can lead to increased feelings of autonomy and greater internalization of the importance of the task, leading to greater intrinsic motivation and performance. Therefore, participative management may work because it increases experienced autonomy, but there may be other ways to increase this experience. Sagie's (1994) meta-analysis supports this conclusion, showing that a "tell and sell" approach to goal setting is as strongly associated with performance as is a participative method. Perhaps the need for participative management (for engaging employees) may depend on task and other structural characteristics.

The little cross-cultural research that exists shows that different forms of participative management are used in some non-western cultures with positive outcomes. Deci et al. (2001) showed, for example, that support of the need for autonomy was related to positive outcomes in both US and Bulgarian organizations. Sagie and Aycan (2003) found that two cultural dimensions, individualism-collectivism and power distance were predictively related to specific participative management approaches, such as face-to-face participative management, collective participative management, pseudo-participative management, and paternalistic participative management. In Europe, Cabrera, Ortega, and Cabrera (2003) found that two forms of participative management prevail: consultative and delegative. Pradhan, Kumar, Singh, and Mishra (2004) examined the types of prevailing organizational climates in Indian organizations, and concluded that public organizations emphasize participative management. Vardi, Shirom, and Jacobson (1980) found that Israeli managers have positive attitudes toward participative management, and Tzafrir (2006) found in 104 Israeli firms that human resource management practices that enhance employee decision-making power exhibit higher organizational performance. Lam, Chen, and Schaubroeck (2002) found that perceived participative decision making was equally related to employee performance in comparable samples of bank employees from Hong Kong and the US (controlling for the values of allocentrism and idiocentrism).

What is painfully lacking from the above review is more compelling crosscultural evidence of the effects of participative management on feelings of autonomy and outcomes. Is participative management used at all in some cultures, such as those high power-distance or uncertainty avoidance? Would participative management yield the same positive outcomes in these cultures? These questions need to be addressed by future research.

New Work Arrangements

A number of new work arrangements have recently appeared in organizational life. These work arrangements reflect differences in job design and have been linked to differential autonomy levels and differential outcomes. We discuss two of them, namely telecommuting and electronic monitoring.

Telecommuting has been argued to increase job autonomy (Feldman & Gainey, 1997), and to require that employees be more self-regulated in their work behavior (Raghuram, Wiesenfeld, & Garud, 2003). Although the use of telecommuting has been linked to firm performance in Spain (Sánchez, Pérez, de Luis Carnicer, & Jimenez, 2007), very little research actually tests whether telecommuting increases job autonomy and requires more self-regulation than regular jobs. No research to our knowledge even looks at the design of telecommuting jobs. Research on telecommuting should compare the design of these types of jobs to the design of more traditional and equivalent work arrangements (i.e., same job done on organizational premises). Job autonomy may actually vary across different telecommuting jobs, depending on the rules that are established for these workers, the technology they need to use, and the type of work they do from home. Golden, Veiga, and Simsek (2006) found that job autonomy levels mitigate the negative impact that telecommuting sometimes has on work-family conflict. Similarly, Senécal, Vallerand, and Guay (2001) found that management support of the need for autonomy increased work autonomous motivation, and decreased workfamily conflict and the resulting exhaustion in a sample of physical therapists and psychologists.

Workplace electronic monitoring is a relatively recent trend that often limits job autonomy. Although supervisory micro-management may have been the way to monitor employee behavior before, today this is also done through technology. Employees often work from remote office locations, knowledge work is more prevalent and more difficult to monitor, and today's managers are typically overwhelmed with paperwork and meetings, preventing close monitoring of employee behavior. The last decades have seen increases in the use of card swipe systems, physiological monitoring equipment (eye and fingerprint detectors), location sensing technologies such as global positioning systems (GPS), as well as computer monitoring and the use of cameras to monitor employee behaviors. A 2007 Electronic Monitoring and Surveillance Survey (American Management Association, 2008) revealed that 66% of the surveyed US employers reported using Internet monitoring, 43%

reported using email monitoring, 45% reported using telephone monitoring, 48% reported using video surveillance, and 8% reported using GPS to monitor company vehicles.

Besides concerns over invasion of privacy (Ambrose, Alder, & Noel, 1998), early writings on performance monitoring argued that performance monitoring increases stress levels and can lead to health problems (Aiello, 1993; Carayon, 1993; Smith, Carayon, Sanders, Lim, & LeGrande, 1992). This perspective is compatible with self-determination theory research on the negative effects of surveillance on intrinsic motivation (Enzle & Anderson, 1993). Although some research shows that employee monitoring increases work performance (Canoni, 2004; Komaki, 1986; Komaki, Desselles, & Bowman, 1989; Larson & Callahan, 1990), possibly because of the social facilitation it causes (Aiello & Kolb, 1995), others have shown that it can decrease performance on complex tasks (Aiello & Svec, 1993). These decreases in performance and increases in stress have been argued to be caused by the effect that monitoring systems have on job autonomy (Carayon, 1994). A study indeed showed that a computer-based performance monitoring system was less stressful when it was done in conjunction with increased job autonomy (Ball & Wilson, 2000). Other research shows that using monitoring to give feedback to employees leads to more positive outcomes (Aiello & Shao, 1993; Griffith, 1993; Wells, Moorman, & Werner, 2007). Stone and Stone (1990) argued that these positive effects occur because such use of a monitoring system does not decrease feelings of autonomy. Ways to restore feelings of autonomy have also included employee input into the design of the monitoring system (De Tienne & Abbott, 1993), and control over the monitoring system (Stanton & Barnes-Farrell, 1996). Spitzmuller and Stanton (2006) argue that control over monitoring enhances the relationship between attitudes toward monitoring systems and intentions to comply with it.

Research on monitoring, however, has not only concentrated on the mere usage of these technologies, but also on company and managerial motives for their utilization. Lyon (2006), for example, presented a model to show different types of monitoring, ranging from soft (passive) to sharp (active utilization). Ambrose et al. (1998) state that monitoring can range from work-related (e.g., computer monitoring) to work and non-work related (e.g., video surveillance), and that non-work related monitoring is perceived to be much more controlling and even unethical by some employees. This was supported by a recent study (McNall & Roch, 2007). It would be important for future research to further examine the impact of these characteristics of monitoring systems and organizational motives on experienced autonomy.

The use of these technologies is likely to increase globally. However, there is limited research evaluating the role of autonomy and monitoring from a crosscultural perspective, and this should be one focus of future research in this field. There is clearly a need for more cross-cultural research on autonomy and its relationship with these particular new work arrangements and with other ones not discussed herein, such as virtual teams, job sharing, and flexible work schedules.

Future Avenues

We can conclude from this review that autonomy is a crucial element of employee motivation and engagement. We can also conclude that the empirical results reviewed above strongly support self-determination theory (Deci & Rvan, 1985). Autonomy in the workplace can take many forms that can be examined through the study of specific organizational practices that influence it. Throughout the chapter, we have shown how these practices create opportunities or barriers to experienced autonomy. By focusing research on how practices influence autonomy, we can use rigorous and systematic methods to examine the effects of these practices on employee outcomes. Self-determination theory would serve as a useful framework to explain many of these characteristics' effects on employee motivation and outcomes. Because self-determination theory predicts how situational and personal factors influence the satisfaction of basic psychological needs, including autonomy, it can significantly help develop tests of different workplace practices. New tools, such as the Need Satisfaction at Work Scale (Van den Broeck, Vansteenkiste, De Witte, Soenens, & Lens, in press) and the Motivation at Work Scale (Forest et al., 2010), both already available in multiple languages, will hopefully encourage organizational behavior researchers to use self-determination theory to expand our knowledge on job autonomy.

Many cross-cultural questions remain about job design. In an interesting study of 7,000 jobs in 7 countries, similar jobs were found to carry different levels of job autonomy (Dobbin & Boychuk, 1999). Although the authors argue that differences were attributable to differences in national employment systems, could these differences be caused by cultural values? In a study of over 4,000 companies from 14 European countries, national culture influenced the type of flexible work arrangements chosen by companies (Raghuram, London, & Larsen, 2001). For example, power distance and individualism were related to using part-time work; uncertainty avoidance and individualism were related to using contract work and shift work; feminity was related to using telecommuting. However, another study conducted across 42 countries found that the intra-cultural variation in job autonomy was associated with positive outcomes beyond mean differences in job autonomy across the countries (Au & Cheung, 2004); although job autonomy may vary across countries, there is still significant within-culture variation, and autonomy level has the same impact across cultures.

What we know much less about is how to foster autonomy in the workplaces of the world. Can we use the same practices in the same way in every culture? It is doubtful. How should current practices be applied or adapted for different cultures? Should new practices be developed for particular cultures? We clearly need more research to answer these questions. We also need more research to examine other work-related issues. For example, how can we enhance the experience of autonomy in simple/monotonous jobs if we cannot redesign these jobs? What are the job design characteristics for people who work in virtual teams (i.e., people working remotely together)? In matrix structures, where people are managed by more than one person? In unionized versus non-unionized environments? For example, one study showed that unionized US employees were found to have less job autonomy than non-unionized employees (Kirmeyer & Shirom, 1986). Finally, contingent work (e.g., part-time temporary work, summer work, contract work) is becoming more and more common. The conditions underlying these types of jobs can affect their design, especially in the area of decision-making power, thereby affecting the experience of autonomy.

We need to remember that examining cross-cultural generalizability of methods to improve feelings of autonomy in the workplace is not an easy feat. Several contextual factors other than cultural values could influence the success or failure of practices. Johns (2006) provides a useful framework to organize our research methods and interpretation of results around categories of contextual variables, including job design and culture. Moreover, when we conduct meta-analyses, we should consider culture as a potential moderator.

In conclusion, discussions of autonomy in the workplace are as relevant as ever. Complexity in organizational structures, changes in employment practices, the globalization of business, among other trends, all make incorporating autonomy in organizational practices increasingly critical. More rigorous research, especially cross-cultural, is imperative to guide practitioners on the mechanisms to do so.

References

- Abdalla, I. A. (1988). Work environment, job structure, and behavior orientation as predictors of skill utilization in Kuwait: The moderating effect of ability. *Genetic, Social, and General Psychology Monographs*, 114, 173–189.
- Aiello, J. R. (1993). Computer-based work monitoring: Electronic surveillance and its effects. Journal of Applied Social Psychology, 23, 499–499.
- Aiello, J. R., & Kolb, K. J. (1995). Electronic performance monitoring and social context: Impact on productivity and stress. *Journal of Applied Psychology*, 80, 339–353.
- Aiello, J. R., & Shao, Y. (1993). Electronic performance monitoring and stress: The role of feedback and goal setting. In M. J. Smith & G. Salvendy (Eds.), *Human-computer interaction: Applications and case studies* (pp. 1011–1016). Amsterdam: Elsevier Science Publishers B.V.
- Aiello, J. R., & Svec, C. M. (1993). Computer monitoring of work performance: Extending the social facilitation framework to electronic presence. *Journal of Applied Social Psychology*, 23, 537–548.
- Ambrose, M. L., Alder, G. S., & Noel, T. W. (1998). Electronic monitoring and ethics: A consideration of employer and employee rights. In M. Schminke (Ed.), *Managerial ethics: Morally managing people and processes* (pp. 61–80). Hillsdale, NY: Erlbaum.
- American Management Association. (2008). *The 2007 Electronic monitoring and surveillance survey from the American Management Association and the ePolicy Institute*. New York: American Management Association. http://www.amanet.org/research/
- Ashforth, B. E. (1989). The experience of powerlessness in organizations. *Organizational Behavior* and Human Decision Processes, 43, 207–242. DOI: 10.1016/0749-5978(89)90051-4.
- Au, K., & Cheung, M. W. L. (2004). Intracultural variation and job autonomy in 42 countries. Organization Studies, 8, 1339–1362.
- Aubé, C., Rousseau, V., & Morin, E. M. (2007). Perceived organizational support and organizational commitment. *Journal of Managerial Psychology*, 22, 479–495. DOI: 10.1108/02683940710757209.
- Baard, P. P., Deci, E. L., & Ryan, R. M. (2004). Intrinsic need satisfaction: A motivational basis of performance and well-being in two work settings. *Journal of Applied Social Psychology*, 34, 2045–2068.

- Ball, K., & Wilson, D. C. (2000). Power, control and computer-based performance monitoring: Repertoires, resistance and subjectivities. *Organization Studies*, 21, 539–565. DOI: 10.1177/0170840600213003.
- Barnard, C. I. (1938). The functions of the executive. Cambridge, MA: Harvard University Press.
- Barrick, M. R., & Mount, M. K. (1993). Autonomy as a moderator of the relationships between the big five personality dimensions and job performance. *Journal of Applied Psychology*, 78, 111–118. DOI: 10.1037/0021-9010.78.1.111.
- Bellerose, J., & Gagné, M. (2009, June). *The combined effects of leadership and work design on work motivation*. Poster presented at the Canadian Psychological Association, Montreal, CA.
- Black, J., & Gregersen, H. (1997). Participative decision-making: An integration of multiple dimensions. *Human Relations*, 50, 859–878. DOI: 10.1023/A:1016968625470.
- Breaugh, J. A. (1985). The measurement of work autonomy. *Human Relations*, 38, 551–570. DOI: 10.1177/001872678503800604.
- Brown, S. P. (1996). A meta-analysis and review of organizational research on job involvement. *Psychological Bulletin*, *120*, 235–255. DOI: 10.1037/0033-2909.120.2.235.
- Budd, J. W. (2004). Employment with a human face: Balancing efficiency, equity, and voice. Ithaca, NY: Cornell University Press.
- Cabrera, Á., Collins, W. C., & Salgado, J. F (2006). Determinants of individual engagement in knowledge sharing. *The International Journal of Human Resource Management*, 17, 245–264. DOI: 10.1080/095885190500404614.
- Cabrera, E. F., Ortega, J. & Cabrera, A. (2003). An exploration of the factors that influence employee participation in Europe. *Journal of World Business*, *38*, 43–54.
- Campion, M. A. (1988). Interdisciplinary approaches to job design: A constructive replication with extensions. *Journal of Applied Psychology*, 73, 467–481.
- Campion, M. A., Medsker, G. J., & Higgs, A. C. (1993). Relations between work group characteristics and effectiveness: Implications for designing effective work groups. *Personnel psychology*, 46, 823–823.
- Campion, M. A., Papper, E. M., & Medsker, G. J. (1996). Relations between work team characteristics and effectiveness: A replication and extension. *Personnel psychology*, 49, 429–452.
- Campion, M. A., & Thayer, P. W. (1985). Development and field evaluation of an interdisciplinary measure of job design. *Journal of Applied Psychology*, 70, 29–43. DOI: 10.1037/0021-9010.70.1.29.
- Canoni, J. D. (2004). Location awareness technology and employee privacy rights. *Employee Relations Law Journal*, 30, 26–31.
- Carayon, P. (1993). Effect of electronic performance monitoring on job design and worker stress: Review of the literature and conceptual model. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, *35*, 385–395.
- Carayon, P. (1994). Effects of electronic performance monitoring on job design and worker stress: Results of two studies. *International Journal of Human-Computer Interaction*, *6*, 177–190.
- Cassar, V. (1999). Can leader direction and employee participation co-exist? Investigating interaction effects between participation and favourable work-related attitudes among Maltese middle managers. *Journal of Managerial Psychology*, 14, 57–68.
- Champoux, J. E. (1992). A multivariate analysis of curvilinear relationships among job scope, work context satisfactions and affective outcomes. *Human Relations*, 45, 87–111.
- Chand, M., & Katou, A. A. (2007). The impact of hrm practices on organisational performance in the Indian hotel industry. *Employee Relations*, 29, 576–594. DOI: 10.1108/01425450710826096.
- Claessens, B. J., Van Eerde, W., Rutte, C. G., & Roe, R. A. (2004). Planning behavior and perceived control of time at work. *Journal of Organizational Behavior*, 25, 937–950. DOI: 10.1002/job.292.
- Coch, L., & French, J. R., Jr. (1948). Overcoming resistance to change. Human Relations, 1, 512.
- Cohen, S. G., Ledford, G. E., & Spreitzer, G. M. (1996). A predictive model of self-managing work team effectiveness. *Human Relations*, 49, 643–676. DOI: 10.1177/001872679604900506.

- Cordery, J. L., Muller, W. S., & Smith, L. M. (1991). Attitudinal and behavioral effects of autonomous group working: A longitudinal field study. *Academy of Management Journal*, 34, 464–476.
- Cotton, J. L., Vollrath, D. A., Froggatt, K. L., Lengnick-Hall, M. L., & Jennings, K. R. (1988). Employee participation: Diverse forms and different outcomes. *The Academy of Management Review*, 13, 8–22.
- Coye, R. W., & Belohlav, J. A. (1995). An exploratory analysis of employee participation. Group and Organization Management, 20, 4–17.
- Cummings, T. G., & Manring, S. L. (1977). The relationship between worker alienation and workrelated behavior. *Journal of Vocational Behavior*, 10, 167–179.
- Daniels, K., & Guppy, A. (1994). Occupational stress, social support, job control, and psychological well-being. *Human Relations*, 47, 1523–1544. DOI: 10.1177/001872679404701205.
- de Jonge, J., Landeweerd, J. A., & Van Breukelen, G. J. (1994). De maastrichtse autonomielijst: Achtergrond, constructie en validering. [The Maastricht autonomy questionnaire: Background, construction and validation]. *Gedrag en Organisatie*, 7, 27–41.
- de Jonge, J. D., & Schaufeli, W. B. (1998). Job characteristics and employee well-being: A test of Warr's vitamin model in health care workers using structural equation modelling. *Journal of* Organizational Behavior, 19, 387–407.
- De Tienne, K. B., & Abbott, N. T. (1993). Developing an employee-centered electronic monitoring system. Journal of Systems Management, 44, 12–12.
- Deci, E. L., Connell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. Journal of Applied Psychology, 74, 580–590.
- Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. (1994). Facilitating internalization: The selfdetermination theory perspective. *Journal of Personality*, 62, 119–142.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Publishing Co.
- Deci, E. L., Ryan, R. M., Gagné, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Need satisfaction, motivation, and well-being in the work organizations of a former eastern bloc country. *Personality and Social Psychology Bulletin*, 27, 930–942.
- Dobbin, F., & Boychuk, T. (1999). National employment systems and job autonomy: Why job autonomy is high in the Nordic Countries and low in the United States, Canada, and Australia. *Organization Studies*, 20, 257–291. DOI: 10.1177/0170840699202004.
- Emery, F. E. (1959). Characteristics of socio-technical systems. London: Tavistock.
- Enzle, M. E., & Anderson, S. C. (1993). Surveillant intentions and intrinsic motivation. Journal of Personality and Social Psychology, 64, 257–266.
- Evans, B. K., & Fischer, D. G. (1992). A hierarchical model of participatory decisionmaking, job autonomy, and perceived control. *Human Relations*, 45, 1169–1189. DOI: 10.1177/001872679204501103.
- Fay, D., & Kamps, A. (2006). Work characteristics and the emergence of a sustainable workforce: Do job design principles matter? *Gedrag & Organisatie*, 19, 184–203.
- Feldman, D. C., & Gainey, T. W. (1997). Patterns of telecommuting and their consequences: Framing the research agenda. *Human Resource Management Review*, 7, 369–388. DOI: 10.1016/S1053-4822(97)90025-5.
- Fernet, C., Guay, F., & Senécal, C. (2004). Adjusting to job demands: The role of work selfdetermination and job control in predicting burnout. *Journal of Vocational Behavior*, 65, 39–56. DOI: 10.1016/S0001-8791(03)00098-8.
- Ferris, G. R., & Gilmore, D. C. (1984). The moderating role of work context in job design research: A test of competing models. *Academy of Management Journal*, 27, 885–892.
- Forest, J., Gagné, M., Vansteenkiste, M., Van den Broeck, A., Crevier-Braud, L., Bergeron, E., et al. (2010). International validation of the "revised motivation at work scale": Validation evidence in five different languages (French, English, Italian, Spanish, & Dutch). Paper presentation at the 4th international conference on Self-Determination Theory, Belgium, Ghent.

- Fried, Y., & Ferris, G. R. (1987). The validity of the job characteristics model: A review and meta-analysis. *Personnel Psychology*, 40, 287–322.
- Gagné, M. (2009). A model of knowledge sharing motivation. *Human Resource Management*, 48, 571–589.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory as a new framework for understanding organizational behavior. *Journal of Organizational Behavior*, 26, 331–362.
- Gagné, M., Senécal, C., & Koestner, R. (1997). Proximal job characteristics, feelings of empowerment, and intrinsic motivation: A multidimensional model. *Journal of Applied Social Psychology*, 27, 1222–1240.
- Gellatly, I. R., & Irving, P. G. (2001). Personality, autonomy, and contextual performance of managers. *Human Performance*, 14, 231. DOI: 10.1207/S15327043HUP1403_2.
- Gerhart, B. (1988). Sources of variance in incumbent perceptions of job complexity. *Journal of Applied Psychology*, 73, 154–162.
- Golden, T. D., Veiga, J. F., & Simsek, Z. (2006). Telecommuting's differential impact on workfamily conflict: Is there no place like home? *Journal of Applied Psychology*, 91, 1340–1350. DOI: 10.1037/0021-9010.91.6.1340.
- Gomez-Mejia, L. R. (1986). The cross-cultural structure of task-related and contextual constructs. Journal of Psychology, 120, 5–19.
- González-Romá, V., Schaufeli, W. B., Bakker, A. B., & Lloret, S. (2006). Burnout and work engagement: Independent factors or opposite poles? *Journal of Vocational Behavior*, 68, 165–174. DOI: 10.1016/j.jvb.2005.01.003.
- Grandey, A. A., Fisk, G. M., & Steiner, D. D. (2005). Must "service with a smile" be stressful? The moderating role of personal control for American and French employees. *Journal of Applied Psychology*, 90, 893–904. DOI: 10.1037/0021-9010.90.5.893.
- Griffin, M. A., Patterson, M. G., & West, M. A. (2001). Job satisfaction and teamwork: The role of supervisor support. *Journal of Organizational Behavior*, 22, 537–550. DOI: 10.1002/job.101.
- Griffith, T. L. (1993). Monitoring and performance: A comparison of computer and supervisor monitoring. *Journal of Applied Social Psychology*, 23, 549–572. DOI: 10.1111/j.1559-1816.1993.tb01103.x.
- Hackman, J. R. (1986). The psychology of self-management in organizations. In M. S. Pallack & R. O. Perloff (Eds.), *Psychology and work: Productivity, change and employment*. Washington, DC: American Psychological Association.
- Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. Journal of Applied Psychology, 60, 159–170. DOI: 10.1037/h0076546.
- Hall, A. T., Royle, M. T., Brymer, R. A., Perrewé, P. L., Ferris, G. R., & Hochwarter, W. A. (2006). Relationships between felt accountability as a stressor and strain reactions: The neutralizing role of autonomy across two studies. *Journal of Occupational Health Psychology*, 11, 87–99. DOI: 10.1037/1076-8998.11.1.87.
- Hechanova, M. R. M., Alampay, R. B. A., & Franco, E. P. (2006). Psychological empowerment, job satisfaction and performance among Filipino service workers. *Asian Journal of Social Psychology*, 9, 72–78. DOI: 10.1111/j.1467-839X.2006.00177.x.
- Hirschman, A. O. (1970). Exit, voice and loyalty. Cambridge, MA: Harvard University Press.
- Hodson, R. (1996). Dignity in the workplace under participative management: Alienation and freedom revisited. *American Sociological Review*, *61*, 719–738.
- Hofstede, G. (2001). *Culture's consequences, comparing values, behaviors, institutions, and organizations across nations.* Thousand Oaks, CA: Sage Publications.
- Hsieh, A.-T., & Chao, H.-Y. (2004). A reassessment of the relationship between job specialization, job rotation and job burnout: Example of Taiwan's high-technology industry. *International Journal of Human Resource Management*, 15, 1108–1123.
- 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.

- Iyengar, S. S., & Lepper, M. R. (1999). Rethinking the value of choice: A cultural perspective on intrinsic motivation. *Journal of Personality and Social Psychology*, 76, 349–366.
- Jackson, P. R., Wall, T. D., Martin, R., Davids, K. (1993). New measures of job control, cognitive demand, and production responsibility. *Journal of Applied Psychology*, 78, 753–762.
- Jeurissen, T., & Nyklicek, I. (2001). Testing the Vitamin Model of job stress in Dutch health care workers. Work & Stress, 15, 254–264. DOI: 10.1080/02678370110066607.
- Jin, P. (1993). Work motivation and productivity in voluntarily formed work teams: A field study in China. *Organizational Behavior and Human Decision Processes*, 54, 133–155.
- Johns, G. (2006). The essential impact of context on organizational behavior. Academy of Management Review, 31, 386–408.
- Kakabadse, A. (1986). Organizational alienation and job climate: A comparative study of structural conditions and psychological adjustment. *Small Group Research*, 17, 458–471. DOI: 10.1177/104649648601700406.
- Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job design. Administrative Science Quarterly, 24, 285–308.
- Kemp, N. J., Wall, T. D., Clegg, C. W., & Cordery, J. L. (1983). Autonomous work groups in a green field site: A comparative study. *Journal of Occupational psychology*, 56, 271–288.
- King, R. C., & Bu, N. (2005). Perceptions of the mutual obligations between employees and employers: A comparative study of new generation IT professionals in China and the United States. *International Journal of Human Resource Management*, 16, 46–64. DOI: 10.1080/0958519042000295948.
- Kirmeyer, S. L., & Shirom, A. (1986). Perceived job autonomy in the manufacturing sector: Effects of unions, gender, and substantive complexity. *The Academy of Management Journal*, 29, 832–840.
- Klein, J. A. (1991). A reexamination of autonomy in light of new manufacturing practices. *Human Relations*, 44, 21–38. DOI: 10.1177/001872679104400102.
- Komaki, J. L. (1986). Toward effective supervision: An operant analysis and comparisons of managers at work. *Journal of Applied Psychology*, 71, 270–279.
- Komaki, J. L., Desselles, M. L., & Bowman, E. D. (1989). Definitely not a breeze: Extending an operant model of effective supervision to teams. *Journal of Applied Psychology*, 74, 522–529.
- Kornhauser, A., & Reid, O. M. (1965). *Mental health of the industrial worker: A Detroit study*. New York: Wiley.
- Lam, S. S., Chen, X. P., & Schaubroeck, J. (2002). Participative decision making and employee performance in different cultures: The moderating effects of allocentrism/idiocentrism and efficacy. *The Academy of Management Journal*, 45, 905–914.
- Larson, J. R., & Callahan, C. (1990). Performance monitoring: How it affects work productivity. Journal of Applied Psychology, 75, 530–538.
- Latham, G. P., Erez, M., & Locke, E. A. (1988). Resolving scientific disputes by the joint design of crucial experiments by the antagonists: Application to the Erez-Latham dispute regarding participation in goal setting. *Journal of Applied Psychology*, 73, 753–772.
- Latham, G. P., Winters, D. C., & Locke, E. A. (1994). Cognitive and motivational effects of participation: A mediator study. *Journal of Organizational Behavior*, 15, 49–63.
- Lawler, E. E., III. (1986). High involvement management. San Francisco: Jossey-Bass.
- Lawler, E. E., & Hall, D. T. (1970). Relationship of job characteristics to job involvement, satisfaction, and intrinsic motivation. *Journal of Applied psychology*, 54, 305–312.
- Lee, R. T., & Ashforth, B. E. (1993). A longitudinal study of burnout among supervisors and managers: Comparisons between the Leiter and Maslach (1988) and Golembiewski et al. (1986) models. Organizational Behavior and Human Decision Processes, 54, 369–398. DOI: 10.1006/obhd.1993.1016.
- Likert, R. (1967). The human organization: Its management and value. New York: McGraw-Hill.

- Liu, C., Spector, P. E., & Jex, S. M. (2005). The relation of job control with job strains: A comparison of multiple data sources. *Journal of Occupational & Organizational Psychology*, 78, 325–336. DOI: 10.1348/096317905X26002.
- Locke, E. A., & Schweiger, D. M. (1979). Participation in decision-making: One more look. *Research in Organizational Behavior*, 1, 265–339.
- Locke, E. A., Schweiger, D. M., & Latham, G. P. (1986). Participation in decision making: When should it be used? *Organizational Dynamics*, 14, 65–79. DOI: 10.1016/0090-2616(86) 90032-X.
- Lowin, A. (1968). Participative decision making: A model, literature critique, and prescriptions for research. Organizational Behavior and Human Performance, 3, 68–106. DOI: 10.1016/0030-5073(68)90028-7.
- Lyon, D. (2006). The search for surveillance theories. In D. Lyon (Ed.), *Theorizing surveillance: The panopticon and beyond* (pp. 1–20). Devon, UK: Willan Publishing.
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, 1, 3–30.
- Mayo, E. (1933). The human problems of an industrial civilization. London, UK: Routledge.
- McNall, L. A., & Roch, S. G. (2007). Effects of electronic monitoring types on perceptions of procedural justice, interpersonal justice, and privacy. *Journal of Applied Social Psychology*, 37, 658–682. DOI: 10.1111/j.1559-1816.2007.00179.x.
- Meier, R. B. (1984). The impact of the structural organization of public welfare offices on the psychosocial work and the treatment environments. *Journal of Social Service Research*, 7, 1–18.
- Meyer, J. P., & Gagné, M. (2008). Employee engagement from a self-determination theory perspective. *Industrial and Organizational Psychology*, 1, 60–62.
- Mikkelsen, A., & Gundersen, M. (2003). The effect of a participatory organizational intervention on work environment, job stress, and subjective health complaints. *International Journal of Stress Management*, 10, 91–110. DOI: 10.1037/1072-5245.10.2.91.
- Miller, K. I., & Monge, P. R. (1986). Participation, satisfaction, and productivity: A meta-analytic review. Academy of Management Journal, 29, 727–753.
- Millette, V., & Gagné, M. (2008). Designing volunteers' tasks to maximize motivation, satisfaction and performance: The impact of job characteristics on the outcomes of volunteer involvement. *Motivation and Emotion*, 32, 11–22.
- Morgeson, F. P., & Campion, M. A. (2002). Minimizing tradeoffs when redesigning work: Evidence from a longitudinal quasi-experiment. *Personnel Psychology*, 55, 589–612.
- Morgeson, F. P., Delaney-Klinger, K., & Hemingway, M. A. (2005). The importance of job autonomy, cognitive ability, and job-related skill for predicting role breadth and job performance. *Journal of Applied Psychology*, 90, 399–406. DOI: 10.1037/0021-9010.90.2.399.
- Morgeson, F. P., & Humphrey, S. E. (2006). The work design questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, 91, 1321–1339. DOI: 10.1037/0021-9010.91.6.1321.
- Morrison, E. W. (2006). Doing the job well: An investigation of pro-social rule breaking. *Journal of Management*, 32, 5–28. DOI: 10.1177/0149206305277790.
- Naaz, H. (1999). Job characteristics and demographic variables as predictor of job involvement of textile mill workers. *Journal of the Indian Academy of Applied Psychology*, 25, 75–78.
- Naus, F., van Iterson, A., & Roe, R. A. (2007). Value incongruence, job autonomy, and organization-based self-esteem: A self-based perspective on organization cynicism. *European Journal of Work and Organizational Psychology*, 16, 195–219. DOI: 10.1080/13594320601143271.
- Orpen, C. (1979). The effects of job enrichment on employee satisfaction, motivation, involvement, and performance: A field experiment. *Human Relations*, 32, 189–217. DOI: 10.1177/001872677903200301.

- Parish, J. T., Cadwallader, S., & Busch, P. (2008). Want to, need to, ought to: Employee commitment to organizational change. *Journal of Organizational Change Management*, 21, 32. DOI: 10.1108/09534810810847020.
- Parker Follet, M. (1926). The Psychological Foundations. In H.C. Metcalf (Ed.), Scientific foundations of business administration. Baltimore, MD: Williams & Williams Co.
- Parker, S. K. (2003). Longitudinal effects of lean production on employee outcomes and the mediating role of work characteristics. *Journal of Applied Psychology*, 88, 620–634. DOI: 10.1037/0021-9010.88.4.620.
- Parker, S. K., & Axtell, C. M. (2001). Seeing another viewpoint: Antecedents and outcomes of employee perspective taking. Academy of Management Journal, 44, 1085–1100.
- Parker, S. K., Axtell, C. M., & Turner, N. (2001). Designing a safer workplace: Importance of job autonomy, communication quality, and supportive supervisors. *Journal of Occupational Health Psychology*, 6, 211–228. DOI: 10.1037/1076-8998.6.3.211.
- Parker, S. K., Wall, T. D., & Jackson, P. R. (1997). "That's not my job": Developing flexible employee work orientations. Academy of Management Journal, 40, 899–929.
- Parker, S. K., Williams, H. M., & Turner, N. (2006). Modeling the antecedents of proactive behavior at work. *Journal of Applied Psychology*, 91, 636–652. DOI: 10.1037/0021-9010.91.3.636.
- Peiró, J. M., González-Romá, V., & Lloret, S. (1994). Role stress antecedents and consequences in nurses and physicians working in primary health care teams: A causal model. *European Review* of Applied Psychology, 44, 105–116.
- Peters, L. H., & O'Connors, E. J. (1980). Situational constraints and work outcomes: The influences of a frequently overlooked construct. Academy of Management Review, 5, 391–397.
- Phillips, J. S., & Freeman, S. M. (1984). Situational performance constraints and task characteristics: Their relationship to motivation and satisfaction. *Journal of Management*, 10, 321–331.
- Prottas, D. (2008). Do the self-employed value autonomy more than employees? *Career Development International*, *13*, 33–45. DOI: 10.1108/13620430810849524.
- Prottas, D. J., & Thompson, C. A. (2006). Stress, satisfaction, and the work-family interface: A comparison of self-employed business owners, independents, and organizational employees. *Journal of Occupational Health Psychology*, 11, 366–378. DOI: 10.1037/1076-8998.11.4.366.
- Raghuram, S., London, M., & Larsen, H. H. (2001). Flexible employment practices in Europe: Country versus culture. *International Journal of Human Resource Management*, 5, 738–753.
- Raghuram, S., Wiesenfeld, B., & Garud, R. (2003). Technology enabled work: The role of self-efficacy in determining telecommuter adjustment and structuring behavior. *Journal of Vocational Behavior*, 63, 180–198. DOI: 10.1016/S0001-8791(03)00040-X.
- Ramamoorthy, N., Flood, P. C., Slattery, T., & Sardessai, R. (2005). Determinants of innovative work behaviour: Development and test of an integrated model. *Creativity and Innovation Management*, 14, 142–150. DOI: 10.1111/j.1467-8691.2005.00334.x.
- Rau, R. (2004). Lern-und gesundheitsforderliche arbeitsgestaltung: Eine empirische studie. [Job design promoting personal development and health: An empirical study]. Zeitschrift fur Arbeits- und organisationspsychologie, 48, 181–192. DOI: 10.1026/0932–4089.48.4.181.
- Roca, J. C., & Gagné, M. (2008). Understanding e-learning continuance intention in the workplace: A self-determination theory perspective. *Computers in Human Behavior*, *24*, 1596–1604.
- Rousseau, D. M. (1977). Technological differences in job characteristics, employee satisfaction, and motivation: A synthesis of job design research and sociotechnical systems theory. Organizational Behavior and Human Performance, 19, 18–42. DOI: 10.1016/0030-5073(77)90052-6.
- Ryan, R. M., & Frederick, C. M. (1997). On energy, personality and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality*, 65, 529–565.
- Sadler-Smith, E., El-Kot, G., & Leat, M. (2003). Differentiating work autonomy facets in a nonwestern context. *Journal of Organizational Behavior*, 24, 709–731. DOI: 10.1002/job.200.
- Sagie, A. (1994). Participative decision making and performance: A moderator analysis. *Journal of Applied Behavioral Science*, 30, 227–246. DOI: 10.1177/0021886394302006.
- Sagie, A., & Aycan, Z. (2003). A cross-cultural analysis of participative decision-making in organizations. *Human Relations*, 56, 453–473.

- Sagie, A., Elizur, D., & Koslowsky, M. (1995). Decision type, participative decision making (PDM), and organizational behavior: An experimental simulation. *Human Performance*, 8, 81–94.
- Sánchez, A. M., Pérez, M. P., de Luis Carnicer, P., & Jiménez, M. J. (2007). Teleworking and workplace flexibility: A study of impact on firm performance. *Personnel Review*, 36, 42–64. DOI: 10.1108/00483480710716713.
- Sashkin, M. (1976). Changing toward participative management approaches: A model and methods. Academy of Management Review, 1, 75–86.
- Sashkin, M. (1984). Participative management is an ethical imperative. *Organizational Dynamics*, *12*, 5–22. DOI: 10.1016/0090-2616(84)90008-1.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25, 293– 315. DOI: 10.1002/job.248.
- Schaufeli, W. B., Martinez, I. M., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology*, 33, 464–481. DOI: 10.1177/0022022102033005003.
- Schaufeli, W. B., Salanova, M., González-romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71–92. DOI: 10.1023/A:1015630930326.
- Schaufeli, W., Taris, T., & vanrhenen, W. (2008). Workaholism, burnout, and work engagement: Three of a kind or three different kinds of employee well-being? *Applied Psychology-An International Review*, 57, 173–203. DOI: 10.1111/j.1464-0597.2007.00285.x.
- Scott-Ladd, B., Travaglione, A., & Marshall, V. (2006). Causal inferences between participation in decision making, task attributes, work effort, rewards, job satisfaction and commitment. *Leadership and Organization Management*, 27, 399–414.
- Senécal, C., Vallerand, R. J., & Guay, F. (2001). Antecedents and outcomes of work-family conflict: Toward a motivational model. *Personality and Social Psychology Bulletin*, 27, 176–186.
- Smith, M. J., Carayon, P., Sanders, K. J., Lim, S., & LeGrande, D. (1992). Employee stress and health complaints in jobs with and without electronic performance monitoring. *Applied Ergonomics*, 23, 17–27. DOI: 10.1016/0003-6870(92)90006-H.
- Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: A new look at the interface between non-work and work. *Journal of Applied Psychology*, *88*, 518–528.
- Spector, P. E. (1986). Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations*, 39, 1005–1016. DOI: 10.1177/001872678603901104.
- Spitzmuller, C., & Stanton, J. M. (2006). Examining employee compliance with organizational surveillance and monitoring. *Journal of Occupational and Organizational Psychology*, 79, 245–272.
- Spreitzer, G. M. (1995). An empirical test of a comprehensive model of intrapersonal empowerment in the workplace. *American Journal of Community Psychology*, 23, 601–629.
- Spreitzer, G. M., Kizilos, M. A., & Nason, S. W. (1997). A dimensional analysis of the relationship between psychological empowerment and effectiveness satisfaction, and strain. *Journal of Management*, 23, 679–704. DOI: 10.1177/014920639702300504.
- Sprigg, C. A., Stride, C. B., Wall, T. D., Holman, D. J., & Smith, P. R. (2007). Work characteristics, musculoskeletal disorders, and the mediating role of psychological strain: A study of call center employees. *Journal of Applied Psychology*, 92, 1456–1466. DOI: 10.1037/0021-9010.92.5.1456.
- Stalker, C. A., Mandell, D., Frensch, K. M., Harvey, C., & Wright, M. (2007). Child welfare workers who are exhausted yet satisfied with their jobs: How do they do it? *Child & Family Social Work*, *12*, 182–191. DOI: 10.1111/j.1365-2206.2006.00472.x.
- Stanton, J. M., & Barnes-Farrell, J. L. (1996). Effects of electronic performance monitoring on personal control, task satisfaction, and task performance. *Journal of Applied Psychology*, 81, 738–745. DOI: 10.1037/0021-9010.81.6.738.

- Stone, E. F., & Stone, D. L. (1990). Privacy in organizations: Theoretical issues, research findings, and protection mechanisms. In G. R. Ferris & K. M. Rowland (Eds.), *Research in personnel* and human resource management (Vol. 8, pp. 349–411). Greenwich, CT: JAI.
- Strubler, D. C., & York, K. M. (2007). An exploratory study of the team characteristics model using organizational teams. *Small Group Research*, 38, 670–695. DOI: 10.1177/1046496407304338.
- Tai, W., & Liu, S. (2007). An investigation of the influences of job autonomy and neuroticism on job stressor-strain relations. *Social Behavior & Personality: An International Journal*, 35, 1007–1019.
- Taris, T. W., Stoffelsen, J. M., Bakker, A. B., Schaufeli, W. B., & van Dierendonck, D. (2002). Verschillen in burnoutrisico tussen functies en individuen: Wat is de rol van regelmogelijkheden?. [Differences in burnout risk between jobs and individuals: About the role of job autonomy]. Gedrag & Gezondheid: Tijdschrift voor Psychologie en Gezondheid, 30, 17–29.
- Taylor, F. W. (1911). The principles of scientific management. New York: Harper Bros.
- Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment: An "Interpretive" model of intrinsic task motivation. Academy of Management Review, 15, 666–681.
- Thompson, C. A., & Prottas, D. J. (2006). Relationships among organizational family support, job autonomy, perceived control, and employee well-being. *Journal of Occupational Health Psychology*, 11, 100–118. DOI: 10.1037/1076-8998.10.4.100.
- Tzafrir, S. S. (2006). A universalistic perspective for explaining the relationship between HRM practices and firm performance at different points in time. *Journal of Managerial Psychology*, *21*, 109–130.
- Väänänen, A., Pahkin, K., Huuhtanen, P., Kivimäki, M., Vahtera, J., Theorell, T., et al. (2005). Are intrinsic motivational factors of work associated with functional incapacity similarly regardless of the country? *Journal of Epidemiology and Community Health*, 59, 858–863. DOI: 10.1136/jech.2004.030106.
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout and engagement: The role of basic psychological need satisfaction. Work & Stress, 22, 277–294.
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., Soenens, B., & Lens, W. (in press). Capturing autonomy, competence, and relatedness at work: Construction and initial validation of the Work-Related Basic Need Satisfaction Scale. *Journal of Occupational and Organizational Psychology*.
- van Mierlo, H., Rutte, C., Seinen, B., & Kompier, D. (2000). Autonomous team work, individual task characteristics and psychological well-being: A pilot study. *Gedrag en Gezondheid*, 28, 159–171.
- van Yperen, N. W. V., & Hagedoorn, M. (2003). Do high job demands increase intrinsic motivation or fatigue or both? The role of job control and job social support. *Academy of Management Journal*, *46*, 339–348.
- Vandenberg, R. J., Richardson, H. A., & Eastman, L. J. (1999). The impact of high involvement work processes on organizational effectiveness: A second-order latent variable approach. *Group* Organization Management, 24, 300–339. DOI: 10.1177/1059601199243004.
- Vardi, Y., Shirom, A., & Jacobson, D. (1980). A study on the leadership beliefs of Israeli managers. Academy of Management Journal, 23, 367–374.
- Vlerick, P., & Goeminne, D. (1994). Onderzoek naar de gevolgen van verpleegkundige functieontwerpen op de arbeidsbeleving. [Research on the impact of job design on nursing work experience]. *Gedrag & Organisatie*, 7, 101–113.
- Wall, T. D., Corbett, J. M., Clegg, C. W., Jackson, P. R., & Martin, R. (1990). Advanced manufacturing technology and work design: Towards a theoretical framework. *Journal of Organizational Behavior*, 11, 201–219.
- Wall, T. D., Corbett, J. M., Martin, R., Clegg, C. W., & Jackson, P. R. (1990). Advanced manufacturing technology, work design, and performance: A change study. *Journal of Applied Psychology*, 75, 691–697.

- Wall, T. D., Kemp, N. J., Jackson, P. R., & Clegg, C. W. (1986). Outcomes of autonomous workgroups: A long-term field experiment. Academy of Management Journal, 29, 280–304.
- Ward, E. A. (1997). Autonomous work groups: A field study of correlates of satisfaction. *Psychological Reports*, 80, 60–62.
- Wells, D. L., Moorman, R. H., & Werner, J. M. (2007). The impact of the perceived purpose of electronic performance monitoring on an array of attitudinal variables. *Human Resource Development Quarterly*, 18, 121–138. DOI: 10.1002/hrdq.1194.
- Xie, J. L., & Johns, G. (1995). Job scope and stress: Can job scope be too high? Academy of Management Journal, 38, 1288-1309.